Michigan State University DEPARTMENT OF ANIMAL SCIENCE

GRADUATE STUDENT HANDBOOK

2021 – 2022

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I. PROGRAM OVERVIEW

The Department of Animal Science advances basic and applied knowledge of animal biology, behavior, and health that benefits humans and animals. Our activities are grounded in assuring a safe, efficient and sustainable production of animal food and fiber while advancing continuous improvements in animal well-being.

The Department of Animal Science offers Master of Science and Doctor of Philosophy degree programs in animal science. Programs of study are based on the strengths of the department and the goals of individual students. Although individual student programs vary, all graduate programs in animal science are designed to: 1) provide a strong foundation in biological science and an in-depth knowledge of a specific biological discipline of importance to animal agriculture, 2) develop creative potential and foster independent thought, 3) improve technical skills, and 4) provide the foundation for effective, independent careers in research, teaching, extension or agribusiness.

Major fields of study include animal behavior, animal welfare, epigenetics, genetics, genomics, reproductive and developmental biology, animal nutrition, growth and physiology, immunology, and toxicology. Applied and basic research span animal production, animal biology and biomedicine. Research for theses or dissertations may focus on beef or dairy cattle, sheep, swine, horses, poultry, companion, or laboratory species. Modern animal, computer, and library facilities support research.

The latest National Research Council ranking of doctoral programs positioned our Ph.D. program among the top 10 comparable Ph.D. programs in the nation. We consistently have between 30 and 40 graduate students, with an approximately equal split between Master's and Ph.D. students and between domestic and international students. Of these students, at least 90% are funded on assistantships through faculty grants and endowments, on teaching assistantships, on fellowships or on sponsored funds provided by the student's country.

At least half of our graduate students attend and present the results of their research at regional, national, and international scientific meetings annually. Many of our students have been recognized by their respective scientific societies for their research accomplishments. Partial support for graduate student travel to scientific meetings is available through the department.

Graduate students interested in academic careers are encouraged to seek teaching and grant writing experiences. Graduate students who have an interest in working in industry have done internships and industry collaborative projects that have led to permanent employment. Those students who aspire to government service have done internships with both state and federal agencies. Domestic graduate students have also been awarded international fellowships to do a portion of their research outside the U.S.

Upon degree completion, approximately 90% of our graduates find employment with industry (e.g. Bayer Crop Science, Cargill Animal Nutrition, Diamond V, Dow Chemical, Hy-Line International), academic institutions (e.g. Kansas State University, Michigan State University, North Carolina State University, Purdue University, University of Florida, University of Wisconsin), state agencies (e.g. Michigan Department of Agriculture, Michigan Department of Environmental Quality), and federal agencies (U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, U.S. Department of Agriculture). Many international students remain in the U.S. to further their education as post-doctoral associates or they return to their home countries where they are employed by academic institutions, government agencies, or international corporations.

II. PROGRAM COMPONENTS/DEGREE REQUIREMENTS

A. Application and Admittance

1. Procedures and Policies for Application and Admittance

a. Procedures and policies for submission of applications and admittance into the Department of Animal Science graduate program are outlined on the department website at www.canr.msu.edu/ans/students/graduate_program/application_process.

B. Master of Science Program

1. The Master of Science degree is offered under two options

- a. Plan A: This consists of course work, research, writing of a thesis, and a final examination covering course work and the thesis.
- b. Plan B: This consists of course work, a scholarly activity without a thesis, and a final examination covering course work and the scholarly activity.

2. Guidance Committee

- a. The student's guidance committee shares in the responsibility for reviewing the graduate student's progress and guiding the student toward completion of course and program requirements and preparing the student for professional success after graduation. Thus, it is important that serious consideration be given to the composition of the guidance committee by both the student and major professor to ensure relevant professional guidance and compatibility. It is also critical that there is not a conflict of interest in the context of the committee members and the student. Of particular concern are situations in which a potential voting member of the committee is from outside MSU and is, in some fashion, connected with the sources of funding for the student's project.
- b. The guidance committee must be established prior to submission of the student's proposed academic program (see next section), which must be filed by the end of the second semester of the degree program.
- c. The guidance committee will consist of at least four faculty members (including the major professor, who must have an appointment, including adjunct, in the Department of Animal Science). Three members of the guidance committee will be identified by the student and the major professor.
 - 1) At least three members of the committee (including the major professor) must be regular MSU faculty (those appointed under the rules of tenure with the rank of assistant, associate or full professor). At least one of these must have a majority appointment in the Department of Animal Science and at least one must have a majority appointment in a department other than Animal Science.
 - 2) The department chair may grant an exemption to allow an emeritus faculty member to serve as one of the required MSU faculty members (but not as major professor).
 - 3) An exception may be granted by the Dean of the Graduate School to allow non-tenure system faculty or academic specialists to serve on the guidance committee as one of the required MSU faculty or to serve as major professor. In addition, there may be no more than one guidance committee member external to MSU, and that person must be approved by the Graduate School. If one or more desired committee members are non-tenure system MSU faculty or are from outside of MSU, please contact the graduate coordinator who will submit the request for approval.
- d. The responsibilities of the guidance committee consist of:
 - 1) Advising graduate students on course work, research or creative activities.
 - 2) Providing, at least annually, feedback and guidance concerning progress toward the degree.

- 3) Administering exams in a fair and professional manner.
- 4) Reviewing the thesis or dissertation in a timely, constructive manner.
- e. The student will submit their proposed guidance committee to GradPlan ((https://student.msu.edu/), which will then be routed for approval. Before initiating submitting their committee to GradPlan, students are encouraged to discuss their proposed committee with the graduate coordinator. To ensure uniform standards across the department, the graduate coordinator or department chair may add one appropriate member to the guidance committee.
- f. If there is a need to change the composition of the guidance committee after it has been approved, the student should first consult with the graduate coordinator. The committee members who will remain on the committee should be informed of the anticipated change in composition and consulted in naming a replacement. The student will enter the revised committee composition into GradPlan, which will be routed for approval.

3. Academic Program and Course Work

- a. After establishing the guidance committee, and before the end of their second semester, students will enter their proposed course plan into GradPlan (https://student.msu.edu/), which will be routed for approval. The student should convene a meeting of the guidance committee to discuss coursework prior to entering and routing in GradPlan.
- b. The Master's degree obtained under either Plan A (with a thesis) or Plan B (without a thesis) has a minimum requirement of 30 credit hours at or above the 400 level and more than 50% of these required credits must be at or above the 800 level. Required as part of the minimum 30 credits is a seminar course (ANS 885, Animal Science Seminar).
- c. A minimum of six credits and a maximum of 10 credits of Master's thesis research (ANS 899), which count toward the 800 level credit requirement, are required for Plan A.
- d. No more than six credits of Master's research (ANS 898), which counts toward the 800 level credit requirement, can be taken for Plan B. The courses that will be counted toward the required 30 credits are proposed by the student to the guidance committee, which has final authority. Courses taken on a credit no credit basis will not count toward the graduate degree.
- e. The student is also required to complete the Responsible Conduct of Research (RCR) training plan (canr.msu.edu/ans/students/graduate_program/).
- f. Students must maintain a cumulative grade point average (GPA) of at least 3.0. Regular status students will be allowed one semester to bring their GPA equal to or greater than 3.0 for retention of an assistantship and two semesters for retention as a graduate student. Provisional status students will be allowed two semesters to attain a GPA of 3.0 or greater for retention as a graduate student. Part-time students taking less than a regular course load will be allowed eight credits to attain a GPA of 3.0 or greater. For retention purposes, the GPA will be calculated on all courses taken the first year and courses required by their guidance committee thereafter.
- g. The required work for a deferred grade (DF), including ANS 898 credits, must be completed and a grade reported within six months with the option of a single six-month extension. If the required work is not completed within the time limit, the DF will become U (unfinished) and will be changed to DF/U under the numerical and pass no grade (P-N) grading systems, and to DF/NC under the credit no credit (CR-NC) system. This rule does not apply to graduate thesis or dissertation work.
- h. Students currently in a master's degree program who wish to transition into a doctoral program either prior to finishing the master's degree program or after completing their master's degree may request a change of graduate major through GradPlan, and the request will route for approvals.

4. Annual Committee Meeting Report and Annual Progress Report

a. Students must meet with their guidance committee at least one time per year. The Guidance Committee Meeting Report form (canr.msu.edu/ans/students/graduate_program/) should be completed and submitted to the graduate coordinator or graduate administrative support person.

b. Each student must complete an annual progress report as described below in section VI. E.

5. The Thesis Project (Plan A) or Scholarly Activity (Plan B)

- a. The Master's thesis (Plan A) is a written description of the student's Master's research that is generally organized such that the document contains a scientific abstract appropriate for the discipline, a lay abstract appropriate for the general public (this abstract will be posted on the departmental web site), an introduction to the general research problem and a summary of relevant literature, chapter(s) describing the research, and a discussion that addresses the implications and significance of the results. It is common practice to prepare the thesis in the form of a manuscript(s) appropriate for a peer-reviewed journal. If one or more chapters of the thesis has been published in a peer-reviewed journal, each published chapter must be introduced with the list of all authors and the citation for the publication. For manuscripts not published in open access journals and/or for which the authors do not hold the copyright, a copy or notation of the written permission from the copyright holder (generally the publisher) to reprint the article should also be included. If multiple papers make up the thesis, these must be "tied together" with a required general introduction and summary/discussion. In the case of a multi-author chapter, the student should include an accompanying statement of what specific work he/she did, what specific part(s) of the chapter they wrote and what other authors contributed. If the guidance committee feels the student's contribution to the chapter is minor compared to the other authors, the student will not be able to use the published chapter for the thesis. The guidance committee may give the student the option to write the chapter in question independently.
- b. Salient features of the scholarly activity (Plan B) should be: (1) focused on a topic or within a discipline, (2) discrete boundaries so that completion is certain, and (3) sufficient depth and quality to convey scholarly pride for the student, the department, and Michigan State University.
- c. The department strongly suggests that students use the software "Ithenticate" to check for unintentional plagiarism. Information regarding this program is available at https://tech.msu.edu/teaching/tools/ithenticate/.
- d. The thesis problem or scholarly activity shall be selected by the student in consultation with the major professor and approved by the guidance committee and is also a component of the academic program (GradPlan).
- e. Any deviation from the prescribed course work, research, or thesis for the Master's degree must be approved by the major professor, guidance committee, department graduate coordinator or chairperson, and dean (via revisions submitted to GradPlan).
- f. The thesis (prepared in accordance with the Graduate School's Formatting Guide for Master's Theses and Doctoral Dissertations (http://grad.msu.edu/etd/) must be circulated to members of the guidance committee at least 14 days prior to the Master's final examination. Prior to distribution of the thesis to the committee, the thesis must be considered acceptable (documented in writing) for the final exam by the student's major professor and one guidance committee member. The Approval to Schedule M.S. or Ph.D. Final Defense Form (canr.msu.edu/ans/students/graduate_program/) must be signed by the major professor, a guidance committee member, and the graduate coordinator. [Note: Students may tentatively schedule their final defense to assure a date is confirmed on committee members' calendars, but the defense cannot take place without submission of the approval to schedule form.] The student must not put the guidance committee into jeopardy by assuming that the student's commitments take precedence over this timetable.
- g. Master's degree students are strongly encouraged to submit their thesis/scholarly activity for publication in a peer-review journal if judged appropriate by the major professor and the guidance committee.

