



DEPARTMENT OF
ANIMAL SCIENCES



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Graduate Program Handbook

2009-2010

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INTRODUCTION

This document presents the policies of the Department of Animal Sciences that relate to graduate students and is intended to supplement the *Graduate School Handbook* of The Ohio State University. Policies established in that handbook will be referenced when appropriate and therefore are not repeated in this Handbook.

(<http://www.gradsch.ohio-state.edu/Depo/PDF/Handbook/Handbook.pdf>)

The guidelines provided in this document establish policy regarding such factors as appointments, time commitments, work loads, and benefits with the aim of establishing uniform and equitable Departmental appointment and employment practices for graduate students.

STATEMENT OF GOALS

The mission of the graduate program is to attract and train intelligent and highly motivated students to become highly proficient contributors to society throughout their careers. The attributes necessary to achieve this goal are instilled in various ways. Basic knowledge of the sciences and their application to questions regarding function, management, and use of animals is imparted in formal courses offered both within the Department and in Departments offering graduate level courses in the biological, mathematical, and statistical sciences. Through coursework, graduates are required to develop the necessary depth in their given discipline of study and are also encouraged to acquire breadth in their understanding of the field of animal sciences to properly prepare them for careers in this field.

Growth and versatility of students as scientists are fostered by having them work, at all phases of the scientific process, with faculty who are actively engaged in research.

Every opportunity is given to students to hone their abilities to communicate effectively. All serve as teaching assistants and are required to regularly prepare and deliver seminars. Many of the graduate level courses in the Department require the writing of extensive papers and presentation to other students enrolled in the course. All are required to prepare written proposals of research they perform.

Appropriate ethical behavior and the ability to make appropriate decisions regarding ethical matters is conveyed primarily by the example set by faculty. However, such training is also conveyed more explicitly in formal and informal meetings of faculty and students and in portions of formal courses offered by the Department.

FIELDS OF STUDY

Degrees Offered

The Graduate Program in Animal Sciences offers both the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees. Training is offered in both applied and basic aspects of animal sciences. Faculty conduct research in genetics, tissue biology, meat science, physiology, nutritional sciences, environmental sciences, decision analysis and management, animal welfare, and microbiology.

The M.S. degree is designed to provide academic training beyond the Bachelor of Science (B.S.) degree in preparation for further graduate education or careers in research, industry, or extension.

The primary objective of the Ph.D. program is to prepare students for positions that: 1) involve application of knowledge to various aspects of the animal enterprise, 2) are devoted to pursuit of knowledge in the discipline in which the student was trained, or 3) are in the research segments of industry or various agencies of government. It is the expectation that all graduates will be capable of producing scientific output of high quality and in desirable quantity for a prolonged period of time.

APPLICATION, ADMISSION, REGISTRATION, SCHEDULING

Graduate School Handbook Part II.1

Application & Admission

Admission to the Department of Animal Sciences Graduate Program is competitive and selective. We strongly encourage applicants to follow the application procedures outlined below to be considered for admittance to the Animal Sciences Graduate Studies Program. Because admission is dependent upon an available faculty advisor, applicants who have not made personal contact with faculty members prior to or during the application process may not be admitted.

Therefore, applicants should:

- Review [research areas](#) within the Department
- Identify your research area of interest
- Review [faculty profiles](#)
- Contact faculty members to discuss research and study opportunities
- Apply to the University Graduate School on-line through [The Ohio State University Graduate Admissions Office](#)

Alternatively, applicants expressing an interest in doing graduate training in a particular area may be contacted by a professor in the area of their interest. If no area(s) of preference is indicated, the likelihood of admission will be substantially diminished.

There are several websites of interest to prospective students:

Department of Animal Sciences: <http://ansci.osu.edu/graduate>
Graduate Admissions: <http://gradadmissions.osu.edu>
Apply On Line: <http://gradapply.osu.edu>

To be considered for admission, students must have earned a B.S. or equivalent or professional degree from an accredited college or university, have a minimum of a 3.0 cumulative point-hour ratio (based on a 4.0 scale) in all previous undergraduate and graduate work. The Graduate Record Examination (GRE) is required, with a score of 1,000 (verbal plus quantitative) or greater preferred. Students not meeting these requirements may be considered for conditional admittance. An additional requirement for international applicants includes a minimum score of 550 (written), 213 (computer), or 79-80 (internet) on the Test of English as a Foreign Language.

The Coordinator of the Graduate Program of the Department of Animal Sciences will notify the graduate faculty of students who have inquired about the program, indicating their interests and the status of their application. This notification will include the student's area of interest, grade point average, GRE scores, TOEFL score, home country, and previous universities they have attended. Completed applications will be made available for review by interested faculty. After a complete application is received, decisions regarding admission into the graduate program are

typically made at the next monthly meeting of the Graduate Studies Committee (GSC) of the Department of Animal Sciences.

Recommendations for admission by the GSC on an individual applicant may be for regular, conditional or special admission status. The respective meanings are explained in Part II of the *Graduate School Handbook*. Final acceptance of qualified applicants into the program will depend on the willingness of a particular faculty member to serve as advisor, laboratory space, and resources in the area of the student's interest.

When circumstances dictate, students may be admitted on a conditional basis. The conditions to be fulfilled by the student will be defined by the GSC. The change from a conditional to a regular student is automatic if the student has fulfilled the conditions given at the time of admission, is in good academic standing, and has met satisfactorily the general expectations for Animal Sciences graduate students.

