

Michigan State University

***DEPARTMENT OF
ANIMAL SCIENCE***

***GRADUATE STUDENT
HANDBOOK***

2009 - 2010

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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.

Students earning a Master's degree are required to take at least 30 course credits related to their chosen area of specialization. A thesis project or scholarly activity is conducted by the student during the course of the degree program, culminating in an oral final exam that focuses on the thesis/scholarly activity and relevant course work. The usual duration of a Master's degree program is between two and three years.

Students earning a Ph.D. degree are required to take course work related to their chosen area of specialization. If a student does not have a Master's degree, a minimum of 24 course credits (400 level and 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 a student has a Master's degree, the number of credits taken will be determined by the student, major professor and guidance committee. The student is expected to develop independently a dissertation project proposal and to successfully defend the proposal before the guidance committee. After the student has completed the course work comprising the program of study, the student must successfully complete a written and oral preliminary exam administered by the guidance committee that covers course work, research activities and any subject areas specified by the guidance committee. The last major step in completing the requirements for the Ph.D. degree is successful defense of the dissertation before the guidance committee. The usual duration of a Ph.D. degree program is between three and four years beyond the Master's degree.

All graduate students are strongly encouraged to regularly attend departmental seminars, relevant disciplinary seminars and thesis/dissertation defense seminars. In addition, students are given the opportunity to volunteer for teaching activities within the department. Students are strongly encouraged to attend as many scientific meetings as possible and to present his/her research at a minimum of one meeting while obtaining a degree.

II. PROGRAM COMPONENTS

A. Master of Science Program - The Master of Science degree is offered under two programs:

1. Plan A: This consists of course work, research, writing of a thesis, and a final examination over course work and the thesis.
2. Plan B: This consists of course work, a scholarly activity without a thesis, and a final examination over course work and the scholarly activity.

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 NSC 830 is suggested) and a seminar course (ANS/FSC 892, Food Science Seminar) as part of the minimum required 30 credits. A minimum of six credits and a maximum of 10 credits of Master's thesis research (ANS 899) are required for Plan A. A maximum of six credits of independent study (ANS 890) is allowed for Plan A. No more than six credits of Master's research (ANS 898) and/or advanced independent study (ANS 890) 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. The thesis project (Plan A) or scholarly activity (Plan B) is selected by the student in consultation with the major professor and the guidance committee and is also a component of the academic program. 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.

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. 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. 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.

B. Ph.D. Program - In consultation with the student's major professor, the student plans a program of study (Appendix A-2) 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. If the student does not have a Master's degree, a minimum of 24 course credits (400 level and 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 a Master's degree, the number of credits taken (in addition to the required 24 credits of doctoral dissertation research [ANS 999]) will be determined by the student, major professor and guidance committee. The student is required to take a graduate-level research ethics course (*Responsible Conduct of Research* series or NSC 830 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). 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.

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). At least 80% of the guidance committee must judge the dissertation proposal and/or oral defense of the proposal to be acceptable. If not, the student is given a single opportunity to correct deficiencies communicated to the student in writing, within the time frame specified by the guidance committee. Successful preparation and defense of the dissertation proposal is a prerequisite for taking the comprehensive or preliminary exam.

The comprehensive exam consists of two parts: a written preliminary exam that must be passed successfully before the oral preliminary exam is taken (Appendix A-4). The exam, administered by the guidance committee, covers the student's course work, research, and any other subject areas specified by the guidance committee. The exam is to be taken no later than the end of the seventh semester of the doctoral program. The purpose of the preliminary examination is to ensure that the student has a broad and functional understanding of the discipline as determined by the guidance committee. 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. The student will have no more than two opportunities (original plus one re-exam) to demonstrate acceptable performance on the comprehensive exam.

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 (Appendix A-5). Eighty percent of the guidance committee must judge that the student's performance is acceptable in order for the student to pass. 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. 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.

C. Interdisciplinary Options

1. Environmental Toxicology

MS - 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.

PhD - 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.

2. Food Safety

The graduate specialization in food safety is designed for students who are interested in enhancing the focus of their study on food safety to help social problems. The specialization is available to students enrolled in a master's degree program. For more information see <http://foodsafe.msu.edu>.

III. DEGREE REQUIREMENTS

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, references, and application fee.
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..
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 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. 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.

C. Candidates for the Master's Degree

1. Students will have their guidance committee established before the end of the second semester the student is in graduate school. 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.
2. 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.
 3. The minimum credits required for a Master's degree (Plan A and B) are 30 credits of courses at the 400 level or above. Courses taken on a credit-no-credit basis will not count toward the graduate degree.
 - a. More than 50% of the credits must be at the 800 level or higher.
 - b. A minimum of six credits and maximum of 10 credits of thesis research (ANS 899) will be credited in Plan A. (These credits count toward the 800 level credit requirement.)
 - c. A maximum of six credits of independent study (ANS 890) will be credited toward Plan A.
 - d. No more than six credits of Master's research (ANS 898) and/or advanced independent study (ANS 890) can be credited in Plan B. (These credits count toward the 800 level credit requirement.)
 - e. The student is required to take a graduate-level research ethics course (*Responsible Conduct of Research* series or NSC 830 is suggested) and a seminar course (ANS/FSC 892, Food Science Seminar) as part of the minimum required 30 credits.
 - f. Students must maintain a grade point average (GPA) of at least 3.0 to retain an assistantship. New regular status students (less than one year) 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. Part-time students taking less than a regular course load will be allowed eight credits to attain a GPA of 3.0 or greater. After their first year, students will be allowed one semester to bring their GPA to 3.0 or better for retention of an assistantship and two semesters for retention as a graduate student. For retention purposes, the GPA will be calculated on all courses taken the first year and courses required by their guidance committee thereafter.
 - g. The required work for a deferred grade (DF) must be completed and a grade reported within six months with the option of a single six-month extension. If the required work is not completed within the time limit, the DF will become U (unfinished) and will be changed to DF/U under the numerical and pass – no grade (P-N) grading systems, and to DF/NC under the credit – no credit (CR-NC) system. This rule does not apply to graduate thesis or dissertation work.
 4. Each student must complete an annual progress report (Appendix A-8) as described in VII.A.1.
 5. The thesis problem shall be selected by the student in consultation with the major professor and approved by the guidance committee.
 6. Scholarly activity for Plan B students (ANS 898) will be selected by the student in consultation with the major professor and approved by the guidance committee. Salient features of the scholarly activity should be: (a) focused on a topic or within a discipline; (b) discrete boundaries so that completion is certain, and (c) sufficient

depth and quality to convey scholarly pride for the student, the department, and MSU.

7. 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.
8. The thesis (prepared in accordance with the Graduate School's Formatting Guide for Master's Theses and Doctoral Dissertations (<http://grad.msu.edu/thesisdissertation/>) 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 other commitments take precedence over this timetable.
9. Every student (Plan A or B) must pass a final oral examination by their guidance committee to complete the requirements for the Master's degree.
 - a. 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.
 - b. 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).
 - c. The guidance committee that administers 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).
 - d. To pass the Master's final exam, at least 75% of the guidance committee must judge that the performance of the student was acceptable. If less than 75% of the committee judges the student's thesis/scholarly activity and/or defense to be acceptable, the student is given a single opportunity to correct all deficiencies within a time frame specified by the guidance committee.
 - e. 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.
10. Plan A students must donate a bound copy of the thesis to the Department of Animal Science by submitting it to the graduate administrative support person. Approval of the degree will not be forwarded from the Department of Animal Science to the College of Agriculture and Natural Resources until a copy of the thesis is received.
11. All work must be completed within five calendar years from the date of enrollment in the first course included for degree certification.
12. To meet residence requirements, a minimum of six credits in the degree program must be earned in residence on campus.

D. Candidates for the Ph.D. Degree

1. The guidance committee will be established before the end of the second semester a student is in graduate school. 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.
2. The chair of the guidance committee (who can not 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 secretary 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.
 3. 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.
 4. The number of course credits that are required will be dependant 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) 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.
 - a. Students must take at least 24 credits of doctoral dissertation research (ANS 999).
 - b. The student is required to take a graduate-level research ethics course (*Responsible Conduct of Research* series or NSC 830 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).
 - c. Students must maintain a grade point average (GPA) of at least 3.0 to retain an assistantship. New regular status students (less than one year) 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. After their first year, students will be allowed one semester to bring their GPA to 3.0 or better for retention of assistantships, and two semesters for retention as graduate students. For retention purposes, the GPA will be calculated on all courses taken the first year and courses required by their guidance committee thereafter.
 - d. 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. Students are limited to a maximum of eight independent study credits (ANS 890).