6. Thesis Defense and Final Oral Examination

- a. The final Master's examination is the culmination of a student's graduate education and training and reflects not only on the accomplishments of the graduate student, but also on the quality of the graduate program.
- b. Every student (Plan A or B) must pass a final oral examination administered by the guidance committee to complete the requirements for the Master's degree. Questions posed to the student focus on the thesis/scholarly activity but may also pertain to course work. The purpose of the exam is to ensure that the student has a basic understanding of animal science, the chosen area of specialization and the principles of conducting research.
- c. For Plan A students, the final exam should focus on, but not be limited to, thesis research (ANS 899). For Plan B students, the final exam should focus on, but not be limited to, the scholarly project (ANS 898).
- d. Before the final exam, the student will present a seminar on his/her research (Plan A) or scholarly activity (Plan B). At least one week before the seminar, the student or major professor must notify all department faculty, students, and staff of the title, date, time, and location of the seminar. The graduate administrative support person is available to assist with advertising, as well as with room scheduling.
- e. The student must be enrolled in at least one credit in the semester of thesis/scholarly project defense. Master's students defending in the summer semester do not need to be enrolled.
- f. The guidance committee administering the Master's final exam is charged to approve Master's work (Plan A or B) and to evaluate the qualifications of a candidate to pursue a Ph.D. degree (Plan A only).
- g. At least 75% of the committee must judge the student's thesis/scholarly activity and/or defense to be acceptable. The student is given a single opportunity to correct all deficiencies within a time frame specified by the guidance committee.
- h. In the event that less than 75% of the members of the guidance committee consider the thesis/scholarly activity and/or its defense acceptable, the deficiencies, expected corrections and time limit for completion of the corrections will be explained in detail to the student both verbally and in writing.
 - 1) A copy of the written explanation will be forwarded to the graduate coordinator.
 - 2) The student will be given one opportunity to rectify the deficiencies within the time frame specified by the guidance committee.
 - 3) Upon reassessment of the thesis/scholarly activity and/or its defense, the major professor should inform the graduate coordinator by final report (canr.msu.edu/ans/students/graduate_program/) if the student was successful in addressing the concerns of the guidance committee.
 - 4) If not successful, the student is terminated.
- i. After the Master's final exam, the major professor should inform the graduate coordinator by formal report (canr.msu.edu/ans/students/graduate_program/) (1) whether or not the student passed; (2) an inventory of votes for approval or dissent; and (3) recommendation of the committee regarding the candidate starting a Ph.D. program.
- j. MSU only accepts electronic theses submitted via ProQuest. In addition to the main body of a thesis, the Graduate School now permits the submission of supplementary materials to ProQuest. These supplemental materials will not be reviewed by the Graduate School for formatting requirements, but they must be acceptable by ProQuest and comply with ProQuest's criteria and storage limits. All supplementary materials need the written approval of the major professor. The instructions for electronic submissions are available from http://grad.msu.edu/etd/. The target date for the FINAL APPROVAL of an electronic thesis by the Graduate School for graduating the semester of that submission is set by the Graduate School and posted on the Graduate School calendar (https://grad.msu.edu/calendar). Be aware that a submission via ProQuest does not mean

- that the document has been ACCEPTED. The review process is interactive and final approval can take anywhere from a few hours to weeks, depending upon the extent of the necessary revisions and how diligent the author is when making the necessary revisions.
- k. At the time of submission to ProQuest, authors have the opportunity to create an ORCID (Open Researcher and Contributor ID) that provides researchers with a unique identifier for linking their research outputs and activities. An ORCID (1) improves recognition of research contributions, (2) reduces form-filling, (3) works with many institutions, funders and publishers, and (4) is a requirement of many journal manuscript submission systems. To learn more about ORCID go to: https://vimeo.com/237730655.
- 1. In keeping with MSU's public mission, the University requires that theses, dissertations and abstracts will become public after the conferral of the degree; embargoes can only be pursued for a limited period. Students submitting a thesis/dissertation to ProQuest may request a hold/embargo of publication by ProQuest by contacting the Graduate School at msuetds.approval@grd.msu.edu. In response to the request, the Graduate School will send directly to the student a form that needs to be completed and returned to the Graduate School prior to the document submission to ProQuest. The form needs to be signed by the student's major professor and by the Associate Dean of the student's college. The request for the hold/embargo may be for six months, one year or two years. Requests for a period longer than six months must include a written justification for the length of the requested hold/embargo.
- m. The MSU library may accept supplementary materials approved by the major professor per their collection criteria. The Graduate School does not review these materials for formatting requirements. Questions about submission of these materials to the MSU library should be directed to the Assistant Director for Digital Information.

7. Degree Timeline and Residency

a. The total time allowed for completion of the requirements for the Master's degree is five calendar years from the date of enrollment in the first course included for degree certification. To meet residence requirements, a minimum of six credits in the degree program must be earned in residence on campus (in the East Lansing area).

8. MSU Graduate School Exit Survey

a. There is a short online exit survey for all students graduating with a Plan A or Plan B Masters. Only students who have applied for graduation will have access to the survey. The survey asks questions about educational experiences in MSU graduate programs, as well as about immediate professional plans. The Graduate School uses data from this survey when reviewing graduate programs and to guide decisions about services and initiatives for graduate students. The identity of all respondents will be kept confidential and only aggregate (group) information will be made available to faculty and administrators. Students will receive an e-mail message from the dean of the graduate school with a link to the survey. However, students do not need to wait for that e-mail message to complete the survey after applying for graduation. It takes about 5-10 minutes to complete the online survey. The instructions for completing the survey are available from http://grad.msu.edu/etd/. Contact CareerServices@csp.msu.edu for any issue with the exit survey.

C. Doctoral Program

1. Guidance Committee

a. The student's guidance committee shares in the responsibility for reviewing the graduate student's progress and guiding the student toward completion of course and program requirements and preparing the student for professional success after graduation. Thus, it is important that serious consideration be given to the composition of the guidance committee by both the student and major professor to ensure relevant professional guidance and compatibility.

- b. The guidance committee must be established prior to submission of the proposed academic program (see next section), which must be filed by the end of the second semester of the degree program.
- c. The guidance committee will consist of five or more faculty members (including the major professor [also designated as the Dissertation Chair] who must have an appointment, including adjunct, in the Department of Animal Science) and shall be established by the student and the major professor.
 - 1) At least four members of the committee (including the major professor) should be regular MSU faculty (those appointed under the rules of tenure with the rank of assistant, associate or full professor). At least one of these must have a majority appointment in the Department of Animal Science, and at least one must have a majority appointment in a department other than Animal Science.
 - 2) The department chair may grant an exemption to allow an emeritus faculty member to serve as one of the required MSU faculty members (but not as major professor).
 - 3) An exception may be granted by the Dean of the Graduate School to allow non-tenure system faculty or academic specialists to serve on the guidance committee as one of the required MSU faculty members (but not as major professor). In addition, there may be no more than one committee member external to MSU, and that person must be approved by the Graduate School. If one or more desired committee members are non-tenure system MSU faculty or are from outside of MSU, please contact the graduate coordinator who will submit the request for approval.
- d. The chair of the guidance committee (who cannot be the major professor but must have a majority appointment in the Department of Animal Science and must be a tenure-system faculty member) is chosen by the committee members. It is the guidance committee chair's responsibility to coordinate administration of all examinations required for the Ph.D. degree. The chair will ensure that all votes of pass or fail are entered on the appropriate form at the conclusion of the scheduled exam and that the form is submitted to the graduate administrative support person in a timely manner. The chair is also responsible for communicating verbally and in writing to the student any concerns, recommendations and/or requirements of the guidance committee including reexamination within a specified time frame determined by the guidance committee. This written report should be shared with the guidance committee members and with the graduate coordinator.
- e. The student will submit their proposed guidance committee to GradPlan (https://student.msu.edu/), which will then be routed for approval. Before initiating submitting their committee to GradPlan, students are encouraged to discuss their proposed committee with the graduate coordinator. To ensure uniform standards across the department, the graduate coordinator or department chair may add one appropriate member to the guidance committee.
- f. If there is a need to change the composition of the guidance committee after it has been approved, the student should first consult with the graduate coordinator. The committee members who will remain on the committee should be informed of the anticipated change in composition and consulted in naming a replacement. The student will enter the revised committee composition into GradPlan, which will be routed for approval by the department and university.

2. Academic Program

- a. In consultation with the student's major professor, the student plans a program of study that includes courses related to one of the areas of specialization within the field of animal science (see Program Overview, page 5), seminars, and teaching experience.
- b. The student will submit their program of study through GradPlan (https://student.msu.edu/).
- c. Twenty-four ANS 999 credits are required for graduation; students can enroll for a maximum of 36. A student who must exceed the maximum of 36 credits of ANS 999 should contact the graduate coordinator for assistance in processing an override request.

- d. The number of course credits that are required will be dependent on whether the student is starting from a Bachelor's degree or a Master's degree. If a student has not completed a Master's degree, a minimum of 20 course credits (400 level or above with at least half of those credits at or above the 800 level, including ANS 885, Animal Science Seminar) must be taken in addition to 24 credits of doctoral dissertation research (ANS 999). If the student has completed a Master's degree, there is no minimum number of credits required other than 24 credits of doctoral dissertation research (ANS 999). However, a doctoral student must take ANS 885 if it was not taken during the Master's degree. Courses to be taken are determined by the guidance committee before the student submits these to GradPlan. Courses taken on a credit no credit basis will not count toward the graduate degree.
- e. The student is also required to complete the Responsible Conduct of Research (RCR) training plan (canr.msu.edu/ans/students/graduate_program/).
- f. Students must maintain a cumulative grade point average (GPA) of at least 3.0. Regular status students will be allowed one semester to bring the GPA equal to or greater than 3.0 for retention of an assistantship and two semesters for retention as a graduate student. Provisional status students will be allowed two semesters to attain a GPA of 3.0 or greater for retention as a graduate student. Part-time students taking less than a regular course load will be allowed eight credits to attain a GPA of 3.0 or greater. For retention purposes, the GPA will be calculated on all courses taken the first year and courses required by their guidance committee thereafter.
- g. The required work for a deferred grade (DF) must be completed and a grade reported within six months with the option of a single six-month extension. If the required work is not completed within the time limit, the DF will become U (unfinished) and will be changed to DF/U under the numerical and pass no grade (P-N) grading systems, and to DF/NC under the credit no credit (CR-NC) system. This rule does not apply to graduate thesis or dissertation work.
- h. The student's major professor and guidance committee must approve the student's program of study, including the dissertation research topic by the end of the second semester after admission into the program. Approvals are obtained electronically through routing of the student's GradPlan.