Continuing from an M.S. obtained in Animal Sciences to a Ph.D. program

Students obtaining their M.S. degree in the Department of Animal Sciences who wish to proceed in the Ph.D. program of the Department must submit a request in writing to the GSC. In addition, letters from the advisor and each member of the Graduate Advisory Committee must be provided. In the letters, the Advisor and Committee should explain why the student should be considered for the Ph.D. program. **These letters should be submitted at least one quarter prior to the anticipated time of graduation.**

Registration & Scheduling (Part II.2 - *Graduate School Handbook*)

Seminar

All graduate students are expected to enroll and participate in the Animal Sciences 890 seminar series each quarter that it is offered. Refer to page 5 of this document for specific seminar requirements. During Autumn and Winter quarters the general seminar, 890.01, will be offered. Disciplinary seminars, 890.02, 890.03, 890.04, 890.05, 890.06, and 898 will be offered each Spring quarter.

Transfer Credit

Graduate credit earned at another university may be transferred to this University. The following conditions must be satisfied to transfer graduate credit:

1. Graduate credit was earned as a graduate student at an accredited university
2. A grade of "B" or satisfactory in each course to be transferred
3. The GSC approves the transfer

Course Credits

The Department stipulates a minimum course load for all graduate students of three credit hours per quarter. Students that are receiving an associateship must register full time throughout their degree program.

A student pursuing the M.S. degree must accumulate 45 hours post-baccalaureate. A Ph.D. requires an additional 90 hours (135 post-B.S.). No student should accumulate more than 260 credit hours. The hours counted toward the degree will consist of graded course work (500 level

and above except for Animal Sciences courses which must be 600 level or greater) as well as research (999) and seminar credits. No specific combination of coursework and 999 credit is required. Most students typically complete a core of courses, usually 20 to 50 credit hours, from disciplines required to meet the training needs of their research specialty. The specific courses to be included are initially determined by the advisor with input from the graduate student. This coursework plan should then be reviewed and approved by the student's advisory committee at its first meeting. The courses to be taken will largely depend upon the nature of the research to be completed, the student's former academic record, and the professional goals of the student. It is also recommended that the student's curriculum include a minimum of two graduate level courses (600 level or greater) that are outside the students discipline to increase their breadth of understanding of the animal sciences. This component of coursework may not be necessary for students that enter the Animal Sciences graduate program with previous breadth at the graduate level in other disciplines of the animal sciences. Some of the potential courses to fulfill this category are listed below.

Course #	Title	Hr	Quarter(s)
AS 605	Advanced Meat Science	3	Spring
AS 610	Physiology of Reproduction	5	Autumn
AS 617	Physiology of Lactation	3	Winter
AS 618	Molecular Events in Tissue Growth and Development	4	Spring
AS 628	Genetic Applications to the Animal Industries	3	Winter
AS 630.01	Advanced Animal Nutrition – Ruminant	5	Autumn
AS 630.02	Advanced Animal Nutrition – Non-ruminant	5	Winter
AS 638	Nutritional Immunology	5	Spring
AS 690	Anaerobic Microbiology	5	Spring

Graduate courses in the Department of Animal Sciences are not available for "Credit by Evaluation" (EM). Students are allowed to repeat a course if they received below a "B" and their adviser thinks it would be beneficial for the student.

All graduate courses in the Department of Animal Sciences are graded "A-E" except seminar (890, 898), special projects (694, 993), and research credit (999). These courses are graded either Satisfactory (S) or Unsatisfactory (U). The call numbers for 999 registrations will be distributed via e-mail as soon as they are available. It is imperative that continuing students schedule classes as soon as registration opens to avoid substantial late fees assessed by the University, as well as to guarantee a place in class.

Academic Standards

Students must meet the minimum 3.0 cumulative point-hour ratio and reasonable progress towards the requirements outlined in the *Graduate School Handbook*, Part II.4. The GSC will periodically review grades and reasonable progress.

Permanent Record

The Department of Animal Sciences maintains a confidential file on each graduate student. This file will contain: 1) the letters of recommendation and the previous transcripts, 2) courses taken and grades earned, 3) courses taught or assisted along with letters of evaluation by the professor in charge, 4) seminars given, 5) advisory committee approval, 6) the approved research proposal, 7) the proposed plan of study and expected completion date and 8) thesis defense and candidacy examination results.

Communication

Graduate students are required to be included in the Animal Sciences graduate student listserve. Important information is distributed via this route. To activate your OSU Internet Username and create a password, go to: www.oit.ohio-state.edu and click on "Activate OSU Internet Username" then follow the prompts. An OSU Internet Username takes the form lastname.n, for example, gallagher.7@osu.edu.

GENERAL EXPECTATIONS

Participation in teaching and research programs of the Department are essential components of the student's training. The major professor of each student has the responsibility for evaluating the student's research activity. The professor teaching each course in which the student assists has the responsibility of evaluating the performance of the student as a teaching assistant and working with the student to improve the student's teaching skills. Graduate students should feel free to discuss their performance with the professor if the professor does not take the initiative.

All graduate students are encouraged to participate in activities beyond those directly related to their teaching and research responsibilities. Such activities include seminars, clubs, committees, extension education and other forms of support contributing to Departmental missions.

Health and Safety

Refer to the Department of Animal Sciences document entitled Department of Animal Sciences Employee Health and Safety Information. At OSU, employee health and safety is a primary concern. As a result, Employee Health Services, Environmental Health and Safety, and the Office of Responsible Research Practices require training and health monitoring, dependent on individual job responsibilities, to protect not only the employee, but also research subjects (both human and animal). This document includes all the training and health registration requirements for OSU employees, and a checklist is provided to help with deciding which requirements are applicable to you.

The United States Department of Agriculture has determined that all individuals at The Ohio State University who are involved with biomedical research must complete Animal Care Training. An online course is available through the Office of Research, University Laboratory Animal Resources (ULAR) at <https://rf.osu.edu/secure/education/>. For questions regarding the educational requirements or courses offered contact the Office of Responsible Research Practices (ORRP) at (614) 688-8457.

