Animal Science Graduate Handbook

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Updated Fall 2022
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QUICK GUIDE - New Graduate Student Onboarding Checklist

NEW GRAD STUDENT CHECKLIST FROM THE GRADUATE COLLEGE * LOTS OF INFORMATION HERE!

1. ***International Students – Check in with ISSO (International Students & Scholars Office)
   - 3241 Memorial Union – 515-294-1120 – isso@iastate.edu
   - New International Graduate Student Next Steps Packet

2. Check in with your Major Professor
   - Obtain office and/or lab room assignment
   - Major professor completes and signs key requests using the following form: https://iastate.app.box.com/file/269525384879

3. Meet the Animal Science administrative team in 1221 Kildee Hall

4. Submit your Key Request form to 1221 Kildee Hall
   - This will take 1-2 days to process, you will then be given a signature form
   - Student signs form @ FPM in 108 General Services Building, after correct keys are received

5. Contact Michelle Hiscocks to get your picture taken for the online directory - michhisc@iastate.edu

6. Log in to Workday - https://web.iastate.edu/signons - click on Workday button
   - You will be walked through steps upon logging in
   - Assistantship Recipients - Sign your Letter of Intent (LOI) in Workday (if not done prior to arrival)
   - Update your Office and Room assignment in Workday

7. Set up your Net ID (email/username) https://www.it.iastate.edu/newstudent (if not done prior to arrival)
   - You will need your University ID# (UID) for this
   - If assistance is needed call the IT Solutions Center 515-294-4000 for help
   - This page will also give you information for setting up your Okta Dashboard for all ISU applications
   - Detailed instructions here

8. Get your ISU Student Identification Card:
   - ISUCard Office - https://www.isucard.iastate.edu/ - 515-294-2727
   - You will need a state or federal issued photo ID and your UID or SSN# - for more information visit: https://www.isucard.iastate.edu/first-card-requirements


10. On-Campus Parking - go to the Armory Building to get parking permit (if needed); ISUCard will be required
    - Call ahead for hours 515-294-3388 or visit https://www.parking.iastate.edu/ for more information

11. You and your professor to organize IT (VPN, printer, phones, etc.) – anshelp@iastate.edu – 515-294-5149

12. Register for classes:
    - Meet with your professor to discuss program and course requirements
    - Sign up for classes through Access Plus - https://web.iastate.edu/signons

13. Resources for ISU Graduate Students: https://www.grad-college.iastate.edu/resources/

Other questions? Contact Rose Mary Ross – Grad Student Services - rmross@iastate.edu
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. For questions that are not addressed in this handbook, more comprehensive information is available on the Web.

Departmental Information

General Information-Department Web Site: https://www.ans.iastate.edu
Animal Science Graduate Programs: https://www.ans.iastate.edu/graduate-students

AccessPlus

https://accessplus.iastate.edu/
AccessPlus is your secure and personalized online resource for accessing you important and confidential university information. AccessPlus is available day or night, seven days a week, from anywhere in the world. You need your university ID and password to view your information. Some of the many services available for students through AccessPlus include:
- Address for ISU directory (office & home)
- Payroll Information
- CyCash Account
- View and Pay your University Bill
- Class Registration
- Class Schedules
- Financial Aid
- Grade Reports and Transcripts
- Job Board
- Campus Housing and Dining

Iowa State University

- Campus Map - http://www.fpm.iastate.edu/maps
- Catalog – https://catalog.iastate.edu/
- Dining Services - https://www.dining.iastate.edu/
- Office of Student Financial Aid - https://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
- Center for Communication Excellence - https://cce.grad-college.iastate.edu/
- Student Organizations & Clubs: http://sodb.stuorg.iastate.edu/
- Disability Resources - Academic Success Center: www.dso.iastate.edu/dr
- Health Care - Thielen Student Health Center: www.health.iastate.edu
- Legal Consultation - Student Legal Services: www.dso.iastate.edu/sls
- Student Counseling Service: https://www.counseling.iastate.edu/
- 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 https://www.ameschamber.com/.