3. Annual Committee Meeting Report and Annual Progress Report

- a. Students must meet with their guidance committee at least one time per year. The Guidance Committee Meeting Report form (canr.msu.edu/ans/students/graduate_program/) should be completed and submitted to the graduate coordinator or graduate administrative support person.
- b. Each student must complete an annual progress report as described below in section VI. E.

4. Dissertation Research Proposal

- a. The dissertation project shall be selected by the student in consultation with the major professor and approved by the guidance committee.
- b. Doctoral students are required to write a formal dissertation research proposal describing their proposed doctoral work and to defend the proposal in front of the guidance committee by the end of the fourth semester after initiation of the doctoral program.
- c. The dissertation proposal will be prepared in consultation with the major professor and submitted to the guidance committee no less than two weeks before defense of the proposal.
- d. The dissertation proposal will be prepared and formatted according to guidelines appropriate for an extramural grant proposal relevant to the student's area of study, including appropriate background information, hypotheses to be tested, specific aims, experimental approach and methodology, anticipated results and potential pitfalls and limitations.
- e. For defense of the dissertation proposal, the student will present a formal seminar outlining the proposed doctoral research and address questions raised by the committee. The dissertation proposal will serve as a blueprint for the doctoral research project.

- f. Successful preparation and defense of the dissertation proposal will be determined by vote of the guidance committee. The chair of the guidance committee (not the major professor) will poll the committee members and insure that the votes are entered on the Doctoral Research Proposal form (canr.msu.edu/ans/students/graduate_program/). To pass, at least 80% of the committee members must approve both the written and oral components of the proposal defense. The Doctoral Research Proposal form must be signed by the major professor and committee members and submitted to the graduate administrative support person by the guidance committee chair.
- g. Written feedback on the written and oral components of the dissertation proposal evaluation, will be provided to the student by the chair of the guidance committee. If the student does not pass both components of the proposal defense, the written feedback will guide the student as to what revision/remediation will be required for passing, within the time frame specified by the committee. The student has no more than two opportunities (the original and one re-evaluation) to pass the dissertation proposal evaluation. The written report should be shared with the guidance committee members and with the department graduate coordinator.
- h. If the student does not successfully pass the dissertation proposal evaluation, the student and committee will discuss the option of a student pursuing a Plan A or Plan B Master's degree, if appropriate. If pursuing a Master's degree is not an option, the student will no longer be retained as a graduate student.
- i. Successful preparation and defense of the dissertation proposal is a prerequisite for taking the comprehensive or preliminary exam.

5. Comprehensive/Preliminary Exam

- a. The student must pass the Ph.D. comprehensive examination in order to be considered a Ph.D. candidate.
- b. The comprehensive examination, sometimes referred to as the preliminary examination, is the gateway to the Ph.D. degree. The major professor and guidance committee must seriously consider the attributes of the Ph.D. candidate and remember that the candidate, upon graduation from the Ph.D. program, is a representative of the major professor, the department, and the university. Therefore, the major professor must be certain that the Ph.D. student is prepared to take the Ph.D. comprehensive examination and that they will meet the high standards required of doctoral candidates.
- c. The student should take the comprehensive exam when the program course work is substantially complete as determined by the guidance committee, but no later than the end of seven semesters of enrollment in the doctoral program.
- d. An oral comprehensive examination (oral exam) is mandatory for all potential Ph.D. candidates. Eligibility for the oral exam will be determined in part by: (1) completion by the student of a substantial portion of the course work comprising the program as determined by the guidance committee, (2) judgment by the major professor that the student is prepared, and (3) performance of the student on the written comprehensive examinations (written exam) taken. Each member of the guidance committee will decide whether or not to give a written exam, but the university requires at least one written exam. Thus, the number of written exams can vary from one to a number equivalent to the total number of committee members for any student. A written exam is graded only by the committee member giving the exam. All guidance committee members giving a written exam will notify both the student and the chair of the guidance committee if he/she judges the student to be ready to take the oral exam. At least 80% of the guidance committee must agree that the student is ready to take the oral exam.
- e. When the performance of the student on the written exam is not acceptable (less than 80% of the guidance committee recommending scheduling of the oral exam), the relevant guidance committee member(s) giving the exam(s) will either re-examine the student or will assign activities in area(s) that the student is judged to be weak. The student will be allowed a total of two opportunities to

progress to the oral portion of the comprehensive exam within the time frame specified by the guidance committee.

- f. To pass the oral exam, 80% of the committee must agree that the performance is acceptable.
- g. When the performance of the student on the oral exam is not acceptable or marginal, the guidance committee will re-examine the student or will assign activities in area(s) that the student is judged to be weak. The student will be notified in writing by the chair of the guidance committee of deficiencies noted and proposed means for remediation within the time frame specified by the guidance committee. This written report should be shared with the guidance committee members and with the department graduate coordinator.
- h. In order to pass the comprehensive exam, 80% of the committee must agree that performance on both the written and oral exams is acceptable. If performance on the comprehensive exam is not acceptable or is marginal, the guidance committee will re-examine the student or will assign activities in area(s) that the student is judged to be weak.
- i. A student will have no more than two opportunities (original plus one re-exam) to demonstrate acceptable performance on the oral comprehensive exam. The decision to allow reexamination will be at the sole discretion of the guidance committee and all of the committee members must approve the decision.
- j. The interval from the failed oral exam to repeat oral exam will be at least one semester, but no more than six months, unless a written waiver is requested by the major professor, signed by all of the guidance committee members, and submitted to the graduate coordinator. A waiver must explain extenuating circumstances that will prevent the student from retaking the comprehensive exam within a six-month period and when the circumstances will be rectified.
- k. After each comprehensive exam, the chair of the guidance committee shall submit the Record of Comprehensive Examinations form (canr.msu.edu/ans/students/graduate_program/) including any supplemental written report(s) to the graduate administrative support person within seven days of said comprehensive exam. Once a student is deemed to have passed the comprehensive examination, the graduate administrative support person will enter the date that the exam was passed into GradPlan, and the completion date will route to the graduate coordinator for departmental approval.

6. Doctoral Dissertation and Final Oral Examination

- a. The Ph.D. dissertation is a written description of the student's original doctoral research that makes a significant contribution to knowledge.
- b. The Ph.D. dissertation is generally organized such that the document contains a scientific abstract appropriate for the discipline, a lay abstract appropriate for the general public (this abstract will be posted on the departmental web site), an introduction to the general research problem and a summary of relevant literature, a methods section that describes methodology in sufficient detail to allow supplication of the research, a results section that presents relevant data and a discussion that addresses the implications and significance of the research.
- c. It is common practice to prepare dissertation chapters in manuscript form for subsequent submission to peer-reviewed journals. If one or more chapters of the dissertation has been published in a peer-reviewed journal, each published chapter must be introduced with the list of all authors and the citation for the publication. For manuscripts not published in open access journals and/or for which the authors do not hold the copyright, a copy or notation of the written permission from the copyright holder (generally the publisher) to reprint the article should also be included. If multiple papers make up the dissertation, these must be "tied together" with a required general introduction and summary/discussion. In the case of a multi-author chapter, the student should include an accompanying statement of what specific work he/she did, what specific part(s) of the chapter they wrote and what other authors contributed. If the guidance committee feels the student's contribution to the chapter is minor compared to the other authors, the student will not be

- able to use the published chapter for the dissertation. The guidance committee may give the student the option to write the chapter in question independently.
- d. The department strongly suggests that students use the software "Ithenticate" to check for unintentional plagiarism. Information regarding this program is available at https://tech.msu.edu/teaching/tools/ithenticate/
- e. It is expected that the Ph.D. dissertation or portions of the dissertation will be published in a reputable peer-reviewed journal(s) and that the dissertation research and the dissertation itself reflect that expectation.
- f. Regardless of the specific approach chosen, the dissertation should be prepared in accordance with the Graduate School's Formatting Guide for Doctoral Dissertations (http://grad.msu.edu/etd/).
- g. Every doctoral student must successfully defend their Ph.D. dissertation, which is based on the original research project that was evaluated by the guidance committee during the dissertation proposal defense (see II.C.4).
- h. The student must be enrolled for at least one credit in the semester of dissertation defense.
- i. Every student must pass a final oral examination coordinated by the chair of the guidance committee to complete the requirements for the Ph.D. degree.
- j. The dissertation must be circulated to members of the guidance committee at least 14 days prior to the Ph.D. final exam. Prior to distribution of the dissertation to the committee, the dissertation must be considered acceptable (documented in writing) for the final exam by the student's advisor and one guidance committee member. The Approval to Schedule M.S. or Ph.D. Final Defense Form (canr.msu.edu/ans/students/graduate_program/) must be signed by the student's major professor, a guidance committee member and the graduate coordinator. [Note: Students may tentatively schedule their final defense to assure a date is confirmed on committee members' calendars, but the defense cannot take place without submission of the approval to schedule form.] The student must not put the guidance committee into jeopardy by assuming that the student's commitments take precedence over this timetable.
- k. The dissertation will be presented in the form of a seminar to members of the university and public. The seminar will immediately precede the final defense (oral examination) of the dissertation before the guidance committee. At least one week before the seminar, the student or major professor must notify all department faculty, students, and staff of the title, date, time, and location of the seminar. The graduate administrative support person is available to assist with advertising, as well as with room scheduling.
- l. To pass the Ph.D. final exam, 80% of the guidance committee must judge that the performance of the student is acceptable. If there are deficiencies in the dissertation and/or defense, the student is allowed one opportunity to correct the deficiencies within the time frame specified by the guidance committee.
- m. After the Ph.D. final exam, the chair of the guidance committee should submit the Record of Dissertation and Oral Examination form (canr.msu.edu/ans/students/graduate_program/) to the graduate coordinator, who then signs and forwards to the graduate administrative support person, who will enter the date that the final exam was passed into GradPlan.
- n. In the event that less than 80% of the members of the guidance committee consider the dissertation and/or its defense acceptable, the deficiencies, expected corrective actions and time limit for completion of the corrections will be explained in detail to the student both verbally and in writing by the guidance committee chair.
 - 1) A copy of the written explanation will be forwarded to the graduate coordinator.
 - 2) The student will be given an opportunity to rectify the deficiencies within the time frame specified by the guidance committee.
 - 3) If the student was not successful in rectifying the specified deficiencies as judged by at least 80% of the guidance committee, the student is terminated.

