Animal Science Graduate Handbook

Updated August, 2016

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY
# Table of Contents

- Introduction 3
- Departmental Information 3
- University Information 3
- City of Ames Information 3
- Your First Week Check List 4
- Checklist Information 5-10
- Department Policies 11-13
- Major Professor and Home Department 11
- Assistantships, Stipends and Tuition 11-12
- Financial Aid 12
- Working Hours and Time Off 12-13
- Policy for Arrival of New Children 13-15
- Termination of Assistantship Appointments 16
- Student Grievance Procedure 16-18
- Teaching Opportunities and Expectations 18-19
- Professional and Departmental Organizations 19
- Making Progress Toward a Degree 20-23
- Combined BS-MS Degree Program 20
- Program of Study and POS Committee (POSC) 20-22
- Changes in Degree Programs 22
  - Required Course Work 22
- Degree Requirements 24-30
  - Animal Breeding and Genetics 24-25
  - Animal Physiology 26-27
  - Animal Science 28
  - Meat Science 29-30
- Planning Your Research 31
- Thesis/Creative Component/Dissertation 31
- Expectations for Progress 31-33
- Academic Probation 32
- Dismissal 32-33
- Preliminary Examination 33
- Completing Your Program 33
- Appendix – Forms 34
Introduction

This handbook was developed specifically to guide animal science graduate students through their student careers at Iowa State University. The information presented here is intended to assist graduate students and faculty in meeting the requirements and deadlines encountered in the normal progress towards a graduate degree.

Departmental Information
- General Information-Department Web Site: www.ans.iastate.edu
- Animal Science Graduate Programs: www.ans.iastate.edu/stud/grad

AccessPlus
https://accessplus.iastate.edu/frontdoor/login.jsp
AccessPlus is your secure and personalized online resource for accessing your important and confidential university information and web applications. AccessPlus is available day or night, seven days a week, from anywhere in the world. Some of the many services available for students through AccessPlus include:
  - Address for ISU directory (office & home)
  - Payroll information
  - CyCash account
  - University bill
  - Class registration
  - Class schedules
  - Financial aid
  - Grade reports and transcripts
  - Job board
  - Residence halls and dining

For questions that are not addressed in this handbook, more comprehensive information is available on the Web.

Iowa State University
- Campus Maps: www.fpm.iastate.edu/maps
- Catalog: http://catalog.iastate.edu/edu/
- Dining Services: www.dining.iastate.edu
- Student Financial Aid: www.financialaid.iastate.edu

Graduate College
- Homepage: www.grad-college.iastate.edu
- Thesis Information: www.grad-college.iastate.edu/current/thesis
- Graduate College Handbook: http://www.grad-college.iastate.edu/handbook/

Student Support Services
- Child Care - Office of Human Resource Services: www hrs.iastate.edu/hrs/node/5
- Student Organizations & Clubs: http://sodb.stuorg.iastate.edu/
- Disability Resources - Academic Success Center: www.dso.iastate.edu/dr
- Health Care - Thilen Student Health Center: www.health.iastate.edu
- Legal Consultation - Student Legal Services: www.dso.iastate.edu/sls
- Psychological Health Care - Student Counseling Service: www.public.iastate.edu/~stdtcouns
- Graduate & Professional Student Senate http://www.gpss.iastate.edu/

City of Ames
Information about the Ames community is available at www.cityofames.org and at www.ameschamber.com
# First Week Checklist
(See Graduate Handbook for links)

<table>
<thead>
<tr>
<th>All students -prior to first day</th>
<th>Make housing arrangements</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International Students</strong></td>
<td>Check in at International Students &amp; Scholars (ISS) – 3248 Memorial Union</td>
<td>5</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Check in with major professor - get assigned office room number, complete key request form (available from section secretary), bring form to 1221 Kildee</td>
<td>5</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Check in at Animal Science Administrative Office-1221 Kildee, complete &quot;In Case of Emergency&quot; form, have picture taken for departmental directory board</td>
<td>5</td>
</tr>
<tr>
<td><strong>Assistantship Recipients</strong></td>
<td>1221 Kildee - sign letter of intent</td>
<td>6</td>
</tr>
<tr>
<td><strong>Assistantship recipients</strong></td>
<td>Sign up for payroll – 3810 Beardshear - forms are available at <a href="http://www.hrs.iastate.edu/records/signup_packet.pdf">www.hrs.iastate.edu/records/signup_packet.pdf</a> International Students-obtain I-9 from ISS prior to going to</td>
<td>6</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Obtain your student identification card – ISUCard – 0530 Beardshear Hall</td>
<td>6</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Register your e-mail and data accounts with ITS Solution Center, <a href="http://www.it.iastate.edu/foryou/students/">http://www.it.iastate.edu/foryou/students/</a>(Inform 1221 Kildee of email address)</td>
<td>6-7</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td><strong>Update your Office &amp; Room Assignment Information on Access+</strong></td>
<td>7</td>
</tr>
<tr>
<td><strong>All students (if necessary)</strong></td>
<td>Obtain parking permits for vehicles – Armory Building</td>
<td>7</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Register for classes – Access+ <em>(notify 1221 Kildee when registered)</em></td>
<td>7-8</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Release any/all financial aid/tuition credit in your Access+ account</td>
<td></td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Attend Dept. of Animal Science Orientation</td>
<td>8</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Graduate College Orientation <em><a href="http://www.grad-college.iastate.edu/">http://www.grad-college.iastate.edu/</a></em></td>
<td>8</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Enroll in health and dental insurance plans –3810 Beardshear Hall</td>
<td>9</td>
</tr>
<tr>
<td><strong>International students</strong></td>
<td>Identify and schedule appropriate English test</td>
<td>9</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Identify and schedule EH&amp;S training – Work with major professor and Mike Kaiser</td>
<td>10</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td>Identify and complete &quot;Institutional Animal Care and Use Committee&quot; (IACUC) training if necessary-work with major professor</td>
<td>10</td>
</tr>
<tr>
<td><strong>All students</strong></td>
<td><strong>PLEASE NOTE:</strong> First Report of Injury</td>
<td>10</td>
</tr>
</tbody>
</table>
Your First Week

Housing
Iowa State University and the city of Ames offer a variety of housing options for graduate students. Choices range from on-campus residence halls to off-campus apartments.

- On Campus - Dept of Residence, 2419 Friley Hall, Phone 515-294-2900 or 1-800-854-9050
  www.housing.iastate.edu
- Off-campus housing information
  www.cityofames.org/index.aspx?page=185
  www.rentiowa.com

International Students & Scholars
The International Students & Scholars (ISS) Office, 3248/3242 Memorial Union, should be your very first stop on campus. The staff at ISS will advise you on legal requirements relating to your visa, your employment at ISU, and your overall status as an international graduate student.

- Obtain temporary Social Security number and instructions to obtain your permanent Social Security number. Temporary Social Security number is needed to obtain ISU Card.
- Obtain I-9 form (needed for payroll signup).

It is vitally important that you remain in contact with ISS during your study at ISU, and that you advise the ISS staff of anything that might affect your enrollment status or the status of your visa.

Contact information:
International Students & Scholars
3248/3242 Memorial Union
Telephone: 515-294-1120
Web: https://www.isso.iastate.edu/

Check in with Major Professor

- Obtain office and/or laboratory room assignment.
- Complete Key Request form, have major professor sign, submit to 1221 Kildee - form available from section secretary or 1221 Kildee; NOTE: Upon graduation/termination of position, all keys and/or proximity cards are to be turned in at 1221 Kildee. A fee will be assessed for all lost or non-returned keys and proximity cards.

Check in at Animal Science Administrative Office, 1221 Kildee Hall

- Submit your Key Request form, keys will be ordered and you will be given signature form
- Complete "In Case of Emergency" form – available on Department of Animal Science share drive
  \Ansdfs|Ans_Shares\Admin\Forms
- Have your picture taken for directory board
Assistantship Recipients - Letter of Intent/Payroll

- Sign Letter of Intent (LOI), your contract with the Department, in 1221 Kildee Hall.
- Sign up for payroll (on or before your first day of employment), Office of Human Resource Services, 3810 Beardshear Hall. Payroll forms are available at www.hrs.iastate.edu/records/signup_packet.pdf. Take proof of identity (see pg 5 of payroll forms for acceptable documents). NOTE: ISU does not mail out payroll checks; please enroll for direct deposit. Your payroll information for each pay period will be available for your perusal on Access+ under the "Pay Info" link.

Contact Information:
Human Resource Services
3810 Beardshear Hall
Telephone: 515-294-4800
Web: www.hrs.iastate.edu/hrs/

Student Identification Cards
Your ISU Card is issued free-of-charge. Lost cards may be replaced for a fee. NOTE to International Students: You must obtain a temporary social security number from International Students & Scholars Office before you apply for an ISUCard.

- Go to ISU Card Office, 0530 Beardshear Hall. Office Hours: 8:00 AM to 4:30 PM, Monday through Friday.
- Complete application
- Show Photo ID
- Have photo taken
- Choose password
- Receive ISU Card

NOTE: You must have your ISU Card and password to register for classes in AccessPlus.

Contact Information:
ISU Card Office
Telephone: 515-294-2727
Web site: www.isucard.iastate.edu/

Information Technology Services/Policies (email, computer, telephone)
After you obtain your student identification card – ISUCard – you may activate your data service accounts by visiting The Solution Center at Information Technology Services (ITS) or via the Web at the Acropolis administrative site. The AIT Web site offers valuable information on the use of your ISU accounts.