CyRide (Ames public transportation system): https://www.cyride.com/ or 515-292-1100
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:
Department of Residence
2419 Friley Hall, Ames, Iowa 50012
https://www.housing.iastate.edu/
515-294-2900 or 1-800-854-9050

Off Campus:
https://www.cityofames.org/living/rent-smart-ames
https://www.rentiowa.com/

International Students & Scholars
The International Students & Scholars Office (ISSO) should be your very first stop on campus. Staff in the ISSO 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.
- Fully complete the Form I-9 process in Workday

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

Contact Information:
International Students & Scholars Office - ISSO
3241 Memorial Union
515-294-1120
isso@iastate.edu

Check in with Major Professor
- Obtain office and/or laboratory room assignment
- Major Professor completes and signs Key Request Form
- Submit form to the Animal Science administrative office in 1221 Kildee Hall
- NOTE: Upon graduation/separation of position, all keys and/or proximity cards are to be turned in at 1221 Kildee Hall. A fee will be assessed for all lost or non-returned key and proximity cards.

Meet the Animal Science Administrative Team in 1221 Kildee Hall
- Submit your key request form
- This will take 1-2 days to process, you will then be given a signature form
- Student signs form @ FPM in 108 General Services Building, after correct keys are received
- Schedule a time for your photograph to be taken for the online directory

Assistantship Recipients
- Log in to Workday – www.workday.iastate.edu
- Review and accept your Letter of Intent (LOI), your contract with the department, in Workday
- Follow all onboarding Workday prompts that appear in your inbox
- Completing the Form I-9 needs to occur within the first 3 days of your employment
- NOTE: ISU does not mail out payroll checks; please enroll for direct deposit. Your payroll information for each pay period will be available in Workday.
Contact Information:
University Human Resources Office
3810 Beardshear Hall
515-294-8226 or 877-477-7485
hrhelp@iastate.edu

Student Identification Cards
Your ISUCard 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 (ISSO) before you apply for an ISUCard.
NOTE: You must have your ISUCard and password to register for classes in AccessPlus.

- Go to ISU Card Office - www.isucard.iastate.edu
- Complete Application
- Show Photo ID
- Have photo taken
- Choose password
- Receive ISUCard

Contact Information:
ISU Card Office
0530 Beardshear Hall
515-294-2727
idcard@iastate.edu

ISU Information Technology (IT) Services / IT Solution Center
The IT Solution Center is your number one on-campus and online resource for technology assistance, from registering your devices to resetting your password.

- www.it.iastate.edu/newstudent
- Step-by-step instructions on how to register (set up) your Net-ID, this is what you’ll use to access your university accounts. This username or handle is the group of characters before the “@” sign of your Iowa State email account.
- Step-by-step instructions on how to set up your Okta Dashboard, which is Iowa State’s centralized application dashboard and single sign-on solution. When you log in to Okta you can access a huge collection of Iowa State and other applications without having to type your login information each time.

Contact Information:
Information Technology Services
271 Durham Center

IT Solution Center
515-294-4000
192 Parks Library
solution@iastate.edu

Animal Science Department IT Resources
https://www.ans.iastate.edu/ans-it

Contact Information:
Animal Science IT
515-294-5149
anshelp@iastate.edu
Parking

Park & Ride (free): [https://www.parking.iastate.edu/park-and-ride](https://www.parking.iastate.edu/park-and-ride)

Visitors can park at the designated (A3, A4, B4, B5, B6, C5, C6) parking lots at the Iowa State Center for free and take Cy-Ride's Orange Route into campus. Cars cannot remain in the Iowa State Center lots past Midnight before ISU Football gamedays. Overnight parking is not available in the commuter lots.

Commuter Lot permits: [https://www.parking.iastate.edu/permit/student/commuter](https://www.parking.iastate.edu/permit/student/commuter)

- **Lot 29** (this lot is north of Molecular Biology)
- **Lot 68** (this lot is located off University Blvd near Haber Road); this lot would be closer for commuters with classes on the east and south side of campus.
- **Lot 119** (this lot is located at Wanda Daley Drive and Stange Road—a walking tunnel under the railroad tracks brings you out near Printing and Publications)

Meters and Pay-By-Stall: [https://www.parking.iastate.edu/meters---pay-by-stall](https://www.parking.iastate.edu/meters---pay-by-stall)

Contact Information:
ISU Parking Division
27 Armory Building
515-294-3388
[https://www.parking.iastate.edu/](https://www.parking.iastate.edu/)

Registering for Classes

- Discuss program and course requirement with major professor – recommended courses will vary depending on academic program and background.
- Schedule of Classes: [http://classes.iastate.edu/](http://classes.iastate.edu/) (be sure to select correct term)
- Register for classes in AccessPlus – NOTE: Students in the 4 majors of the Department 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.