5. Each student must complete an annual progress report (Appendix A-8) as described in VII.A.1.
6. The dissertation project shall be selected by the student in consultation with the major professor and approved by the guidance committee.
7. Students will be required to write a formal dissertation proposal outlining their proposed doctoral work, and will defend the proposal in front of the guidance committee.
 - a. 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.
 - b. 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.
 - c. 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.
 - d. The dissertation proposal will serve as a blueprint for the doctoral research project.
 - e. Successful preparation and defense of the dissertation proposal is a prerequisite for taking subsequent comprehensive exams.
 - 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 secretary 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. Preparation and defense of the doctoral research proposal shall be completed by the end of the fourth semester after initiation of the doctoral program.
 - i. 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.
8. The student must pass the Ph.D. comprehensive examination in order to be considered a Ph.D. candidate.
 - a. 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.
 - b. 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.
- c. 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.
 - d. 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.
 - e. To pass the oral exam, 80% of the committee must agree that the performance is acceptable.
 - f. When the performance of the student on the written or oral exam is not acceptable or is borderline, the guidance committee will re-examine the student or will assign activities in area(s) that the student is judged to be weak. Students 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.
 - g. 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.
 - h. 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.
 - i. After each comprehensive exam, the chair of the guidance committee shall submit a formal report to the department chairperson within 7 days of said comprehensive exam. The department chairperson then forwards the report to the dean of the college (Appendix A-4).
9. The dissertation (prepared in accordance with the Graduate School's Formatting Guide for Master's Theses and Doctoral Dissertations; <http://grad.msu.edu/thesisdissertation/>) 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.
10. 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.
 - a. 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.
 - b. 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.
 - c. After the Ph.D. final exam, the chair of the guidance committee should submit formal reports to the graduate secretary (Appendices A-5 and A-7) The department chairperson 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.
 11. All students must donate a bound copy of the dissertation to the Department of Animal Science by submitting it to the graduate secretary. Approval of the degree will not be forwarded from the Department of Animal Science to the College of Agriculture and Natural Resources until a copy of the dissertation is received.
 12. All requirements must be completed within eight calendar years from the date of enrollment in the first course included for degree certification.
 13. Residence on campus 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.
 14. Full time status for doctoral students is defined as a minimum of one credit for those students who:
 - a. Have successfully completed the written and oral preliminary (comprehensive) exams and are actively engaged in dissertation research: or
 - b. Are doing department - approved off-campus fieldwork related to preparation of their dissertation.

E. Requirements for Interdisciplinary Options

1. Master of Science degree in animal science with a specialization in environmental toxicology
 - a. The student's program of study must be approved by the major professor and the guidance committee.
 - b. The student must have a 3.0 grade point average in the courses that are used to satisfy the requirements for the specialization.
 - c. 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>).
 - d. The student must attend a minimum of six approved seminars in environmental toxicology. Toxicology Track, the CIT electronic newsletter, lists the approved seminars.
 - e. 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 secretary and request certification for the completion of the specialization.
- f. 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.
2. Ph.D. degree in animal science/environmental toxicology
 - a. 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).
 - b. 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.
 - c. The student must have a 3.0 grade point average in the courses that are used to satisfy the requirements for the degree.
 - d. 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>). 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>).
 - e. The student must attend at least 12 approved seminars in environmental toxicology. Toxicology Track, the CIT electronic newsletter, lists the approved seminars.
 - f. 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.
 - g. 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.

F. 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 | Mid-March of <u>each</u> year in the degree program (Appendix A-8) | Mid-March of <u>each</u> year in the degree program (Appendix A-8) |

| | | |
|--|--|---|
| Submission and defense of Ph.D. dissertation proposal | Not applicable | By the end of the fourth semester after initiation of the degree program (Appendix A-3) |
| Written and oral Ph.D. comprehensive exam ¹ | Not applicable | By the end of the seventh semester after initiation of the degree program (Appendix A-4) |
| Submission of thesis/dissertation to guidance committee ² | 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.

G. Procedures for Graduation

1. The student must complete every course required on the program plan (Appendix A-1 for Master's and Appendix A-2 for Ph.D.).
2. Ph.D. candidates must pass the comprehensive examinations prior to completion of dissertation and final oral examination.
3. The student must be enrolled for at least one credit during the semester that the final oral exam is taken.
4. 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.
5. 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. An unbound copy of the thesis/dissertation is given to the Graduate School (118 Linton Hall) by the date specified on the Graduate School's web page (see <http://grad.msu.edu/thesisdissertation/>).
6. Other items that must be supplied to the Graduate School include:
 - a) An abstract and title page prepared in accordance with The Formatting Guide for Master's Thesis and Doctoral Dissertations with the unbound copy of the thesis/dissertation.
 - b) An additional copy of the abstract and an abstract title page.
 - c) One loose copy of the thesis/dissertation bookplate signed and dated by the major professor.

- d) A completed and signed University Microfilms Contract Agreement.
 - e) 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.
 - f) A check or money order payable to MSU Account #21-2541 for a processing fee.
 - g) 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).
7. Additional information about graduation requirements can be found at <http://grad.msu.edu/graduation/>.
 8. 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.

IV. SELECTION OF THESIS/DISSERTATION ADVISOR

- A.** The student’s major professor is chosen during the application process. Because financial support for the student’s research is provided exclusively by the major professor, a student will not be accepted into the department’s graduate program if a faculty member is not willing to make that commitment. Thus, it is advisable that prospective students identify and communicate with potential mentor(s) before submitting an application, so that both student and mentor feel that professional interests and personalities are compatible. Information on faculty and their interests can be found on the departmental web site (<http://www.canr.msu.edu/dept/ans/index.html>).
- B.** 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.
- C. The general role of the major professor includes being:**
 1. An advisor, willing to share his/her professional knowledge
 2. A supporter, giving emotional and moral encouragement
 3. A tutor, giving specific feedback on a student’s performance
 4. A master, in the sense of employers to whom one is apprenticed
 5. A sponsor, providing information about, and aid in obtaining opportunities
 6. A model of the kind of person one should be to be an academic
- D. The general responsibilities of the major professor include:**
 1. Ensuring that graduate students receive information about requirements and policies of the graduate program
 2. Advising graduate students on developing a program plan, including appropriate course work, research or creative activity, and on available resources
 3. 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
 4. Providing training and oversight in creative activities, research rigor, theoretical and technical aspects of

the thesis or dissertation research, and in professional integrity

5. Encouraging graduate students to stay abreast of the literature and cutting-edge ideas in the field
6. 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
7. Providing regular feedback on the progress of graduate students toward degree completion, including feedback on research or creative activities, course work, and teaching, and constructive criticism if the progress does not meet expectations.
8. 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
9. 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
10. Writing letters of reference for appropriate fellowship, scholarship, award, and job opportunities
11. Providing for supervision and advising of graduate students when the major professor is on leave or extended absence.

E. 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.

F. 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.

V. FORMATION OF THE 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 responsibilities of the guidance committee include:

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

- C. The guidance committee must be established prior to submission of the proposed academic program (Master of Science Degree Proposed Academic Program, Appendix A-1; Report of the Guidance Committee – Doctoral and Other Programs, Appendix A-2), which must be filed by the end of the second semester of the degree program.
- D. The guidance committee of a Master’s degree student consists of at least four members including the major professor who has an appointment in the Department of Animal Science. Three of these members, including the major professor, must be regular MSU faculty (see III.B.1). One of these three members must have a majority appointment in the Department of Animal Science and one member must have a majority appointment in a department other than Animal Science. The guidance committee of a Ph.D. student consists of at least five members including the major professor who must have an appointment in the Department of Animal Science. Four of these members, including the major professor, must be regular MSU faculty. One of the four must have a majority appointment in the Department of Animal Science and one member must have a majority appointment in a department other than Animal Science. The chair of the Ph.D. guidance committee (who can not be the major professor, but must be have an appointment in the Department of Animal Science) is chosen by the committee members. It is the responsibility of the chair to administer 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 secretary 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 of Agriculture and Natural Resources Master’s or Ph.D. Program Change Form (see Appendices A-12 and 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.

VI. THESIS/DISSERTATION DEFENSE AND FINAL ORAL EXAMINATION

- A. The final Master’s or Ph.D. 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. **Master’s Thesis and Final Oral Exam**
 1. 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 research in the form of a manuscript(s) appropriate for a peer-reviewed journal.
 2. Regardless of the specific approach chosen, the thesis should be prepared in accordance with the Graduate School’s Formatting Guide for Master’s Theses and Doctoral Dissertations (<http://grad.msu.edu/thesisdissertation/>).

3. The thesis must be circulated to members of the guidance committee at least 14 days prior to the Master's final examination. Prior to scheduling the exam, the thesis must be considered acceptable 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 other commitments take precedence over this timetable.
4. Every student (Plan A or B) must pass a final oral examination by their guidance committee to complete the requirements for the Master's degree.
 - a. 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 departmental faculty, students and staff of the title, date, time and location of the seminar. For Plan A students, the final oral exam should focus on, but not be limited to thesis research (ANS 899). For Plan B students, the final oral exam should focus on, but not be limited to, the scholarly project (ANS 898).
 - b. The guidance committee that administers the Master's final exam is charged to approve Master's work (Plan A or B) and to evaluate qualifications of candidates to pursue a Ph.D. degree (Plan A).
 - c. To pass the Master's final exam, at least 75% of the guidance committee must judge that the performance of the student is acceptable.
 - d. After the Master's final exam, the major professor should inform the department chairperson, graduate coordinator 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.
 - e. 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.
 - a) 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.
 - b) If not successful, the student is terminated.
5. Plan A students must donate a bound copy of the thesis to the Department of Animal Science. Approval of the degree will not be forwarded from the Department to the College of Agriculture and Natural Resources until a copy of the thesis is received.
6. 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. 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.