Contact Information:
The Solution Center, Information Technology Services
195 Durham Hall
Telephone: 515-294-4000
Web: www.it.iastate.edu/solution/

ISU Acropolis Administrative Web Site https://asw.iastate.edu/cgi-bin/acropolis
(Click on the "Register" button and follow the on-line instructions. You will need your ISUCard number to activate your accounts.)
Access to the Dept. of Animal Science servers may be obtained by your major professor submitting a “anshelp” request to the Animal Science IT Section at https://anshelp.ans.iastate.edu. Your major professor must provide the following information:

- Student's full name
- UserName
- Supervising person (if other than major professor)
- Which systems you need to access
- Termination date of account

The departmental technical support team can be reached at https://anshelp.ans.iastate.edu to request assistance with work related hardware or software problems, or operating difficulties.

**Update Office Phone & Room Number**

The University uses a default office room number and office phone number when you sign up for your ID card and payroll.

- Log into Access+ https://accessplus.iastate.edu/frontdoor/login.jsp
- Click on "Employee Information" tab
- Click on "Address Info"
- Under Office Address, click on "Update Office Address" Icon
- Update Office information

**Parking**

- If you live outside city limits and want a commuter parking permit, go to DPS Parking Division, Armory - Rooms 27 & 29; OR
- If you will be conducting research or other activities off campus, take letter (explaining need) from major professor requesting campus parking in Lot 29B to DPS Parking Division, Armory - Rooms 27 & 29.
- Complete Parking Application
- Arrange Payment of Parking Fee
- Receive Parking Permit

Contact Information:
Department of Public Safety Parking Division
27 Armory
Telephone: 515-294-3388
Web: www.parking.iastate.edu/

You may park free at the ISU Center in lots A4 or B6 and take CyRide Orange shuttle bus to campus for free (no overnight parking) or pay to park at the Memorial Union ramp.

CyRide (Ames public transportation system)
Telephone: 515-292-1100
Web: www.cyride.com/

**Registering for Classes**

- Discuss program and course requirements with major professor - recommended courses will vary depending on academic program and background.
- Search-for-Courses Web site http://classes.iastate.edu/ (be sure to select correct term)
- Register for classes on AccessPlus - NOTE: Students in the 4 majors of the Dept. of Animal Science are required to register for Animal Science 501 – “Survey of Animal Disciplines” – in your first Fall semester.
Questions specific to your major program should be directed to the Director of Graduate Education (DOGE) for your major. There is a designated faculty member that serves as DOGE for each graduate major. Following are the current DOGEs for the Dept. of Animal Science and interdepartmental majors that often have students with Animal Science as the home department.

Animal Science  
(include majors of Animal Breeding and Genetics, Animal Science, Animal Physiology, Meat Science)  
Dr. Steven Lonergan  slonerga@iastate.edu
Bioinformatics and Computational Biology  
Dr. Dennis Lavro  dlavrov@iastate.edu
Genetics and Genomics  
Dr. Thomas Peterson  thomasp@iastate.edu
Immunobiology  
Dr. Randy Sacco  resacco@iastate.edu
Microbiology  
Dr. Michael Cho  microbiology@iastate.edu
Molecular, Cellular and Developmental Biology  
Dr. Jason Ross  jwross@iastate.edu
Neuroscience  
Dr. Heather Greenlee  mheather@iastate.edu
Nutritional Sciences  
Dr. Matthew Rowling  mrowing@iastate.edu
Sustainable Agriculture  
Dr. Mary Wiedenhoeft  mwiedenh@iastate.edu
Toxicology  
Dr. Richard Martin  rjmartin@iastate.edu

Department of Animal Science - Graduate Student Orientation
The Department of Animal Science holds an informational meeting for new graduate students where you will meet the Dept. of Animal Science Chair, the Dept. of Animal Science Director of Graduate Education, and your peer mentor. New students will be notified of the time and place of the meeting.

You will receive a departmental graduate handbook (if you have not printed one for yourself at www.ans.iastate.edu/grad/form/AnSci_GradHandbook.pdf) and more detailed explanations regarding department policies and procedures.

Graduate College Information
The Graduate College Orientation web site is www.grad-college.iastate.edu  You will find the Graduate College Handbook and other helpful information that may be useful as you start your program at Iowa State. There is also a link here to the forms you will need during your course of study, deadlines, etc. Please become familiar with the information available from the Graduate College web site.

The Graduate and Professional Student Senate (GPSS) sponsors a picnic for new graduate students and their families. Check the Graduate and Professional Student Senate web page for the time and location: https://www-gpss.sws.iastate.edu/ .

The ISU Center for Excellence in Learning and Teaching (CELT) also offers a teaching seminar for new teaching assistants. For information, see the Web site listed below.

Contact Information:
Center for Excellence in Learning and Teaching
3024 Morrill Hall
Telephone:  515-294-5357
Web: www.celt.iastate.edu/

Health and Dental Insurance
All graduate students are eligible to enroll in the ISU Students and Scholars Health Insurance Plan (SSHIP). Graduate assistants receive single student health insurance coverage free-of-charge as part of the terms of their appointments and may choose to enroll spouses and children in the plan for an additional premium. Informational packets about the insurance program are normally mailed out the first week of August. Enrollment is automatic for assistants; however, students who do not hold assistantships, spouses, and children must be enrolled by the established deadline. See the program Web site below for this date. Non-immigrant international students and their dependents must be enrolled in the health insurance program. Dental insurance coverage is also available.
Graduate English Requirements for Nonnative Speakers of English

There are three types of English language examinations that are required of international students, depending on the individual’s background. Please read the following descriptions carefully and make arrangements to take the exam that is appropriate to your circumstances.

1) Graduate students whose native language is not English and who do not have a bachelor’s degree from ISU or another US institution must take the English Placement Test at the beginning of their first semester of enrollment. This test is administered by the Department of English. It must be taken in addition to the TOEFL (Test of English as a Foreign Language), which is required as part of the admissions process. If you do not pass this examination, you will be assigned to one or more courses in the English 99 or 101 series. These English courses must be completed during the first year of study and registration holds are placed if the student does not register for these during the first year of study. (There is a developmental course fee for the English 99 course.)

Non-native English speaking ISU graduate students who meet or exceed the TOEFL or IELTS scores below are exempted from taking the English Placement Test. Self-enrollment in English 099 or 101 courses remains possible.
- Paper-based TOEFL (PBT)--640 (and above)
- Internet-based TOEFL (iBT)--105 (and above)
- IELTS--8.0 (and above)

A graduate student whose native language is not English but did graduate from a U.S. institution, may bring to the Graduate College’s Web site at http://www.grad-college.iastate.edu/common/forms/index.php the “Graduate English Requirement Approval” form, available on the Graduate College’s Web site at http://www.grad-college.iastate.edu/common/forms/index.php. Two conditions must be met:
- the student must have received a bachelor’s, master’s, or Ph.D. degree from a U.S. college or university and
- the language of instruction at that college or university must have been in English.

2) Testing of Non Native English Speaking Students Who Teach
The Oral English Certification Test (OECT) is required of graduate students who fit both of these categories:
- those who are not native speakers of American English (i.e., learned another language first), and
- they are to be appointed to or considered for teaching assistantships or will have some teaching responsibilities even if they are not teaching assistants (TAs).

The Oral English Certification Test (OECT) is given before the beginning of fall and spring semesters. Department offices have a schedule of OECT testing dates, or browse the International Teaching Assistants Program Web site at http://engl.iastate.edu/ept/. Registration for the test is held online through the program’s Web site 2-3 weeks before the testing dates. ITAs and faculty with questions about OECT should call 515-294-1958 or 515-294-7996.
A prospective teaching assistant who does not pass these tests is required to successfully complete course work and be retested. English 180 is a series of communication courses designed to help new teaching assistants. Students focus upon pronunciation, listening, question-handling, teaching and lecturing skills, and analyze the culture of U.S. university life. Because enrollment is restricted, TAs cannot register for the courses online through AccessPlus. TAs must go to the International Teaching Assistants Program Office, 1137 Pearson, immediately upon receiving the OECT scores to obtain permission to enter the course by completing a course add slip.

Contact the appropriate office below to schedule your test date.

**Contact information:**
Intensive English and Orientation Program Office (for No. 1 above)
102 Landscape Architecture
Telephone: 515-294-3568
Web: [www.ieop.iastate.edu](http://www.ieop.iastate.edu)

International TA Program Office
1137 Pearson
Telephone: 515-294-1958 or 515-294-7996
Web: [http://acp.grad-college.iastate.edu/?q=node/15](http://acp.grad-college.iastate.edu/?q=node/15)

**Laboratory Procedures & Safety Training**
All students and staff who work in laboratories at ISU must undergo laboratory procedures and safety training administered by the ISU Environmental Health & Safety (EH&S) office. Before you begin lab work, please contact Michael Kaiser, the departmental chemical hygiene officer, to obtain the schedule for EH&S training sessions relevant to your needs. Some sessions may be completed on-line via the EH&S training Web site while others require personal attendance.

**Contact information:**
Michael Kaiser
2255 Kildee Hall
Telephone: 515.294.4352
E-mail: mgkaiser@iastate.edu

**Institutional Animal Care and Use Committee (IACUC) Training**
All activities involving the use of vertebrate animals must be approved by the IACUC prior to use of the animal in research or teaching. Contact your major professor to determine if training is required.

**First Report of Injury**
All accidents and injuries occurring at Iowa State during the course of university-related employment must be reported to your major professor as soon as possible, even if no medical attention is required. You must complete a First Report of Injury (FROI) form and submit it to 1221 Kildee within 24 hours of the accident (contact Joan Aiton 294-7620). If treatment is required, your major professor (or in his/her absence 1221 Kildee) will contact Occupational Medicine to schedule an appointment for you.
Departmental Policies

Establishing a Major Professor/Faculty Advisor
Selecting a major professor is a very important decision for your graduate career because this person will be your advisor, mentor, and supervisor for the duration of your graduate study. The research problem that becomes your thesis or creative component will depend upon your major professor’s interests, funding, and laboratory facilities. In making a selection, it is recommended that you review faculty areas of expertise at our web site http://www.ans.iastate.edu/people/faculty and contact faculty prior to submitting an application. Animal Science does not accept graduate students without a faculty member indicating a willingness to serve as major professor.