- 4) Upon reassessment of the dissertation and/or its defense, the chair of the guidance committee should submit the Record of Dissertation and Oral Examination form (canr.msu.edu/ans/students/graduate_program/) to the graduate coordinator, who then signs and forwards to the graduate administrative support person, who will enter the decision and date of the decision into GradPlan.
- o. MSU only accepts electronic dissertations submitted via ProQuest. In addition to the main body of a dissertation, the Graduate School now permits the submission of supplementary materials to ProQuest. These supplemental materials will not be reviewed by the Graduate School for formatting requirements, but they must be acceptable by ProQuest and comply with ProQuest's criteria and storage limits. All supplementary materials need the written approval of the major professor. The instructions for electronic submissions are available from http://grad.msu.edu/etd/. The target date for the FINAL APPROVAL of an electronic dissertation by the Graduate School for graduating the semester of that submission is set by the Graduate School and posted on the Graduate School calendar (https://grad.msu.edu/calendar). Be aware that a submission via ProQuest does not mean that the document has been ACCEPTED. The review process is interactive and final approval can take anywhere from a few hours to weeks, depending upon the extent of the necessary revisions and how diligent the author is when making the necessary revisions.
- p. At the time of submission to ProQuest, authors have the opportunity to create an ORCID (Open Researcher and Contributor ID) that provides researchers with a unique identifier for linking their research outputs and activities. An ORCID (1) improves recognition of research contributions, (2) reduces form-filling, (3) works with many institutions, funders and publishers, and (4) is a requirement of many journal manuscript submission systems. To learn more about ORCID go to: https://vimeo.com/237730655.
- q. In keeping with MSU's public mission, the University requires that theses, dissertations and abstracts will become public after the conferral of the degree; embargoes can only be pursued for a limited period. Students submitting a thesis/dissertation to ProQuest may request a hold/embargo of publication by ProQuest by contacting the Graduate School at msuetds.approval@grd.msu.edu. In response to the request, the Graduate School will send directly to the student a form that needs to be completed and returned to the Graduate School prior to the document submission to ProQuest. The form needs to be signed by the student's major professor and by the Associate Dean of the student's college. The request for the hold/embargo may be for six months, one year or two years. Requests for a period longer than six months must include a written justification for the length of the requested hold/embargo.
- r. The MSU library may accept supplementary materials approved by the major professor per their collection criteria. The Graduate School does not review these materials for formatting requirements. Questions about submission of these materials to the MSU library should be directed to the Assistant Director for Digital Information.

7. Degree Timeline and Residency

a. The total time allowed for completion of the requirements for the Ph.D. degree is eight calendar years from the date of enrollment in the first course included for degree certification. Residence on campus (in the East Lansing area) is required for one academic year. This is defined as two consecutive semesters with completion of credits at the level of full-time status of graduate work each semester.

8. Full Time Status

a. Full time status for doctoral candidates is defined as a minimum of one credit for those students who have successfully completed the written and oral preliminary (comprehensive) exams and are actively engaged in dissertation research or are doing department approved off-campus fieldwork related to preparation of their dissertation. Before completion of the comprehensive exams, full

time status for doctoral students is 6 credits without an assistantship or 3 credits with an assistantship.

9. MSU Graduate School Exit Survey

a. There is a short online exit survey for all students graduating with the Ph.D. degree. Only students who have applied for graduation will have access to the survey. The survey asks questions about educational experiences in MSU graduate programs, as well as about immediate professional plans. The Graduate School uses data from this survey when reviewing graduate programs and to guide decisions about services and initiatives for graduate students. The identity of all respondents will be kept confidential and only aggregate (group) information will be made available to faculty and administrators. Students will receive an e-mail message from the dean of the graduate school with a link to the survey. However, students do not need to wait for that e-mail message to complete the survey after applying for graduation. It takes about 5-10 minutes to complete the online survey. The instructions for completing the survey are available from http://grad.msu.edu/etd/. Contact ExitSurvey@grd.msu.edu for any issue with the exit survey.

D. Animal Science Theses/Dissertations Libraries

1. Locations of Theses/Dissertations Accepted by the Department

a. University Library (electronic submissions)

E. Interdisciplinary Options

1. Environmental Toxicology

- a. Master of Science Students who are enrolled in the Master of Science degree program may elect a formal specialization in environmental toxicology. The specialization is designed for students who are interested in combining study in their disciplines with study in environmental toxicology, and in applying their knowledge to solve environmental problems. A faculty member in the Department of Animal Science, who is associated with the Institute for Integrative Toxicology (IIT), can serve as the student's major professor for the specialization. The major professor will assist the student in planning an academic program that is related to the student's interests, capabilities, and professional goals. The courses that are used to satisfy the requirements for the specialization may also be used to satisfy the requirements for the Master's degree. For more information see https://reg.msu.edu/AcademicPrograms/ProgramDetail.asp?Program=0469.
- b. Doctoral Program The department offers a Ph.D. degree program in animal science/toxicology. This program represents study in the disciplinary major of animal science combined with study in toxicology. The student's course of study is planned with the individual's particular interests, capabilities, and professional goals in mind. The student must meet the requirements for the Ph.D. degree within the department as well as the requirements for the toxicology component of the program. In partial fulfillment of the toxicology component, all students must complete one of three tracts: the biomedical toxicology track, the environmental toxicology track, or the food toxicology and ingredient safety toxicology track. When all of the requirements for the degree have been met, both the graduate coordinator and the director of the multidisciplinary training program in Environmental and Integrative Toxicological Sciences (EITS) will recommend the student for the degree. For more information see https://iit.msu.edu/training/eits/index.html.

III. SELECTION OF THESIS/DISSERTATION ADVISOR

A. Department Guidelines

1. Initial Selection of Major Professor (for PhD program also designated as Dissertation Chair)

a. The student's major professor is chosen during the application process. Because financial support for the student's research is provided exclusively by the major professor, a student will not be

accepted into the department's graduate program if a faculty member is not willing to make that commitment. Thus, it is advisable that prospective students identify and communicate with potential mentor(s) before submitting an application, so that both student and mentor feel that professional interests and personalities are compatible. Information on faculty and their interests can be found on the departmental web site (http://www.ans.msu.edu/research1).

2. Eligible Faculty

a. Regular faculty (those appointed under the rules of tenure with the rank of assistant, associate or full professor) having an appointment in the Department of Animal Science can accept a graduate student unless otherwise notified by the department chairperson. Non-tenure system faculty (fixed-term faculty or academic specialists) may be approved to serve as major professor for a Master's student and the graduate coordinator will submit the approval request to the Graduate School.

3. The General Role of the Major Professor

- a. A mentor, fostering a collaborative relationship with the mentee based on mutual respect and a commitment to the mentee's scientific and professional development for achieving career success
- b. An advisor, willing to share his/her professional knowledge
- c. A supporter, giving emotional and moral encouragement
- d. A tutor, giving specific feedback on a student's performance
- e. A sponsor, providing information about, and aid in obtaining opportunities
- f. A model of the kind of person one should be to be an academic

4. The General Responsibilities of the Major Professor

- a. Ensuring that graduate students receive information about requirements and policies of the graduate program
- b. Advising graduate students on developing a program plan, including appropriate course work, research or creative activity, and on available resources
- c. Advising graduate students on the selection of a thesis or dissertation topic with realistic prospects for successful completion within an appropriate time frame and on the formation of a guidance committee
- d. Providing training and oversight in creative activities, research rigor, theoretical and technical aspects of the thesis or dissertation research, and in professional integrity ensure that their students complete the Responsible Conduct of Research (RCR) trainings
- e. Encouraging graduate students to stay abreast of the literature and cutting-edge ideas in the field
- f. Helping graduate students to develop professional skills in writing reports, papers and grant proposals, making professional presentations, establishing professional networks, interviewing, and evaluating manuscripts and papers
- g. Providing regular feedback on the progress of graduate students toward degree completion, including feedback on research or creative activities, course work, and teaching, and constructive criticism if the progress does not meet expectations.
- h. Helping graduate students develop into successful professionals and colleagues, including encouraging students to participate and disseminate results of research or creative activities in the appropriate scholarly or public forums
- i. Supporting students in the creation of a professional development plan that takes into account their goals and interests, and prepares them for their future career, and reviewing this plan with the student at least semi-annually. Encouraging students to interact with other professionals outside of their expertise area, and to participate in appropriate professional development activities.
- j. Facilitating career development, including advising graduate students on appropriate job and career options, as well as on the preparation of application materials for appropriate fellowship, scholarship, and other relevant opportunities

- k. Writing letters of reference for appropriate fellowship, scholarship, award, and job opportunities
- 1. Providing for supervision and advising of graduate students when the major professor is on leave or extended absence

5. Major Professor Leaves MSU

a. In the event that the major professor leaves MSU before a student completes the requirements for the degree, the department chair, graduate coordinator, major professor and student will meet prior to the faculty member leaving. The purpose of the meeting is to ensure that the student will have the guidance and financial resources necessary to complete the degree. While each situation is unique, a possible scenario is that one of the guidance committee members assumes the role as research advisor with the graduate coordinator or another faculty member joining the committee to ensure that the minimum requirement of four (Master's degree) or five (Ph.D. degree) committee members is met. It is expected that departing faculty members will leave sufficient funds to complete the student or will transfer the student to someone who has the funds to complete the student. If the departing faculty member does not have sufficient funds to complete the student, the department will assume those costs.

6. Conflict with Major Professor

a. In the event that a graduate student and faculty mentor are having difficulties working with one another, the graduate coordinator and/or department chair should be notified. Both the graduate coordinator and department chair will strive to resolve the conflict, because leaving a major professor who is solely responsible for the student's financial support has serious implications for both the student and the faculty member. If resolution is not possible, the graduate coordinator, department chair and student will attempt to identify another faculty member willing to assume responsibility for the student. In the event that the faculty mentor is the department chair or the graduate coordinator, the chair of the Department Advisory Committee (DAC) will assume the role of the department chair/graduate coordinator in helping to resolve conflict.

B. Schedule of Events for Graduate Programs in Department of Animal Science*

Event	M.S. Degree	Ph.D. Degree
Formation of guidance committee and submission of	By the end of the second semester after initiation of the	By the end of the second semester after initiation of the degree
academic program	degree program	program
Submission of annual	Following each guidance	Following each guidance
committee meeting report	committee meeting. Students	committee meeting. Students must
	must meet with their committee	meet with their committee at least
	at least once annually.	once annually.
Submission of annual progress	Late January of each year in the	Late January of each year in the
report	degree program	degree program
Submission and defense of		At least 14 days prior to the
Ph.D. dissertation proposal	Not applicable	defense of the dissertation, which
		must occur by the end of the fourth
		semester after initiation of the
		degree program
Written and oral Ph.D.		By the end of the seventh semester
comprehensive exam ¹	Not applicable	after initiation of the degree
		program
	A.1 .14.11	A.1 14.1
Submission of	At least 14 days prior to the	At least 14 days prior to the
thesis/dissertation to guidance committee ²	defense of the thesis	defense of the dissertation
Announcement of	At least seven days prior to the	At least seven days prior to the
thesis/dissertation defense	defense of the thesis	defense of the dissertation
seminar		
Thesis/dissertation defense	By the end of the fifth year after	By the end of the eighth year after
	initiation of the degree program	initiation of the degree program

^{*} Appropriate forms are available at canr.msu.edu/ans/students/graduate_program/

¹ If the comprehensive exam has not been completed by the end of the fifth year of the degree program, university regulations require that permission to take the exam be granted by the Dean of the College of Agriculture and Natural Resources and approved by the Dean of the Graduate School.