Research safety training is required for all graduate students. The Office of Environmental Health and Safety (<http://www.ehs.ohio-state.edu>) offers on-line tutorials to fulfill training requirements. Students working in laboratories must complete Lab Standard Training. All others are required to complete Generic Hazard Communication Online – for all non-laboratory personnel. The laboratory safety training requirement also includes specific training for activities particular to an individual workgroup or laboratory. Upon completion of on-line training, print out the final pages of the module, retain the original and submit a copy to your unit or laboratory training coordinator. You are also required to familiarize yourself with the Department of Animal Sciences Hazard Communication Program the Chemical Hygiene Plan as amended for the laboratory/unit in which you are working.

In the event of a work related injury, follow the requirements of the OSU employee accident reporting system. Seek treatment and complete an accident report using the guidelines provided (<http://www.ehs.ohio-state.edu/docs/ohse/accrep.pdf>). Submit a copy of the completed report to the Department Safety Coordinator.

All members of the Department are responsible for familiarizing themselves with The Ohio State University Emergency Operations and Evacuation Plan that has been developed for buildings and facilities within the Department. These plans can be accessed through the Department web-site; <http://ansci.osu.edu>.

Teaching Assignments

All students will be assigned to different teaching experiences as part of their degree requirements. This generally consists of at least one assignment for M.S. students and two for Ph.D. students. Assignments could relate to teaching or extension activities. Normally, graduate students will not be responsible for lectures unless they specifically request such an opportunity. Students receiving financial support may be asked to participate in additional assignments are part of their 20 hours per week service to the Department.

Seminars

The M.S. candidate is required to give a seminar the first year, usually as part of the 890 seminar series, and a seminar of a comprehensive nature upon completion of the degree.

The Ph.D. candidate is required to give a one-hour seminar prior to admission to candidacy, usually as part of the 890 series, and a one-hour seminar at completion of the degree.

The completion seminars, usually referred to as exit seminars, are normally given prior to the thesis/dissertation defense. Students should submit the date, time and title of their seminar/exam to the Graduate Coordinator at least a week prior so that a notice can be sent to Departmental personnel. **The above requirements are the minimum, and M.S. and Ph.D. students are often expected to give at least one seminar per year of enrollment.**

ADVISORS, COMMITTEES and RESEARCH PROPOSALS

The graduate student - graduate faculty advisor relationship is established by mutual consent between the advisor and the student and is developed before the student's acceptance into the graduate program. Decisions regarding request for changes in advisor are made by the GSC. Information regarding committees and their structure are listed below and in the *Graduate School Handbook*.

Graduate Advisory Committees

The advisor, in consultation with the student, will identify members of the Graduate Advisory Committee. The student is responsible for contacting potential committee members to determine if they are willing to serve on their graduate committee. The overall role of the Graduate Advisory Committee is to provide guidance to the graduate student throughout the course of graduate study and to ensure that the program is of sufficient rigor to warrant a graduate degree.

Advisory Committee Composition

M.S. Advisory Committee: The minimum number of committee members, including the advisor, is three, and the committee should provide for both expertise in the specific area of study and some breadth of expertise to broaden the student's awareness of diverse scientific principles. The Advisory Committee must include a minimum of two OSU Graduate Faculty members; including the advisor. The student will consult with their advisor regarding the makeup of the committee and after consensus is achieved, complete the Graduate Advisory Committee Form and provide this to their advisor. The advisor will then submit this form to the GSC by the end of the student's third quarter of enrollment for approval by the GSC.

Ph.D. Advisory Committee: The minimum number of committee members, including the advisor, is four. The Advisory Committee will consist of a minimum of three OSU Graduate Faculty members; including the advisor. Approval of the Ph.D. committee by the GSC is dependent upon one member being from a Department or entity external to the Department of Animal Sciences except in special circumstances in which the advisor and/or student provides compelling justification to having a committee that is limited to only the Department of Animal Sciences. This member can be from other departments within OSU or outside institutions/organizations. The student will consult with their advisor regarding the makeup of the committee and once consensus is achieved, complete the Graduate Advisory Committee Form and provide this to their advisor. The advisor will then submit this form to the GSC by the end of the student's fourth quarter of enrollment for approval by the GSC.

Ph.D. Candidacy Exam Committee: In many cases, the same Advisory committee will administer the candidacy exam for the student. However, it is important to note that the Graduate School has a requirement for four, rather than three, members of the Graduate Faculty at OSU (including the advisor) for the Candidacy Exam Committee. Therefore, if the Advisory Committee only has the minimum of three Graduate Faculty from OSU, it will be necessary for the advisor and student to recruit an additional OSU Graduate Faculty to fully participate in both the written and oral portions of the Candidacy exam. This additional member that will be recruited for purposes of the Candidacy exam should be indicated as such on the Graduate Advisory Committee Form.

Committee members not graduate faculty of OSU: The inclusion of committee members who are not OSU graduate faculty may be acceptable. This is achieved through recommendation of the GSC and subsequent approval by the Graduate School. Outside experts do not need to hold Adjunct Faculty appointments to serve on an Advisory Committee. The procedure for making such a request is initiated by the student and their advisor at the time they are preparing the Graduate Advisory Committee form. The student must submit a letter of justification to the GSC indicating the benefit of adding this person to the committee that is also signed by the major professor indicating their approval of this request. The CV of the outside expert should be submitted to the GSC in conjunction with the request letter. The GSC will evaluate the request and the CV. If the GSC is supportive of this arrangement, the GSC will send a letter of support, the expert's vita and the student's written request to the Graduate School.