If you are entering as a new student, and have questions about your major professor, please contact Donna Nelson, Graduate Admissions Coordinator, dnelson@iastate.edu, or Dr. Steven Lonergan, Director of Graduate Education (DOGE), slonerga@iastate.edu.

Graduate students who wish to change or replace major professors should first consult with the DOGE. He will confer with the faculty involved to facilitate the change within the limits of assistantship obligations and commitments.

Home Department for Students in Interdepartmental Majors
Students admitted to interdepartmental majors do not have an affiliation with an academic department. Generally, when such students obtain a permanent major professor, they also join the department of their major professor without changing majors. To establish a department affiliation, such students must submit the form “Request to Establish a Home Department for Students Admitted to Interdepartmental Majors,” on the Graduate College web site at www.grad-college.iastate.edu/forms/forms.html.

Assistantship Appointments – Terms and Expectations
As one of the chief methods of financial support for graduate students, the department provides a limited number of graduate assistantships, most of which are affiliated with individual faculty or research programs. Most assistantships are supported by research funding and are usually offered to graduate applicants when an admission offer is made.

Students who are qualified and who receive a graduate assistantship appointment are most often appointed to a research assistantship (RA). The Department of Animal Science has relatively few teaching assistantships (TA) or administrative assistantships (AA). Only students granted “full” or “provisional” admission status are eligible for assistantships. The typical terms for assistantship appointments include half-time employment (20 hours of work weekly) for twelve months, although quarter-time (10 hours weekly) and three-quarter-time (30 hours weekly) appointments are sometimes made under specific circumstances.

Annual Reports
All graduate students in the Animal Science majors (Animal Breeding and Genetics, Animal Physiology, Animal Science, and Meat Science) are required to submit an annual report of progress to the DOGE by April 1 of each year. The report is to be first submitted to the major professor by March 15. After discussion of the report, both the student and the major professor sign the report to be sent to the DOGE by April 1. The DOGE and your major professor will provide the form. Other programs also require annual reviews.

Stipends and Tuition Scholarships
Monetary stipends for graduate assistantships are calculated and revised annually. For the most recent stipend amounts, please contact Joan Aiton, jaiton@iastate.edu. Assistantship awards also include a reduction in tuition fees to Iowa resident rates even if the recipient is not an official resident of Iowa.

MS students on a 1/2 time assistantship receive a 50% tuition scholarship. A quarter-time appointment carries a 25 percent scholarship. The student is obligated to pay the remaining tuition balance.

Assistantships granted to PhD students at half-time (or greater) carry a 100 percent tuition scholarship.
The Graduate College also provides assistantship support to underrepresented groups in higher education through the Graduate Minority Assistantship Program (GMAP). Details about the GMAP may be found on the Web at [www.grad-college.iastate.edu/common/finance/gmap.php](http://www.grad-college.iastate.edu/common/finance/gmap.php). The department must nominate you for this award. The ISU College of Agriculture and Life Sciences also extends support to underrepresented groups through the Graduate Research Assistantship Match (GRAM) program. GRAM funds may be combined with GMAP awards. If you feel that you may qualify for either of these awards, please contact Joan Aiton, [jaiton@iastate.edu](mailto:jaiton@iastate.edu).

For additional information on assistantship policies and procedures, see the ISU Graduate College Handbook [www.grad-college.iastate.edu/publications/gchandbook/homepage.html](http://www.grad-college.iastate.edu/publications/gchandbook/homepage.html).

**Other Types of Financial Aid**

The ISU Office of Student Financial Aid is a central resource for information about grants, loans, fellowships, and other instruments of financial aid. Please see following Web site [www.financialaid.iastate.edu](http://www.financialaid.iastate.edu). If you have financial aid available, you must authorize the release of your financial aid in your Access Plus account before it will be applied to your U-bill.

Animal Science graduate students may be eligible for special training fellowships through USDA-sponsored programs. Please see the following links:

- Fellowships in Computational Biology for Animal Agriculture [www.bioinformatics.iastate.edu/MGET/](http://www.bioinformatics.iastate.edu/MGET/)
- Fellowships in Computational Molecular Biology [www.bioinformatics.iastate.edu/IGERT/](http://www.bioinformatics.iastate.edu/IGERT/)

Enrolled students are eligible to apply for Dept. of Animal Science scholarships and/or College of Agriculture and Life Sciences scholarships. Graduate student scholarship applications are typically due Feb. 15 (watch for departmental announcements) and are awarded in the spring for the following academic year. Information relating to these scholarships is posted at the following Web pages.

[http://www.ans.iastate.edu/graduate/scholarships-and-financial-aid](http://www.ans.iastate.edu/graduate/scholarships-and-financial-aid)
[www.ag.iastate.edu/scholarships/graduate/](http://www.ag.iastate.edu/scholarships/graduate/)

**Working Hours and Time Off**

The work obligations related to assistantship appointments, such as 20 hours for a half-time appointment, are approximations. The actual time commitment in a specific week is seldom exactly 20 hours because research schedules and class schedules vary greatly. The 20 hours per week requirement should be viewed as an average minimal obligation. You should visit with your major professor to determine specific obligations, expectations and deadlines associated with your appointment.

Time off may be taken as vacation, holidays or sick leave. Vacation time for half-time graduate assistants is earned at the rate of eight hours (two working days) per month. Vacation may be used anytime, subject to the prior approval of your major professor. All unused, accrued vacation hours will be forfeited upon termination of your assistantship.

*All absences (vacation, sick leave, etc.) must be recorded on “Absence Request” cards, approved by your major professor, and submitted to the departmental administrative office – 1221 Kildee – vacation must be approved prior to the absence.*

In addition to earned vacation time, graduate assistants are also entitled to time off associated with all official university holidays, e.g., Thanksgiving, Christmas, New Year, etc. See ISU’s Academic Calendar at [http://www.registrar.iastate.edu/calendar](http://www.registrar.iastate.edu/calendar) or university holidays.

Sick leave is earned at the rate of six hours per month for half-time graduate assistants. Routine medical, dental, and optical appointments should be scheduled outside working hours. When impractical, occasional absences for such reasons may be charged to sick leave.
Pallbearer, Funeral, Emergency Leave: An employing department will, when satisfied by evidence presented, grant an employee time off with pay: Not to exceed three days for each occurrence in the case of death in employee's immediate family; Not to exceed one day for each occurrence for service as pallbearer at the funeral of a person not a member of the employee's immediate family; and Not to exceed five days per calendar year for the care of and necessary attention to ill or injured members of the employee's immediate family. Employees may carry over up to five days of unused emergency leave into the next calendar year. Five days should be interpreted as 40 hours for full-time individuals, 20 hours for half-time individuals, etc.

All such time off will be charged to the employee's accrued sick leave and will not be granted in excess of the employee's accrued leave. For the purpose of this policy, immediate family is defined as and limited to the employee's spouse, children, grandchildren, foster children, step children, legal wards, parents, grandparents, foster parents, step parents, brothers, foster brothers, step brothers, sons-in-law, brothers-in-law, sisters, foster sisters, step sisters, sisters-in-law, daughters-in-law, aunts, uncles, nieces, nephews, first cousins, corresponding relatives of the employee's spouse and other persons who are members of the employee's household.

Funding for Graduate Assistants and Post docs in Connection with the Arrival of New Children

(Revised July 2013)

Intent
1. Provide short term funding for up to six weeks to temporarily replace the normal mission—oriented funding for all graduate assistants and post docs who will be the primary care-giver after the birth or adoption of a child. Typically, the primary care-giver is the mother, but we recognize there may be circumstances where the father will be the primary care-giver.
2. Funding will be limited to a total of six weeks but may be shared by two parents if both are graduate assistants or post docs (for example, three weeks each).
3. The maximum period of short term funding will be for six weeks at the stipend rate of the care-giver.
4. The primary care-giver or post doc will request the period of bridge funding desired.
5. All graduate assistants and post docs or pre docs who can document their care-giver status as the primary care-giver will be eligible for short term funding, regardless of their stipend funding source.
6. Graduate assistants and post docs or pre docs shall be allowed to return to their original appointment, according to the terms of their original appointment, following the bridge funding period.

Funding Source
The bridge funding will be provided by an equal match from the Graduate College and the academic home college of the graduate assistant or by an equal match from the Graduate College and home academic college or equivalent employing unit of the post doc.

Guidelines for Completing
Request for Bridge Funding: Arrival of New Children
(available on the forms page on the Graduate College website:
http://www.grad-college.iastate.edu/common/forms/student_forms.php

1. GA or post doc needs to complete and obtain signatures for Section I. of the form, Request for Bridge Funding: Arrival of New Children. a. submit to the hiring unit for the next step
2. The Hiring Department/Unit needs to complete Section II and submit to the Academic (Home) College.
3. The Academic (Home) College needs to a. provide an account number and approval, and b. forward to the Graduate College (Ann Guddall, 1137 Pearson Hall)
4. The Graduate College needs to a. provide an account number and approval, and b. forward to Department/Unit contact to enter EPA.
5. Post docs need to submit sick leave/vacation to use amounts that have accrued up to the starting date of their Bridge Funding. Vacation/sick leave will be used concurrently with the 6 weeks of Bridge Funding.
GA/Post Docs

- If your Bridge Funding occurs during the Academic Year (fall and spring semesters), graduate assistants will need to stay registered for at least two credits during that semester. If you are registered for academic classes, it is your responsibility to make arrangements with the professor to complete the course or to receive an incomplete. If you are a TA or an RA, it is your responsibility to keep your Major Professor/Supervisor informed of the dates of your leave.
- 12-month assistantship appointments – You remain on assistantship and need to register for at least two credits during the summer.
- 9- or 10-month assistantship appointments - Your assistantship will follow its stated starting and ending dates.
- Maximum Bridge Funding is six (6) weeks or 30 working days. This can be taken by one parent or split between two parents if both are on assistantship. If Post doc has more than 6 weeks of vacation/sick leave, they may take more than 6 weeks if supervisor approves.
- Your health insurance and any other benefits from your assistantship/post doc appointment will remain intact during your Bridge Funding.
- Post docs need to use your accrued vacation/sick leave concurrently with the Bridge Funding until you exhaust any accrued time.