DOGE list: [https://www.grad-college.iastate.edu/doge/](https://www.grad-college.iastate.edu/doge/)

Department of Animal Science – Graduate Student Orientation

The Department of Animal Science has a required course for orientation to the department and programs available to graduate students. Animal Science 501 is required for all students in the 4 majors of the Department of Animal Science. The course meets in the fall semester on Mondays at 1:10 pm.

Graduate College Information

The Graduate College website is a very valuable resource ([https://www.grad-college.iastate.edu/](https://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 website. Perhaps the most valuable resource you will find as a graduate student is the Graduate College Handbook. The handbook is very thorough and easy to use and has an excellent search feature. You can learn about the requirements for your POSC, procedures for exams, and necessary steps in completing your degree ([https://www.grad-college.iastate.edu/handbook/](https://www.grad-college.iastate.edu/handbook/)).

The Graduate and Professional Student Senate (GPSS) [https://www.gpss.iastate.edu/](https://www.gpss.iastate.edu/) is an elected governing body through which graduate and professional students express their concern for the welfare of graduate and professional students at Iowa State University, develop and disseminate ideas for the improvement of graduate and professional education, and contribute to the formation of relevant University policies. Founded in 1970, it is the recognized independent representative body of graduate students at ISU; it is charged with representing the graduate and professional students' perspective on campus issues and serving as a liaison between graduate/professional students, the university administration, and the Board of Regents.
The ISU Center for Excellence in Learning and Teaching (CELT) also offers new teaching assistants a fall training seminar in August and a spring training seminar in January. Check the website for more details.

Contact Information:
Center for Excellence in Learning and Teaching (CELT)
3024 Morrill Hall
515-294-5357
https://www.celt.iastate.edu/
celt@iastate.edu

Health and Dental Insurance
All graduate students without an assistantship who are registered for 5 credit hours or more at Iowa State University, are eligible to enroll in the ISU Student & Scholar Health Insurance Program (SSHIP) https://sship.hr.iastate.edu/. 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 website for more information. Non-immigrant international students and their dependents must be enrolled in the health insurance program. Dental insurance coverage is also available. More detailed information for graduate assistants can be found here: https://sship.hr.iastate.edu/graduate-assistants.

For more information on health services, locations and contact persons visit following websites: https://www.grad-college.iastate.edu/resources/health/, https://sship.hr.iastate.edu/contact-us.

Contact Information:
University Human Resources
Student & Scholar Health Insurance Program (SSHIP)
3810 Beardshear Hall
515-294-4800
https://sship.hr.iastate.edu/
isusship@iastate.edu

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 your major professor and 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 website https://www.ehs.iastate.edu/training while others require personal attendance. You are required to take a basic introductory laboratory safety course as part of Animal Science 501.

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. You will be required to complete an online training course as part of Animal Science 501.

First Report of Injury
All accidents, incidents 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. Report all accidents, incidents and injuries online as soon as possible (Emergencies: Dial 911): https://www.riskmanagement.iastate.edu/Report.

Contact Information:
Office of Risk Management (ORM)
1700 Administrative Services Building
515-294-7711
For 24-hour URGENT risk management assistance: 515-294-7700
orm@iastate.edu
Graduate English Requirements for Nonnative Speakers of English (per ISU Graduate College Handbook 4.4.3).

Graduate students whose native language is not English and who do not have a bachelor’s or advanced degree from ISU or a U.S. institution, or do not meet the TOEFL or IELTS exemption score range, 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 TOEFL (Test of English as a Foreign Language), which is taken as part of the admissions process. A student who does not pass this examination is assigned to one or more courses in the English 99 and 101 series. This coursework must be completed during the first year of study. Registration holds are placed on the student’s account if the student does not register for these classes during the first year of study. (There is a developmental course fee for the English 99 course.)