Research Proposal

Upon approval of the Advisory committee by the GSC, the student, in consultation with their advisor, will submit a research proposal to the committee and schedule the initial committee meeting. The research proposal of Ph.D. students is expected to represent a more thorough series of experiments, which will test a more comprehensive hypothesis than that required for the M.S. degree.

The research proposal is to be submitted to the Advisory Committee during, or before, the fourth quarter of enrollment for M.S. students and the fifth quarter of enrollment for Ph.D. students. The research proposal should be prepared in close consultation with the major professor and include the hypothesis, specific objectives, rationale, and general approaches for the proposed research. When the research proposal is distributed to the Advisory Committee members, a date will be set for an Advisory Committee meeting. At this meeting, the Advisory Committee will determine if the proposal itself, the proposed research objectives and the proposed coursework of the student are sufficient for completion of the degree. A copy of the signed research proposal, indicating approval by all committee members must be submitted to the Departmental GSC by the end of the fourth or fifth quarter of enrollment for M.S. and Ph.D. students, respectively. If the committee indicates that the Research Proposal is not acceptable, the student will have one month to submit a revised proposal and gain approval. **The approved research proposal must be submitted to the GSC before scheduling of the candidacy exam.**

Deviations from approved Research Proposals or Advisory Committee Forms

Occasionally, circumstances warrant the redirection of a M.S. or Ph.D. program's research focus. However, to maintain rigor and consistency across the Department's entire graduate program, deviations in committee structure must be approved by the GSC in response to a revised Graduate Advisory Committee form. This form should be submitted no later than the quarter after which the change was made and well in advance of scheduling the Candidacy Exam for Ph.D. students or Final Oral Exam for either the M.S. or Ph.D student. If the research objectives change significantly, the student and advisor should prepare a modified research proposal that is signed by the Advisory committee and submitted to the GSC for placement in the student's permanent file.

Enforcement

Failure to submit the required form and research proposal (or modified form and proposal, if it deviated from the prior submissions—see previous section) to the GSC may result in withdrawal of Departmental funding to the student and jeopardize the chances of funding for future students of the advisor. Doctoral students will not be permitted to begin the candidacy exam until a fully approved research proposal has been submitted.

Forms

See appendix for copies of M.S. and Ph.D. Advisory Committee Approval Forms and Graduate Research Proposal Cover Page or at <http://ansci.osu.edu/internal/acaf.doc> and <http://ansci.osu.edu/internal/grpcp.doc> on the Department of Animal Sciences internal site (password access only).

MASTER OF SCIENCE PROGRAM

Graduate Studies Handbook II.5

Degree Offered

The Department of Animal Sciences offers a thesis-based M.S. program. Degree requirements involve both research and teaching. The type of research will depend upon the field of interest.

Course Requirements

The courses required will be highly dependent on the area of research, the previous coursework that the student has completed and career goals of the student. The curriculum will be determined by the advisor, with input from the student, and will subsequently be assessed and approved by the student's Graduate Advisory Committee.

General Expectations

It is recognized that backgrounds, interests, and aspirations of students in the M.S. program are varied. Those to whom the M.S. degree will be awarded are expected to possess some common core of knowledge and intellectual competence. To this end the Graduate Faculty expect all successful candidates to have attained:

1. A basic understanding of the elements of chemistry, physics, and mathematics
2. A sound general knowledge of biology, including organic chemistry, biochemistry, microbiology, anatomy, physiology, and genetics
3. An appreciation and understanding of the scientific method

Master of Science Examination

A draft thesis must be presented to all members of the M.S. Examination Committee at least one week prior to the scheduled final oral examination. The M.S. Examination typically focuses on the thesis problem but also tests the student's knowledge of related areas. *The exam shall be scheduled for a full two hours, not including a seminar presentation.* The exam is closed, and only members of the committee may be in attendance. Unanimous approval by the Advisory Committee is required for satisfactory completion of the M.S. examination. For information about the thesis and its submission see the *Graduate School Handbook*, Section II.5.

Time Limits

A M.S. student should have at least half of the curriculum that has been approved by the Advisory committee completed by the end of the first year. As outlined above in the Policy on Graduate Advisory Committees, an approved thesis problem should also be selected by this time. The duration of a M.S. program is approximately two years. A student must finish a M.S. degree within six years after starting the M.S. program. Time limit guidelines have been established for students holding associateships or fellowships (see Associateships section below).

Publications

A thesis is expected to contain a comprehensive review of the literature, rationale for the experimentation, objectives, experimental design, results, and discussion (*Graduate School Handbook*, III). Preparation of a manuscript for submission to a peer-reviewed journal is strongly encouraged.

DOCTOR OF PHILOSOPHY PROGRAM

Graduate School Handbook, II.6

General Expectations

A M.S. degree in the Animal Sciences or a related discipline should be earned prior to beginning the Ph.D. program. Exceptional undergraduate students will be considered for direct entry into the Ph.D. program.

All students are required to participate regularly in the Departmental seminar program. The ability to organize and present complex material and ideas in a well-ordered and lucid manner must be demonstrated by the completion of a worthy dissertation and a final seminar, open to the Department of Animal Sciences, that summarizes the research completed for the Ph.D.

Candidacy Examination

The Candidacy Examination is both written and oral. The written portion is administered by the Advisory Committee. The oral portion is administered by the Advisory Committee and may also include a Graduate School Representative. The Candidacy Examination is designed to test the student's knowledge and ability to relate and apply knowledge in his or her field. The oral exam is attended only by members of the Candidacy Exam Committee. Successful completion of the examination requires a unanimous vote of satisfactory by all members of the Committee. In the event that the examination is deemed unsatisfactory, refer to Part II.6 of the *Graduate School Handbook*.

After the Candidacy Examination is successfully completed the student may only register for three (3) credit hours per quarter. Exceptions to this are rare but can be petitioned by the advisor to the GSC and the Graduate School.