Hiring Departments/Units

- Benefit costs will transfer with the salary.
- Post doc's need to use sick leave/vacation concurrently with the Bridge Funding until they exhaust any accrued time. Sick leave/vacation should not go in the negative. Sick leave/vacation continues to accrue during the Bridge Funding.
- For some situations (possibly Federal funding), part of the tuition scholarship may need to be covered by the college.

Frequently Asked Questions

1. Who can request Bridge Funding for the arrival of a child?
   a. Graduate Assistants (RA, TA, AA), who will be the primary care giver for the new child.
   b. Post-doctoral and Pre-doctoral research associates, who will be the primary care giver for the new child.
   c. Since the primary giver is typically the mother, fathers requesting leave will need to provide documentation of their primary care giver role.

2. Would there be any circumstances where the parent who is not the primary care giver would be granted Bridge Funding?
   a. Only if extenuating circumstances are documented. The intent of the policy is to provide bridge funding to replace the funding from the normal source for the primary care giver of the child (in most cases the mother) for a maximum of six weeks after the arrival of the new child."

3. How do I request Bridge Funding for the arrival of a child?
   a. Complete the form, Request for Bridge Funding: Arrival of a Child on the Graduate College website under Current Students and Forms.
      i. http://www.grad-college.iastate.edu/common/forms/student_forms.php

4. How long does the Bridge Funding last for the arrival of a child?
   a. Up to 6 weeks will be granted.

5. Will anyone be denied Request for Bridge Funding?
   a. GAs/Post docs may need to show documentation they are the primary care giver for the arrival of a new child. Typically, there would be only one primary care giver, unless there are extenuating circumstances.
   b. Graduate students not on assistantship, will not be granted Bridge Funding.

6. I have a spouse who is also a GA or Post Doc. Can they apply for Bridge Funding, too?
   a. Funding will be limited to a total of six weeks but may be shared by two parents if both are graduate assistants or post docs (for example, three weeks each).

7. As a Post Doc, will I need to use my vacation/sick leave during the Bridge Funding?
   a. Yes, you will need to use your accrued vacation/sick leave concurrently with the Bridge Funding.
8. As a Post Doc, what if I don’t have enough vacation/sick leave for the whole 6 weeks of Bridge Funding?
   a. You will be covered up to 6 weeks during Bridge Funding regardless of how much vacation/sick leave you have accrued.

9. If I am on a 9 month GA appointment during the academic year, and the child arrives during the summer, can I apply for Bridge Funding starting in the Fall?
   a. The goal of Bridge Funding is to replace funding that you would have received, not to provide additional funding.
   b. If the child arrives less than 6 weeks before the start of your appointment, you can request Bridge Funding for the difference between the arrival date and 6 weeks. Example: If your child arrives on August 1, and your graduate assistantship begins on August 15, you could request 4 weeks of Bridge Funding.

10. Do I have to take the Bridge Funding all at one time?
    a. Yes. Normally, it is expected that the Bridge Funding would immediately follow the arrival of a child. Submit requests for unusual circumstances to the Graduate College.

11. Do I have to take the full six weeks?
    a. No. Six weeks is the maximum amount that will be covered.

For university leave policies, see http://policy.iastate.edu/policy/personnel-human-relations

The University also has procedures in place for requesting reasonable accommodation for disability or religion. (see www.hrs.iastate.edu/AAO/eod/reasonaccom.shtml)
Termination of Assistantship Appointments
A graduate assistantship appointment may be terminated for
• Cause
• Loss of funding

Termination for cause may result from
• Neglect of duties
• Incompetence
• Persistent refusal to follow reasonable counsel of faculty
• Failure to maintain the minimum cumulative grade point average required by the Department of Animal Science, and/or academic or personal misconduct seriously prejudicial to the university

The initial procedure for termination includes an informal conference between the graduate assistant and the appropriate administrators, including the immediate supervisor. If this conference does not resolve the situation, a formal written ruling by the departmental chair, after investigation of the issues, may be requested. If the graduate assistant disagrees with the chair’s ruling, a conference with the Associate Dean of the Graduate College may be requested. Finally, the results of the conference with the Associate Dean may be appealed to the Dean of the Graduate College.

For more information on termination proceedings, see the Graduate College Handbook. The Handbook also serves as the guide for procedures to be followed for any appeals relating to changes in terms of assistantship or disciplinary actions concerning graduate students.

Termination due to loss of funding may also be appealed to the Dean of the Graduate College but only on the basis that there was not a genuine loss of funding or that loss of funding was a pretext for improper termination. See the Graduate College Handbook for details.

Student Grievance Procedures
Several formal avenues of appeal are available to graduate students depending on the nature of the grievance. Outlined in this section are procedures designed to handle grievances concerning grades and instruction and for grievances related to scholarly and professional competence. Other appeal routes are available within the student disciplinary process and for early termination of assistantship appointments. All procedures start at the department or program level and lead through a series of steps to higher appeal channels. If a student's complaint relates to a general policy, he or she may also bring the matter to the attention of the Graduate and Professional Student Senate either by contacting the department senator or the president of the Graduate Student Senate. Students also have the right to complain to the Dean of the Graduate College.

The following grievance procedures may not be used when students are afforded due process hearings or appeals as provided by university policy. For example, these grievance processes are not available for failure to meet clearly stated academic requirements, for All-University disciplinary processes, or where the graduate student has been granted an Academic Misconduct Investigatory hearing. A student may withdraw from any student-initiated grievance procedures outlined below by writing a signed and dated letter to the Dean of the Graduate College.

*Before initiating a grievance procedure, the graduate student should check the Graduate College Handbook for any updates in the procedures, because the Graduate College policies supersede departmental policies with regard to grievance procedures.

Grievances about Grades and Instruction
If a graduate student believes a faculty member, in his or her academic capacity, has behaved unfairly or unprofessionally, a grievance may be reviewed through the procedure described below. This procedure may not be invoked more than one year following completion of the course. An appeal of a course grade may not be initiated beyond midterm of the semester following the student's completion of the course.
Before initiating a formal appeal, the student may wish to discuss the situation informally with a staff member of the Dean of Students Office for advice on how to deal most effectively with the problem.

Grievances arising out of classroom or other academic situations should be resolved, if at all possible, with the individual instructor involved. If resolution cannot be reached, the student should discuss the grievance with the instructor’s department executive officer and submit it in writing to him or her. The department executive officer will discuss the grievance with the instructor involved and/or refer it to a department grievance committee. The department executive officer should respond in writing to the student within five class days.

If a resolution of the grievance cannot be made with the department executive officer, the student may appeal in writing to the dean of the instructor’s college. In cases involving Graduate College policy or procedure the appeal should be made to the Dean of the Graduate College rather than to the dean of the instructor’s college. The dean will hear the explanations of the department executive officer and instructor, and should respond in writing within ten class days of receipt of the written notice of appeal.

If the grievance cannot be resolved with the dean, the student may forward a written appeal to the Provost, who will convene a quorum of the Committee to Review Student Grievances to hear the appeal within ten class days. Within five class days following the hearing, the Provost will make a decision in regard to the grievance and transmit this decision to the student, dean, department executive officer, and instructor involved.

An appeal of the decision of the Provost may be made to the President of the University. The time limit specified at each level may be extended by mutual agreement of all parties concerned.

**Grievances Related to Scholarly and Professional Competence**

Judgment of professional competence as demonstrated in such matters as qualifying, preliminary and final oral examinations, and other clearly stated program requirements concerning competence in the field of study is the responsibility of the academic program and Program of Study (POS) committee.

If a student feels that his or her scholarly or professional competence has not been evaluated fairly, he/she should first discuss the complaint with the person or persons most directly involved in the matter: a faculty member, major professor, POS committee, director of graduate education (DOGE), or department chair. If these discussions are unsuccessful and further adjudication is desired, the student may submit the grievance, which must be in writing, to the appropriate program grievance committee. If no such committee exists, the DOGE (or department chair when appropriate) will appoint one. The committee should respond in writing within twelve class days. The following procedures apply:

- Each program offering graduate study must form a grievance committee composed of equal numbers of representatives from the program graduate faculty, graduate students, and a representative of the University Ombuds Office. The grievance committee may be a standing committee or may be an ad hoc committee, depending upon the program.

- The DOGE (or department chair) may serve as a nonvoting chairperson of the grievance committee.

- Written records of the committee shall include the complaint itself, the disposition of the complaint, and any other information the committee deems pertinent. Written records of the program grievance committee are available for study by the complaining student and those making decisions at higher levels in the event of further appeal.

- The program grievance committee deliberates in private except in instances where members feel the issue under consideration is of general interest and importance. In those cases, the committee may hold public meetings with the consent of both parties involved in the complaint.

- The graduate student (or chosen representative or adviser) and the other party (or chosen representative or adviser) have the right to present their cases orally to the grievance committee.

- The committee shall provide its written recommendation regarding the grievance to the DOGE (or department chair) of the student’s graduate major and to the student.