² Deviation from the 14-day minimum time period requires approval by all members of the guidance committee. If a thesis/dissertation is received less than 14 days before the date of the final exam, member(s) of the guidance committee can, by refusal to participate, force the exam to be rescheduled.

IV. PROCEDURES FOR GRADUATION

A. Graduate School

1. Graduate School Website

a. This site has the most current information on graduation requirements/timelines/procedures: http://grad.msu.edu/graduation/

B. General Procedures - Master's Programs and Doctoral Program

1. Department Information

- a. The student must complete every course required on their academic program plan (GradPlan).
- b. The Master's student must have successfully completed the thesis defense and the Report of MS Thesis and Oral Exam form (submitted to department and GradPlan). The Ph.D. student must have successfully completed the dissertation proposal defense (Doctoral Research Proposal form submitted to department), comprehensive/preliminary exam (Record of Comprehensive Examinations form submitted to department and GradPlan), and final oral exam/dissertation defense (Record of Dissertation and Oral Exam form submitted to department and GradPlan).
- c. The student must be enrolled for at least one credit during the semester that the final oral exam is taken. Master's students defending in the summer do not need to be enrolled as long as they were enrolled in the preceding spring semester.
- d. Ph.D. candidates must pass the comprehensive examination prior to completion of dissertation and final oral examination.
- e. If the student is a Plan A Master's degree candidate or a Ph.D. candidate, a copy of the thesis/dissertation must be submitted electronically to the Graduate School by the date specified on the Graduate School's web page (see http://grad.msu.edu/etd/).

2. University/Graduate School Information

- a. The student must apply for graduation by completing and submitting an Application for Graduation form, available at http://grad.msu.edu/graduation/, and paying the one-time processing fee of \$50. This form should be submitted by the first week of the expected semester of graduation in order for the student's name to appear in the commencement program.
- b. All Graduate School information regarding graduation can be found on their website http://grad.msu.edu/graduation/
- c. A completed and signed form indicating approved use of human or animal subjects for thesis/dissertation research (see VI. I. 5. and VI. I. 6.). This form is available at https://grad.msu.edu/etd/Required-Paperwork-and-Surveys
- d. The student will not graduate until the above requirements have been completed. If the student misses the deadline for the semester that the final exam is completed, the date of graduation on the diploma will be changed to the semester that the above requirements are completed.
- e. If a student does not fulfill the above requirements in the semester that the final exam is completed, it is necessary to apply to graduate (2. a. above) each semester until the requirements are completed. The application fee is not required to be paid after the application to graduate is submitted the first time.

V. PROFESSIONAL DEVELOPMENT AND AWARDS

A. Professional Development Activities

1. Animal Science Graduate Research Forum

a. The department sponsors an annual research day organized by a team of graduate student coordinators. The forum features research presentations by Animal Science graduate students and post-doctoral scholars.

2. Individual Development Plans

a. Graduate students are strongly encouraged to create an individual development plan (IDP) and discuss their IDP with their major professor at least once per year. The graduate program coordinator leads an IDP workshop each fall semester to assist students with creating their IDP.

B. Graduate Student Awards

1. Outstanding Ph.D. Student Award

a. This award recognizes a Ph.D. candidate in the department who has demonstrated all-round excellence in academic performance, research, teaching, and service and leadership. To be eligible for this award PhD students must have passed their comprehensive examinations and advanced to candidacy.

2. Outstanding M.S. Student Award

a. This award recognizes a M.S. student in the department who has demonstrated all-round excellence in academic performance, research, teaching, and service and leadership. To be eligible for this award MS students must have been enrolled for at least one year.

3. Outstanding Graduate Student Teaching Award

a. This award recognizes outstanding contributions to the Animal Science teaching mission. Both MS and PhD students are eligible for this award, and selection is based on faculty nominations.

4. Outstanding Graduate Student Service and Leadership Award

a. This award recognizes outstanding contributions by a graduate student to the department, animal science profession, animal industry and/or broader community through their service and leadership activities. Both MS and PhD students are eligible for this award, and selection is based on nominations from the Animal Science department community.

5. Jacob A. Hoefer Endowed Fellowship in Animal Science

a. This competition encourages Ph.D. candidates in the department to prepare for future employment through mock job applications and interviews. To be eligible for this award PhD students must have passed their comprehensive examinations and advanced to candidacy.

VI. DEPARTMENT POLICIES RELATED TO GRADUATE STUDENTS

A. Graduate Students' Rights and Responsibilities

1. Department/University Policy

- a. The MSU policy regarding graduate students' rights and responsibilities, which the department endorses can be viewed at the Graduate School website: http://grad.msu.edu/gsrr/
- b. MSU requires all new incoming graduate students to view a short video on sexual assault. Students will be contacted directly by email and given instructions.
- c. All teaching assistants and research assistants must complete the on-line training about the Relationship Violence and Sexual Misconduct Policy. The Department of Animal Science requires all graduate students to complete this training regardless of their employment status. To access the training, login to the Office of Regulatory Affairs (ORA) training website at:

 http://ora.msu.edu/train/programs/rvsm.html If you need assistance, contact the Helpdesk at 517-884-4600 or train@ora.msu.edu.
- d. All students, faculty and staff must complete MSU's on-line DEI (diversity, equity and inclusion) training (https://ora.msu.edu/train/index.html).

B. Mentoring and Advising

1. MSU Guidelines for Graduate Student Mentoring and Advising

https://grad.msu.edu/msu-guidelines-graduate-student-mentoring-advising

C. Graduate Assistantships

1. Description of Graduate Assistantship

See Graduate School website: http://grad.msu.edu/assistantships/

2. Graduate Assistants in the Department of Animal Science

- a. The majority of graduate assistants in the department are research assistants (RAs).
 - 1) A graduate assistantship funded by a professor from a grant does not transfer with the student if the student changes advisors.
 - 2) Retention of a research assistantship is subject to availability of funds and the same research standards as graduate student status (section VI. E. 2.).
 - 3) The research assistantship represents an obligation for the student to perform various duties of benefit to the department in return for financial assistance (20 hours per week for a half-time assistantship and 10 hours per week for a quarter-time assistantship). It is assumed that these duties, in combination with the normal course of studies, will amount to a full-time load.
 - 4) Outside employment for research assistants is discouraged. Before beginning outside employment, the student should discuss with the major professor and the graduate coordinator the outside employment and how the assistantship obligations will be fulfilled.
- b. Departmentally funded teaching assistantships (TAs) are limited and the number varies from year to year.
 - 1) In April of each year, the graduate coordinator will request the names of graduate students with an interest in serving as a TA during the upcoming academic year.
 - 2) Decisions on TA appointments will be made by the undergraduate and graduate coordinators in consultation with the student's major professor and the course instructor.
 - 3) Students will be notified of those decisions by the end of April and provided with a letter detailing their responsibilities for the courses assigned.

- 4) TAs are subject to the collective bargaining agreement with the Graduate Employees Union/American Federation of Teachers. To view the contract, go to http://geuatmsu.org/about/geu-contract/.
- 5) International students who were required to demonstrate English proficiency as a condition for regular admission to Michigan State University must also demonstrate that they meet a minimum standard of proficiency in spoken English before they can be assigned teaching work that involves oral communication with undergraduate students. This requirement may be met by presenting a TOEFL iBT speaking section score of 27 or higher, or by passing the MSU Speaking Test (https://elc.msu.edu/tests/msu-speaking-test/). Students must have a score of at least 50 or waiver approval following an interview to satisfy the Speaking Test requirement.
- 6) The same time commitment, described above for research assistantships also applies to teaching assistantships.
- 7) As for RAs, outside employment for TAs is discouraged. The student should discuss with the major professor, the instructor of the class and the graduate coordinator the outside employment and how the assistantship obligations will be fulfilled.

D. Financial Assistance for Graduate Students

1. Externally Funded Fellowships and other opportunities

See Graduate School website: http://grad.msu.edu/funding/

E. Academic Policies

1. Review of Academic Performance

- a. The review takes place annually in late January. The Annual Progress Report form is available from the graduate coordinator or graduate administrative assistant.
- b. Based on the standardized format, students list the courses completed, courses taught, publications, description of research in progress, and accomplishments and other activities important to the development of the student.
- c. The major professor reviews the annual progress report of the student in late January and provides an assessment of the student's progress in writing as part of the annual progress report and orally.
- d. The student must distribute the progress report to all members of the guidance committee. Members of the guidance committee who are within the Department of Animal Science are expected to sign the progress report. It is the responsibility of the student to inform the guidance committee of progress or challenges.
- e. The student may respond to comments from the major professor and/or guidance committee on the annual progress report.
- f. The progress report is sent to the graduate coordinator who may in turn share it with the department graduate committee.
- g. If the major professor's comments concerning the student's progress and/or the student's comments suggest a problem, the graduate coordinator will visit with both the student and major professor to facilitate resolution of the problem.
- h. The graduate committee uses the progress report to select winners of the department's annual outstanding graduate student awards.

2. Retention of Graduate Student Status

- a. Show clear and satisfactory progress toward degree completion in a timely manner according to the schedule presented in III. B. in the following areas
 - 1) Grade point average (GPA)

- i. In accordance with university policy, the minimum cumulative GPA required for graduation is 3.0 for graduate students.
- ii. Withdrawal from a degree program will be required of any regular status student whose cumulative grade point average is below 3.0 for three consecutive semesters.
- iii. New, provisional status students will be allowed one semester to attain a GPA of 3.0 or greater for retention as a graduate student.
- iv. Part-time students taking less than a regular course load will be allowed eight credits to attain a GPA of 3.0 or greater.
- v. For retention purposes, the GPA will be calculated on all courses taken the first year of graduate studies in the current degree program and on courses required by the guidance committee thereafter.
- vi. In the event a student's overall GPA falls below a 3.0, the graduate coordinator will inform the student in writing of the deficiency and the requirements for retention of graduate student status.
- 2) Credits earned toward the degree
- 3) Approval of the academic program
- 4) For Ph.D. degree, approval of the dissertation research proposal
- 5) For Ph.D. degree, successful completion of the written and oral comprehensive examinations
- 6) Abstracts, publications, and research awards received may also be used to gauge progress in a graduate program.
- 7) This evidence must be documented in the student's annual progress report and the faculty mentor's written assessment.
- b. The required work for a deferred grade (DF) must be completed and a grade reported within six months with the option of a single six-month extension. If the required work is not completed within the time limit, the DF will become U (unfinished) and will be changed to DF/U under the numerical and pass no grade (P-N) grading systems, and to DF/NC under the credit no credit (CR-NC) system. This rule does not apply to graduate thesis or dissertation work.