Dissertation

The Department requires an in-depth dissertation research project carried out in accordance with the guidelines outlined in this document. The Ph.D. dissertation should exhibit original and independent thought and describe research that is designed to address a specific issue in the discipline area. ***A draft of the dissertation must be approved by all members of the Final Oral Examination Committee at least 14 days before the scheduled examination. In order to permit the committee members adequate time to review the draft, it should be delivered to the committee members a minimum of 3 days before this deadline.*** For additional information about the dissertation, see *Graduate School Handbook*, Part II.6.

Final Oral Examination

The Final Oral Examination is given at least 14 days after the student's Advisory Committee has approved the dissertation draft. The Advisory Committee plus a Graduate School Representative administer this examination. This exam is not only to defend the dissertation but is also to determine the student's ability to synthesize independent thought and to logically interpret experimental results. The exam shall be scheduled for a full two hours, not including a seminar presentation. Only members of the committee may be in attendance at the exam. See II.6.10 of the *Graduate School Handbook* for specific requirements. The satisfactory completion of the examination requires agreement of all members of the Committee including the Graduate School Representative.

Time Limits

Generally, the first year of a Ph.D. program will include course work, Advisory Committee selection, approval of the plan of studies (courses to be taken), development of a research proposal for a dissertation problem of originality and merit, and active participation in ongoing research work. The second year should yield progress toward conducting that project, completion of course work and passing of the Candidacy Examination (See Policy on Graduate Advisory Committees section (above) for more details). The third year would likely be the culmination of the program with the final defense of the thesis and publication of the research results. Time limit guidelines have been established for students holding associateships or fellowships (see Associateships section below).

If a student fails to submit the final copy of the dissertation to the Graduate School within five years of being admitted to candidacy, the candidacy is canceled.

Publications

The scholarly pursuit of a Ph.D. degree should produce original and useful knowledge. Papers drawn from this dissertation should be submitted for publication in a peer-reviewed journal.

FINANCIAL AID

Fellowships, along with half-time and quarter-time graduate associateships, are available through the Department and University for outstanding graduate students. Information regarding various fellowships is distributed to qualified individuals approximately one month prior to the deadline for application/nomination. Some first-year fellowships have an application deadline of January 15. Stipends for graduate associateships vary from year -to-year but are competitive with other leading institutions. Application for admission also constitutes application for graduate associateships; however, specific additional application is required for certain fellowships.

Cost of Study

Current tuition and fees per quarter for full-time study (15 quarter hours) are listed in The Ohio State University Graduate School Bulletin. Tuition (University fees) is covered by the Department or funds of the advisor for those on graduate associateships and fellowships.

Cost of Living

University housing in dormitories or married student apartments is supplemented by reasonable private off-campus housing. Limited graduate student housing is available at Wooster.

GRADUATE ASSOCIATE/FELLOWSHIP POLICIES

Graduate School Handbook, II.8

Associateship Offer

Associateships are awarded at the discretion of the Chair of the Department of Animal Sciences. Primary considerations in such decisions are the qualifications of the applicant and the productivity of the advisor. In addition, the **Chair** also takes into account the number of Departmentally funded students that an individual professor has and the date funded students are anticipated to finish. Provision of supplemental support from soft-money is encouraged. Requests for funding should be submitted in writing to the Department Chair.

Note about Worker's Compensation

Students on assistantships must report any work related injury or illness within 72 hours. If medical treatment is needed, you should go to either the Employee Health Services or Student Health Services. Please take a Employee Accident Report with you. Contact the Graduate Program Coordinator to receive guidance on how to proceed in this instance.

Fellowship recipients are not eligible for Workers' Compensation as they are not officially considered as employees of the University. Fellowship recipients are not paid for services but rather, have received an award to support their training. If fellowship recipients are injured while performing fellowship duties, it is not a work-related injury (i.e., fellowship recipients do not work for the University). **These injuries should not be reported as work-related.**

Fellowship recipients should contact their health insurance carrier if they are injured while performing fellowship duties. If an insurance company needs proof of lack of Workers' Compensation coverage for fellowship recipients, the student may request a letter stating this policy from the Workers' Compensation Office at Ohio State.

Tax

Students holding graduate research associateships have tax withheld from each monthly paycheck. Those holding graduate fellowships, however, must file their taxes quarterly. For additional information, please contact the University Office of Human Resources or visit <http://www.state.oh.us/tax/>.

Time Limits

Associateship contracts are normally one year in duration with the expectation that the appointment will be renewed to cover a total of two years for M.S. degree candidates and a total of three years for Ph.D. degree candidates. Extension of associateships beyond 9 quarters for M.S. students and 14 quarters for Ph.D. students is at the discretion of the Department Chair.

When 200 hours are reached, the GSC Chair, Department Chair and Associate Chair will be notified. When 260 hours are reached, the student and adviser will be warned that the student's associateship will not be renewed unless extenuating circumstances exist. An expected graduation date will be negotiated with the Chair. At 300 hours or the next contract period, whichever comes first, the student will be ineligible for an associateship.

The Departmental GSC and the Department Chair reserve the right to terminate or fail to renew an appointment at any time when a student is not in good standing with either the Department or

the Graduate School. To be in good standing, the student must have: at least a 3.0 cumulative grade point average, satisfactory job performance, made sufficient progress toward completion of the degree, and the support of an academic adviser. Decisions to not renew a contract will be communicated in writing at least two weeks prior to termination of the current contract. Although the GSC will strive to maintain appointments, renewal of an appointment is also dependent upon availability of funds. A student who accepts an associateship appointment in this Department is expected to complete a degree program. This includes publication of the thesis or dissertation research results.