C. Ph.D. Dissertation and Final Oral Exam

1. 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.
2. 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.
3. Regardless of the specific approach chosen, the dissertation should be prepared in accordance with the Graduate School's Formatting Guide for Master's Theses and Doctoral Dissertations (<http://grad.msu.edu/thesisdissertation/>).
4. The dissertation must be circulated to members of the guidance committee at least 14 days prior to the Ph.D. final oral exam. Prior to scheduling the final exam, the dissertation must be considered acceptable 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 student's major professor, a guidance committee member and the graduate coordinator prior to the defense. The student must not put the guidance committee in jeopardy by assuming that the student's other commitments take precedence over their timetable.
5. Every student must pass a final oral examination by their guidance committee to complete the requirements for the Ph.D. degree.
 - a. 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. The final defense is coordinated by the guidance committee chair.
 - b. To pass the Ph.D. final exam 80% of the guidance committee must judge that the performance of the student was acceptable.
 - c. In the event that less than 80% of the members of the guidance committee consider the dissertation and/or its defense acceptable, the deficiencies, expected corrective actions and time limit for completion of the corrections will be explained in detail to the student both verbally and in writing by the guidance committee chair.
 - 1) A copy of the written explanation will be forwarded to the graduate coordinator.
 - 2) The student will be given an opportunity to rectify the deficiencies within the time frame specified by the guidance committee.
 - a. Upon reassessment of the dissertation and/or its defense, the chair of the guidance committee should submit formal reports to the graduate secretary (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.
 - b. 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.

6. All students must donate a bound copy of the dissertation to the Department of Animal Science submitting it to the graduate secretary. Approval of the degree will not be forwarded from the Department of Animal Science to the College of Agriculture and Natural Resources until a copy of the dissertation is received.
7. 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. 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.

D. Recent Theses/Dissertations Accepted by the Department of Animal Science

Copies of theses and dissertations are available in the main MSU library, as well as in 3285 Anthony Hall.

VII. DEPARTMENT POLICIES

A. Academic Performance

1. Review of Academic Performance
 - a. The review takes place annually before early March.
 - 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 early March 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 for their signature. 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. If the student wishes to be considered for the department’s “Outstanding Graduate Student” awards that are based on the annual progress report, the student must be nominated by the major professor.
2. Retention of Graduate Student Status
 - a. Progress toward degree completion: To be retained in a graduate program, the student must show clear and satisfactory progress toward degree completion. Examples of evidence of progress toward the degree include: grade point average (GPA), credits earned toward the degree, approval of the academic program, approval of the thesis/dissertation research

proposal, and successful completion of the written and oral comprehensive examinations. These milestones must be completed in a timely manner according to the schedule presented in II.F. In addition, abstracts, publications, and research awards received may also be used to gauge progress in a graduate program. This evidence must be documented in the student's annual progress report (Appendix A-8) and the faculty mentor's written assessment.

b. Minimum academic standards for retention

1) Grade point standards

- a) In accordance with university policy, the minimum cumulative GPA required for graduation is 3.0 for graduate students. 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.
- b) New, provisional status students will be allowed two semesters to attain a GPA of 3.0 or greater for retention as a graduate student.
- c) Part-time students taking less than a regular course load will be allowed eight credits to attain a GPA of 3.0 or greater.
- d) 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.
- e) 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.
- f) 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.

2) Research standards

- 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. 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. Other critical components will include a student's timely movement through the various requirements of the degree program (see II.F) and fulfillment of appointment responsibilities in the previous semester. A student failing to meet these academic requirements could be terminated at the end of the semester in question. Unethical behavior will not be tolerated and will result in immediate termination.

c. Decision to Terminate Graduate Student Status

- 1) While such cases are infrequent, a student with unsatisfactory academic performance (as described above in Sections 2.4.8 and 2.4.9 of the "Rights and Responsibilities for Graduate Students") 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. If the problem remains unresolved, the process for termination is as follows:

- a) 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.
- b) 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. Resolution of the situation must occur within six weeks from the meeting date for the student to avoid termination.
- c) 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.
- d) 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 resolved and warrants reversal of the major professor's termination decision. Members of the guidance committee will be invited to this meeting.
- e) 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.
- f) 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. 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. 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. Failure to meet the conditions imposed on the student will result in termination of the student's program without further review.
- g) 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. Student records are maintained in the departmental office. 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.

B. Integrity and Safety in Research and Creative Activities

1. Summary of Guidelines for Integrity in Research and Creative Activities (See

<http://grad.msu.edu/rcr/>)

a. Integrity in research and creative activities embodies a range of practices that includes:

- 1) Honesty in proposing, performing and reporting research
 - a) 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.
 - b) 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.
- 2) Recognition of prior work
 - a) Research proposals, original research, and creative endeavors often build on one's own work and also on the work of others.
 - b) Both published and unpublished work must always be properly credited.
- 3) Confidentiality in peer review
 - a) The peer-review process involves the sharing of information for scholarly assessment on behalf of the larger disciplinary community.
 - b) The integrity of this process depends on confidentiality until the information is released to the public.
 - c) 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.
- 4) Disclosure of potential conflicts of interest
 - a) There is real or perceived conflict of interest when a researcher has material or personal interest that could compromise the integrity of the scholarship.
 - b) It is imperative that potential conflicts of interest be considered and acted upon appropriately by the researcher.
- 5) Compliance with institutional and sponsor requirements
- 6) Protection of human subjects and humane care of animals in conduct of research
 - a) 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.
- 7) Collegiality in scholarly interactions and sharing of resources
 - a) 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.
 - b) Faculty advisors have a particular responsibility to respect and protect the intellectual property rights of their advisees.
 - 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.
 - 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.

- 8) Adherence to fair and open relationships between senior scholars and their co-workers.
 - a) 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.
 - b) 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.
 - c) 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.
 - b. Misconduct in Research and Creative Activities
 - 1) Federal and university policies define misconduct to include:
 - a) Fabrication (making up data and recording or reporting them)
 - b) Falsification (manipulating research materials, equipment or processes, or changing or omitting data such that the research is not accurately represented in the record)
 - c) Plagiarism (appropriation of another person's ideas, processes, results, or words without giving appropriate credit)
 - 2) Misconduct does not include honest errors or honest differences of opinion in the interpretation or judgment of data.
 - 3) 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.
 - 4) 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.
 - 5) 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/> .
2. 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.iacuc.msu.edu/training/training_index.htm) 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.**
3. Research Involving Human Subjects
- a. As with the use of animals, any use of human subjects, which 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.**
4. 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:
 - a) Chemical Hygiene and Laboratory Safety (one-time course)
 - b) Hazardous Waste Refresher (required annually after completion of Chemical Hygiene and Laboratory Safety course)
 - c) Security Awareness (one-time course)
 - 2) Required for all employees working with radiation:
 - a) Radiation Safety Initial (one-time course)
 - b) 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
 - a) Blood-borne Pathogen Initial (one-time course)
 - b) 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
 - a) Biological Safety (one-time course)

- 5) Required for all personnel whose job or coursework involves handling of live animals or handling animal-derived materials
 - a) Biosafety Principles (for those using or handling animals or animal derived materials)
- d. If there is a question as to what courses should be completed, call ORCBS at 355-0153 for assistance.

VIII. STUDENT CONDUCT AND CONFLICT RESOLUTION

A. Rules Governing Personal Conduct

1. 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.
2. The following are examples of conduct that are prohibited.
 - a. 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:
 - 1) 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.
 - 2) Physical harassment including, but not limited to, touching that is not welcomed, fondling, patting, pinching, or kissing.
 - 3) Direct or implied threat(s) that failure to cooperate with the request or advance will result in negative consequences.
 - 4) 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.
 - b. Malicious destruction or willful neglect of university property.
- c. Taking or attempting to take property from the department or university, its students, employees, visitors, or patrons.
- d. Failure to comply with safety rules and regulations:
 - 1) Failure to immediately report all accidents and injuries.
 - 2) 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.
- e. Canvassing and peddling
 - 1) 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.
- f. Other misconduct such as, but not limited to, the following:
 - 1) Consuming or possessing alcoholic beverages on university premises.
 - 2) Consuming or possessing controlled substances without a prescription on university premises.

- 3) Unlawful manufacture, distribution, dispensation, possession, or use of illegal drugs or controlled substances.
- 4) Being under the influence of alcohol when reporting to or while at work.
- 5) Being under the influence of controlled substances without a prescription, or illegal drugs when reporting to or while at work.
- 6) Use of vulgar or obscene language.
- 7) Threatening other persons, fighting, or instigating a fight.
- 8) Verbally abusing, physically attacking, or obstructing a supervisor, co-worker, student, client, or visitor.
- 9) Immoral conduct.
- 10) Illegal acts committed by employees when not at work that reflect adversely upon the university.
- 11) Unauthorized use/possession of university or other property.
- 12) Unauthorized possession of a weapon while on university property.
- 13) Ethnic intimidation based upon a person ' s race, color, religion, gender, or national origin.
- 14) Inappropriate computer use including, but not limited to, accessing illegal/obscene websites and downloading of copyrighted material.

g. Academic dishonesty

- 1) Examples of academic dishonesty include, but are not limited to: plagiarism, cheating on exams, and falsification of data.