- The DOGE (or department chair) will then provide a written response from the graduate program to the student.
A graduate student unsatisfied with program action may appeal in writing to the Dean of the Graduate College within 14 days. Upon receipt of the written appeal, the Dean forms a grievance appeal committee to review both substantive and procedural issues of the matter. The committee is constituted as follows:

- One voting member selected by the Dean of the Graduate College from among the faculty membership of the Graduate Council.
- One voting member selected by the relevant college dean.
- One voting member selected by the Executive Committee of the Graduate Student Senate.
- The committee may, in addition, request the participation of one nonvoting member selected by the relevant graduate program from among those faculty members who had not participated in the original program grievance procedures. The role of this nonvoting member is to provide consultation to the committee or student on matters of professional competence.
- The dean of the Graduate College will respond to the student within 10 days, and the committee will attempt to reach a final determination within 30 days. It is understood, however, that this deadline is sometimes impossible to meet because of a need to interview key persons who are not available in the 30 day time frame. In such cases, every reasonable effort will be made to expedite the review and the plaintiff shall be informed of the delay in writing.

Program grievance committee provisions regarding the keeping of written records, opening of proceedings, and oral presentations also apply to the grievance appeal committee. Each student presenting an appeal is expected to participate actively and responsibly in the grievance process at this and each level of the procedure. The grievance appeal committee submits its recommendation regarding the appeal to the Dean of the Graduate College for action. Graduate student(s) still unsatisfied with the disposition of the grievance—on matters of procedure only—may appeal in writing to the Provost and, if necessary, to the President of the University.

Teaching Opportunities and Expectations
The department considers teaching experience to be an important part of all graduate students’ professional development. Therefore, teaching experience is required of all graduate students. Teaching provides valuable experience in planning, preparing, and delivering material related to your study and promotes the development of important communication skills that will be assets in your career. Thus, the department structures its graduate program to incorporate teaching opportunities for all students.

To meet this requirement, all graduate students are required to register for Animal Science 590L Special Topics-Teaching. AN S 590L is a variable credit course that may be taken for 1-3 credits. M.S. degree candidates are required to complete at least one semester of 590L, registering for a minimum of 2 credits. For students in a Ph.D. program, at least two semesters of 590L are required with registration for at least 2 credits each time (4 credits in total). In the occasion that a PhD student has already completed a M.S. AND had served as a teaching assistant, two credits can be attributed to that effort (regardless if they earned a M.S. at Iowa State or not). Coaching of judging teams by graduate students may be used once as a means of meeting the teaching requirement if the student is registered for 2 credits of AnS 590L while doing so.

International students must pass the Oral English Certification Test (OECT) (http://acp.grad-college.iastate.edu/?q=node/15) prior to registering for AN S 590L and assisting with the teaching program.

Students may be involved in teaching at several different levels, depending upon needs, previous experience, the course material being taught, faculty needs, and the number of students enrolled in a given course. The most common teaching experience entails responsibility for one or more laboratory sections of a specific course. Normally, teaching assignments will take into account the student’s area of interest within animal science. Teaching assignments for graduate students are normally arranged by July 1 for the coming academic year. Graduate students will be contacted during spring semester to determine if they wish to be involved with teaching in the coming year and to determine teaching preferences. Faculty are also contacted to determine the teaching needs. Teaching assignments are then made with the best matches possible. Students who wish to become involved with teaching of a specific course should contact the DOGE for Animal Science departmental majors.
If you are given responsibility for a laboratory section, the usual duties include:
- Planning and conducting laboratory classes with guidance from the faculty member(s) in charge of the course;
- Organizing, presenting, and explaining subject matter to students;
- Assigning, grading, and returning in a timely fashion student work;
- Assisting students in solving problems related to the class;
- Arranging for your major professor to attend one of your classes to evaluate your teaching;
- Submitting potential exam questions to the faculty in charge of the course;
- Developing and grading exam or quiz questions;
- Contributing your ideas for course improvements during planning/discussion sessions with faculty;
- Providing scores, grades, or performance evaluations, as appropriate, for each of your students at the end of the semester; and
- Requesting student evaluations of your teaching at the end of the semester and summarizing the results for the faculty member in charge of the course and for your major professor.

The Center for Excellence in Learning and Teaching (CELT) provides excellence resources and help for students to prepare for and evaluate teaching. See [www.celt.iastate.edu](http://www.celt.iastate.edu)

**Professional & Departmental Organizations**

Students may elect to join one or more professional organizations, depending on specific areas of interest. All of the following professional organizations encourage student membership.
- American Dairy Science Association (ADSA)
- American Meat Science Association (AMSA)
- American Society of Animal Science (ASAS)
- Poultry Science Association (PSA)
- Institute of Food Technologist (IFT)

Graduate students in animal science are also encouraged to become involved in the departmental clubs that are active in various special interest areas. These include the following:
- Association of Graduate Animal Scientists (AGAS)
- Animal Breeding and Genetics Graduate Student Organization (ABGGSO)
- Meat Science Club

In addition, the Graduate and Professional Student Senate (GPSS) provides an avenue for student involvement in issues at the university level. The Department of Animal Science has two GPSS senators, who are elected by the AGAS.

For more information, contact Dr. Steven Lonergan, [slonerga@iastate.edu](mailto:slonerga@iastate.edu).
Making Progress Toward a Degree

Combined BS-MS Degree Program
The Department of Animal Science offers a combined BS-MS degree program that allows selected students to complete both degrees in five years. Students normally apply for and enter the program during the third year of their BS degree program. Students must first be reviewed and approved by the department and then submit a formal application to the Graduate College. If accepted, students are expected to begin a MS thesis research project during the summer following their junior year.

For details on this program, contact Dr. Jodi Sterle (jisterle@iastate.edu), head of undergraduate teaching, or Dr. Steven Lonergan (slonerga@iastate.edu), DOGE for Animal Science. Specific requirements for each BS-MS degree program are at http://www.ans.iastate.edu/graduate/prospective-students/concurrent-bsms-degree-program.

Program of Study Committee (POSC)
The “Program of Study” (POS) at Iowa State is a formal record of all courses that are required for your degree and constitutes an agreement between you and the Graduate College upon the conditions for awarding your degree. The POS is determined collaboratively by you, your major professor, and your POS committee in accordance with the rules established by the Graduate College for granting MS and PhD degrees. The first step in preparing your POS is assembling an approved POS committee.

During your second semester, you should select the members of your POS committee and secure their approval through the Graduate College. MS degree candidates must select at least three committee members, including the candidate’s major professor, who serves as the committee chair. All committee members must be approved members of the graduate faculty at least two (including the major professor) must be from within the student's major and one member must be drawn from a field outside of your major program.

Candidates for the PhD degree must assemble a POS committee of at least five approved graduate faculty. At least three members (including the major professor) must be from the student's major. At least one member of the committee must be from outside the major, and it is strongly recommended that two graduate faculty outside the major be included on the POS committee. For graduate students in the Department of Animal Science, graduate faculty outside of your major program (but still within the department) are acceptable as “outside” members of the POS committee.

You should consult with your major professor to select graduate faculty for your committee who can provide significant help with your degree program. After you identify prospective committee members, please be sure to confer with them prior to filing your POSC (Program of Study Committee) form online (http://www.grad-college.iastate.edu/common/POSC/index.php).

Program of Study (POS)
At the same time you file your committee members with your POSC, you will need to determine the courses for your individualized Program of Study. You should work closely with your major professor to determine the required courses for your major and to identify any additional courses that are important to your program. Your POS, when approved, becomes a binding contract that must be completed to earn your graduate degree. A MS degree requires at least 30 credits; a PhD requires at least 72 credits. These totals include both coursework and research credits. The required courses for each major in animal science are listed below. Elective courses will depend upon your research and your career objectives. There are frequently questions based on what courses can be included in the POS. The following three policies will help you decide (with your major professor) what courses are eligible.
Policy on inclusion of graduate courses taken as an undergraduate student (per ISU Graduate College Handbook).

Certain graduate-level courses listed in the ISU Catalog may be used in the program of study even though they were taken for graduate credit by the student as an undergraduate at ISU. The following conditions must be met:

The POS committee can request approval from the Dean of the Graduate College for up to nine hours of such credit to be applied toward meeting advanced degree requirements. These courses must be clearly marked on the POS form.

Credits earned in these courses must be in addition to those used to meet requirements for the bachelor's degree.

Contact the Registrar's Office staff (210 Enrollment Services Center) to certify and note on the permanent record the courses that were not used for the undergraduate degree.

Credits earned in these courses must have grades of B or better.

The student must be classified as an undergraduate and not a nondegree undergraduate (special) student. Credits taken as a nondegree undergraduate (special) student are not allowed.

Policy on transferring credits from another institution (per ISU Graduate College Handbook).

At the discretion of the POS committee, and with the approval of the program and the Graduate College, graduate credits earned as a graduate student at another institution or through a distance education program offered by another institution may be transferred if the grade was B or better. Such courses must have been acceptable toward an advanced degree at that institution and must have been taught by individuals having graduate faculty status at that institution. If a student wishes to transfer credits from graduate courses taken at or through another university as an undergraduate student, it is that student's responsibility to provide verification by letter from that institution that those graduate courses were not used to satisfy undergraduate requirements for a degree. (Grades from courses taken at another institution will not be included in ISU grade calculations, nor will the grades display on an ISU transcript.)

A copy of an official transcript must accompany the POSC in order to transfer credits. The transcript should show that the courses were taken as a graduate student. There should be a clear indication that the courses taken were graduate level courses. The POS committee may ask for other materials, such as a course outline or accreditation of the institution, to evaluate the course. Transfer courses not completed when the POS is submitted must be completed before the term in which the student graduates. A transcript must then be submitted through the online POSC process for review and final approval.

Research credits earned at another institution are generally not transferred. In rare circumstances, the transfer of S or P marks may be accepted for research credits only. It is the responsibility of the POS committee to obtain a letter from the responsible faculty member at the other institution stating that research credits recommended for transfer with S or P marks are considered to be worthy of a B grade or better.