A graduate student whose native language is not English may be automatically exempted if one of the following is met:

1. Student has received a bachelor's, master's, or Ph.D. degree from a U.S. college or university
2. Student has received a bachelor's, master's, or Ph.D. degree from an English-speaking university outside of the U.S. As of 2016, countries outside of the U.S. that ISU considers “English-speaking” are Canada, Great Britain, New Zealand, or Australia.
3. Student has a TOEFL score of 600 or above (paper-based TOEFL) or 100 or above (internet-based TOEFL)
4. Student has a score of 7.5 or above on the IELTS
5. Student has a score of 72 or above on the PTE (Pearson Test of English)

Oral English Certification Test

The Oral English Certification Test (OECT) is an academic test required for international teaching assistants (ITAs), i.e. graduate students who fit both of these categories:

- international graduate students who are not native speakers of American English (i.e., learned another language first), and
- international graduate students who are appointed to a teaching assistantship.

The OECT is administered before the beginning of fall and spring semesters for first-time test-takers, as well as at the end of these semesters for ITAs re-taking the test. The OECT testing dates can be found on the International Teaching Assistants Program website at [https://cce.grad-college.iastate.edu/speaking/oect-for-itas](https://cce.grad-college.iastate.edu/speaking/oect-for-itas). Registration for the OECT can be completed online through the program’s website two to three weeks before the testing dates. International Teaching Assistants (ITAs) and faculty with questions about OECT should email itas@iastate.edu or call 515-294-1958 or 515-294-7996.

A prospective ITA who does not pass OECT is required to successfully complete English 180 coursework and be retested. English 180 is a series of oral communication courses designed to help ITAs improve their English speaking skills by focusing on pronunciation, listening, classroom-communication strategies, question-handling, teaching and lecturing skills, and the culture of U.S. university life ([https://cce.grad-college.iastate.edu/courses/speaking-courses](https://cce.grad-college.iastate.edu/courses/speaking-courses)). Because enrollment is restricted, ITAs cannot register for English 180 courses online through AccessPlus. ITAs must go to the CCE in the Graduate College, 1137 Pearson, upon receiving the OECT scores to obtain permission to enter the course by completing an online schedule change form.
Departmental Policies

Establishing a Major Professor/Faculty Advisor

Animal Science does not accept graduate students without a faculty member indicating a willingness to serve as major professor. However, 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 website https://www.ans.iastate.edu/people/faculty and contact faculty prior to submitting an application.

If you are entering as a new student, and have questions about your major professor, please contact Dr. Nicholas Gabler, Director of Graduate Education (DOGE), ngabler@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 request form "Home Department for Students Admitted to Interdepartmental Majors," on the Graduate College website under Current  Student Forms. https://secure.grad-college.iastate.edu/home-department/

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 will provide the form.

Stipends and Tuition Scholarships

Monetary stipends for graduate assistantships are calculated and revised annually. For the most recent stipend amounts, please contact Rose Mary Ross, rmross@iastate.edu. Assistantship awards also include a tuition scholarship. MS students on a ½-time assistantship receive a 50% tuition scholarship. A quarter-time appointment carries a 25% scholarship. The student is obligated to pay the remaining tuition balance.

Assistantships granted to PhD students at half-time (or greater) carry a 100% tuition scholarship.

For additional information on assistantship policies and procedures, see the ISU Graduate College Handbook www.grad-college.iastate.edu/publications/gchandbook/homepage.html.
**Other Types of Financial Aid**

The Graduate College offers more information on Financing a Graduate Degree on their website: [https://www.grad-college.iastate.edu/finance/](https://www.grad-college.iastate.edu/finance/). Here you can find ways in which Iowa State University provides assistance with educational expenses, including details on assistantship support to underrepresented groups in higher education through the Diane Brandt Scholarship for Women, the George A. Jackson Award and the Iowa State Ronald E. McNair Scholarship.

The ISU College of Agriculture and Life Sciences (CALS) also extends support to underrepresented groups through the Graduate Research Assistantship Match (GRAM) program: [https://www.diversity.cals.iastate.edu/](https://www.diversity.cals.iastate.edu/).

If you feel that you may qualify for any of these awards, please contact Rose Mary Ross rmross@iastate.edu.

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 website [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.

Enrolled students are eligible to apply for College of Agriculture and Life Sciences scholarships (typically due January 31) and Animal Science departmental scholarships (typically due February 15) - watch for departmental announcements - these are awarded in the spring for the following academic year.