B. Graduate Student Grievance Procedure

1. Students or faculty with concerns or problems should seek resolution at the levels and in the sequence listed below.
2. Plaintiffs may seek the next level of consideration until concern is resolved or no higher level exists.
3. Sequence
 - a. 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.
 - b. Consultation with the departmental graduate coordinator who will comment on the merit of the concern.
 - c. Consultation with the department chair or designate.
 - d. Consultation with the university ombudsman.
 - e. Appearance before department board for adjudication (DBA).
 - 1) Membership of the department board for adjudication shall consist of three officers of the Animal Science Graduate Student Association, three faculty members serving on the department graduate committee, and the department graduate coordinator. If a member of the DBA is involved in the concern, they will be removed from the DBA and appropriately replaced by the remaining DBA members.
 - 2) Process
 - a) The DBA shall elect a chairperson and secretary and operate in accordance with the college and university grievance procedure guidelines.
 - b) The DBA may consider concerns presented informally but has the right to request formal (written) presentation. The DBA may request that parties on each side of a concern be present at the hearing simultaneously or separately.
 - c) After all testimony is submitted, the DBA will prepare a recommendation

based on the majority view of the DBA. This recommendation will be communicated to all parties involved in the concern and to the department chair, who will propose a resolution

- d) If the action proposed by the department chair is not satisfactory, the concerned parties may pursue further consideration with the College Graduate Hearing Board.
- f. College Graduate Hearing Board
 - 1) 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.
- g. University Graduate Judiciary
 - 1) 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 (see <http://grad.msu.edu/publications/docs/integrityresearch.pdf>) 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.”
2. 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.

IX. WORK RELATED POLICIES

A. Graduate Assistantships

1. Graduate assistantships are available for part-time service to the department. They are not scholarships or fellowships. For example, a quarter-time graduate assistant is expected to provide 10 hours of service per week, a half-time graduate assistant is expected to provide 20 hours, etc. Thesis/dissertation research is not to be considered part of these hours. It is the responsibility of the major professor to see that this obligation is fulfilled.
2. The current tuition waiver is in the amount of nine credits for Fall and Spring semesters, and five for Summer semester.
3. Departmental funds will not be used for a graduate assistantship if enrollment exceeds seven consecutive semesters (fall, spring, summer) for Master’s students or 11 consecutive semesters (fall, spring, summer) for Ph.D. students.
4. Graduate assistantships funded by a professor from a grant do not transfer with the student if the student changes advisors. Alternatively, most, but not all, departmental assistantships are assigned to the student independent of the advisor. Therefore, transfer of departmental assistantship must be approved by the chairperson of the department.
5. Assignment of departmental assistantships is the purview of the chairperson of the department.
6. Retention of Graduate Assistantship Support
 - a. Graduate assistantship will be renewable on a semester-to-semester basis.
 - b. Students must maintain a GPA of at least a 3.0 to receive and to retain an assistantship. If the GPA of a regular status student falls below 3.0, the student will be allowed one semester to bring their GPA to 3.0 for retention of the assistantship.

- c. Retention of a graduate assistantship (department or grant supported) is subject to the same research standards as graduate student status (See VII.A.2.b). Continuation of a graduate assistantship depends upon:
 - 1) Availability of department or faculty member resources
 - 2) Satisfactory progress toward degree completion
 - 3) Satisfactory fulfillment of assistantship responsibilities
- d. An assistantship may be terminated at any time if the student fails to meet the responsibilities associated with the position.

B. Externally Funded Fellowships

1. Receipt of externally funded fellowships by students who have written their own grant applications and worth at least \$20,000 (direct costs) makes the student eligible for in-state tuition rate.
2. The in-state tuition rate applies only to the semesters during which the student is supported by the fellowship.
3. This policy applies only to grants funded through a competitive process by a U.S institution/agency/foundation.
4. Funds obtained through non-competitive processes (e.g., need-based fellowships) or from international sources do not qualify students for in-state tuition rates.
5. For more information, contact Melissa Del Rio (mdelrio@msu.edu) in 110 Linton Hall.

C. Outside employment

1. The graduate assistantship represents an obligation for the student to perform various duties of benefit to the department in return for financial assistance. It is assumed that these duties, in combination with the normal course of studies, will amount to a full-time load.
2. 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.

D. 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.

E. Travel/Transportation

1. Authorization for travel needs to be completed before departure. The travel authorization portion of the travel voucher should be submitted and approved. 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. These forms are available from the suite secretaries.
2. 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. The university carries liability insurance on all university-owned vehicles when driven by authorized persons.
3. Travel Accident Insurance 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.
4. Given the above definitions, university policy and regulations regarding student travel may be summarized as follows (MSU Travel Regulations – <http://www.ctrlr.msu.edu/COTravel/Default.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.

5. Students traveling abroad:

- a. Should visit the “Travel Smart” website (<http://grad.msu.edu/travel/>) before their trip. **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 department or research grant 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.
- b. Check with the MSU Travel Clinic. They will provide information related to health risks and immunizations (<http://travelclinic.msu.edu/>).
- c. Check the International Studies and Programs website for issues related to safety around the world (<http://isp.msu.edu/resources/travel.htm>).
- d. Apply for assistance with travel funding via the graduate school. If the graduate school provides funding, they will also provide a MEDEX emergency card.

F. Travel/Funding

1. Graduate students are encouraged to go to scientific meetings.
2. The major professor of a student presenting a paper is encouraged to compensate the student for part or all the expenses of the trip.
3. 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.

G. Working Hours

1. It is not the desire of the department to prescribe rigid working hours. However, it is imperative that the graduate student assume the responsibility of adhering to whatever schedule is necessary to complete assigned duties and to assure timely completion of the degree requirements.
2. 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.

H. Miscellaneous

1. Use of department computers
 - a. Computer equipment used by suite secretaries is purchased by the department to enhance department efficiency. This equipment is placed under the responsibility of the secretaries and is **NOT** to be used by students, either graduate or undergraduate, after working hours. For the department to operate, it is important that this equipment be operational at the start of each working day.
 - b. No one, faculty or graduate student, should assume that this equipment is available for them to use at any time for any purpose. Common courtesy would ask that anyone interested in using this equipment should check with the person under whose responsibility the equipment has been placed.
 - c. The rough and final form of the thesis/dissertation is the sole responsibility of the graduate student. Secretaries in the department will not type graduate student theses/dissertations during official working hours. A graduate student may hire a willing department secretary to

type their thesis/dissertation on their department computer as long as it is not done during official working hours.

2. Use of photocopiers

a. Department photocopy machine(s) are to be used for department/ university business only.

- 1) The machine is restricted for use by faculty and staff in the Department of Animal Science.
- 2) You must have a code to use this machine.
- 3) Graduate students must obtain a code from their major professor to use the copy machine for department business.
- 4) It is recommended that large copy jobs (30 copies or more) be done at one of the University Printing Copy Centers.
- 5) For large jobs requiring copyright authorization, approval must be obtained well in advance.
- 6) If paper jams occur, please follow carefully the instructions on the panel of the copier. If you are unable to clear the paper jam, please inform someone in 1290 Anthony.
- 7) If service is required for the copy machine, please contact the departmental secretary in 1290 Anthony.
- 8) If a setting is changed, please be sure to clear it out for the next user (i.e., transparencies).
- 9) If the machine is not working, the copy machine in 1250 Anthony can be used for teaching materials only.

b. The department will supply photocopy paper for the department photocopy machines only. Each faculty/staff is responsible for their own supply of paper for their suites. Any other copiers in the department, other than those listed above, are the responsibility of the suite that purchased them.

3. Use of FAX machine

a. The department FAX machine is for business use only. On occasion a personal FAX may be sent. When this happens, the individual requesting to send the FAX will be required to pay the cost. FAX machines in any other location other than 1290 Anthony are the sole responsibility of that suite.

4. Keys

a. Keys should be obtained from the main office (1290 Anthony) or the secretary assigned to your suite. Graduate and undergraduate students are required to pay a \$10 cash deposit fee that is refunded upon turning keys back in. This is done in the main office.