Stipend and Tuition Waiver

Amount of stipend for Graduate Associates is based on a tiered system. The first-year student working toward a Master's Degree is awarded the first tier. Associates beginning their doctoral studies are awarded the second tier. Students who have passed their Ph.D. candidacy exam are awarded the third tier. A student meeting the criteria for a Distinguished University Fellowship (DUF; GRE above 1450 and CGPA of at least 3.75) and having an identified professor may be offered a Doctoral Recruitment award at the DUF level (fourth tier).

Tuition and fees will be waived for all students with 50% (or greater) appointments.

Percent Time

Graduate associate appointments can begin coincident with any quarter. Start dates are January 1, April 1, July 1 or October 1 and are typically half-time associateships. The student is expected to report to the Department of Animal Sciences by the first day of his or her initial appointment. Some short term appointments of one and two quarters or appointments for 25% time may be made if circumstances warrant. Students appointed for short term or 25% will be considered along with all others for 50% appointments. Please see the separate section regarding 25% appointments. Minimum course loads (credit hours) for international students, Graduate Associates, and Graduate Fellows are stipulated by the Graduate School.

Expectations

Graduate associates are expected to spend up to 20 hours per week in duties and responsibilities in the Department. The adviser and Department Chair will strive to ensure that these responsibilities are met. This work shall include, but not necessarily be limited to: research responsibilities assigned by the student's major professor, assistance in courses taught in the Department (e.g., preparation and presentation of class lectures, work in the class laboratory, counsel of students, and grading papers), presentation of papers at scientific meetings, and help with the service functions performed by the Department.

It is expected that students that receive an associateship will not have other employment unless it directly relates to their work and must be approved by the student's advisor. Time consumed by responsibilities of 50% graduate research associate appointments and at least 9 hours of graduate course requirements is deemed to be a reasonable commitment. Note that full time graduate student hours vary from 12 to 15 and that no student is permitted to take over 18 credit hours. Doctoral Candidates can register for only 3 credit hours per quarter (see earlier section).

Fringe Benefits

Graduate Research Associates at 50% time on yearly appointments will receive 20 working days of vacation per year. This vacation must be taken during the period of their contract. An absence form must be completed for all away-from-duty time (illness, professional meetings, vacation, etc.), including quarter breaks. This absence and the associated form must be approved by the major professor who then submits it to the Department Graduate Program Coordinator. Graduate Research Associates and Fellows may also participate in the University- sponsored insurance programs; premiums are payable by the GRA but may be deducted from the GRA's paycheck. Graduate Research Associates are eligible for staff I.D.s and may purchase staff parking permits. Direct deposit of payroll checks is also available. The Department currently covers 80% of the health insurance premium.

Graduate Associates/Fellows have two choices in health insurance: University Prime Care and Student Health Insurance. For additional information, go to:

<http://hr.osu.edu/benefits/gahealth.html>.

Graduate associates, fellows and most graduate students in the Department will be provided with office space, a mail box, and an e-mail address; they will have access to office duplicating equipment, a telephone, and file space.

25% Appointments

Graduate Research Associate appointments for 25% time will be given only in exceptional cases and with the approval of the GSC and the Dean of the Graduate School. The information regarding 50% appointments applies to 25% appointments with the following exceptions:

1. 10 hours per week are to be committed to the Department,
2. the stipend will be for half of the amount listed for each category, and
3. only one-half of the fees will be waived.

ADDITIONAL INFORMATION

Special Programs

The Department of Animal Sciences participates in the joint graduate-undergraduate program of the College of Food, Agricultural and Environmental Sciences. The program is called the AGR7 and results in awarding a B.S. and M.S. degree to the successful student. The Department of Animal Sciences also participates in the joint graduate-professional degree programs. Participation with the College of Medicine results in the M.D./Ph.D. (MED7). Participation with the College of Veterinary Medicine results in the D.V.M./Ph.D. (VME7). See Part II.7 of the *Graduate School Handbook* for a program description and admission requirements. The Department also participates in the Ohio State University Nutrition (OSUN) and OSU Environmental Sciences Interdisciplinary programs. In these programs, graduate students advised by Faculty in our Department are administered through the specific interdisciplinary graduate program. The Department of Animal Sciences has no specific restrictions against other special programs listed in the *Graduate School Handbook*; however, participation is subject to approval by the GSC.

GRIEVANCE PROCEDURE

A student should make every effort to resolve disputes with the party(ies) involved. If this is not possible, a written appeal can be submitted to the GSC through the grievance procedure described in this document.

Please review the grievance procedure before the need arises. Cooperation and communication are required on all sides to avoid unnecessary misunderstandings. The grievance procedure starts with a student's discussion with the appropriate faculty adviser. At each level of appeal, there are at least two possible results. The first, and most desirable result, is a faculty-student understanding, leading to a solution and thereby resolving the grievance. The second result always provides a mechanism for the student to appeal to another party of higher authority who is further removed from the situation.

Levels of Appeal

1. Discussion with faculty adviser
2. Discussion between student and GSC chair
3. Presentation of grievance to entire GSC (either in person or in writing). A majority vote in the student's absence will determine a decision.
4. Appeal to the Department Chair (either in person or in writing)
5. Written appeal to the Department Chair's Advisory Committee
6. Department Chair and Student approach the Graduate School Dean

It is the Department's sincere hope that all grievances can be resolved at the first step. When further steps are required, everyone involved should understand the steps to be taken so personal conflicts do not develop and decrease our ability to work together towards a solution. Conflicts, which persist, hurt everyone. Grievances must be worked out rapidly and to the satisfaction of all concerned. If some policy or procedure is causing low morale, we all suffer. Graduate student/faculty relations are very important for the overall productivity of the Department. We encourage constant communication between students and faculty. If there is free and open communication, many misunderstandings can be corrected before they become grievances. Refer to the *Graduate School Handbook* Section II.8.

