

Michigan State University

***DEPARTMENT OF
ANIMAL SCIENCE***

***GRADUATE STUDENT
HANDBOOK***

2012 - 2013

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I. PROGRAM OVERVIEW

The Department of Animal Science offers Master of Science and Doctor of Philosophy degree programs in animal science. Students who are enrolled in the Master of Science degree program may elect a formal specialization in environmental toxicology or food safety. These specializations require multi-disciplinary course work. Successful completions of the specializations are reported on the student's transcript. Students enrolled in the Doctor of Philosophy program may obtain a dual degree in animal science and environmental toxicology, which also requires multidisciplinary course work.

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:

- A. Provide a strong foundation in biological science and an in-depth knowledge of a specific biological discipline of importance to animal agriculture.
- B. Develop creative potential and foster independent thought.
- C. Improve technical skills.
- D. Provide the foundation for effective, independent careers in extension, research, teaching, or agribusiness.

The department offers the following areas of study within the field of animal science: animal breeding, statistical genetics and molecular genetics, animal health, animal production systems and management, behavior and welfare, exercise physiology, functional genomics and bioinformatics, growth biology and meat science, lactation biology, non-ruminant nutrition, nutritional and digestive physiology, microbiology, reproduction and endocrinology, ruminant nutrition, skeletal physiology, somatic cell nuclear transfer, and toxicology. Research for theses or dissertations may focus on beef or dairy cattle, sheep, swine, horses, poultry, or fur-bearing and laboratory species. Modern animal, computer, and library facilities support research.

II. APPLICATION AND ADMITTANCE are per the procedures and policy outlined in Appendix A-15

III. PROGRAM COMPONENTS/DEGREE REQUIREMENTS

A. Master of Science Program

1. The Master of Science degree is offered under two programs:

- 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. 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 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 established by the student and the major professor. 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) and one of these must have a majority appointment in the Department of Animal

- Science and one must have a majority appointment in a department other than Animal Science.
- d. The responsibilities of the guidance committee
 - 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 Dean of the Graduate School may grant an exemption to allow a non-tenure stream faculty member or academic specialist to serve on the guidance committee as one of the required MSU faculty members (but not as major professor). In addition, the department chair may grant an exemption to allow an emeritus faculty member to serve as one of those required MSU faculty members (but not as major professor).
 - f. The composition of the guidance committee will be submitted to the department chair for approval. To ensure uniform standards across the department, the chair may add one appropriate member to the guidance committee.
 - g. If there is a need to change the composition of the guidance committee, the College Master's Program Change Form (see Appendix A-12) must be completed and signed by the major professor, the chair and the dean. The committee members who will remain on the committee should be informed of the anticipated change in composition and consulted in naming a replacement.

3. Academic Program and Course Work

- a. Students will file before the end of their second semester a Master of Science Degree Proposed Academic Program (Appendix A-1), which lists the members of the guidance committee, the proposed courses, and any special recommendations set forth by the guidance committee. This form must be signed by the guidance committee, the student, department chairperson, and dean. Also required is the Committee Information Form (Appendix A-1&2a) listing guidance committee members and their information.
- 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 required credits at or above the 800 level. The student is required to take a graduate-level research ethics course (Responsible Conduct of Research series or PKG 891 is suggested) and a seminar course (ANS/FSC 892, Food Science Seminar) as part of the minimum required 30 credits.
- 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. A maximum of six credits of independent study (ANS 890) is allowed for Plan A.
- d. No more than six credits of Master's research (ANS 898) and/or advanced independent study (ANS 890), which count toward the 800 level credit requirement, can be credited in Plan B. The courses that will be counted toward the required 30 credits are presented by the student and major professor as the academic program (Appendix A-1), to the guidance committee, which has final authority. The academic program should be established no later than the end of the second semester after admission into the program. Courses taken on a credit-no-credit basis will not count toward the graduate degree.
- e. Students must maintain a grade point average (GPA) of at least 3.0 to retain an assistantship. Regular status students will be allowed one semester to bring their GPA equal to or greater than 3.0 for retention of the assistantship and two semesters for retention as a graduate student. New 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.

- f. 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.

4. Annual Progress Report

- a. Each student must complete an annual progress report (Appendix A-8) as described in VI.D.

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

- a. The Master's thesis is a written description of the student's Master's research that is generally organized such that the document contains 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.
- b. Salient features of the scholarly activity 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 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.
- d. 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 chairperson, and dean.
- e. 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 scheduling a final exam, 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. and Ph.D. Final Defense Form (Appendix A-9) must be signed by the major professor, a guidance committee member, and the graduate coordinator prior to the defense. The student must not put the guidance committee into jeopardy by assuming that the student's commitments take precedence over this timetable.
- f. 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 (see section V.B.2.f).

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 insure 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.
- e. The student must be enrolled in at least one credit in the semester of thesis defense.
 - 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).
 - g. At least 75% of the committee must judge the student's thesis/scholarly activity and/or defense to be acceptable. If not, 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 department chairperson and graduate committee by final report (Appendix A-7) 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 department chairperson and graduate committee by formal report (Appendix A-7) (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. The instructions for electronic submissions are available from <http://grad.msu.edu/etd/>. The target date for the **FINAL APPROVAL** of an electronic thesis to the Graduate School for graduating the semester of that submission is FIVE working days prior to the first day of classes for the next semester (see future target dates below). **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. Final documents for graduation will not be submitted from the Department to the College for approval until the Department graduate administrative assistant has been forwarded the email confirmation from the Graduate School that the thesis has been successfully submitted.

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. A short online exit survey for all students graduating with a Plan A or Plan B Masters was introduced May 9th of 2011. 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/>

B. 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. 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 who must have an appointment, including adjunct, in the Department of Animal Science) and shall be established by the student and the major professor. At least four members should be regular MSU faculty (those appointed under the rules of tenure with the rank of assistant, associate or full professor) and one of these must have a majority appointment in the Department of Animal Science and one must have a majority appointment in a department other than Animal Science.
- 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) is chosen by the committee members. It is the chair's responsibility to coordinate administration of all examinations required for the Ph.D. degree. The chair will insure 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.
- e. The Dean of the Graduate School may grant an exemption to allow a non-tenure stream faculty member or academic specialist to serve on the guidance committee as one of the required MSU faculty members (but not as major professor). In addition, the department chair may grant an exemption to allow an emeritus faculty member to serve as one of those required MSU faculty members (but not as major professor).
- f. The composition of the guidance committee will be submitted to the department chair for approval. To ensure uniform standards across the department, the chair may add one appropriate member to the guidance committee.
- g. If there is a need to change the composition of the guidance committee, the College Ph.D. Program Change Form (see Appendix A-13) must be completed and signed by the major professor, the chair and the dean. The committee members who will remain on the committee should be informed of the anticipated change in composition and consulted in naming a replacement.