F. Research Standards

1. Research Evaluation

- a. Objective minimum standards such as course grades cannot be described for performance in research. Therefore, research evaluation must reflect to a large extent the professional judgment of the major professor and guidance committee and it occurs on a semester-to-semester basis.
- b. The student's annual progress report must be completed accurately and in detail, as this report will serve as one component for the major professor's judgment of the student's performance.
- c. Other critical components will include a student's timely movement through the various requirements of the degree program (see III. B.) and fulfillment of appointment responsibilities in the previous semester.
- d. A student failing to meet academic requirements could be terminated at the end of the semester in question.
- e. Unethical behavior will not be tolerated and will result in immediate termination.

G. Decision to Terminate Graduate Student Status

1. Termination of Graduate Student Status

a. While such cases are infrequent, a student with unsatisfactory academic performance will be dismissed from the graduate program at the end of any semester. Termination procedures will only be instigated if no resolution can be made between the faculty advisor, guidance committee and student through informal, direct discussions.

- 1) See Graduate Student Rights and Responsibilities at http://splife.studentlife.msu.edu/graduate-student-rights-and-responsibilities
- b. If the problem remains unresolved, the process for termination is as follows:
 - 1) The major professor will send a letter of intent to terminate the student to the department chairperson, and forward the letter to the student, the guidance committee, the chair of the graduate committee, and the graduate coordinator.
 - 2) The student will have two weeks to provide a rebuttal to the major professor's letter of intent to terminate, during which time he/she must request a meeting with the graduate committee to present his/her rebuttal case. The major professor will be in attendance, and the guidance committee will be invited to this meeting. During this time, the graduate committee will facilitate agreement between the student and major professor as to steps (if any) that the student must take to resolve the situation.
 - 3) Resolution of the situation must occur within six weeks from the meeting date for the student to avoid termination.
 - 4) The graduate committee will document in a letter to the department chairperson (and forward to the student, major professor, and guidance committee) the agreed upon action steps for the student.
 - 5) A final meeting at the end of the six-week resolution period will be held with the student, the major professor, and the guidance committee to determine if the situation has been resolved and warrants reversal of the major professor's termination decision. Members of the guidance committee will be invited to this meeting.
 - 6) If a final decision for termination is made, the department chairperson will notify the student, the student's major professor, the guidance committee, the dean of the college, and the dean of the graduate school of this decision in writing.
- c. If special circumstances are sufficient to justify student retention despite unsatisfactory performance (as outlined above), and if there is a reasonable prospect that the student will regain a satisfactory level of academic performance once the special circumstances are alleviated, the student will be given written notice of condition(s) to meet and a time period in which to meet them. However, the student's unsatisfactory progress evaluation will remain in force and the student will be ineligible for an assistantship during this period.
 - 1) Special circumstances include no less than a serious medical condition or extraordinary situation that is outside the student's control and directly and adversely affects academic performance.
 - 2) Successful completion of the conditions placed on the student to overcome unsatisfactory performance due to special circumstance will restore the student's good academic standing and eligibility for assistantship support.
 - 3) Failure to meet the conditions imposed on the student will result in termination of the student's program without further review.

H. Student Records

1. Access to Records

- a. Student records are maintained in the departmental office.
- b. Students have the right to inspect any of their own educational records, barring confidential letters of recommendation, including their official transcript. Students also have the right to inspect reports and evaluation of his or her academic performance. The student's file typically contains the graduate application and all required documentation submitted by the student (i.e. statement of purpose, transcripts, letters of recommendation and test scores), a copy of the departmental letter of acceptance, copies and/or originals of required forms, fellowship application(s), copies of graduate research assistantship forms and/or fellowship forms, copies of graduate research assistantship renewal letter(s) from the department and responses from the student, annual progress reports and

related correspondence, copies of grade reports, correspondence relative to the student, and data sheets from the Registrar's Office.

I. Integrity and Safety in Research and Creative Activities

1. Summary of University Guidelines

http://grad.msu.edu/researchintegrity/

2. Summary of ANS Responsible Conduct of Research Plan (RCR)

canr.msu.edu/ans/students/graduate_program/

3. Practices That Embody Integrity in Research and Creative Activities

- a. Honesty in proposing, performing, and reporting research
 - 1) The foundation underlying all research is uncompromising honesty in presenting one's own ideas in research proposals, in performing one's research, and in reporting one's data.
 - 2) It is expected that researchers will always be truthful and explicit in disclosing what was done, how it was done, and what results were obtained.
- b. Recognition of prior work
 - 1) Research proposals, original research, and creative endeavors often build on one's own work and also on the work of others.
 - 2) Both published and unpublished work must always be properly credited.
- c. Confidentiality in peer review
 - 1) The peer-review process involves the sharing of information for scholarly assessment on behalf of the larger disciplinary community.
 - 2) The integrity of this process depends on confidentiality until the information is released to the public.
 - 3) The contents of research proposals, of manuscripts submitted for publication, and of other scholarly documents under review should be considered privileged information, not to be shared with others.
- d. Disclosure of potential conflicts of interest
 - 1) There is real or perceived conflict of interest when a researcher has material or personal interest that could compromise the integrity of the scholarship.
 - 2) It is imperative that potential conflicts of interest be considered and acted upon appropriately by the researcher.
- e. Compliance with institutional and sponsor requirements
- f. Protection of human subjects and humane care of animals in conduct of research
 - Research techniques should not violate established ethics or federal and state requirements
 pertaining to the health, safety, privacy, and protection of human beings, or to the welfare of
 animal subjects.
- g. Collegiality in scholarly interactions and sharing of resources
 - 1) Once results of research or creative activities have been published or otherwise communicated to the public, scholars are expected to share materials and information on methodologies with their colleagues according to the tradition of their discipline.
 - 2) Faculty advisors have a particular responsibility to respect and protect the intellectual property rights of their advisees.
 - i. A clear understanding must be reached during the course of the project on who will be entitled to continue what part of the overall research program after the advisee leaves for an independent position.

- ii. Faculty advisors should also strive to protect junior scholars from abuses by others who have gained knowledge of the junior scholar's results during the mentoring process.
- h. Adherence to fair and open relationships between senior scholars and their co-workers.
 - 1) The relationship between senior scholars and their coworkers should be based on mutual respect, trust, honesty, fairness in the assignment of effort and credit, open communications, and accountability.
 - 2) The principles that will be used to establish authorship and ordering of authors on presentations of results must be communicated early and clearly to all co-workers.
 - 3) It is the responsibility of faculty to recognize and balance their dual roles as investigators and advisors in interacting with graduate students in their group, especially when a student's efforts do not contribute directly to the completion of his or her degree requirements.

4. Misconduct in Research and Creative Activities

- a. Federal and university policies define misconduct to include:
 - 1) Fabrication (making up data and recording or reporting them)
 - 2) Falsification (manipulating research materials, equipment or processes, changing or omitting data such that the research is not accurately represented in the record)
 - 3) Plagiarism (appropriation of another person's ideas, processes, results, or words without giving appropriate credit)
- b. Misconduct does not include honest errors or honest differences of opinion in the interpretation or judgment of data.
- c. The university views misconduct to be the most egregious violation of standards of integrity and as grounds for disciplinary action, including the termination of employment of faculty and staff, dismissal of students and revocation of degrees.
- d. It is the responsibility of faculty, staff, and students 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 to the university Research Integrity Officer, and to protect the rights and privacy of individuals making such reports in good faith.

5. Research Involving Animal Subjects

- a. The use of vertebrate animals in research, teaching, and outreach activities is subject to state and federal laws and guidelines. University policy specifies that:
 - 1) All vertebrate animals under university care (involved in projects under the aegis or sponsorship of the university) will be treated humanely.
 - 2) Prior to their inception, all vertebrate animal projects receive approval by the Institutional Animal Care and Use Committee (IACUC).
 - 3) Michigan State University will comply with state and federal regulations regarding vertebrate animal use and care.
- b. University policy requires that all faculty, students and staff working with live vertebrate animals take an on-line tutorial (http://animalcare.msu.edu/) prior to conducting animal research.
- c. University policy requires that every project involving living vertebrates be reviewed for appropriateness by the IACUC before the use of these animals begins.
- d. Principal investigators or project directors must obtain approval from the IACUC before initiating any research, testing, or institutional project involving the use of vertebrate animals. Graduate students whose thesis or dissertation includes research involving vertebrate animals must provide the graduate school with the approval number and a copy of the IACUC approval letter.
- e. If a principal investigator or project director believes that a particular animal project does not need to be reviewed, the secretary of the IACUC should be contacted. There are several IACUC policies related to exclusion (see http://animalcare.msu.edu/). Graduate students should request a letter from

the IACUC that indicates approval of the exclusion, which can be presented to the graduate school along with the thesis/dissertation.

6. Research Involving Human Subjects

a. As with the use of animals, any use of human subjects that includes surveys and telephone interviews, must be approved by an institutional review board prior to the activity beginning (see http://www.hrpp.msu.edu/). Graduate students whose thesis/dissertation includes research involving human subjects must provide the graduate school with the approval number and a copy of the HRPP approval letter.

7. Office of Environmental Health & Safety (EHS) Regulations

- a. All personnel working in an environment where he/she could be exposed to radiation, chemicals, blood-borne pathogens, hazardous waste, infectious agents and/or recombinant DNA must receive introductory safety training offered on-line by EHS (http://www.ehs.msu.edu)
- b. Completion of these courses by MSU personnel, including graduate students, ensures that the university is fulfilling local, state and federal requirements in radiation, chemical, biological, hazardous waste and environmental safety.
- c. Training requirements will depend on specific job duties.
 - 1) Required for all laboratory employees engaging in the use of hazardous chemicals:
 - i. Chemical Hygiene and Laboratory Safety (one-time course)
 - ii. Hazardous Waste Refresher (required annually after completion of Chemical Hygiene and Laboratory Safety course)
 - iii. Security Awareness (one-time course)
 - 2) Required for all employees working with radiation:
 - i. Radiation Safety Initial (one-time course)
 - ii. Radiation Safety Refresher (required annually after completion of Radiation Safety Initial Course)
 - 3) Required for all employees with a reasonable anticipated risk of exposure to blood-borne pathogens/human blood/ bodily fluids
 - i. Blood-borne Pathogen Initial (one-time course)
 - ii. Blood-borne Pathogen Refresher (required annually following completion of Blood-borne Pathogen Initial course)
 - 4) Required for all researchers working with infectious agents or recombinant DNA
 - i. Biological Safety (one-time course)
 - 5) Required for all personnel whose job or coursework involves handling of live animals or handling animal-derived materials
 - i. Biosafety Principles (for those using or handling animals or animal derived materials)
- d. For information as to what courses should be completed, talk to the laboratory PI and/or call EHS at 355-0153 for assistance

VII. STUDENT CONDUCT AND CONFLICT RESOLUTION

A. Rules Governing Personal Conduct

1. Violations of Rules

- a. Rules of personal conduct are intended to promote the orderly and efficient operation of the department and university, as well as to protect the rights of all involved. Violations, therefore, shall be regarded as cause for disciplinary action, up to and including dismissal. Dismissal may result from an accumulation of minor infractions as well as for a single serious infraction.
- b. The following are examples of conduct that are prohibited.