Inclusion of Undergraduate courses on Graduate Programs of Study (policy updated February, 2015)

With POS-committee approval, graduate students will be permitted to use undergraduate classes from both within and outside of their majors on POSC forms. No 100- or 200-level classes may be used, but all 300- and 400-level classes at Iowa State (not undergraduate classes from other institutions) will be eligible. Up to 15 credits from 300- and 400-level courses may be used on a POSC form, with a maximum of 6 credits at the 300 level. Credits from undergraduate classes in excess of this limit may be listed on POSC forms but will not count toward meeting minimum graduate degree requirements. Any credits from 300-level classes must be from outside of the student's major. For graduate students who enter degree programs in spring semester of 2018 and thereafter, a limit of 9 credits at the undergraduate level will be in effect, with a limit of 3 credits at the 300 level.
Co-major, joint major, minor, and double graduate degree programs may be structured, depending upon the student’s interests and objectives. A co-major is a program for a single degree in which the requirements for two separate majors are met. A joint major is similar to a co-major but is available only in specific participating programs. A minor may be requested in any approved, degree-granting program. A double degree requires fulfillment of two graduate degree programs from participating programs and results in two diplomas. For details on these distinctions, see the Graduate College Handbook: [www.grad-college.iastate.edu/publications/gchandbook/homepage.html](http://www.grad-college.iastate.edu/publications/gchandbook/homepage.html).

**After** developing a proposed POS with your major professor, you are ready to share that POS with your committee. It is your responsibility to prepare the proposed POS and to schedule a meeting with your committee to discuss and finalize it. A nice POSC worksheet is provided on the graduate college web page [http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php). You should provide this worksheet to your professor and committee members for review. The committee will review the proposed program and may make suggestions for changes. Once that is done, you can finalize and complete your paperless POSC online. A good video describing completing this form is included on the graduate college page ([http://www.brenton.iastate.edu/dcr/Fall2014/POSCtraining/POSC_training_Sept2014/index.htm](http://www.brenton.iastate.edu/dcr/Fall2014/POSCtraining/POSC_training_Sept2014/index.htm)). *This one form documents the members of your committee and the specific POS that is approved by the committee.* Once this is submitted online, your major professor will be required to approve online, then your committee members, then the DOGE and then it will be submitted to the Graduate College. When approved by the Graduate College, the POS becomes your personal requirements for graduation with an advanced degree.

Many major professors also utilize the POS committee meeting to present and discuss the research that will provide the materials for your thesis or creative component. This meeting thus provides an opportunity for input and suggestions from all members of the POS committee. It is important to check with your major professor prior to your POS committee meeting to see if you are expected to present and discuss a research proposal as well as your proposed course list.

**Changes to the POS and/or POS Committee**

Once you have filed your POSC, you can track your progress on your POS using AccessPlus. You can also use the POSC to edit your Program of Study or the membership of your program of study committee. The same approval routing will apply in these cases starting with your major professor, the committee members, the DOGE and then the Graduate College.

Changes to your POS and/or POS committee must be approved by the dean of the Graduate College before preliminary or final oral exams are held. All members of the POS committee are required to attend the oral examinations unless prior approval of the Graduate College is obtained. For the procedures to obtain approval of the Graduate College for distance participation in oral exams or for emergency substitutions, see the Graduate College Handbook.

**Changes in degree programs**

In the Animal Science departmental majors, a student who desires to change from a Master of Science program to a Ph.D. program **without** completing the requirements for the M.S. degree may make that request after completing at least 1 year (12 months) of graduate study following admission to the M.S. program. This request **must be approved** by the POS Committee, the DOGE, and the Dept. Chair. After receiving your Committee approval, complete the form 'Masters Students on PhD Track in Same Dept' [http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php), and have your Major Professor sign the form. Then submit the form to 1221 Kildee for further approvals.

If you decide to pursue a different degree in a different program or department, you must establish a new POS committee and a new POS. Complete the form ‘Request to Transfer from One Major/Program/Department/Certificate to Another’ at [http://www.grad-college.iastate.edu/common/forms/student_forms.php](http://www.grad-college.iastate.edu/common/forms/student_forms.php), and submit the form to 1221 Kildee for further approvals.
**Required Course Work**

Required courses for advanced degrees offered by the Department of Animal Science are listed on the following pages. For interdepartmental majors, see the DOGE of the major to determine the courses required. The total number of credits required for a M.S. degree is 30. For a Ph.D., the number of credits required is 72. In each case, however, the specific courses required will be different for the different majors.

Consult the Schedule of Classes, at the following URL, for information on when courses are offered. 
[http://classes.iastate.edu](http://classes.iastate.edu)

**Credit Load Limitations**

Maximum permitted credit loads per term are as follows:

<table>
<thead>
<tr>
<th>Appointment Base</th>
<th>Spring or Fall Semester</th>
<th>Summer Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>no appointment</td>
<td>15 credits</td>
<td>10 credits</td>
</tr>
<tr>
<td>1/4-time or less</td>
<td>15 credits</td>
<td>10 credits</td>
</tr>
<tr>
<td>over 1/4 to 1/2-time</td>
<td>12 credits</td>
<td>6 credits</td>
</tr>
<tr>
<td>over 1/2 to 3/4-time</td>
<td>9 credits</td>
<td>5 credits</td>
</tr>
</tbody>
</table>

**Minimum Credit Loads**

During the academic year, graduate students **not on assistantships** must be registered for a minimum of nine credits to be considered full-time students and five credits for half-time status. During the summer, students not on assistantship must be registered a minimum of five credits for full-time status and three credits for half-time status.

Graduate students **holding assistantship appointments** are considered full-time students and must be registered for at least one credit each term for which they hold appointments. **Assistants must also register through the summer to keep their appointments active.**
# Animal Breeding and Genetics (AB&G)

## Graduate Major Degree Requirements

### Required courses for Master of Science

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative and Population Genetics</td>
<td>POSE Approved</td>
<td>9</td>
</tr>
<tr>
<td>Mendelian Genetics</td>
<td>GDCB 510 or 511 POSE approved</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>POSE Approved</td>
<td>3</td>
</tr>
<tr>
<td>Survey of Animal Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Animal Breeding and Genetics Seminar</td>
<td>AN S 658</td>
<td>1</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L</td>
<td>2</td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>1</td>
</tr>
<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
<td>1</td>
</tr>
<tr>
<td>Additional coursework and research (for a total at least 30 total credits)</td>
<td>POSE Approved</td>
<td></td>
</tr>
</tbody>
</table>

### Required courses for PhD degree

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative and Population Genetics</td>
<td>POSE Approved</td>
<td>9</td>
</tr>
<tr>
<td>Mendelian Genetics</td>
<td>GDCB 510 or 511 POSE approved</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>POSE Approved</td>
<td>3</td>
</tr>
<tr>
<td>Survey of Animal Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Animal Breeding and Genetics Seminar</td>
<td>AN S 658</td>
<td>1</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L (two occasions)</td>
<td>4</td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>2</td>
</tr>
<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
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</tr>
<tr>
<td>Additional courses by specialization</td>
<td>See below</td>
<td>20-22</td>
</tr>
<tr>
<td>Additional coursework and research (for a total of at least 72 total credits)**</td>
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### Additional credits by specialization:

#### Quantitative Genetics

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics</td>
<td>POSE Approved</td>
<td>9</td>
</tr>
<tr>
<td>Quantitative Genetics &amp; Animal Breeding</td>
<td>POSE Approved</td>
<td>9</td>
</tr>
<tr>
<td>Molecular Genetics or Immunogenetics</td>
<td>POSE Approved</td>
<td>2</td>
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#### Molecular Genetics

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
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</thead>
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<tr>
<td>Biochemistry</td>
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</tr>
<tr>
<td>Molecular Genetics</td>
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<tr>
<td>Immunogenetics</td>
<td>POSE Approved</td>
<td>2</td>
</tr>
<tr>
<td>Animal Breeding</td>
<td>POSE Approved</td>
<td>2</td>
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</tbody>
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#### Immunogenetics

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry</td>
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</tr>
<tr>
<td>Microbiology and Immunology</td>
<td>POSE Approved</td>
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<tr>
<td>Immunogenetics</td>
<td>POSE Approved</td>
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<tr>
<td>Molecular Genetics</td>
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<td>5</td>
</tr>
<tr>
<td>Animal Breeding</td>
<td>POSE Approved</td>
<td>2</td>
</tr>
</tbody>
</table>

* This requirement of all Animal Science Students is met by completing GR ST 565, Responsible Conduct in Research in Science and Engineering, or by completing the online course in the CITI program. See details ([http://www.compliance.iastate.edu/rcr/training/](http://www.compliance.iastate.edu/rcr/training/)).

** Required courses for AB&G majors are not designated by course number (with the exception of ANS 501, 590L, 658, and 690) because multiple course options are available. Specific courses will be approved by the POS committee including the additional courses and research credits to total the 72 credits required for a PhD degree.
ANIMAL BREEDING AND GENETICS (AB&G)
GRADUATE MINOR DEGREE REQUIREMENTS

At the Master of Science Level

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Breeding and Genetics</td>
<td>Graduate level, POSC Approved</td>
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</tr>
<tr>
<td>Animal Breeding and Genetics Seminar</td>
<td>AN S 658</td>
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</table>

At the PhD degree Level

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Quantitative and Population Genetics</td>
<td>POSC Approved</td>
<td>9</td>
</tr>
<tr>
<td>Mendelian Genetics</td>
<td>GDCB 510 or 511 POSC approved</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>POS Committee Approved</td>
<td>3</td>
</tr>
<tr>
<td>Survey of Animal Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Animal Breeding and Genetics Seminar</td>
<td>AN S 658</td>
<td>1</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L</td>
<td>2</td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>1</td>
</tr>
<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
<td>1</td>
</tr>
</tbody>
</table>

* This requirement of all Animal Science Students is met by completing GR ST 565, Responsible Conduct in Research in Science and Engineering, or by completing the online course in the CITI program. See details (http://www.compliance.iastate.edu/rcr/training/).