THE GRADUATE SCHOOL AND THE DEPARTMENT OF ANIMAL SCIENCES

The Graduate School

See Part I of the *Graduate School Handbook* for information on the structure of the Graduate School and the Council on Research and Graduate Studies. The Department of Animal Sciences graduate faculty has a commitment to maintain an outstanding program of graduate study operated through the GSC.

Graduate Studies Committee

The GSC Chair is a Category P graduate faculty member elected by the faculty to serve a three-year term. The GSC Chair is eligible for re-election. Three additional graduate faculty members are elected by the faculty to serve three-year staggered terms. One member is re-elected or replaced each year. If a member of the GSC is elected as chair, a replacement will be elected to serve the remainder of his/her term. The Department Chair will serve as a member of the Graduate Studies Committee. One graduate student will be elected by the graduate students to serve a one-year term as a non-voting member of the GSC. Responsibilities of the GSC are

spelled out in Part III.2 of the *Graduate School Handbook*. A Departmental support staff individual will be assigned to coordinate graduate studies activities.

In addition to other duties mentioned in this document, the GSC will review course proposals or other curriculum issues related to the graduate program. Course proposals and other reviews will be forwarded to the Academic Affairs Committee and should include an assessment of how the proposal enhances the Animal Sciences graduate program. The Academic Affairs Committee will be responsible for the administrative aspects of the documentation and approval of these graduate courses (e.g., U/G or G courses).

Graduate Faculty Membership

The Graduate School at OSU determines requirements for Graduate Faculty status; Category M is necessary to mentor MS students; and Category P, to mentor MS and PhD students (see Part III.3 of the *Graduate School Handbook*). The Graduate Faculty members of the Department of Animal Sciences believe that the desire to counsel students as a mentor is an integral part of graduate faculty membership. All faculty members with an appointment in the Department of Animal Sciences are eligible to be members of the Animal Sciences Graduate Faculty.

The qualifications for Category M status are that an individual holds a faculty appointment and a M.S. degree or equivalent or higher. The qualifications for Category P status are that an individual holds a faculty appointment, has an earned PhD or equivalent, is engaged in an active program of research, or demonstrates significant promise of establishing such a program. The GSC confers Category M status and notifies the Graduate School of its actions.

Faculty members desiring Category P status are required to submit evidence of eligibility to the GSC. The candidate's nomination materials will be made available to the entire Graduate Faculty of the Department for perusal and comment. The GSC will assess the materials submitted and consider faculty comments. If warranted, the GSC will make a nomination for Category P status to the Graduate School. Auxiliary faculty can also be awarded Graduate Faculty Status. See Part III of the *Graduate School Handbook* for details.

Faculty members with a courtesy appointment in the Department of Animal Sciences are eligible to be members of the Animal Sciences Graduate Faculty. To be granted Category M or P status in the Department of Animal Sciences, faculty with a courtesy appointment must have credentials consistent with those of regular faculty holding such appointments. The GSC appoints faculty with courtesy appointments to Category M graduate faculty status and notifies the Graduate school of its actions. Nomination materials for courtesy faculty that desire Category P status will be made available for review by the entire Animal Sciences Graduate Faculty. The GSC will assess the materials submitted and consider faculty comments. If approved, a nomination for Category P status will be forwarded by the GSC to the Graduate School. Students advised by courtesy faculty with graduate faculty status in the Department of Animal sciences are not eligible for Departmental associateships or fellowships, nor are they eligible for Departmental funds in support of travel to scientific meetings.

GRADUATE FACULTY OF THE DEPARTMENT OF ANIMAL SCIENCES

Graduate faculty members with regular appointments in the Department of Animal Sciences are alphabetically listed. Following the faculty member's name are Graduate Faculty Category, the degree, institution, year of degree, research interest, location and rank (P for those authorized to advise Ph.D. students and M for those who may advise M.S students and serve on Ph.D. committees.

Chair

James E. Kinder, Ph.D., Washington State University, 1975. Reproductive Physiology (Columbus) P.

Associate Chair

- Hogan, Joseph S., Ph.D., University of Vermont, 1986. Dairy Mastitis (Wooster) P.

Graduate Studies Committee Chair

- Day, Michael L., Ph.D., University of Nebraska, 1985. Cattle Reproduction (Columbus) P.