- 1) Sexual harassment: may include, but is not limited to, sexual advances that are not welcomed, requests for sexual favors, and other verbal or physical conduct of a sexual nature or behaviors that create a hostile environment. Prohibited behaviors include:
 - i. Verbal harassment including, but not limited to, comments or questions about a person's sexual behavior, sexually oriented jokes, comments or questions about a person's body, and conversation filled with sexual innuendo.
 - ii. Physical harassment including, but not limited to, touching that is not welcomed, fondling, patting, pinching, or kissing.
 - iii. Direct or implied threat(s) that failure to cooperate with the request or advance will result in negative consequences.
 - iv. Sexually suggestive pictures or other sexually oriented objects which are displayed in the workplace which may have the purpose or effect of embarrassing, humiliating, intimidating, or frightening employees, students, clients, or visitors.
- 2) Malicious destruction or willful neglect of university property
- 3) Taking or attempting to take property from the department or university, its students, employees, visitors, or patrons.
- 4) Failure to comply with safety rules and regulations:
 - i. Failure to immediately report all accidents and injuries.
 - ii. Failure to comply with and (or) follow safety rules and regulations as established by the university's Department of Public Safety, and (or) EHS, and (or) the unit supervisor.
- 5) Canvassing and peddling
 - i. Canvassing, peddling, and soliciting on the grounds and in the buildings of the university are forbidden. Collections among employees are approved by the university only for the United Way and campaigns originating from the Office of the Vice-President for University Development. Employees should refrain from taking orders or selling tickets or merchandise of any kind, or soliciting funds for any purpose, without the written approval from the Secretary of the Board of Trustees.
- 6) Other misconduct such as, but not limited to, the following:
 - i. Consuming or possessing alcoholic beverages on university premises.
 - ii. Consuming or possessing controlled substances without a prescription on university premises.
 - iii. Unlawful manufacture, distribution, dispensation, possession, or use of illegal drugs or controlled substances.
 - iv. Being under the influence of alcohol when reporting to or while at work.
 - v. Being under the influence of controlled substances without a prescription, or illegal drugs when reporting to or while at work.
 - vi. Use of vulgar or obscene language.
 - vii. Threatening other persons, fighting, or instigating a fight.
- viii. Verbally abusing, physically attacking, or obstructing a supervisor, co-worker, student, client, or visitor.
- ix. Immoral conduct.
- x. Illegal acts committed by employees when not at work that reflect adversely upon the university.
- xi. Unauthorized use/possession of university or other property.
- xii. Unauthorized possession of a weapon while on university property.
- xiii. Ethnic intimidation based upon a person's race, color, religion, gender, or national origin.
- xiv. Inappropriate computer use including, but not limited to, accessing illegal/obscene websites and downloading of copyrighted material.
- 7) Academic dishonesty
 - i. Examples of academic dishonesty include, but are not limited to: plagiarism, cheating on exams, and falsification of data.

B. Graduate Student Grievance Procedure

https://www.canr.msu.edu/ans/students/graduate_program/useful_links

1. Resolution for Concerns and Problems

- a. Students or faculty with concerns or problems should seek resolution at the levels and in the sequence listed below.
- b. Plaintiffs may seek the next level of consideration until concern is resolved or no higher level exists.
- c. Sequence and levels of resolution
 - 1) Student and faculty member should seek resolution of concerns by direct dialogue with each other.
 - 2) Consultation with the departmental graduate coordinator who will comment on the merit of the concern.
 - 3) Consultation with the department chair or designate.
 - 4) Consultation with the university ombudsperson.
 - 5) Appearance before department board for adjudication (DBA).
 - i. Please refer to canr.msu.edu/ans/students/graduate_program/useful_links for procedure.
 - 6) College Graduate Hearing Board
 - The college has a judiciary composed of the chair of the college graduate committee or designee and equal number of faculty and graduate students in accordance with college bylaws.
 - 7) University Graduate Judiciary
 - i. The university has a judiciary composed of the Dean of the Graduate School or designee, who serves as chairperson, three elected faculty members of the University Graduate Council and three graduate students chosen by the All-University Graduate Student Governing Body.

C. Conflict of Interest

1. Integrity in Research and Creative Activities

- a. See http://grad.msu.edu/researchintegrity/
- b. The guidelines state that "there is real or perceived conflict of interest when a researcher has material or personal interest that could compromise the integrity of the scholarship" and that "it is imperative that potential conflicts of interest be considered and acted upon appropriately by the researcher."

D. Office of University Ombudsperson

1. Description of Responsibilities

- a. The Office of the University Ombudsperson provides assistance to 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 what options are available for handling a problem according to Michigan State University policy.
- b. 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.

2. Contact information

Office of the University Ombudsperson, 129 N. Kedzie Hall, (517) 353-8830; https://ombud.msu.edu

VIII. WORK RELATED POLICIES

A. Vacation

Each student is encouraged to take two weeks of vacation per year. Vacations will be taken at the discretion of and through consultation with the major professor so as to maintain continuity of research and department activities.

B. Grief Absence

1. Student Responsibility

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

- a. notify their advisor/major professor and faculty of the courses in which they are enrolled of the need for a grief absence in a timely manner, but no later than one week from the student's initial knowledge of the situation,
- b. provide appropriate verification of the grief absence as specified by the advisor/major professor and faculty, and
- c. complete all missed work as determined in consultation with the advisor/major professor and faculty.

2. Advisor/Major Professor Responsibility

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

- a. determine with the student the expected period of absence it is expected that some bereavement processes may be more extensive than others depending on individual circumstances,
- b. receive verification of the authenticity of a grief absence request upon the student's return, and
- c. make reasonable accommodations so that the student is not penalized due to a verified grief absence. If employed as a RA, TA or TE, the graduate student must also notify their employer. Both employer and student will swiftly communicate to determine how the student's responsibilities will be covered during their absence. Graduate teaching assistants (TAs) should refer to the bereavement policy in the MSU GEU CBU Article 18. Students who believe their rights under this policy have been violated should contact the University Ombudsperson.

C. Travel/Transportation

1. Authorization for Travel

- a. Authorization for travel must be submitted and approved before the travel occurs. This provides evidence that the traveler is on university business and may be critical in the event of an insurance claim, worker's compensation claim, or other litigation. The travel authorization process is completed on-line using the Concur system through the Travel at State website (travel.msu.edu). Travelers must first create a travel profile. To request approval for a specific trip, a Concur Request must be submitted. The graduate administrative assistant can assist with the request process, as well as with the post-travel procedures for requesting reimbursement of expenses.
- b. Be aware that travel reimbursement will be denied if the travel request has not been submitted and approved before the travel.

2. Driving University Owned Vehicles

- a. The university carries liability insurance on all university-owned vehicles when driven by authorized persons. Automobile Liability Insurance is essentially public liability and property damage insurance. It protects the driver and/or owner of an insured vehicle against charges filed by other persons, but it does not provide medical benefits for the driver or passengers.
- b. A Driver Certification form must be filled out and processed by staff in the main office before driving a university vehicle. The form can be found at https://rmi.msu.edu/ assets/rmidocuments/empdrivercert.pdf

3. Travel Accident Insurance

- a. Applies to all active full-time, part-time employees, members of the Board of Trustees, adjunct and clinical appointees, and graduate and undergraduate students or anyone else traveling on an authorized business trip for the University.
- b. University policy and regulations regarding student travel may be summarized as follows (See MSU Travel Regulations (http://www.ctlr.msu.edu/combp/mbp70ebs-July2019.aspx): Graduate students may be authorized to travel on university business and may be reimbursed for such travel. In addition, they may be assigned and may drive university vehicles on authorized trips. When driving university vehicles, they are protected by liability insurance but not medical coverage. Many students already have hospitalization and accident insurance of some sort. Students who travel for the university and who have dependents should be sure they are adequately insured.

4. Students Traveling Abroad

- a. Graduate students traveling internationally for MSU-related work (research data collection, international/professional conferences, courses, or other academic business) are strongly encouraged to sign up using the International Travelers Database, even if they are not being reimbursed for travel. This is the best way for MSU to stay in touch with our students if there is an emergency.
- b. When students appointed as TAs or RAs travel outside the U.S. to conduct required thesis or dissertation research or to collaborate with investigators conducting research abroad, the funding supporting the work will be required to pay for all needed vaccinations and or medications (e.g., anti-malarials) as determined by the MSU Travel Clinic. Students may include those costs in applications for funds from the Research Enhancement or Travel Grant programs administered by the Graduate School (https://grad.msu.edu/travel/).
- c. Check with the MSU Travel Clinic. They will provide information related to health risks and immunizations (http://travelclinic.msu.edu/).
- d. Check the International Studies and Programs website for issues related to safety around the world (http://isp.msu.edu/information-resources/international-travel).
- e. Apply for assistance with travel funding via the graduate school (https://grad.msu.edu/travel/). If the graduate school provides funding, they will also provide a MEDEX emergency card.

5. Travel Funding

- a. Graduate students are encouraged to go to scientific meetings.
- b. The major professor of a student presenting a paper is encouraged to compensate the student for part or all the expenses of the trip.
- c. In some cases, limited matching funds may be available from the Animal Science department, the Dean's Office of the College of Agriculture and Natural Resources or the Graduate School (<u>https://grad.msu.edu/travel/</u>).

6. Working Hours

- a. It is not the desire of the department to prescribe rigid working hours. However, it is imperative that the graduate student assumes the responsibility of adhering to whatever schedule is necessary to complete assigned duties and to assure timely completion of the degree requirements.
- b. It is expected that graduate students supported through an assistantship adhere to regular working hours in proportion to the degree of support and according to schedules worked out with their supervisors. A quarter-time graduate assistant is expected to provide 10 hours of services per week and a half-time graduate assistant is expected to provide 20 hours of services. Thesis/dissertation research is not considered to be part of this time commitment. It is the responsibility of the major professor to see that this obligation is fulfilled.

D. Miscellaneous

1. Use of department equipment

Computers, copiers, audiovisual, coffee pots, etc.

a. No one, faculty or graduate student, should assume that any department equipment is available for them to use at any time for any purpose. Common courtesy would ask that anyone interested in using any such equipment should check with the main office/person under whose responsibility the equipment has been placed.

2. Typing of the thesis/dissertation

a. This is the sole responsibility of the graduate student. Office personnel in the department will not type graduate student theses/dissertations during official working hours. A graduate student may hire willing personnel to type their thesis/dissertation on their department computer as long as it is not done during official working hours.