A graduate faculty member from the Animal Breeding and Genetics Major must be included in the POS committee of a student working toward a Minor in AB&G. The student will be required to demonstrate competence in the minor subject during the preliminary (in the case of the PhD student) and final examination for the major.
# Animal Physiology

**Graduate Major Degree Requirements**

## Required courses for Master of Science

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Animal Science Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Seminar in Animal Physiology</td>
<td>AN S 633 OR 685</td>
<td>1</td>
</tr>
<tr>
<td>Advanced Vertebrate Physiology</td>
<td>AN S 549</td>
<td>4</td>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 401</td>
<td>4</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>BBMB 420 (3 cr.) OR BBMB 404 &amp; 405 (6 cr.)</td>
<td>3-6</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L</td>
<td></td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>1</td>
</tr>
<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
<td>1</td>
</tr>
<tr>
<td>Additional coursework and research (for a total at least 30 total credits)</td>
<td>POSC Approved</td>
<td></td>
</tr>
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</table>

## Required courses for PhD degree

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Survey of Animal Science Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Seminar in Animal Physiology</td>
<td>AN S 633 OR 685</td>
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</tr>
<tr>
<td>Advanced Vertebrate Physiology</td>
<td>AN S 549</td>
<td>4</td>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 401</td>
<td>4</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>BBMB 420 (3 cr.) OR BBMB 404 &amp; 405 (6 cr.)</td>
<td>3-6</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L (two occasions)</td>
<td>4</td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>2</td>
</tr>
<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
<td>1</td>
</tr>
<tr>
<td>Additional coursework and research (for a total of at least 72 total credits)</td>
<td>POSC Approved</td>
<td></td>
</tr>
</tbody>
</table>

* This requirement of all Animal Science Students is met by completing GRST 565, Responsible Conduct in Research in Science and Engineering, or by completing the online course in the CITI program. See details [here](http://www.compliance.iastate.edu/rcr/training/).

## Additional course requirements for Master of Science and PhD degree specializations in the physiology major are outlined here:

### Reproductive Physiology Specialization for Master of Science

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar in Animal Physiology</td>
<td>AN S 633 OR 685</td>
<td>1</td>
</tr>
<tr>
<td>Physiology &amp; Endocrinology of Animal Reproduction</td>
<td>AN S 533</td>
<td>2</td>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 402</td>
<td>3</td>
</tr>
</tbody>
</table>

### Reproductive Physiology Specialization for PhD degree

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar in Animal Physiology</td>
<td>AN S 633 OR 685 (total of two terms)</td>
<td>2</td>
</tr>
<tr>
<td>Physiology &amp; Endocrinology of Animal Reproduction</td>
<td>AN S 533</td>
<td>2</td>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 402</td>
<td>3</td>
</tr>
</tbody>
</table>

### Muscle Biology Specialization for Master of Science

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar in Animal Physiology</td>
<td>AN S 633 OR 685</td>
<td>1</td>
</tr>
<tr>
<td>Molecular Biology of Muscle</td>
<td>AN S 670</td>
<td>3</td>
</tr>
</tbody>
</table>

### Muscle Biology Specialization for PhD degree

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar in Muscle Biology</td>
<td>AN S 633 OR 685</td>
<td>1</td>
</tr>
<tr>
<td>Molecular Biology of Muscle</td>
<td>AN S 670</td>
<td>3</td>
</tr>
<tr>
<td>600 level elective in ANS or BBMB</td>
<td>POSC Approved</td>
<td>3</td>
</tr>
</tbody>
</table>
### Ethology Specialization for Master of Science

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics in animal behavior, welfare and contemporary issues in animal behavior and welfare</td>
<td>AN S 537 (A-D)</td>
<td>3</td>
</tr>
<tr>
<td>Special Topics: Ethology</td>
<td>AN S 590N</td>
<td>3</td>
</tr>
</tbody>
</table>

### Ethology Specialization for PhD degree

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics in animal behavior, welfare and contemporary issues in animal behavior and welfare</td>
<td>AN S 537 (A-D)</td>
<td>3</td>
</tr>
<tr>
<td>Special Topics: Ethology</td>
<td>AN S 590N</td>
<td>3</td>
</tr>
<tr>
<td>Principles of morphology II</td>
<td>BMS 531</td>
<td>4</td>
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<tr>
<td>Neuroanatomy</td>
<td>BMS 537</td>
<td>3</td>
</tr>
<tr>
<td>Immunology</td>
<td>MICRO 575</td>
<td>3</td>
</tr>
<tr>
<td>Statistical Design and the Analysis of Experiments</td>
<td>STAT 402</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduate students majoring in Animal Physiology without a specialization are encouraged to enroll in additional physiology courses beyond AN S 549 to complement their scientific and professional goals.
# Animal Science Graduate Major Degree Requirements

## Required Courses for Master of Science

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Animal Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Seminar in Animal Science Disciplines</td>
<td>One of AN S 603, 633, 658, 684, 685 or a POS committee approved seminar</td>
<td>1</td>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 401</td>
<td>4</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>BBMB 420 (3 credits) OR BBMB 404 &amp; 405 (6 credits)</td>
<td>3-6</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L</td>
<td>2</td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>1</td>
</tr>
<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
<td>1</td>
</tr>
</tbody>
</table>
| At least one course from at least two of the five subject areas in Animal Science. | Animal Breeding and Genetics: AN S 561 (4 cr.)  
Nutrition: AN S 518 (3 cr.)  
Nutrition: AN S 520 (3 cr.)  
Physiology: AN S 549 (4 cr.)  
Reproduction: AN S 533 (2 cr.)  
Meat Science: AN S 570 (3 cr.) | 5-8     |

## Additional coursework and research (for a total of at least 30 total credits)

POSC Approved

## Required courses for PhD degree

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Animal Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Seminar in Animal Science Disciplines</td>
<td>One of AN S 603, 633, 658, 684, 685 or a POSC approved seminar</td>
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</tr>
<tr>
<td>Statistics</td>
<td>STAT 401 &amp; 402</td>
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</tr>
<tr>
<td>Biochemistry</td>
<td>BBMB 420 (3 cr.) OR BBMB 404 &amp; 405 (6 cr.)</td>
<td>3-6</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L (two occasions)</td>
<td>4</td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>2</td>
</tr>
<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
<td>1</td>
</tr>
</tbody>
</table>
| At least one course from three of the five subject areas in Animal Science | Animal Breeding and Genetics: AN S 561 (4 cr.)  
Nutrition: AN S 518 (3 cr.)  
Nutrition: AN S 520 (3 cr.)  
Physiology: AN S 549 (4 cr.)  
Reproduction: AN S 533 (2 cr.)  
Meat Science: AN S 570 (3 cr.) | 8-11     |

## Additional coursework and research (for a total of at least 72 total credits)

POSC Approved

* This requirement of all Animal Science Students is met by completing GR ST 565, Responsible Conduct in Research in Science and Engineering, or by completing the online course in the CITI program. See details ([http://www.compliance.iastate.edu/rcrtraining/](http://www.compliance.iastate.edu/rcrtraining/)).
# MEAT SCIENCE

## GRADUATE MAJOR REQUIREMENTS

### Required Courses for Master of Science

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Survey of Animal Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Advanced Meat Science and Applied Muscle Biology</td>
<td>AN S 570</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Meat Processing Principles and Technology</td>
<td>AN S 571</td>
<td>3</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L</td>
<td>2</td>
</tr>
<tr>
<td>Seminar in Meat Science</td>
<td>AN S 684</td>
<td>1</td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>1</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>BBMB 420 (3 cr.) OR BBMB 404 &amp; 405 (6 cr.)</td>
<td>3-6</td>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 401</td>
<td>4</td>
</tr>
<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
<td>1</td>
</tr>
<tr>
<td>Additional coursework and research (for a total of at least 30 total credits)</td>
<td>POSC Approved</td>
<td></td>
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</tbody>
</table>

One course in Microbiology is highly recommended

### Required Courses for PhD

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Animal Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Advanced Meat Science and Applied Muscle Biology</td>
<td>AN S 570</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Meat Processing Principles and Technology</td>
<td>AN S 571</td>
<td>3</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L (two occasions)</td>
<td>4</td>
</tr>
<tr>
<td>Seminar in Meat Science</td>
<td>AN S 684</td>
<td>1</td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>1</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>BBMB 404 &amp; 405 (6 cr.)</td>
<td>6</td>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 401 &amp; 402</td>
<td>7</td>
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<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
<td>1</td>
</tr>
<tr>
<td>Additional coursework and research (for a total of at least 72 total credits)</td>
<td>POSC Approved</td>
<td></td>
</tr>
</tbody>
</table>

One course in Microbiology is highly recommended

* This requirement of all Animal Science Students is met by completing GR ST 565, Responsible Conduct in Research in Science and Engineering, or by completing the online course in the CITI program. See details ([http://www.compliance.iastate.edu/rcr/training/](http://www.compliance.iastate.edu/rcr/training/)).
# MEAT SCIENCE

## GRADUATE MINOR DEGREE REQUIREMENTS

### At the Master of Science level

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Meat Science Course</td>
<td>AN S 560, 570, 571, 670 (two of these)</td>
<td>6</td>
</tr>
<tr>
<td>Meat Science Seminar</td>
<td>AN S 684</td>
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</tbody>
</table>

### At the PhD level

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Animal Disciplines</td>
<td>AN S 501</td>
<td>1</td>
</tr>
<tr>
<td>Graduate Meat Science Course</td>
<td>AN S 560, 570, 571, 670 (two of these)**</td>
<td>6</td>
</tr>
<tr>
<td>Special Topics – Teaching</td>
<td>AN S 590L</td>
<td>2</td>
</tr>
<tr>
<td>Seminar in Meat Science</td>
<td>AN S 684</td>
<td>1</td>
</tr>
<tr>
<td>Seminar in Animal Science</td>
<td>AN S 695</td>
<td>1</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>BBMB 420 (3 cr.) OR BBMB 404 &amp; 405 (6 cr.)</td>
<td>3-6</td>
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<tr>
<td>Statistics</td>
<td>STAT 401</td>
<td>4</td>
</tr>
<tr>
<td>Responsible Conduct in Research</td>
<td>GRST 565 or Equivalent*</td>
<td>1</td>
</tr>
</tbody>
</table>

* This requirement of all Animal Science Students is met by completing GR ST 565, Responsible Conduct in Research in Science and Engineering, or by completing the online course in the CITI program. See details [here](http://www.compliance.iastate.edu/rcr/training/).