Graduate Faculty

- Boyles, Stephen L., Ph.D., Kansas State University, 1985. Beef Nutrition (Columbus) M.
- Cole, Kimberly, Ph.D., University of Arkansas, 2005. Equine (Columbus) P.
- Dabrowski, Konrad, Ph.D., courtesy from Natural Resources (Columbus) P.
- Daniels, Kristy, Ph.D., Virginia Tech, 2008. Mammary Development (Wooster) M.
- Davis, Michael E., Ph.D., Colorado State University, 1980. Beef Cattle Genetics (Columbus) P.
- Eastridge, Maurice L., Ph.D., Purdue University, 1986. Dairy Nutrition (Columbus) P.
- Ezeji, Thaddeus, Ph.D., (Magna Cum Laude) University of Rostock, Germany, 2001. Microbiology (Wooster) P.
- Firkins, Jeffrey L., Ph.D., University of Illinois, 1987. Dairy Nutrition (Columbus) P.
- Fluharty, Francis L., Ph.D., The Ohio State University, 1993. Beef and Sheep Nutrition (Wooster) P.
- Jackwood, Daral, Ph.D., courtesy from Food Animal Health (Wooster) P.
- Knipe, Lynn C., Ph.D., Iowa State University, 1982. Meat Science (Columbus) M.
- Kuber, Paul S., Ph.D., Washington State University, 2001. Meat Science (Columbus) M.
- Latshaw, J. David, Ph.D., Washington State University, 1970. Poultry Nutrition (Columbus) P.
- Lee, Kichoon, Ph.D. University of Georgia, 1997. Molecular Biology (Columbus) P.
- Lilburn, Michael S., Ph.D., Pennsylvania State University, 1980. Poultry Science (Wooster) P.
- Loerch, Steven C., Ph.D., University of Illinois, 1982. Beef Cattle Nutrition (Wooster) P.
- Mahan, Donald O., Ph.D., University of Illinois, 1969. Swine Nutrition (Columbus) P.
- Moeller, Steven J., Ph.D., Iowa State University, 1994. Swine Genetics (Columbus) P.
- Morrison, Mark, Ph.D., University of Illinois, 1991. Anaerobic Microbiology (Columbus) P.
- Moser, Bobby D., Ph.D., courtesy from College of Food, Agricultural and Environmental Sciences (Columbus) M.
- Neal, Steven, Ph.D., courtesy from Agricultural Technical Institute (Wooster) M.
- Ockerman, Herbert W., Ph.D., North Carolina State University, 1962 (Columbus) P.
- Ottobre, Joseph S., Ph.D., West Virginia University, 1981. Reproductive Physiology (Columbus) P.
- Pepper, Pasha, Ph.D., North Carolina State University, 2004. Nutrition (Columbus) M.
- Pope, William F., Ph.D., Oregon State University, 1981. Reproduction (Columbus) P.
- St-Pierre, Normand R., Ph.D., The Ohio State University, 1985. Dairy Management (Columbus) P.
- Saif, Y. Mo, Ph.D., courtesy from Food Animal Health (Wooster) P.
- Selvaraj, Ramesh, Ph.D., University of California, Davis, 2005. Immunology (Wooster) P.
- Slemmons, Richard, Ph.D., courtesy from Veterinary Preventive Medicine (Columbus) P.
- Turner, Thomas B., Ph.D., University of Tennessee, 1976. Beef Genetics and Evaluation

(Columbus) M.

- Velleman, Sandra J., Ph.D., University of Connecticut, 1986. Cell and Developmental Biology (Wooster) P.
- Weiss, William P., Ph.D., The Ohio State University, 1985. Dairy Nutrition (Wooster) P.
- Wick, Macdonald P., Ph.D., University of California – Davis, 1997. Muscle Cell Biology (Columbus) P.
- Yu, Zhongtang, Ph.D., New Mexico State University, 1996. Molecular Biology (Columbus) P.
- Zerby, Henry N., Ph.D., Colorado State University, 1999. Meat Science (Columbus) P.

**Department of Animal Sciences
Advisory Committee
Approval Form**

Name of Student: _____

Enrollment Start Date: _____

Name of Advisor: _____

Degree: MS PhD

Brief Statement (paragraph not just title) of Research Problem:

Advisory Committee Members:

_____ (Adviser)

Approved by Graduate Studies Committee: _____

The **advisor** must complete this form for submission to the Graduate Studies Committee by the 3rd quarter of enrollment for MS and 4th quarter of enrollment for PhD students. See the Department Graduate Student Handbook for details

MS Advisory Committee: The minimum number of committee members, including the advisor is three and must include at least two OSU Graduate Faculty members.

PhD Advisory Committee: The minimum number of committee members, including the advisor is four and must include at least three OSU Graduate Faculty members. Doctoral committees should include one member from outside the department. Please list home department and area of expertise. Note: the Candidacy Exam is usually the same as the PhD Advisory Committee except that there must be four OSU Graduate Faculty members – the fourth member can be added to the Advisory Committee, if necessary, and should be noted on this form.

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**Department of Animal Sciences
Graduate Research Proposal
Cover Page**

TITLE

Name of Student

Degree (circle one): **MS** **PhD**

Advisory Committee Member Approval (signatures required):

_____	(Advisor)	_____	(Date)
_____		_____	(Date)
_____		_____	(Date)
_____		_____	(Date)
_____		_____	(Date)

Submitted to Graduate Studies Committee: _____ (Date)

The **student** must submit a research proposal to their Graduate Advisory Committee during or before the 4th quarter of enrollment. This form must be signed, indicating approval by all committee members and must be submitted, along with a copy of the proposal to the Graduate Studies Committee by the end of the 4th quarter of enrollment for MS and the 5th quarter of enrollment for PhD students.

CHECK LIST FOR STUDENTS

General Information for All Students:

- _____ Register for 890 series each quarter
- _____ Register for 999 each quarter (hours dependent on advisor recommendation)
- _____ Submit copies of all applications and notifications to Department*
- _____ Inform the Department* of any professional presentations

MASTER OF SCIENCE PROGRAM

- _____ Advisory Committee formed by Advisor (3rd quarter of enrollment)
- _____ Signed Research Proposal submitted (4th quarter of enrollment)
- _____ Application to Graduate Form submitted (2nd Friday of expected quarter)
- _____ Draft thesis to Advisory Committee submitted AT LEAST 1 WEEK prior to exam

DOCTOR OF PHILOSOPHY PROGRAM

- _____ Advisory Committee formed by Advisor (4rd quarter of enrollment)
- _____ Signed Research Proposal submitted (5th quarter of enrollment and prior to orals)
- _____ Notification of Candidacy Exam Form submitted (two weeks prior or orals)
- _____ Application to Graduate Form submitted (2nd Friday of expected quarter)
- _____ Doctoral Draft Approval/Notification of Final Oral Exam Form submitted (two weeks prior to exam)
- _____ Draft dissertation to Advisory Committee submitted AT LEAST 2 ½ WEEKS prior to exam

*Department: Graduate Program Coordinator, Debra Gallagher