5. Office supplies

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

6. Purchasing supplies

a. University Stores

- 1) The department's main office (or the suite secretary) has General Stores Order Forms. Please refer to the university stores catalog for descriptions and catalog numbers for items needed. 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
 - 1) Requisitions are available in the main office or from the suite secretary. Fill them out, supplying the following information: department number, university account number, complete vendor addresses and telephone number (including name of contact if applicable), name and phone number of person ordering, delivery information, catalog number, description, unit of measure, quantity, and current prices. Keep a copy of the requisition for your files. Incomplete requisitions will be sent back to the originator without being processed. Allow adequate lead time for your orders. Remember, when using a department account number, you **MUST** provide Jamie Pratt (1290 Anthony) with a copy of the paperwork.
 - 2) When an order is placed, you will receive a Purchase Order Number (PO#) generated by the Purchasing Department. Keep all copies on file with the original copy of the requisition for future reference, since they are required if a problem with the order occurs.
 - 3) Open package(s) upon receipt. If something is wrong with the shipment and/or an item(s) needs to be returned, a Material Return Form needs to be filled out to return the item(s).
- 7. Room scheduling
 - a. Department conference rooms are reserved through the main office. Conference Room 1240 will seat approximately 55 and Conference Room 1310 will seat approximately 75. Contact the suite secretary for availability. Suite conference rooms should be scheduled with the secretary of the suite.
 - 1) No regularly scheduled classes are to be held in conference rooms.
 - 2) Department of Animal Science has first priority for scheduling rooms.
 - 3) Outside industry groups will be charged a rate of \$45. Cost of any additional cleanup will be charged back to the industry group that reserved the room.
 - 4) Coffee pots must be checked out from the main office.
 - 5) 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 two weeks in advance, and no longer than one day in length.
- 8. Licensed drugs
 - a. Researchers within the Department of Animal Science may order Schedule II, III, IIIN, and IV controlled substances by filling out Drug Enforcement Administration (DEA) Form 222 in triplicate. These forms are available from Jamie Pratt in 1290 Anthony. Directions for filling out the form are provided on the back of the last page of the form. Typical controlled substances used by researchers in the department include sodium phenobarbital and sodium pentobarbital. Once a controlled substance is received by the researcher, it must be inventoried in a bound book with the record being signed and dated by the researcher. The controlled substance must be kept in a securely locked, substantially constructed cabinet or safe. Each time the controlled substance is used, each withdrawal, date, amount, nature of use, and user's signature must be recorded in a bound dispensing/utilization ledger maintained by the researcher. Special forms are required to return controlled substances to suppliers, to transfer controlled substances to other researchers, and to destroy controlled substances. The availability of these forms should be verified through the department office.
- 9. 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.
10. 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.
 11. Graduate student desk assignments
 - a. The department attempts to provide desk space for all graduate students. However, with an overall shortage of space, there are generally more students than desks available. The main office secretary makes graduate student desk assignments. A student who needs a desk should contact Nicole Gonzales (355-8383) in 1290 Anthony Hall.
 12. Audiovisual equipment
 - a. Audiovisual equipment can be checked out from Kim Dobson (353-9227) in 1250 Anthony. Please notify Kim if something happens to the equipment while you have it checked out.
 13. Department coffee pot(s)
 - a. The department main office has three coffee pots. There are two 30-cup and one 100-cup coffee pots available.
 14. 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.
 15. 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.

I. Emergency Situations

1. Fire evacuation procedures

a. What to know

- 1) Know two ways out of the building.
- 2) Know where the nearest fire alarm is.
- 3) Know where the nearest fire extinguisher is.
- 4) Do not use the elevators.
- 5) The fire alarm system is to evacuate the building and is **NOT** monitored by the Department of Public Safety. “9-1-1” must be called and notified of the emergency.
- 6) The departmental team leader for fire safety personnel is Bob Kriegel.
- 7) Lab safety officer for the department is Karen Chou.
- 8) 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.

b. What to do

- 1) In the event of a fire, activate a fire alarm and then call “9-1-1”. If you have activated a fire alarm, meet with one of the emergency team members in yellow hard hats and explain the situation to them.
- 2) If you are trained to use available emergency fire equipment, do so if the fire is small. **DO NOT FIGHT A FIRE ALONE.**
- 3) When the fire alarm sounds, shut off gas valves and any electrical equipment that might be a fire hazard in itself and **LEAVE IMMEDIATELY, CLOSING DOORS BEHIND YOU.** Lock doors and take personal valuables if you have time. Follow the directions of emergency team members in yellow hard hats, cross to the other side of the street and assemble at one of the two rally points located either in the faculty/staff parking lot NORTH of the building or EAST of Anthony Hall near the NORTHWEST corner of Farrall Hall.
- 4) Make sure others in your work area are accounted for. This can be expedited by having a predetermined meeting place outside.
- 5) If you are trapped in a room by heat or smoke and cannot reach an exit, close the door, seal off cracks, and open a window only enough to put your nose and mouth close enough to breath fresh air.

2. Tornado warning procedures (posted in each office suite and laboratory)

- a. In the event of a tornado warning – take shelter now condition, campus and police vehicle sirens will be activated.
 - 1) Take shelter in the basement, in interior corridors, or stairwells.
 - 2) **STAY AWAY FROM WINDOWS!!!**
- 3. Severe weather procedures
 - a. The Vice-President for Finance and Operations is designated as the official spokesperson for severe weather procedures and will make decisions and give out information as needed. When a decision has been reached to suspend classes because of inclement weather, the following announcement will be released through the Division of University Relations:
 - 1) Due to severe weather conditions, Michigan State University has suspended classes. Only regular and student employees whose services are required for maintenance, food service, and other essential support operations are to report to work.
 - 2) Employees driving should enter the campus at any of the following six entrances:
 - a) Shaw Lane at Hagadorn Road
 - b) Shaw Lane at Harrison Road
 - c) Collingwood Drive at Grand River Avenue
 - d) Mt. Hope Road and Farm Lane
 - e) Service Road at Hagadorn Road, or
 - f) Service Road at Harrison Road.
 - b. Pay policy
 - 1) **Full- and part-time regular employees** – Employees in this category who report for work during these periods will receive pay for time worked in accordance with compensation policies or in accordance with provisions of collective bargaining agreements. Employees in this category who do not report for work may elect to either take the time off without pay or be paid by having the time deducted from personal or vacation leave accruals.
 - 2) **Student employees** – Employees in this category who report for work will be paid for hours worked. Employees who do not report for their scheduled work will not be paid.
 - c. Prolonged severe weather conditions
 - 1) In cases of declared emergencies or prolonged severe weather conditions, the administration will determine the level of services appropriate to the functioning of the university and the needs and levels of employee involvement.
 - d. Travel and parking
 - 1) To facilitate travel and parking, the Grounds Maintenance Department will plow the following streets as listed in order of priority:
 - a) Farm Lane from Mt. Hope Road north to Grand River Avenue by East Circle Drive/Collingwood Drive entrance.
 - b) Shaw Lane from Harrison Road to Hagadorn Road.
 - c) Service Road from Hagadorn Road to Harrison Road.
 - 2) Employees are requested to park in parking ramps. Parking areas will be opened as they become operational and available.
 - 3) Vehicles to transport personnel from the ramps to the nearest proximity of their work area will be provided, if feasible.
- 4. Bomb threat guidelines
 - a. The purpose of these guidelines is to establish recommended procedures for the handling of bomb

threats. These procedures are to:

- 1) Provide for the orderly receipt and dissemination of bomb threat information to appropriate personnel.
- 2) Provide for orderly evacuation of buildings.
- 3) Provide for an orderly search of a building for a suspect bomb device.
- 4) Provide for control and security of a suspect device pending the arrival of emergency personnel.

b. Receipt and dissemination of information

- 1) Obtain as much information as possible concerning the threat.
 - a) When is the bomb going to explode?
 - b) Where is it right now?
 - c) What does it look like?
 - d) What kind of bomb is it?
 - e) What will cause it to explode?
 - f) Did you place the bomb?
 - g) Why?
 - h) What is your address?
 - i) What is your name?

c. What event or events are occurring in the threatened building at this time (e.g. final exams, military research, controversial speaker, etc.)

- 1) Obtain as much information as possible about the caller.
 - a) Write down the exact wording of the threat.
 - b) Was the caller male or female?
 - c) Race, nationality, accent, age, etc.
 - d) Voice characteristics and pitch.
 - e) Background noises.
 - f) Length of call.
 - g) Telephone number at which call is received.
 - h) Other comments which may prove valuable in the evaluation.
 - i) Identify the person receiving the call.
- 2) Dissemination of information – MSU Department of Police and Public Safety
 - a) Dial “9-1-1” and advise the officer of the information obtained above. Answer any additional questions the officer may have. These questions are critical. They provide the information necessary to determine the necessary emergency action.
 - b) Normally buildings are not evacuated for bomb threats. This is the reason for the screening questions above. Only if directed by the officer or if a suspect device is located or observed, should you pull the nearest building evacuation (fire) alarm. Evacuate the building with the other occupants. After you exit the building, report to the nearest police officer and identify yourself as the person receiving the call.
 - c) Do not hang up unless directed. Advise your supervisor. The officer may want to talk to the supervisor or other building personnel.
 - d) Follow the further instructions of your supervisor or police personnel.

d. Evacuation procedures

- 1) Building contact person

- a) The police will want to meet with the person currently responsible for the building at an agreed upon location. Usually this person is the facility emergency coordinator. If the facility coordinator is not yet assigned, the appropriate dean or director should designate such a person to be in charge of the building during emergencies. This information should be given to all employees prior to emergencies.
 - b) Information evaluation
 - Normally a search will be conducted in the public areas before the building is evacuated; however an immediate evacuation order may be given if the initial report appears to be authentic.
 - The decision to evacuate will be a mutually agreed upon action between the person responsible for the building and the police representative. However, if in the estimation of the police representative, the circumstances require evacuation, then the building will be cleared.
 - c) Evacuation
 - The immediate evacuation order will be given by sounding the evacuation (fire) alarm and ensuring that it is complied with. Emergency response personnel will assist with the evacuation.
 - The occupants must move a minimum of 300 feet from the building.
 - A search will be made of public areas regardless of whether the building is evacuated or not.
- a. Search Procedures
 - 1) Based upon the information obtained, if a decision is reached not to evacuate, a search will be conducted of the public areas of the building.
 - 2) A police representative will establish a field command post with telephone facilities away from the target building.
 - 3) A police representative will designate areas of responsibility to be searched. The police may wish to use the building staff and emergency coordinators, if possible, to free emergency personnel for other use. Building personnel of the affected building are more familiar with what should or should not be in a given area than anyone else.
 - 4) Building re-entry will be prohibited until an all clear is given after the search or until the time given upon receipt of the threat information has passed.
 - b. Discovery of suspect device
 - 1) If a suspect device is discovered – DO NOT TOUCH!!!! Dial “9-1-1” and follow the instructions of the police officer. Evacuation may or may not be directed.
 - 2) Direct all persons in the area of the device to move well away. Prevent persons from entering the area until directed to return to normal activities by the police.