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 1), seminars, and teaching experience.

- b. Students must file the Report of the Guidance Committee-Doctoral and Other Programs (Appendix A-2). This form lists members of the guidance committee and courses to be taken and any special recommendations set forth by the guidance committee. This form must be signed by the guidance committee, the student, department chairperson, and dean. The academic program can also be submitted through GradPlan (go to <https://login.msu.edu/?App=J3205> to access process).
- c. 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 24 course credits (400 level or above with at least 12 of those credits at or above the 800 level) 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). Courses to be taken are determined by the guidance committee. Courses taken on a credit-no-credit basis will not count toward the graduate degree.
- d. Students must take at least 24 credits of doctoral dissertation research (ANS 999).
- e. The student is required to take a graduate-level research ethics course (Responsible Conduct of Research series or PKG 891 is suggested) as part of the program of study, if not taken as part of the requirements for the Master's degree, and a seminar course (ANS/FSC 892, Food Science Seminar).
- f. Students are limited to a maximum of eight independent study credits (ANS 890).
- g. Students must maintain a grade point average (GPA) of at least 3.0 to retain an assistantship. 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. New 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.
- h. 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.
- i. 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.

3. Annual Progress Report

- a. Each student must complete an annual progress report (Appendix A-8) as described in VI.D.

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 (Appendix A-3).
- 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 (Appendix A-7). 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.
 - 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. candidate is prepared to take the Ph.D. comprehensive examination and that the candidate 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) will be 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 is border-line, 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.
- h. In order to pass the comprehensive exam, 80% of the committee must agree that performance on the written and oral exam 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 exams 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 a formal report to the graduate administrative support person within 7 days of said comprehensive exam. The department chairperson signs the form and it is then forwarded to the dean of the college (Appendix A-4).

6. Doctoral Dissertation and Final Oral Examination

- a. The Ph.D. dissertation is a written description of the student's Ph.D. research that is generally organized such that the document contains 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.
- b. It is common practice to prepare dissertation chapters in manuscript form for subsequent submission to peer-reviewed journals. 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.
- c. 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/>).
- d. Every doctoral student must successfully defend their Ph.D. dissertation, which is based on the original research project that is evaluated by the guidance committee during the dissertation proposal defense, before their guidance committee.
- e. The student must be enrolled for at least one credit in the semester of dissertation defense.
- f. 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.
- g. The dissertation must be circulated to members of the guidance committee at least 14 days prior to

the Ph.D. final exam. Prior to scheduling a final exam, the dissertation must be considered acceptable for the final exam by the student's advisor and one guidance committee member. The Approval to Schedule M.S. and Ph.D. Final Defense Form (Appendix A-9) must be signed by the student's major professor, a guidance committee member and the graduate coordinator prior to the defense. The student must not put the guidance committee into jeopardy by assuming that the student's other commitments take precedence over this timetable.

- h. The dissertation will be presented in the form of a seminar to members of the university and public. 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 seminar will immediately precede the final defense (oral examination) of the dissertation before the guidance committee.
- i. 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.
- j. After the Ph.D. final exam, the chair of the guidance committee should submit formal reports to the graduate administrative support person (Appendices A-5 and A-7) The department chairperson signs the forms and The Record of Dissertation and Oral Examination Requirements for Doctoral Degree Candidate (Appendix A-5) is forwarded to the dean.
- k. 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 administrative support person.
 - 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 formal reports to the graduate administrative support person (Appendices A-5 and A-7). The department chair then forwards The Record of Completion of Dissertation and Oral Examination Requirements for Doctoral Degree Candidates (Appendix A-5) to the dean of the college.
- l. While not a requirement, there is the expectation that a Ph.D. student will submit a portion or all of the dissertation research to a peer-reviewed journal(s) for publication (see section V.B.2.f).
- m. MSU **only accepts** electronic dissertations submitted via ProQuest. The instructions for electronic submissions are available from <http://grad.msu.edu/etd/>. The target date for the **FINAL APPROVAL** of an electronic dissertation to the Graduate School for graduating the semester of that submission is FIVE working days prior to the first day of classes for the next semester (see future target dates below). **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.
- n. Final documents for graduation will not be submitted from the Department to the College for approval until the Department graduate administrative assistant has been forwarded the email confirmation from the Graduate School that the dissertation has been successfully submitted.

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 at least six credits of graduate work each semester.

8. Full Time Status

- a. Full time status for doctoral students 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.

9. MSU Graduate School Exit Survey

- a. A short online exit survey for all students graduating with the Ph.D. degree was introduced May 9th of 2011. 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/>

C. Animal Science Theses/Dissertations Libraries

1. Locations of Theses/Dissertations Accepted by the Department

- a. University Library
- b. Reading Room - 3385 Anthony Hall

D. 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 specialization in environmental toxicology, 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.
 - 1) For more information see <http://cit.msu.edu/Graduate%20Program/masters.html> .
 - 2) The student's program of study must be approved by the major professor and the guidance committee.
 - 3) The student must have a 3.0 grade point average in the courses that are used to satisfy the requirements for the specialization.
 - 4) The student must complete ACR 846 (Law of Environmental Regulation, three credits), CSS 865 (Environmental Fate of Contaminants, three credits), ANS 827 (Integrated Risk Assessment of Environmental Hazards, three credits) or ESP 803 (Human and Ecological Health Assessment and Management), PHM 450 (Introduction to Chemical Toxicology, three credits) or PHM 816 (Integrative Toxicology, three credits), and one course from the

elective course list, which can be accessed through the home page of the Center for Integrative Toxicology (<http://www.iet.msu.edu/intro.htm>).