**Six credits of the Meat Science coursework (AN S 560, 570, 571, 670) used to fulfill the requirements of the minor cannot be used for the graduate major.

A graduate faculty member from the Meat Science Major must be included in the POS committee of a student working toward a Minor in Meat Science. The student will be required to demonstrate competence in the minor subject during the preliminary (in the case of the PhD student) and final examination for the major.
Planning Your Research
A research project is the central element of graduate programs in animal science. You should work closely with your major professor to plan, initiate, and conduct your research. Research is typically a joint effort between the graduate student and major professor. As early as possible, you should discuss projects with your major professor. Some faculty encourage graduate students to develop a research proposal that guides the progress of the thesis project. Most graduate students in animal science are likely to use live animals as part of a research program and, if so, approval of the research by the ISU Committee on Animal Care (COAC) is necessary before beginning. If human subjects are used, such as for sensory evaluation of food products or for survey information, the research must be approved by the Institutional Review Board (IRB) in the Human Subjects Research Office, associated with the Vice Provost for Research and Advanced Studies. Information about both units may be found at the Web sites listed below.

COAC
www.lar.iastate.edu/

IRB
www.compliance.iastate.edu

To order any laboratory supplies, visit with your section secretary for instructions.

Thesis / Creative Component / Dissertation
The thesis is considered the capstone project of MS study and should demonstrate the ability of the author to perform independent and creative work. All master’s programs require a thesis, except in cases where provision is made for a non-thesis degree program. In most animal science programs, students may select the non-thesis option and, in this case, the capstone project of the program of study is a “creative component.”
The exact nature of the creative component, whether a special report, annotated bibliography, research project, or some other kind of work, must be defined by you in consultation with your POS committee. The type of project agreed upon for your creative component must be stated in your formal POS. Please consult with your major professor regarding the selection of a thesis or non-thesis option for MS study to ensure that your choice is compatible with your program and career goals.

The dissertation is the capstone project of PhD study and must conclusively demonstrate the ability of the author to conceive, design, conduct, and interpret independent, original, and creative research. Successful completion of the doctoral degree requires the successful composition and defense of a dissertation.

The following Web site provides guidance on formatting and submitting theses and dissertations. You may also view and download the ISU Thesis Manual here:

http://www.grad-college.iastate.edu/current/thesis/

Expectations for Progress

Time Limits
Graduate students are expected to complete MS degree programs within five years. Candidates for the PhD degree are expected to complete the degree within five years if they begin the program with a MS degree, or within seven years if they begin the PhD program without a MS degree. If necessary, the POS committee may request, in writing, that the Graduate College review the program and consider a time extension.

Grades and Academic Progress
For any courses listed on the POS, the minimum acceptable grade is a C. Some major programs in the department have higher expectations for courses in that major. Consult with your major professor concerning specific requirements for your program. A grade of C- is unacceptable in all cases and
means that the course must be repeated to qualify for a degree. A grade of D is acceptable for courses not included on the POS but is included in calculation of the overall grade point average. A grade point average of 3.0 or higher (exclusive of research credits) is required to avoid academic probation.

**Progress with Research**

The research progress of graduate students is assessed primarily by the major professor but may reviewed by other faculty or staff that are closely involved with the research project. Students involved with research typically register for research credit in AnS 699 and receive a grade from the major professor that reflects research performance. Students should consult with their major professor on a frequent and regular basis to discuss research progress and expectations. It is normal for graduate students to experience a variety of challenges in the progression of research, and meeting those challenges is part of developing research skills. The major professor and the POS committee can provide important assistance in maintaining expected progress in research.

**Annual Reports**

All graduate students in Animal Science, including interdepartmental majors that have Animal Science as the home department, are required to submit a written annual report of progress toward a degree. The report is to be submitted to the major professor by March 15. After discussion with the major professor, the signed report should be submitted to the DOGE by April 1.

**Academic Probation**

If a graduate student does not maintain a cumulative 3.0 grade point average on all course work taken, exclusive of research credit, he or she may be placed on academic probation. While on academic probation, students will not be admitted to candidacy for a degree or, if appointed to a graduate assistantship, will not receive a Graduate College tuition scholarship. The student’s progress will be reviewed before subsequent registration to determine if registration will be permitted. Prior to graduation, all courses on the POS must have a minimum grade of C and the GPA must be 3.0 or greater. Probationary status for more than two years is grounds for dismissal for failure to maintain academic standing.

**Dismissal**

Graduate students may be dismissed if they fail to maintain acceptable academic standing. Any one of the following are grounds for dismissal from the graduate program in animal science:

- Failure to maintain the minimum GPA of 3.0,
- Failure to pass required examinations within expected time frames (see “Time Limits” section above),
- Failure to complete required coursework, thesis, or creative component credits within the above time frames,
- Academic probation for two or more years,
- Failure to establish a major professor within two years of admission to the graduate program,
- Failure to demonstrate scholarship and professional competence,
- Failure to comply with graduate student responsibilities as described in this handbook and in the Graduate College Handbook,
- A finding of academic misconduct by an ad hoc committee as outlined in the Faculty Handbook pp. 121-125.
- Personal conduct in violation of the Regents Uniform Rules and General University Regulations as described in the ISU Student Information Handbook.

Procedures to be followed for dismissal reviews, decisions, and appeals are outlined in the Graduate College Handbook, [www.grad-college.iastate.edu/publications/gchandbook/](http://www.grad-college.iastate.edu/publications/gchandbook/) in Chapter 9. These include first an informal conference between the student and departmental representatives, including the major professor. A second informal conference with the Associate Dean of the Graduate College may be requested if the departmental discussion is unsatisfactory. If the student’s academic standing is clearly in jeopardy following informal conferences, a written warning from the departmental DOGE will be provided to the student to explain perceived shortcomings and describe corrective action and deadlines. If the
corrective action outlined does not result in acceptable improvement, the DOGE will issue a letter of dismissal, describing the reasons for the dismissal and the effective date of the dismissal.

Appeals of the dismissal decision may be made to the departmental grievance committee, if dismissal is for incompetence, or to the Graduate Dean if dismissal is for other reasons.

**Preliminary Examination – PhD Students Only**

PhD students are required to take a written and oral preliminary examination for admission to PhD candidacy in animal science. Both examinations are prepared and administered by the POS committee. You should work closely with your major professor and the POS committee in preparing for the examination. Consult with members of the committee to determine what they expect of you in the examination. The preliminary exam is intended to rigorously test for knowledge in your major field and in supporting subject areas, including all course work taken for the POS. For animal science, the written preliminary exam should be completed at least two weeks prior to the oral exam date to allow the POS committee sufficient time to evaluate the written exam.

Students must meet all Graduate College requirements before submitting a request for the preliminary exam. See the Graduate College Handbook for the requirements that must be completed. All POS committee members must be present for the oral examination and must sign the report form indicating the final results of the exam.

Following the preliminary exam, the POS committee will decide if the student will be recommended for admission to candidacy for a PhD degree. The four options available to the committee include:

- Pass – recommend admission to PhD candidacy,
- Conditional Pass – the student may continue but must meet specified conditions which are to be described on the report form,
- Fail – with the opportunity to retake the exam after at least 6 months, or
- Fail – with no opportunity to continue work toward a PhD degree.

If more than one member of the POS committee votes to fail the student, the candidate will fail the exam. *The preliminary oral examination must be passed at least six months prior to the final oral examination.*

**Completing Your Program**

Be aware that several deadlines are involved with a timely completion of your degree program. For example, an “Application for Graduation” form (diploma slip) must be submitted during the first week of the semester in which you expect to graduate. There are deadlines later in the semester for the final oral exam, for submission of your thesis, and for the signed graduation approval slip. Check the Graduate College webpage for specific deadline dates established for each semester.

All graduate students are required to defend their research work in a final examination by their POS committee. A “Request for Final Oral Examination” form (available in 1221 Kildee) must be submitted to the Graduate College at least 3 weeks before the final exam date. Your thesis/creative component/dissertation should be submitted to all POS committee members at least two weeks before the oral exam. Please consult the appropriate flow chart on pages 25 (for the MS) or 26 (for the PhD) of this handbook for the general sequence of steps that must be observed to complete your degree. For details on specific deadlines for a given semester, please contact the Graduate College directly, telephone 515-294-4531, or Dr. Steven Lonergan, DOGE, telephone 515-294-9126, slonerg@iastate.edu.

The Graduate College maintains a “Deadlines” Web site at the following URL: [http://www.grad-college.iastate.edu/calendar/](http://www.grad-college.iastate.edu/calendar/). This page is well maintained and is updated for each term, however, in the event that the information there is not current, please contact the Graduate College directly at the telephone number given above.
Appendix - FORMS

Most forms you require are available on the Graduate College Page:
http://www.grad-college.iastate.edu/common/forms/student_forms.php