X. FINANCIAL AID

A. Financial Assistance for Graduate Students

1. See <http://grad.msu.edu/funding/> for information regarding funding opportunities.

B. Graduate School Fellowship Program

1. The graduate school offers fellowship programs that provide financial support for outstanding students who plan to enroll in a doctoral program.
2. Two kinds of fellowship awards are available, each of which carries the same stipend, benefits, and

period of award:

- a. University Distinguished Fellowship (UDF), recognizing academic achievement, research goals, demonstrated leadership potential, and contribution to a diverse educational community.
 - b. University Enrichment Fellowships (UEF), recognizing academic achievement, research goals, contribution to a diverse educational community, and a record of overcoming obstacles.
3. Fellowships are available only to students new to graduate study at MSU, who plan to enroll in a doctoral program, and who are citizens or permanent residents of the United States.

C. Office of Financial Aid

1. The Office of Financial Aid (OFA) is the main campus resource for federal and state student financial aid programs and loans.
2. General information is available at the OFA website at <http://www.finaid.msu.edu>

D. The Graduate School Dissertation Completion Fellowships

1. Fellowships are available annually to allow students to devote full time to writing the dissertation with the goal that the dissertation will be completed during the tenure of the fellowship.
2. Other MSU financial support, held simultaneously with the fellowship, cannot exceed a one-half time assistantship or the equivalent.

E. Academic Achievement Graduate Assistantships (AAGA)

1. The graduate school offers a graduate assistantship program that provides financial support for students who are accepted into a master's or a doctoral degree program and whose enrollment will enhance the educational diversity of the student body of the program into which they are admitted, as evident in personal history and experience, research goals, or the promotion of understanding among persons of different background and ideas, or have demonstrated significant academic achievement by overcoming barriers such as economic, social or educational disadvantage.
2. For additional information, contact 116 Linton Hall (353-3626) or <http://grad.msu.edu/funding/> .

F. Student Affairs Assistantships

1. The Division of Student Affairs and Services at MSU employs approximately 50 graduate assistants.
2. Assistantships may be available in judicial affairs, residence life, service learning, and student government and leadership development.

G. FAST Fellowships

1. The graduate school and the Center for the Integration of Research Teaching and Learning sponsor the FAST (Future Academic Scholars in Teaching) fellowship program. The primary goals of the FAST program are to provide opportunities for a diverse group of graduate students to have mentored teaching experiences and to gain familiarity with materials or teaching and assessment techniques. The FAST program is for doctoral students with interests in teaching, learning, and assessment in higher education. See <http://grad.msu.edu/fast/> .

H. Additional Graduate School Funding

1. Graduate Student Research Enhancement
 - a. Funds are available to support activities that enhance graduate students' research projects.
 - b. Funds are available to support research activities including travel to participate in workshops, data collection, short courses and extramural laboratory rotations.
 - c. Criteria for applying may be obtained in 118 Linton Hall or at <http://grad.msu.edu/funding/>
2. Travel Funding
 - a. funds from the graduate school are available for graduate students to travel to present their research at professional conferences.
 - b. Criteria for applying may be obtained at 118 Linton Hall or at <http://grad.msu.edu/funding/>

3. Emergency Fellowship Funding
 - a. The graduate school has limited funding available for graduate students for unusual or unforeseen emergency expenses.
 - b. Criteria for applying may be obtained at 116 Linton Hall or at <http://grad.msu.edu/funding/>

I. Office for International Students and Scholars

1. A limited number of partial tuition awards are available to international students who are in the last one or two semesters of their degree programs and have encountered an emergency financial situation.
2. Information about scholarship and financial aid available to international students is available at the OISS website (<http://www.isp.msu.edu/oiss/>).

J. Scholarships, Fellowships, and Awards for Animal Science Graduate Students

1. Animal Science graduate students may contact Dr. Steve Bursian at 355-3415, 2209C Anthony Hall for a current list of scholarship, fellowship, and award opportunities and deadlines for application. (See Appendix A-15).
2. For additional information see <http://grad.msu.edu/funding/>.
3. A graduate student in Animal Science may apply for funds to travel to a unique meeting or receive special training from the Animal Science Graduate Enrichment Fund. Contact the chair of the graduate committee for guidelines and application information.

XI. DEPARTMENTAL ORGANIZATION

A. Graduate Faculty with a major appointment in Animal Science and areas of interest:

| <u>Name</u> | | <u>Area of Interest</u> | <u>Email</u> |
|--------------------|-------------------------|--------------------------------|--|
| Michael Allen | Professor | Forages | allenm@msu.edu |
| Richard Balander | Associate Professor | Poultry | balander@msu.edu |
| Dennis Banks | Professor | Genetics | banks@msu.edu |
| Ronald Bates | Associate Professor | Swine Genetics Management | batesr@msu.edu |
| David Beede | Professor | Dairy Cattle Management | beede@msu.edu |
| Steven Bursian | Professor | Toxicology | bursian@msu.edu |
| Daniel Buskirk | Associate Professor | Beef Cattle Nutrition | buskirk@msu.edu |
| Karen Chou | Associate Professor | Toxicology | chouk@msu.edu |
| Jose Cibelli | Professor | Animal Biotechnology | cibelli@msu.edu |
| Paul Coussens | Professor | Molecular Biology | coussens@msu.edu |
| Joe Domecq | Professor | Dairy Management | domecqjo@msu.edu |
| Richard Ehrhardt | Specialist | Small Ruminants | ehrhart5@msu.edu |
| Catherine Ernst | Associate Professor | Molecular/Quant. Genetics | ernstc@msu.edu |
| Ted Ferris | Professor | Dairy Cattle Breeding | ferris@msu.edu |
| Roy Fogwell | Professor | Repro. Physiology Management | fogwell@msu.edu |
| Camie Heleski | Instructor/Coordinator | Ag Tech Horse Management | heleski@msu.edu |
| Gretchen M. Hill | Professor | Swine Nutrition | hillgre@msu.edu |
| James Ireland | Professor | Reproductive Physiology | ireland@msu.edu |
| Ik Soon (Ike) Kang | Assistant Professor | Meat Science | kangi@msu.edu |
| Darrin Karcher | Poultry Specialist | Poultry | dkarcher@msu.edu |
| Jason Knott | Assistant Professor | Reproductive Biology | knottj@msu.edu |
| Adam Lock | Assistant Professor | Dairy Nutrition & Metabolism | allock@msu.edu |
| Brian Nielsen | Professor | Equine Exercise Physiology | bdn@msu.edu |
| Michael Orth | Associate Professor | Growth & Musculoskeletal Biol. | orthm@msu.edu |
| Karen Plaut | Professor & Dept. Chair | Mammary Gland Biology | kplaut@msu.edu |
| Wendy Powers | Professor | Environmental Issues/Nutrition | wpowers@msu.edu |
| Richard Pursley | Professor | Repro. Mgmt. of Dairy Cattle | pursleyr@msu.edu |

| | | | |
|----------------------|----------------------|-----------------------------------|--|
| Jason Rowntree | Specialist | Beef Cattle Management | rowntre1@msu.edu |
| Dale Rozeboom | Associate Professor | Swine Nutrition | rozeboom@msu.edu |
| Steven Rust | Professor | Beef Cattle Nutrition | rust@msu.edu |
| John Shelle | Professor | Equine Nutrition | shelle@msu.edu |
| Janice Siegford | Assistant Professor | Animal Behavior & Welfare | siegford@msu.edu |
| Christine Skelly | Associate Professor | Online Equine Programs | skellych@msu.edu |
| George Smith | Professor | Reproductive Physiology | smithge7@msu.edu |
| Juan Pedro Steibel | Assistant Professor | Statistical Genetics & Genomics | steibelj@msu.edu |
| Janice Swanson | Professor | Animal Behavior and Welfare | swans173@msu.edu |
| Robert Tempelman | Professor | Biometrics & Statistical Genetics | tempelman@msu.edu |
| Nathalie Trottier | Associate Professor | Animal Nutrition-Swine & Horse | trottier@msu.edu |
| Santiago Utsumi | Assistant Professor | Grazing Ecology of Dairy Systems | utsumi@msu.edu |
| Mike VandeHaar | Professor | Dairy Nutrition & Metabolism | mikevh@msu.edu |
| Karen Waite | Extension Specialist | Equine Programs | kwaite@msu.edu |
| Miriam Weber Nielsen | Associate Professor | Dairy Mgmt. & Physiology | mw@msu.edu |
| Melvin Yokoyama | Professor | Rumen/Gastrointestinal Micro. | yokoyama@msu.edu |
| Matthew Zwiernik | Assistant Professor | Environmental Toxicology | zwiernik@msu.edu |