- 5) The student must attend a minimum of six approved seminars in environmental toxicology. Toxicology Track, the CIT electronic newsletter, lists the approved seminars.
 - 6) Upon completion of the requirements for the Master's degree and the requirements for the specialization in environmental toxicology, the student should contact the graduate program administrative support person and request certification for the completion of the specialization. After the certification is approved by the department chairperson and the dean, the Office of the Registrar will enter on the student's record the name of the specialization and the data that it was completed. The certification will appear on the student's transcript.
- b. **Doctoral Program** - The department offers a Ph.D. degree program in animal science/environmental toxicology. This program represents study in the disciplinary major of animal science combined with study in environmental 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 environmental toxicology component of the program. In partial fulfillment of the environmental toxicology component, all students must complete one of two tracts: the environmental tract or the toxicology tract. When all of the requirements for the degree have been met, both the department chairperson and the director of the Multidisciplinary Training Program in Environmental and Integrative Toxicological Sciences will recommend the student for the degree.

For more information see <http://cit.msu.edu/Graduate%20Program/doctoral.html>.

- 1) A student must be accepted for graduate study in the Department of Animal Science before applying for admission to the Multidisciplinary Training Program in Environmental and Integrative Toxicological Sciences. Admission to the program is by CIT faculty approval. A student seeking admission must have earned at least a Bachelor's degree; have completed it with a minimum grade point average of 3.0; have sufficient credits in the biological, behavioral, and physical sciences to indicate probable success in the program; have been accepted as an advisee by a member of the CIT faculty (see XI.A. for participating Animal Science faculty).
- 2) The major professor from the Department of Animal Science and at least one other faculty member of the guidance committee must be members of the CIT faculty.
- 3) The student must have a 3.0 grade point average in the courses that are used to satisfy the requirements for the degree.
- 4) If the **toxicology track** is followed, the student must take PHM 980 (Biostatistics, three credits), PHM 819-01 (Biological Fate of Drugs and Chemicals, one credit), PHM 816 (Integrative Toxicology; Mechanisms, Pathology, and Regulation, three credits), BMB 960 (Genomics, one to two credits) or a comparable course, Special Topics in Toxicology (one credit), and one course from a list of approved electives (see <http://www.iet.msu.edu/intro.htm>).
- 5) If the **environmental track** is followed, the student must take CSS 865 (Environmental Fate of Contaminants, three credits), ANS 827 (Integrated Risk Assessment of Environmental Hazards, three credits) or ESP 803 (Human and Ecological Health Assessment and Management, three credits), PHM 450 (Introduction to Chemical Toxicology, three credits) or PHM 816 (Integrative Toxicology; Mechanisms, Pathology, and Regulation, three credits), and two courses selected from among approved elective courses in two interest groups (see <http://www.iet.msu.edu/intro.htm>).

- 6) The student must attend at least 12 approved seminars in environmental toxicology. Toxicology Track, the CIT electronic newsletter, lists the approved seminars.
- 7) The student must complete a Ph.D. dissertation, the topic of which must be in a broad area of toxicology and acceptable to the Multidisciplinary Training Program in Environmental and Integrative Toxicological Science's Admissions and Policy Committee.
- 8) When all of the requirements for the degree have been met, both the department chairperson and the director of the Multidisciplinary Training Program in Environmental and Integrative Toxicological Sciences will recommend the student for the degree.

IV. SELECTION OF THESIS/DISSERTATION ADVISOR

A. Department Guidelines

1. Initial Selection of Major Professor

- 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 (www.ans.msu.edu).

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. Department of Animal Science faculty members and their research, teaching and/or extension appointment are provided in XI.A.

3. The General Role of the Major Professor

- a. An advisor, willing to share his/her professional knowledge
- b. A supporter, giving emotional and moral encouragement
- c. A tutor, giving specific feedback on a student's performance
- d. A master, in the sense of employers to whom one is apprenticed
- 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
- 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 construction

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. 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
- j. Writing letters of reference for appropriate fellowship, scholarship, award, and job opportunities
- k. 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 an expectation 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. The student and/or faculty member may be requested to take advantage of the conflict resolution workshops offered by the Graduate School (<http://grad.msu.edu/conflictresolution/>). 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.

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 academic program	By the end of the second semester after initiation of the degree program (Appendix A-1)	By the end of the second semester after initiation of the degree program (Appendix A-2)
Submission of annual progress report	Late January of <u>each</u> year in the degree program (Appendix A-8)	Late January of <u>each</u> year in the degree program (Appendix A-8)
Submission and defense of Ph.D. dissertation proposal	Not applicable	At least 14 days prior to the defense of the dissertation, which must occur by the end of the fourth semester after initiation of the degree program (Appendix

		A-3)
Written and oral Ph.D. comprehensive exam¹	Not applicable	By the end of the seventh semester after initiation of the degree program (Appendix A-4)
Submission of thesis/dissertation to guidance committee²	At least 14 days prior to the defense of the thesis (Appendix A-9)	At least 14 days prior to the defense of the dissertation (Appendix A-9)
Announcement of thesis/dissertation defense seminar	At least seven days prior to the defense of the thesis	At least seven days prior to the defense of the dissertation
Thesis/dissertation defense	By the end of the fifth year after initiation of the degree program (Appendix A-7)	By the end of the eighth year after initiation of the degree program (Appendices A-5 and A-7)

¹If 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.

²Deviation 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.

V. 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 the academic program plan (Appendix A-1 for Master's and Appendix A-2 or list included in GradPlan for Ph.D.).
- b. The student must have successfully completed the final oral and written exams and the forms submitted as outlined above (MS - Appendix A-7, Ph.D. - Appendices A-5 and A-7).
- c. The student must be enrolled for at least one credit during the semester that the final oral exam is taken.
- 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, he/she must provide a bound copy of the thesis/dissertation to the major professor and to the department. A copy of the thesis/dissertation is submitted electronically to the Graduate School (see <http://grad.msu.edu/thesisdissertation/submissionpacket.aspx>) by the date specified on the Graduate School's web page (see <http://grad.msu.edu/thesisdissertation/>).