3. Keys

- a. Keys should be obtained from the main office (1290 Anthony)
- b. Any lost or misplaced keys should be reported to the main office immediately.

4. Office Supplies

- a. Graduate students should obtain their office supplies (paper, pencils, note pads, pens, etc.) from their major professor's office.
- b. The department will NOT assume the responsibility of providing supplies for personal use (i.e., use at home, class work needs, etc.).

5. Purchasing Supplies

- a. Spartan Marketplace ordering is online. Please obtain instructions from your major professor, laboratory technician, or personnel in the main office. An account number will be needed, unless this is a personal purchase. After items are received, please check and make sure that they are all there and undamaged. Please call University Stores if items are missing or damaged.
- b. Purchase requisitions submitted through the EBS system; please check with main office personnel for procedure.
- c. Some items may be purchased using a University PCARD. Please check with your major professor, laboratory technician, or personnel in the main office for details.

6. Room Scheduling

- a. Department conference rooms are reserved through the main office.
 - 1) Conference Room 1310 will seat approximately 75, Conference Room 1240 will seat approximately 55 and Conference Room 2209K will seat approximately 10.
 - 2) No regularly scheduled classes are to be held in conference rooms.
 - 3) Department of Animal Science has first priority for scheduling rooms.

- 4) Coffee pots must be checked out from the main office.
- 5) Non-Animal Science groups will be charged a rate of \$50. Cost of any additional cleanup will be charged back to the group that reserved the room.
- 6) Outside non-animal agriculture groups cannot book these rooms for more than a month in advance, and no longer than one day in length.

7. Licensed Drugs

a. Researchers within the Department of Animal Science must have his or her own individual State of Michigan research license and the DEA research registration to obtain Schedule II, III, IIIN, and IV controlled substances. Environmental Health and Safety (EHS) has developed resources, which are available to aid in this process at this website: https://ehs.msu.edu/lab-clinic/cont-sub/index.html

8. Locker Rooms

a. There are faculty and staff locker rooms located on the first floor (men) and in the basement (men and women). If you would like to store your items in a locker (you provide the lock), you must inform the main office and you will be assigned a locker.

9. Storage

a. There are several storage rooms in the building. You must check with the main office if you wish to store items in a particular storeroom.

10. Graduate Student Desk Assignments

a. Main office personnel in consultation with the graduate coordinator and department chair make graduate student desk assignments. An attempt is made to provide desk space for all graduate students in close proximity to their lab and/or major professor. Requests to change office assignments should be submitted to the graduate coordinator.

11. Laboratory Safety

a. All new personnel working in an environment where he/she could be exposed to radiation, chemicals, blood-borne pathogens, hazardous waste, infectious agents and/or recombinant DNA must attend the EHS introductory safety training sessions that are offered on-line by EHS. Information on this and other training offered by EHS is available on the EHS web site (http://www.ehs.msu.edu), Federal law mandates this training, and the university must assure that all personnel handling radiation, chemicals, biological materials and/or recombinant DNA comply.

12. Use of Laboratory Facilities by Guests

- a. The goal is to promote efficiency in the use of laboratory equipment and expertise in the Department of Animal Science. This will require collegiality amongst faculty and graduate students.
- b. Plan ahead.
- c. Consult with the laboratory principal investigator (PI).
 - 1) Communication between the major professor and laboratory PI is advised.
 - 2) Involve the PI of the laboratory in the INITIAL planning of the experiment. Experimental protocols should be written and available.
 - 3) If PI is not involved in initial planning, then consult with the PI BEFORE the experiment is started. The ability to measure something does not justify its inclusion in an experimental protocol.
 - 4) Problems with samples include too many samples, too few samples, or submission of samples at the wrong time. PIs frequently can save you time and money with appropriate sampling schemes.
- d. Use of laboratory
 - 1) Set schedule and communicate changes in schedule.
 - 2) Be sure you know how to run equipment and perform assays (coordinate with people who do know).

- 3) Pay for reagents and disposable supplies consumed.
- 4) Pay for breakage.
- 5) Extensive use of equipment may require sharing of maintenance contracts.
- 6) Costs involved must be agreed upon before use of laboratory begins.
- 7) Clean up after yourself. Dispose of waste properly.

e. Isotopes

- 1) EHS training is mandatory.
- 2) PIs are responsible for assurance that laboratories are not contaminated.
- 3) There have been problems with outside users not paying attention to details.
- 4) Survey of areas must be completed after each use of isotope.
- f. Ultra-cold freezers minimize exposure time to room temperature when moving samples, especially those of PI.
- g. Extensive use of PIs expertise may warrant co-authorship.
- h. Remember, we are guests in other laboratories. Courtesy is critical for cooperation.

E. Emergency Situations

1. Evacuation Procedures

a. Please be familiar with the evacuation procedures for all emergencies. Emergency procedures for Anthony Hall are posted throughout the building.

IX. DEPARTMENTAL ORGANIZATION

A. Faculty

1. List of faculty

a. Animal Science website at http://www.canr.msu.edu/ans/people/faculty

B. Animal Science Resource People

1. Department Administration and Current Graduate Committee Members

- a. Dr. Cathy Ernst, Chairperson; 1290F Anthony; 432-1941; ernstc@msu.edu
- b. Dr. Janice Siegford, Graduate Student Program Coordinator; 3270K Anthony; 432-1388; siegford@msu.edu
- c. Karla Macelli, Graduate Student Program Administrative Support; 1290 Anthony; 355-8417; macellik@msu.edu
- d. Sandy Bailey, ANS Fiscal Officer; 1290H Anthony; 355-8430; skibo@msu.edu
- e. Dr. Yuan Wang, Graduate Committee Chair; 3017 ISTB; 353-1416; wangyu81@msu.edu
- f. Dr. Rob Tempelman, Graduate Committee Member; 1205J Anthony; 355-8445; tempelma@msu.edu
- g. Dr. Zheng Zhou, Graduate Committee Member; 2265F Anthony; 432-0803; zhouzz@msu.edu
- h. Katelyn Goldsmith, Graduate Student Representative for the Animal Science Graduate Student Association (ASGSA); 2280 Anthony; 353-0782; kgold@msu.edu

C. Department Committees with Graduate Student Representation

1. Department Advisory Committee (DAC)

- a. Composition of the committee consists of five members elected from the regular faculty of the department and a department staff person. The department chairperson, associate chairpersons and undergraduate coordinator serve as non-voting ex-officio members. Student representation consists of one undergraduate and one graduate student. Student members are not present when faculty benefits, appointments, promotions, tenure, dismissals, and any matters affecting the professional responsibility of the faculty are discussed.
- b. Functions of the Department Advisory Committee
 - 1) Serve as an open channel of communication between the Department of Animal Science faculty, staff, students, and the department chairperson.
 - 2) Advise the department chairperson in the discharge of his/her other responsibilities by a direct representation of faculty and student opinion.
 - 3) Prepare, in cooperation with the department chairperson, the agenda and make all necessary arrangements for the department faculty meetings.
 - 4) Be responsible for the supervision and conduct of department faculty nominations and elections.
 - 5) Receive grievances and set-up grievance procedures.

2. Undergraduate Student Affairs and Curriculum Committee

- a. Composition of the Undergraduate Student Affairs and Curriculum Committee consists of four elected faculty members, at least one of which has a half-time, or more, appointment in extension, one graduate student, and two undergraduate students. In addition, the undergraduate student program coordinator shall serve as a non-voting, ex-officio member of the committee.
 - b. Functions of the committee
 - 1) Review and evaluate courses, curricula, and degree requirements for undergraduate students. It shall take leadership in considering the establishment and deletion of courses and curricula. The committee shall present to the department faculty those curriculum matters which it deems appropriate for discussion and/or action.
 - 2) Review and make recommendations to the department on matters relative to advising undergraduate students.
 - 3) Receive complaints made by undergraduate students relative to classroom instruction. The student may take any complaint relative to instruction directly to the department chairperson. If the chairperson is unable to resolve the matter to the student's satisfaction, the chairperson shall refer the unresolved complaints in writing to the Undergraduate Student Affairs and Curriculum Committee. A hearing shall be scheduled within 10 working days involving the student, faculty, or staff member and Undergraduate Student Affairs and Curriculum Committee. A written report of the action or recommendations of the committee will be forwarded to the dean, chairperson, instructional staff member, student, and university ombudsperson within 10 working days of the adjournment of the hearing committee. Students wishing to appeal a departmental action or recommendation may do so as outlined in provisions 2.2.8.1. of the Academic Freedom Report.

3. Graduate Student Affairs and Curriculum Committee

- a. The Graduate Student Affairs and Curriculum Committee is composed of three elected faculty members and one graduate student. In addition, the graduate student program coordinator shall serve as a non-voting, ex-officio member of the committee.
- b. Functions of the committee
 - 1) Develop and oversee graduate curriculum and program.
 - 2) Implement policies and requirements concerning graduate student affairs established by the university, college, and department.

- 3) Act as advisory committee to the department chairperson and to the graduate student program coordinator.
- 4) Determine graduate student award recipients.

D. Graduate Student Organizations

1. Animal Science Graduate Student Association (ASGSA)

- a. The ASGSA is open to all MSU graduate students registered in the Department of Animal Science. The objectives of the organization are to:
 - 1) Establish communication among graduate students and create channels of communication with the faculty and other parts of the university.
 - 2) Promote the academic, economic, and social aspects of both the Department of Animal Science and its graduate students. ASGSA has business meetings once a month and sponsors a variety of social and professional activities over the course of the year.

2. Council of Graduate Students (COGS)

a. COGS is the official graduate student organization at Michigan State University. Officers and department representatives (one representative per department for the entire university) are voting members. The primary objective is improvement of the academic, social, and economic position of graduate students at MSU. The organization has official delegates to the Graduate Council, the Academic Council, and standing committees thereof, and several all-university and presidential committees. Through membership in these other bodies, COGS participates in decisions on such matters as tuition and fees, the grading system, traffic regulations, academic and extracurricular programs of the university, graduate assistant stipends, improvements in on- and off-campus student living conditions, academic freedom and responsibilities, student representation in university government, and the selection of principal administrative officers. Meetings are open to all graduate students. For further information, contact the graduate coordinator for the name of your representative.

X. UNIVERSITY RESOURCES

A. Academics and Research

1. Useful Websites

- a. Academic Programs Catalog http://www.reg.msu.edu/
- b. Big Ten Academic Alliance Traveling Scholar http://grad.msu.edu/btaa
- c. Course Description and Catalog Search http://www.reg.msu.edu/
- d. MSU Technologies http://www.technologies.msu.edu/
- e. Michigan Intercollegiate Graduate Studies (MIGS) http://grad.msu.edu/migs
- f. Ombudsperson https://ombud.msu.edu
- g. Spartan Life: Student Handbook and Resource Guide http://www.studentaffairs.msu.edu
- h. Teaching Assistants Program http://grad.msu.edu/tap/
- i. Workshops for Students, Faculty and Staff https://grad.msu.edu/calendar