Graduate Faculty with a minor appointment in Animal Science and areas of interest:

| | | | |
|-------------------------|---------------------|------------------------------|--|
| Brenda Alston-Mills | Professor | Milk and Lactation | alstonmi@msu.edu |
| Robert Blake | Professor | International Animal Science | rwblake@msu.edu |
| Al Booren | Professor | Meat Science | booren@msu.edu |
| John Partridge | Associate Professor | Dairy Food Processing | partridg@msu.edu |
| Lorraine Sordillo-Gandy | Professor | Immunology | sordillo@msu.edu |

B. Resource People

Dr. Karen Plaut, Chairperson; 1290F Anthony; 355-8384; kplaut@msu.edu

Dr. Steven Bursian, Graduate Student Program Coordinator; 2209C Anthony; 355-8415;
bursian@msu.edu

Kathy Tatro, Graduate Student Program Administrative Support; 1290 Anthony; 355-8417;
tatro@msu.edu

Jamie Pratt, ANS Business Manager; 1290H Anthony; 355-8430; prattj@msu.edu

Dr. Nathalie Trottier; Graduate Committee Chair; 2209 H; Anthony; 432-5140; trottier@msu.edu

Dr. Jose Cibelli; Graduate Committee Member; B290 Anthony; 432-9206; cibelli@msu.edu

Dr. Juan Pedro Steibel; Graduate Committee Member, 1205 I Anthony; 432-0671; steibelj@msu.edu

Olivia Genter, Animal Science Graduate Student Association (ASGSA); 2280 Anthony; 353-0782
gentero@msu.edu

C. Department Committees with Graduate Student Representation

1. Department Advisory Committee

a. The functions of the Department Advisory Committee are to:

- 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.
 - b. 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.
- 2. Undergraduate Student Affairs and Curriculum Committee
 - a. The functions of the committee are to:
 - 1) Review and evaluate courses, curricula, and degree requirements for undergraduate students. It shall take leadership in considering the establishment and deletion of courses and curricula. The committee shall present to the department faculty those curriculum matters which it deems appropriate for discussion and/or action.
 - 2) Review and make recommendations to the department on matters relative to advising undergraduate students.
 - 3) Receive complaints made by undergraduate students relative to classroom instruction. The student may take any complaint relative to instruction directly to the department chairperson. If the chairperson is unable to resolve the matter to the student's satisfaction, the chairperson shall refer the unresolved complaints in writing to the Undergraduate Student Affairs and Curriculum Committee. A hearing shall be scheduled within 10 working days involving the student, faculty, or staff member and Undergraduate Student Affairs and Curriculum Committee. A written report of the action or recommendations of the committee will be forwarded to the dean, chairperson, instructional staff member, student, and university 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.
 - 4) 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.
- 3. Graduate Student Affairs and Curriculum Committee
 - a. The functions of the committee are to:
 - 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.
 - b. 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.

D. Graduate Student Organizations

1. Animal Science Graduate Student Association (ASGSA)
 - a. The ASGSA is open to all MSU graduate students registered in the Department of Animal Science. The objectives of the organization are to:
 - 1) Establish communication among graduate students and create channels of communication with the faculty and other parts of the university.
 - 2) Promote the academic, economic, and social 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.

XII. UNIVERSITY RESOURCES

A. Academics and Research

1. Academic Programs Catalog
 - a. <http://www.reg.msu.edu/AcademicPrograms/Default.asp>
 - b. The Academic Programs catalog lists the programs, policies, rules, regulations, procedures, fees, tuition, housing rates, and organizational structure at MSU. Policies for the master's program begin on page 61, doctoral on page 63.
 - c. Contact: Registrar's Office, 150 Administration Building, 355-3300
2. Institutional Animal Care and Use Committee (IACUC)
 - a. <http://www.animalresearch.msu.edu/>
 - b. The use of 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 (that is, involved in projects under the aegis of sponsorship of the University) will be treated humanely
 - 2) prior to their inception, all vertebrate animal projects receive approval by the IACUC.
 - 3) MSU will comply with state and federal regulations regarding animal use and care
 - c. For animal use form contact: Candy Flynn, 432-4151, flync@msu.edu
3. Certification in College Teaching
 - a. <http://grad.msu.edu/collegeteaching/>
 - b. MSU's Certification in College Teaching is an initiative of the Graduate School, in partnership with departments and colleges. It is designed to help graduate students organize

- and develop their teaching experience in a systematic and thoughtful way, with assistance from faculty and campus offices and programs, in a manner similar to that already in place for research experience.
- c. Contact: Kevin Johnston, 9 International Center, kmj@msu.edu
4. CIC Traveling Scholar
 - a. <http://grad.msu.edu/cic/>
 - b. The purpose of the CIC Traveling Scholar program is to enable Ph.D. candidates at CIC universities to take advantage of special educational opportunities on other CIC campuses.
 - c. Contact: Judy Ward, The Graduate School, 118 Linton Hall, 355-0301, wardj@msu.edu
 5. Conflict Resolution
 - a. <http://grad.msu.edu/conflictresolution/>
 - b. A program for graduate students and faculty to develop skills in conflict resolution using interest-based strategies. An additional program for graduate students teaches skills for effective communication. Available in various formats for the MSU community and other academic institutions.
 - c. Contact: Karen Klomparens, The Graduate School, 110 Linton Hall, 353-3220, kklompar@msu.edu
 6. Course Description and Catalog Search
 - a. <http://www.reg.msu.edu/Courses/Search.asp>
 - b. On-line resource for description of courses.
 7. Forms On-line
 - a. <http://grad.msu.edu/forms/>
 - b. The Graduate School provides a number of downloadable forms for current and prospective students, as well as faculty and staff.
 8. MSU Technologies (formerly Office of Intellectual Property)
 - a. <http://www.technologies.msu.edu/>
 - b. For regulations and policies regarding intellectual properties which are intangible products of the mind – ideas and their representation, such as inventions, publications and other works of scholarship like videotapes, computer programs, or works of art. Intellectual properties can be protected by means of copyright, trademark or patent.
 - c. Contact: 355-2186
 9. Michigan Intercollegiate Graduate Studies (MIGS)
 - a. <http://grad.msu.edu/migs>
 - b. This program allows graduate students who are in good standing in a degree program to elect courses at several graduate schools in Michigan with the approval of both host and home faculty. Contact the Graduate School for a list of participating institutions and MIGS liaison officers.
 10. Office of Radiation, Chemical & Biological Safety (ORCBS)
 - a. <http://www.orcbs.msu.edu>
 - b. ORCBS establishes and maintains training programs of a general nature for all involved personnel in the safe and effective handling and storing of hazardous substances, procedures for dealing with accidents; in the proper use of safety equipment; in packaging and disposing of hazardous wastes and in compliance with right to know regulations for unit supervisors in their obligations to inform employees of the risks when working with hazardous materials.
 - c. By performing these functions, the ORCBS shall be responsible for compliance with state and federal standards and preparing any reports called for.

- d. Contact: ORCBS, C124 Research Complex – Engineering, 355-0153.
11. Ombudsman
 - a. <http://www.msu.edu/unit/ombud>
 - b. The ombudsman is the “complaint” person for the students. Students should contact the ombudsman when they have a problem with any part of the University and don’t know where to turn for help. No miracles are promised, but the University Ombudsman may be able to help with the problem or concern. Students will get an independent point of view in an informal and confidential way.
 - c. Contact: Stan Soffin, Ombudsman, 129 N. Kedzie, 353-8830, soffin@msu.edu
12. Responsible Conduct of Research
 - a. <http://grad.msu.edu/rcr>
 - b. A series of workshops presented throughout the academic year which highlight issues concerning the responsible conduct of research. This series is intended to provide specific information about the responsibilities of students, faculty and research staff in conducting research, interacting with others both within and outside defined research groups, and complying with policies and regulations of sponsors and the University. It is designed to stimulate local discussions, complement department activities, and reinforce issues raised by the *Research Integrity Newsletter* in responding to these needs.
13. Graduate Student (GSRR) Rights and Responsibilities
 - a. <http://www.vps.msu.edu/SpLife/default.pdf> (pg. 61)
 - b. This document is significant not merely because it establishes that graduate students have certain rights and responsibilities, but particularly because it affirms that they are a party to the social trust shared by all in the university community who are charged with preserving and advancing the genius of scholarship and the conditions of inquiry which society has entrusted to our care.
14. Teaching Assistants Program
 - a. <http://tap.msu.edu>
 - b. The MSU Teaching Assistant Program assists all MSU TAs and graduate students in teaching development as part of their professional growth as future faculty. The TA Program strives to improve graduate students’ teaching by offering regular training workshops, a campus-wide TA Seminar on College Teaching, confidential teaching consultations, and a teaching information list serve. International TAs can benefit further through their participation in an orientation program designed specifically for new international students, by participating in TEAM, a computer-based program designed to improve their spoken English, and from the MSU TA BUDDY program, which is designed to promote informal ITA/undergraduate student relationships. The TA Program also serves as a valuable resource center for TAs seeking more information on teaching learning issues in higher education.
 - c. Contact: Kevin Johnston, University TA Program Coordinator, kmj@msu.edu
15. University Committee on Research Involving Human Subjects (UCRIHS)
 - a. <http://www.humanresearch.msu.edu>
 - b. UCHRIHS is the Institutional Review Board (IRB) at MSU. Federal and University regulations require that all research projects involving human subjects and materials of human origin be reviewed and approved by an IRB before initiation.
 - c. Under the regulations, research is defined as a formal investigation designed to develop or contribute to generalizable knowledge. A human subject of research is an individual from whom an investigator obtains data by interaction or intervention or about whom the