2. University/Graduate School Information

- a. The student must apply for graduation by completing an Application for Graduation form (Appendix A-10; see <http://www.reg.msu.edu/stuforms/gradapp/gradapp.asp>) and submitting it on line or to the Registrar's Office (150 Administration Building). 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/> under "Current Students" in the menu at the top
- c. An abstract and title page prepared in accordance with The Formatting Guide for Master's Thesis and Doctoral Dissertations.
- d. An additional copy of the abstract and an abstract title page.
- e. One loose copy of the thesis/dissertation bookplate signed and dated by the major professor.
- f. A completed and signed University Microfilms Contract Agreement.
- g. The new publishing agreement for thesis/dissertations with ProQuest now provides an "Open Access Publishing Option" as an alternative to the traditional publishing option available to students. The Open access option gives ProQuest the authorization to make the electronic version of the document accessible to all via the internet, including the selling of the document by commercial retailers and the accessibility to the work via search engines. A student selecting the Open Access option will not be eligible to receive royalties. The advantages and disadvantages of selecting this new option differ significantly across disciplines. For more information visit: http://proquest.com/products_umi/dissertations/epoa.shtml.
- h. A check or money order payable to MSU Account #21-2541 for a processing fee.
- i. A completed and signed form (Appendix A-11) indicating approved use of human or animal subjects for thesis/dissertation research (see VII.B.2 and VII.B.3).
- j. 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.
- k. 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.

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. Graduate Assistantships

1. Description of Graduate Assistantship – see Graduate School website:

<http://grad.msu.edu/assistantships/docs/assistantship.pdf>

2. Graduate Assistants in the Animal Science Department

- a. Graduate Assistants in the department are research assistant (GRAs)
- b. GRAs in the department are funded by professors from their grants or programs
- c. A graduate assistantship funded by a professor from a grant does not transfer with the student if the student changes advisors
- d. Retention of a graduate assistantship is subject to availability of funds and the same research standards as graduate student status (section VI. D. 2.)

- e. The graduate 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.
- f. Outside employment for graduate assistants is discouraged. Before beginning outside employment, the student should discuss with the major professor the outside employment and how the assistantship obligations will be fulfilled.

C. Financial Assistance for Graduate Students

1. **Externally Funded Fellowships and other opportunities – see Graduate School website:**
<http://grad.msu.edu/funding/>

D. Academic Policies

1. Review of Academic Performance

- a. The review takes place annually in late January.
- b. Based on the standardized format (Appendix A-9), 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 in turn forwards it to the 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 completed in a timely manner according to the schedule presented in III.A, 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 two semesters 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) Approval of the thesis/dissertation research proposal
 - 5) For Ph.D. degree, successful completion of the written and oral comprehensive examinations
 - 6) In addition, 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 (Appendix A-8) 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.

E. 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.A, 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.

F. 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://grad.msu.edu/gsrr/docs/GSRR.pdf>
- 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.

G. 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.

H. 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) – See www.ans.msu.edu in the “Graduate Student” section

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.
- a. 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.
- b. 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.
- c. 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.
- d. Compliance with institutional and sponsor requirements
- e. Protection of human subjects and humane care of animals in conduct of research
 - 1) 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.
- f. 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.
- g. 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, or 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 Intellectual Integrity Officer, and to protect the rights and privacy of individuals making such reports in good faith.
 - e. Faculty, staff and students are strongly encouraged to attend the series of workshops on the responsible conduct of research sponsored by the Offices of the Vice President for Research and Graduate Studies and the Dean of the Graduate School. Information is available at <http://grad.msu.edu/rcr/>.

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://www.animalresearch.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 (Appendix A-11) 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://www.animalresearch.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, which, at Michigan State University, is the University Committee on Research Involving Human Subjects (UCRIHS), prior to the activity beginning (see <http://www.humanresearch.msu.edu/>). Graduate students whose thesis/dissertation includes research involving human subjects must provide the graduate school with the approval number (Appendix A-11) and a copy of the UCRIHS approval letter.

7. Office of Radiation, Chemical and Biological Safety (ORCBS) 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 live and on-line by ORCBS (<http://www.orcbs.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, call ORCBS 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 work place 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) Office of Radiation, Chemical, and Biological Safety, 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

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. Participation in the conflict resolution workshops offered by the Graduate School (<http://grad.msu.edu/conflictresolution/>) is strongly recommended.
 - 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 ombudsman.
 - 5) Appearance before department board for adjudication (DBA).
Please refer to Appendix A-14 for procedure.
 - 6) College Graduate Hearing Board
 - i. 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
 - ii. 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. The Guidelines for the Integrity in Research and Creative Activities

- a. See <http://grad.msu.edu/publications/docs/integrityresearch.pdf>
- 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.”
- c. If conflicts of interest exist between students and faculty or between students, resolution of the conflicts should follow the sequence of events presented in VIII.B.

VIII. WORK RELATED POLICIES

A. Vacation

1. Each student is encouraged to take two weeks vacation per year.
2. 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. Travel/Transportation

1. Authorization for Travel

- a. The travel authorization portion of the travel voucher should be submitted and approved *before* the travel occurs. The form 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 forms are available on line in the Controller’s website
- b. Be aware that travel reimbursement may be denied if the travel authorization has not been submitted 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 before driving a University vehicle.

3. Travel Accident Insurance

- a. Provides coverage for accidental death or dismemberment while traveling on authorized university business. Coverage is extended to employees *excluding* employees on leave, *student employees, and graduate assistants*.
- b. Given the above definitions, university policy and regulations regarding student travel may be summarized as follows (MSU Travel Regulations – <http://ctrl.msu.edu/combp/mbp70.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. Visit the “Travel Smart” website (<http://grad.msu.edu/travel/>) before traveling.
- 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.
- 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/resources/travel.htm>).
- e. Apply for assistance with travel funding via the graduate school. 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 Dean’s Office of the College of Agriculture and Natural Resources or the Graduate School.

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.

C. 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. Graduate and undergraduate students are required to pay a \$10 cash deposit fee that is refunded when keys are returned.
- 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. University Stores – ordering is online, refer to the university stores catalog for descriptions and catalog numbers for items needed. 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
- 6. Room Scheduling**
 - a. Department conference rooms are reserved through the main office.
 - 1) Conference Room 1240 will seat approximately 55 and Conference Room 1310 will seat approximately 75.
 - 2) No regularly scheduled classes are to be held in conference rooms.
 - 3) Department of Animal Science has first priority for scheduling rooms.
 - 4) Non-Animal Science groups will be charged a rate of \$25. Cost of any additional cleanup will be charged back to the group that reserved the room.
 - 5) Coffee pots must be checked out from the main office.
 - 6) The use of the outside speaker telephone must be reserved in the main office and an information sheet must be filled out detailing the use and billing of charges. 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 at http://www.orcbs.msu.edu/controlled_substances/controlled_substances_toc.htm, to aid in this process.**
- 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 Jamie Pratt and she will assign you 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 store room.

10. Graduate Student Desk Assignments

- a. Main office personnel make graduate student desk assignments. An attempt is made to provide desk space for all graduate students. Any change should be cleared through the main office.

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 Office of Radiation, Chemical, and Biological Safety (ORCBS) introductory safety training sessions that are offered live and on-line by ORCBS. Information on this and other training offered by ORCBS is available on the ORCBS web site (<http://www.orcbs.msu.edu>), the ORCBS newsletter Safe Science, and the training telephone hot line (432-SAFE). Federal law mandates this training and the university must assure that all personnel handling radiation, chemicals, biological materials and/or recombinant DNA.

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) ORCBS 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.

D. Emergency Situations

1. Evacuation Procedures

- a. Please be familiar with the evacuation procedures for all emergencies. For more details on emergency procedures for Anthony Hall, please refer to the departmental web site. From the homepage at www.ans.msu.edu select Our Community > Emergency Procedures.

VIII. DEPARTMENTAL ORGANIZATION

E. Faculty

1. List of faculty

- a. Animal Science website at www.ans.msu.edu

F. Animal Science Resource People

1. Graduate Student Sources

- a. Dr. Janice Swanson, Chairperson; 1290F Anthony; 355-8384; swansoj@anr.msu.edu
- b. Dr. Steven Bursian, Graduate Student Program Coordinator; 2209C Anthony; 355-8415; bursian@msu.edu
- c. Kathy Tatro, Graduate Student Program Administrative Support; 1290 Anthony; 355-8417; tatro@msu.edu
- d. Jamie Pratt, ANS Business Manager; 1290H Anthony; 355-8430; prattj@msu.edu
- e. Dr. Jason Knott; Graduate Committee Chair; 1230H Anthony; 432-5446; knottj@msu.edu
- f. Dr. Adam Lock; Graduate Committee Member; 2265H Anthony; 353-8714; allock@msu.edu
- g. Dr. Janice Siegford; Graduate Committee Member; 2265E Anthony; 432-1368; siegford@msu.edu
- h. Melissa Elischer, Graduate Student Representative for the Animal Science Graduate Student Association (ASGSA); 3270 Anthony, 432-6163; elischer@msu.edu

G. 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 and associate chairperson 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. Functions of the committee
 - 1) 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.
 - 2) 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.
 - 3) Review and make recommendations to the department on matters relative to advising undergraduate students.
 - 4) 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 ombudsman 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) Advise department chairperson on the allocation of assistantships

H. 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 arms 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- 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.

IX. UNIVERSITY RESOURCES

A. Academics and Research

1. Useful Websites

- b. Academic Programs Catalog - <http://www.reg.msu.edu/AcademicPrograms/Default.asp>
- c. CIC Traveling Scholar - <http://grad.msu.edu/cic/>
- d. Course Description and Catalog Search - <http://www.reg.msu.edu/Courses/Search.asp>
- e. Graduate Forms On-line - <http://grad.msu.edu/forms/>
- f. MSU Technologies (formerly Office of Intellectual Property) - <http://www.technologies.msu.edu/>
- g. Michigan Intercollegiate Graduate Studies (MIGS) - <http://grad.msu.edu/migs>
- h. Ombudsman - <http://www.msu.edu/unit/ombud>
- i. Spartan Life: Student Handbook and Resource Guide - <http://www.vps.msu.edu/SpLife/>
- j. Teaching Assistants Program - <http://tap.msu.edu>
- k. Workshops for Students, Faculty and Staff - <http://grad.msu.edu/workshops/>

X. APPENDIX

College of Agriculture and Natural Resources & Animal Science Department Forms

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Appendix A-1

**COLLEGE OF AGRICULTURE AND NATURAL RESOURCES
MASTERS OF SCIENCE DEGREE PROPOSED ACADEMIC PROGRAM**

(To be submitted before student's second semester)

_____ Plan A _____ Plan B _____
LAST NAME First Name Middle PID No.

DEPARTMENT Semester Admitted

Tentative Thesis/Research Topic

PROGRAM OF STUDY (Group Courses by Departments):

PROGRAM COURSES

<u>Course & Number</u>	<u>Course Title</u>	<u>Credits</u>	
_____	_____	_____	Total Course Credits: _____
_____	_____	_____	Plan A Research Credits (or) _____
_____	_____	_____	Plan B Research Credits _____
_____	_____	_____	TOTAL PROGRAM CREDITS _____

COLLATERAL COURSES

<u>Course & Number</u>	<u>Course Title</u>	<u>Credits</u>	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SIGNATURES

DATE

Student: _____

Major Professor: _____

1. _____

2. _____

3. _____

Dept. Chair: _____

Dean: _____

Appendix A-2

Report of the Guidance Committee – Doctoral and other Programs

This form may be accessed at

<http://grad.msu.edu/forms/docs/guidancecommittee.pdf>

Doctoral Programs can also be entered through GradPlan at the following site:

<https://login.msu.edu/?App=J3205>

Appendix A-1&2a

ANS Graduate Student Committee Information (MS & PHD)

Name _____ Date _____

PID _____ Degree _____

Start Semester _____

Semester committee officially started _____

Major Professor (MS& PhD) _____

Committee Chair (PhD only) _____

List all committee members' names, their rank*, affiliation**, and email (Please print clearly)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

(If needed) _____

Please remember that a *Program Change Form* needs to be completed & submitted if there is any change to the makeup of your committee or program after it has been started.

Please submit this form when completed *Proposed Academic Program* form is submitted.

*Professor, Assoc. Prof., Asst. Prof., Academic Spclst. etc.