- researcher obtains confidential information.
- d. Under the regulations, all investigators (faculty and/or graduate students) who will conduct research that involves human subjects or materials of human origin (blood or tissue samples taken from live humans) must submit an application to UCRIHS. Approval of the research protocol must be in place before the investigator begins data collection.
- e. Examples of research involving human subjects include: interviews, telephone or mail surveys, behavioral or educational testing, observation of individual or group behavior, collection of blood (or other biologic) samples. Although the primary obligation of UCRIHS is to protect the rights and welfare of human subjects of research, it is also concerned with the timely review of research protocols.
- f. These regulations are of specific concern to graduate students because “research” includes the preparation of Master’s Theses and Doctoral Dissertations. By regulation, UCRIHS may not approve data gathered without its prior review and approval of the project. Only in exceptional circumstances will the Graduate School accept a thesis or dissertation containing data from human subjects that does not have UCRIHS approval.
- g. Contact: irb@msu.edu , 355-2180, 207 Olds Hall
- 16. Workshops for Students, Faculty and Staff
 - a. <http://grad.msu.edu/workshops/>
 - b. The Graduate School sponsors a variety of workshops and orientation programs throughout the year. Information for upcoming workshops is e-mailed to departments prior to the event.

B. Degree Completion

1. The Graduate School
Office of Student Affairs
118 Linton Hall
355-0301
 - a. <http://grad.msu.edu/graduation/>
 - b. Deadline Dates
 - 1) Verify deadline dates for each semester through one of the following:
 - a) Registrar’s Office
University Calendar
<http://reg.msu.edu/ROInfo/Calendar/Academic.asp>
 - b) The Graduate School
Important dates
<http://grad.msu.edu/thesisdissertation/>
2. Formatting Guide for Theses/Dissertations
 - a. <http://grad.msu.edu/thesisdissertation/formattingguide.aspx>
 - b. Sets forth the thesis/dissertation formatting requirements established by MSU. Students can access it on the web.
 - c. Contact: Judy Ward, The Graduate School, 118 Linton Hall, 355-0301, wardj@msu.edu
3. Thesis/Dissertation Submission Packet
 - a. <http://grad.msu.edu/thesisdissertation/submissionpacket.aspx>
 - b. A thesis/dissertation packet of forms is available via the web to graduate students submitting a Plan A master’s thesis or doctoral dissertation.
 - c. Contact: Judy Ward, The Graduate School, 118 Linton Hall, 355-0301, wardj@msu.edu
4. Application for Graduation
 - a. <http://www.reg.msu.edu/StuForms/GradApp/GradApp.asp>

- b. *An Application for Graduation* must be submitted by the graduate student to the Registrar's Office early in the semester of graduation. By completing this form, the Registrar's Office will forward the Final Certification form to the department (see Final Certification form).
5. Commencement and Graduation Requirements
- a. <http://commencement.msu.edu/>
 - b. Detailed commencement information, doctoral hooding instructions, and general graduation requirements can be found on this website.

C. Publications

- 1. Research Integrity Newsletter
 - a. <http://grad.msu.edu/publications/>
 - b. A semi-annual newsletter devoted to bringing critical ethical issues before the community for reasoned debate and discussion. This newsletter is sponsored by the Office of Intellectual Integrity, the Center for Ethics and Humanities in the Life Sciences, and the Graduate School.
 - c. Contact: Terry May, Editor, mayte@msu.edu
- 2. The Graduate Post
 - a. <http://grad.msu.edu/publications/>
 - b. A Graduate School newsletter focusing on ideas and observations about graduate life and academic life in general. This newsletter is published in the fall and in the spring.
- 3. Spartan Life
 - a. <http://www.vps.msu.edu/SpLife/index.htm>
 - b. Spartan Life: Student Handbook and Resource Guide is a helpful resource guide to campus programs and services. It also includes rules, regulations, rights and responsibilities that have been established in the interest of intellectual and personal development while protecting individual freedoms.

D. Other Resources

- 1. The Graduate School's Website
 - a. <http://grad.msu.edu/>
 - b. On-line resources for faculty, staff and students relating to graduate education.
- 2. Career and Professional Development
 - a. <http://grad.msu.edu/careerservices/>
 - b. This website contains career and professional development resources for graduate students and postdoctoral fellows. The site focuses on four professional skills (planning, resilience, engagement, professionalism or PREP) that are key to career and professional development. Students should check the site often for new links to career resources within and outside of academe; help with the career search process, and professional development ideas and opportunities.
- 3. Council of Graduate Students (COGS)
 - a. <http://www.msu.edu/~cogs>
 - b. COGS is the all-University graduate and graduate-professional student governing body. COGS' goals are to: promote the academic, economic and social aims for all graduate students; establish effective communication among these students and the academic/administrative units of the University; and create channels of effective communication with other student organizations They also provide a copy service for students completing a thesis/dissertation as part of their degree requirements.
 - c. Contact: COGS, 316 Student Services, 353-9189, cogs@msu.edu

4. English Language Center
 - a. <http://elc.msu.edu>
 - b. The English Language Center (ELC) provides English language instruction to two groups of international students: those needing to improve their English language skills before beginning academic course work and those wanting to improve their English skills but who are not seeking a degree at MSU. Such students can apply directly to the English Language Center or may enroll through the Eurocentres program.
 - c. Contact: A714 Wells Hall, 353-0800, elc@msu.edu
5. Office for International Students and Scholars (OISS)
 - a. <http://www.isp.msu.edu/OISS>
 - b. This office supports and enhances the international students' and scholars' academic, cultural and social interaction at MSU. It also aims to serve as the primary link between the international students/scholars and the university, community, federal government, and public and private agencies. OISS also desires to promote a positive and symbiotic cross-cultural environment through international education and exchange.
 - c. Contact: Peter Briggs, Director, OISS, 103 International Center, 353-1720
6. Student Health Insurance
 - a. A health insurance plan is available to all graduate students/assistants. Please refer to the website below for complete details.
 - b. contact: The MSU Benefits Office, 353-4434,
 - c. <http://www.hr.msu.edu/benefits/studenthealth/index.htm>
7. Contract and Grant Administration
<http://www.cga.msu.edu/>
 301A Administration Building, 355-5040
8. Counseling Center
<http://www.couns.msu.edu>
 207 Student Services, 355-8270
9. Student Accounts
http://www.ctrl.msu.edu/COStudentAccounts/Tuition_Fees.aspx
 140 Hannah Administration Bldg., 355-5050
11. Office of Financial Aid
<http://www.finaid.msu.edu>
 252 Student Services, 353-5940
finaid@msu.edu
13. Payroll Office
<http://www.ctrl.msu.edu/COPayroll/Default.aspx>
 350 Administration, 355-5010, payroll@ctrl.msu.edu
14. Registrar's Office
<http://www.reg.msu.edu>
 150 Administration, 355-3300, reg@msu.edu
15. Resource Center for Persons with Disabilities
<http://www.rcpd.msu.edu>
 120 Bessey Hall, 884-7273 355-1293 (TTY), rcpd@msu.edu

XIII. APPENDIX

College of Agriculture and Natural Resources

| | |
|--|--------|
| Master of Science Degree Proposed Academic Program | A-1 |
| Report of the Guidance Committee –Doctoral and Other Programs..... | A-2 |
| Committee Information Form | A 1&2a |
| Doctoral Research Proposal | A-3 |
| Record of Comprehensive Examinations for Doctoral Degree and Educational Specialists Degree Candidate | A-4 |
| Record of Completion of Dissertation and Oral Examination Requirements for Doctoral Degree Candidate | A-5 |
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| Departmental Report of the Graduate Guidance Committee | A-7 |
| Annual Progress Report..... | A-8 |
| Approval to Schedule M.S. or Ph.D. Final Defense | A-9 |
| Application for Graduation | A-10 |
| University Committees on Research Involving Human or Animal Subjects..... | A-11 |
| College of Agriculture & Natural Resources Master’s Program Change Form | A-12 |
| College of Agriculture & Natural Resources Doctoral Program Change Form | A-13 |
| Animal Science Endowments; Scholarships, Fellowships, and Awards..... | A-14 |

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

Table with columns: Course & Number, Course Title, Credits, Total Course Credits, Plan A Research Credits (or), Plan B Research Credits, TOTAL PROGRAM CREDITS

COLLATERAL COURSES

Table with columns: Course & Number, Course Title, Credits

SIGNATURES

DATE

Student:
Major Professor:
1.
2.
3.
Dept. Chair:
Dean:

Appendix A-2

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

Report of the Guidance Committee

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.

Date _____

Department of Animal Science
DOCTORAL RESEARCH PROPOSAL

Student Name: _____

Title of Proposal: _____

Date of Seminar: _____

Written Proposal

Committee Members

(P) Pass or (F) Fail

Field

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Oral Presentation

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Signed _____
Graduate Coordinator Date

Appendix A-4

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

Record of Comprehensive Exams

Appendix A-5

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

Record of Completion of Requirements

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 form.

Appendix A-10

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

Application for Graduation

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

**College of Agriculture
and Natural Resources
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

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. Hofer 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**