**Institution, job title, area of interest, etc.

Appendix A-3

Date _____

Department of Animal Science
DOCTORAL RESEARCH PROPOSAL

Student Name: _____

Title of Proposal: _____

Date of Seminar: _____

Written Proposal

<u>Committee Members</u>	<u>(P) Pass or (F) Fail</u>	<u>Field</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Oral Presentation

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Signed _____
Graduate Coordinator Date

Appendix A-4

Record of Comprehensive Exams

This form may be accessed at
<http://grad.msu.edu/forms/docs/completionexam.pdf>

Appendix A-5

Record of Dissertation and Oral Examination Requirements for Doctoral Degree Candidate

This form may be accessed at
<http://grad.msu.edu/forms/docs/completionrequirements.pdf>

Appendix A-6

MICHIGAN STATE UNIVERSITY
DEPARTMENT OF ANIMAL SCIENCE

REQUEST TO INITIATE DOCTORAL PROGRAM
BY PRESENTLY ENROLLED M.S. STUDENTS

Request by Student:

Name _____ PID _____ Date _____

Proposed Doctoral Area _____

I expect to complete the requirements for my M.S. degree in _____

(Month)

during the semester of _____, and hereby, request that I be considered

for transfer to the indicated doctoral program. Attached is a copy of my "Report of Major Professor," to use for evaluation.

(Student Signature)

Department Action:

It is () recommended, () not recommended, that the transfer to the indicated doctoral program be approved.

M.S. Advisor _____ Date: _____

Graduate Committee Chair _____ Date: _____

Graduate Committee Member _____ Date: _____

Graduate Committee Member _____ Date: _____

Department Chairperson _____ Date: _____

**APPENDIX A-8
GRADUATE STUDENT**

Annual Progress Report

Contact Dr. Bursian (bursian@msu.edu) for the current year's form.

Appendix A-10

Application for Graduation

This form may be accessed at
<https://www.reg.msu.edu/StuForms/GradApp/GradApp.asp>

Appendix A-11

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING HUMAN OR ANIMAL SUBJECTS

The Graduate School
Michigan State University
118 Linton Hall

University and federal policies and procedures require that **all** research involving human or animal subjects receive prior approval from the appropriate review board. (See Faculty Handbook, p. 116-117 and the Academic Programs book, p. 60.)

HUMAN SUBJECTS

Does the thesis or dissertation you are submitting include research involving human subjects or materials of human origin? (Research involving human subjects includes surveys and telephone interviews used for research; materials of human origin include human blood and /or tissue.)

Yes No

If yes, indicate UCRIHS log number for the approved protocol and attach the UCRIHS approval letter for that protocol to this form.

UCRIHS Log Number:

ANIMAL SUBJECTS

Does the thesis or dissertation you are proposing to submit include research involving vertebrate animals in any way?

Yes No

If yes, and an animal use form was submitted to the All-University Committee on Animal Use and Care (AUCAUC), please list the approval number below and attach a copy of the AUCAUC approval letter to this form.

AUF Number:

If yes, but your project did not need an animal use form, provide a copy of the letter from the AUCAUC which cites the relevant exclusionary policy.

Student's Name (print)

Major Professor's Name (print)

Student's Signature

Major Professor's Signature

Appendix A-12

College of Agriculture
and Natural Resources
Master's Program Change Form

Date: _____

Department: _____

Student's Name: _____

Student's Number: _____

CHANGE PLAN TO: Plan A _____ Plan B _____

PROGRAM CHANGE

Additions:

Deletions:

ADVISER CHANGE

New Adviser's Name: _____

New Adviser's Signature: _____

Present Adviser's Signature: _____

Date: _____

Director's Signature: _____

Date: _____

Dean's/Associate Dean's Signature: _____

Date: _____

Appendix A-13

Doctoral Program Change Form

Date: _____

Department: _____

Student's Name: _____

Student's Number: _____

PROGRAM CHANGE

Additions:

Deletions:

CHANGE IN COMMITTEE

New Member's Name: _____

New Member's Signature: _____

Committee Chair's Signature: _____

Date: _____

Director's Signature: _____

Date: _____

Associate Dean's Signature: _____

Date: _____

Appendix A-14

**ANS Academic Grievance Hearing Procedures
for Graduate and Undergraduate Students**

http://expeng.anr.msu.edu/uploads/files/63/animal_science_bylaws%205-2012.pdf

In the document above please refer to the table of contents for the pages where the procedure is outlined.

Appendix A-15

ANIMAL SCIENCE ENDOWMENTS

Michigan Livestock Industry Scholarship

Used to assist worthy students at MSU who plan careers in the livestock industry. The fund also provides means of honoring outstanding individuals, living or deceased, who have performed distinguished services for the livestock industry of Michigan.

Charles E. Wilson

Scholarship for post-graduate work in studies of animal breeding, especially hybrid crosses and animal diseases, particularly those that are hereditary.

J.W. Thomas Enrichment

To provide support to Dairy Nutrition graduate students for professional development opportunities. Applications can be obtained from Dr. David Beede.

Richard and Dana Balander Endowed Fund in Avian Species

Scholarship to be given to honor and encourage students to pursue a career in avian species. To support specific research project(s) in the avian species studies. Applications can be obtained from Dr. Richard Balander.

Animal Science Graduate Enrichment Fund

To encourage academic excellence by giving graduate students in the Department of Animal Science unique educational opportunities. Funds can be used for assistantships, enrichment and intensification of training, and special meetings and workshops. A letter of request can be submitted to the chair of the Graduate Committee at any time.

G.R. Hartsough Endowed Scholarship in Fur Animal Studies

Scholarship to honor and encourage MSU students with declared majors that can be linked to the fur animal industry. Students involved in the following colleges are eligible for this award: College of Agriculture and Natural Resources, College of Veterinary Medicine, and College of Natural Resources. A call for applications is sent to department chairs in November.

Jacob (Jake) A. Hoefer Endowed Fellowship

Fellowship for Ph.D. candidates in Animal Science. A call for applications will be made by the chair of the Graduate Committee.

SCHOLARSHIPS, FELLOWSHIPS, AND AWARDS

National Feed Ingredients Association Scholarship (NFIA)

Graduate and undergraduate students interested in animal agriculture, livestock nutrition, and agribusiness. NFIA, One Corporate Place, Suite 375, West Des Moines, IA, \$1,000. **Deadline: March 15**

Walker Hill Scholarship

Graduate doctoral student interested in travel for predissertation research in country outside the U.S. (international students: research in own country does not qualify). International Studies and Programs, Office of the Dean. \$1,300. **Deadline: February**

Salt Institute, Tony J. Cunha - Graduate Research Award

Graduate students conducting research to promote an understanding of the role of salt and/or salt as a carrier for trace minerals in animal nutrition. Salt Institute, 700 N. Fairfax St., Fairfax Plaza, Suite 600, Alexandria, VA 22314-2040. \$1,500. **Deadline: May**

Thoman Fellowship Program

International students interested in food, nutrition, hunger, and poverty. Primarily a capstone program for doctoral students near the completion of their degree. Institute of International Agriculture. \$2,500. **Deadline: March**

American Society for Nutritional Sciences (ASNS) Predoctoral Fellowship Program

Outstanding doctoral graduate student in nutritional science research. Submission of research proposal. Four awards annually. \$5,000. **Deadline: December**

American Society for Nutritional Sciences (ASNS) Graduate Student Research Awards

Graduate students in nutrition interested in participating in research award program. Submission of ASNS abstract, certified by ASNS member. Twelve awards annually. \$500 travel award to ASNS Annual Meeting. \$500 additional for top three paper presentations. **Deadline: November**

National Pork Producers Council (NPPC) Swine Industry Award

Graduate students who are engaged in research and teaching relevant to the swine industry. Three awards (\$500) in applied research, basic research, and education. Submission of abstract for Midwest ASAS meeting, endorsement of Department Chairperson. **Deadline: November**

Animal Health Institute Foundation

Recognize outstanding scientific achievement by graduate student for original research with significant or potential applicability to health or nutrition of agricultural or companion animals. \$1,500. **Deadline: January**

Department of Animal Science Application and Admittance Policies & Procedures

A. Application

1. A complete application for graduate study (<http://grad.msu.edu/apply/>) in the Department of Animal Science will include all items requested by the Office of Admissions. These items are: application, transcripts, and application fee. The department application procedure is described in more detail at http://www.ans.msu.edu/ans/application_process
2. In addition, the Department of Animal Science requires a comprehensive statement of purpose for graduate study and presentation of a professional goal.
3. Scores from the Graduate Record Exam (GRE) are required along with the [ETS Personal Potential Index \(PPI\)](#) (The PPI is not required but highly recommended).
4. Individuals who are completing the Master's degree in animal science and wish to continue working toward a Ph.D. degree within the department should submit the Request to Initiate Doctoral Program by Presently Enrolled M.S. Students (Appendix A-6) as well as the completed Departmental Report of the Graduate Guidance Committee (Appendix A-7) to the Graduate Student Program Coordinator (hereafter referred to as the graduate coordinator) who in turn will forward the forms to the department Graduate Student Affairs and Curriculum Committee (hereafter referred to as the graduate committee).

B. Admittance

1. All applications will be reviewed by the graduate committee to determine acceptability. To be accepted as a graduate student in the Department of Animal Science, an applicant must: (a) satisfy all criteria reviewed by the graduate committee and (b) be accepted by a regular faculty member (as defined in the [Faculty Handbook](#), "The 'regular faculty' of Michigan State University shall consist of all persons appointed under the rules of tenure and holding the rank of professor, associate professor or assistant professor.")
2. Criteria for acceptance are:
 - a. The applicant must have a cumulative grade point average of at least 3.0 out of 4.0 for at least the last two years of undergraduate study.
 - b. The applicant must state a purpose for graduate study and state a professional goal. The goals stated by the applicant must be consistent with at least part of the current mission of the department.
 - c. GRE scores must be submitted before an application to the Ph.D. or M.S. program can be reviewed. Minimum GRE scores equivalent to the 20th percentile for the Verbal, Quantitative, and Analytical Writing categories are required for regular admittance.
3. An applicant who does not meet these minimum criteria may be admitted into the Department of Animal Science graduate program, but admittance will be on a probationary basis. For a full-time student, the probationary period will be the student's initial semester. To gain regular status within the graduate program, the full-time probationary student must complete six credits of course work and achieve a minimum GPA of 3.0, within the first semester. For a part-time probationary student, the probationary period will be no longer than the first year of enrollment within the program. To achieve regular status, the part-time probationary student must complete six credits of course work within the first year of the program and achieve a minimum GPA of 3.0. Course work taken to relinquish probationary status must be of sufficient rigor to demonstrate the student's potential for achieving success in graduate school and be approved by the graduate coordinator. The graduate coordinator will monitor the progress of probationary students and inform students of change to regular status or dismissal. Probationary students will not be awarded departmentally-funded assistantships.
4. Applications that satisfy the acceptance criteria will be maintained by the graduate secretary for two weeks
 - a. Faculty will be informed by e-mail and the department's weekly electronic newsletter of the

- approved application and the prospective student's interests.
- b. If the prospective student indicates a desire to work with a specific faculty member(s), that faculty member(s) is invited to review the approved application.
 - c. If a regular faculty member expresses a desire to serve as an applicant's major professor, the student is informed of this in writing by the graduate coordinator and is requested to accept or reject the offer.
 - d. If no faculty member expresses a desire to serve as the prospective student's major professor within the two week period, the applicant is notified by the graduate coordinator that admission to the graduate program is denied because a faculty mentor could not be identified.
5. When an applicant is accepted, it is expected that the major professor will generate resources adequate to cover costs of research to complete the degree. Participation by students in writing grant applications is encouraged as an important element of graduate training.
 6. Whether or not resources of the major professor are adequate for a graduate assistantship will be communicated to the applicant by the graduate coordinator.
 7. Acceptance of a graduate student by a regular faculty member not having a research appointment must be approved by the department chairperson. For faculty with a 25 percent appointment or less in research, graduate students can be accepted only for the Master's degree, unless approved by the department chairperson.
 8. ****New requirement** - MSU policy requires a criminal background check for every employee, including those on assistantships. If a student is accepted into the Animal Science graduate program on an assistantship, he/she will receive an electronic disclosure and authorization form from HireRight via e-mail. This must be completed and submitted to initiate the background check. The appointment as an RA will be contingent upon satisfactory results.
 9. In order to be compliant with federal employment requirements, every employee must have an I-9 form on file. For students accepted into the Animal Science graduate program on an assistantship, this form is completed by the student and the department if the student is a domestic student, or by the student and the Office of International Students and Scholars (OISS) if the student is an international student. It requires that the student be present on campus to present documents verifying the right to work within the United States within 3 business days of the start of the appointment. If the student will not be on campus within 3 business days of the start of the appointment period, the appointment start date will be amended to reflect the actual starting date (and will affect the first pay period).
 10. International Student Admission
 - a. Application Process
 - 1) Michigan State University is authorized under immigration regulations to enroll nonimmigrant students and welcomes applications from such persons. An international student is defined as a person holding a nonimmigrant visa.
 - 2) A prospective student should write for instructions and application forms to the Office of Admissions and Scholarships, Administration Building, Michigan State University, East Lansing, Michigan 48824-0210 or visit the University Graduate School's website at <http://grad.msu.edu/> at least one year before the anticipated semester of enrollment. Applications must be filed at least nine months prior to the enrollment date. Two official copies of all records of any previous schooling (mark sheets, transcripts, diplomas, certificates, etc.) must be submitted as official documents directly from each institution. These records must show courses taken and grades earned, and must be translated into English if the original records are in another language. If a translation is supplied, it should be certified as accurate and correct by an appropriate public or school official, or sponsoring agency or government. The original record should also be included. The

chief academic officer of the University has authority to grant waivers of usual entrance requirements upon recommendation of the Dean of The Graduate School.

- 3) If the application for admission is approved, a certificate of acceptance to the University and Form I-20 will be mailed. No prospective international student should plan to enter the United States before receiving both a certificate of acceptance and an I-20. It will be necessary to present the I-20 upon application for a student visa, and again upon arrival in the United States. Students applying for a J-1 Exchange Visitor visa will need to present a Form IAP-66 to obtain a visa. This form is available from the student's sponsor or the Division of International Students and Scholars. The Office of Admissions and Scholarships remains in direct contact with each applicant.
 - 4) Students who enter the United States with a Form I-20 from another institution should be aware that they must enroll at that school before they are eligible to transfer to Michigan State University. Such transfers require *both* formal admission to the University and approval of the U.S. Immigration and Naturalization Service.
 - 5) International students must provide evidence of financial ability to meet their educational maintenance expense for each year of proposed study at MSU before the certificate of acceptance to the University will be mailed. The University may require advance deposit of funds from students whose countries are experiencing severe economic problems or place tight restrictions on exchange of currency into U.S. dollars. Students should not expect financial aid from the University.
- b. English Language Proficiency
- 1) All international applicants for graduate programs whose first language is not English must be able to demonstrate their English language proficiency. Those applicants who do not demonstrate English language proficiency must fulfill the requirements stated below as part of the admissions procedure. Graduate students may be admitted on regular status or on provisional status.
 - 2) Minimum Requirements for Regular Admission
 - a) All international applicants are required to be proficient in English as a condition for *regular* admission to MSU. Applicants whose first language is not English will be required to demonstrate their proficiency by meeting certain minimum standards on any *one* of the following tests:
 - (1) *Test of English as a Foreign Language (TOEFL)* (Educational Testing Service., Box 899, Princeton, New Jersey 08549, USA). A total score of 550 (paper version) or 213 (computer version) or above with no subscores below 52 (paper version) or 19 (computer version) is required. The official report must be received by the English Language Center directly from the Educational Testing Service.
 - (2) *Michigan English Language Assessment Battery (MELAB)* (Testing and Certification Division, The English Language Institute, The University of Michigan, Ann Arbor, Michigan 48109, USA). An average score of 83 or higher with no subscores below 80 is required. The official report must be received by the English Language Center directly from the University of Michigan.
 - (3) *English Language Center Test* (English Language Center [ELC], Michigan State University, East Lansing, Michigan, 48824-1035, USA). An average score of 80 to 85 with no subscores below 80, or an average score above 85 with no subscores below 78 is required.
 - 3) Minimum Scores for Provisional Admission

- a) International applicants who have acceptable academic credentials may be admitted to MSU on a provisional basis with scores between 520 and 550 (paper version) or 190 and 213 (computer version) on the TOEFL or between 72 and 83 on the MELAB or between 72 and 80 on the English Language Center Test.
 - b) Provisionally admitted students must take classes at the English Language Center, and restrictions are placed on the number of academic courses that they may take. Any student admitted provisionally because of an English language deficiency must correct that deficiency within one calendar year.
- 4) Required English Language Center Attendance
- a) As the language requirement is a University policy, a decision by the English Language Center (ELC) for a student to enroll in its program is binding and is not negotiable by the student. Students who are required to attend ELC classes are obligated to show good class attendance and make an earnest effort to remove the language deficiency as soon as possible. The ELC program must be completed satisfactorily before regular admission status may be granted.
- 5) Teaching Assignments
- a) All international students who are admitted to graduate studies at MSU with teaching assistantships involving recitations, discussions, or laboratory sections will be given the SPEAK test by the English Language Center upon arrival on campus. Students may submit a current Test of Spoken English (TSE) in lieu of the SPEAK test, however the score report cannot have been issued more than two years prior to the student's appointment as a teaching assistant. Students who do not pass the initial SPEAK test or TSE may not assume teaching responsibilities until they complete English 097, an oral skills course for international teaching assistants, and pass the International Teaching Assistant oral interview or pass a subsequent SPEAK or TSE test. The chairperson of the student's department may request an opportunity for a special review by the International Teaching Assistant Oral Review Board if the student does not pass the initial screening. The Board determines whether the student may be cleared for teaching duties. If the student fails to pass the *minimum all-University standard* of English proficiency for regular admission status, he or she may not be assigned to do any classroom teaching, including laboratory instruction and recitation or discussion sections, without approval of the English Language Center. Units may hold a higher-than-minimum performance criterion if they so choose if the content and/or teaching models warrant.
- c. SEVIS – All prospective and current international students are strongly encouraged to review the SEVIS (Student and Exchange Visitor Information System) on the OISS (Office for International Students and Scholars) web site (<http://www.oiss.msu.edu/>) It is important to be compliant with these federal guidelines to maintain visa status.