Recognize that FAFSA forms are due on December 1.

**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 within Workday.**

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) for 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, Jury Duty, 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, Predoctoral Scholars and Postdoctoral Scholars in Connection with the Arrival of New Children
(Revision Approved February 18, 2020)

Background
An increasing number of graduate assistants, predoctoral, and postdoctoral appointees are beginning families during their appointment periods. Faculty mentors as well as departmental and college administrators have voiced a strong need to provide short-term funding for a reasonable period around the time of the arrival of children to provide an environment that is supportive of all stakeholders. Short-term funding is particularly important in the case of graduate assistants, predoctoral scholars, and postdoctoral scholars because of their typically short appointment periods, as well as the short-term, goal-oriented nature of the projects that typically fund their appointments. It should be noted that enrollment in this program does not automatically extend the appointment period specified in the individual’s Letter of Intent. If the period of leave extends beyond the end date of the appointment, a new appointment should be in place before the leave is taken. Otherwise, the funding from the Graduate College ends when the appointment ends.

Program Description
1. The purpose of this program is to provide short-term funding for up to 12 continuous weeks of paid leave for all graduate assistants, predoctoral scholars, and postdoctoral scholars who will be adding a new child to their family through birth or adoption. The Graduate College will provide a portion of the individual’s stipend/salary to allow the department to replace them during their leave. All graduate assistants, predoctoral scholars, and postdoctoral scholars who attest to their status as a new parent will be eligible for short-term funding, regardless of their stipend funding source.
2. Leaves may begin during pregnancy, in the time prior to adoption, or after the arrival of the child, but the total period of paid leave may not exceed 12 weeks. It is expected that most leaves will begin no more than two months before the arrival of the child and no more than one month after the arrival of the child.
3. In co-parenting families, each parent is eligible and may split the leave if they each hold a current appointment as a GA, predoctoral scholar, or postdoctoral scholar. For example, each parent may take 6 continuous weeks of leave (or any other combination that totals no more than 12 weeks). Leaves by co-parents may be concurrent or sequential.
4. Funding will be limited to a total of twelve weeks per family for the addition of one or more children to the family at a given time (e.g., the birth or adoption of twins entitles the family to 12 weeks rather than 24 weeks of paid leave). Except in rare circumstances, only one application for Bridge Funding per family will be approved every two calendar years.
5. In eligible co-parenting families, if they wish to divide the twelve weeks, each must complete a separate form, with a note indicating that the leave will be split between the parents, and naming each co-parent and their department and college. Each parent will be paid at their current appointment rate during the leave.
6. Graduate assistants, predoctoral scholars, and postdoctoral scholars 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 during the leave will be provided by an equal match from the Graduate College and the academic college of the graduate assistant, predoctoral, or postdoctoral scholar. Tuition will continue to be paid by the academic department/college for graduate students.

Guidelines to Complete Request for Bridge Funding: Arrival of New Children
1. The graduate assistant, predoctoral scholar, or postdoctoral scholar needs to complete and obtain signatures for Section I of the form, Request for Bridge Funding: Arrival of New Children. If this request is in conjunction with another request from a co-parent who is also a graduate assistant, predoctoral, or postdoctoral scholar, please provide the name or University ID number of the co-parent. Each co-parent must complete a separate form.
   a. Submit to the hiring unit(s) for the next step
2. The Hiring Department/Unit for each co-parent needs to complete Section II and submit to the Academic (Home) College(s).
3. The Academic (Home) College(s) need to
   a. provide worktag and approval, and
   b. forward to the Graduate College (Lynette McBirnie Sprecher, mcbirnie@iastate.edu)

4. The Graduate College needs to
   a. provide a worktag and approval, and
   b. forward to Department/Unit contact(s) who will submit to their Finance ISD or
      finance_delivery@iastate.edu for the costing allocation.

**GA/Postdocs**

- If your Bridge Funding occurs during the academic year (fall and spring semesters), graduate assistants will need to stay registered for at least one credit 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 one credit during the summer.

- 9- or 10-month assistantship appointments - Your assistantship will follow its stated starting and ending dates.

- Maximum Bridge Funding is twelve (12) weeks or 60 working days. This can be taken by one parent or split between two parents if both are on appointment. If a postdoc has more than 12 weeks of vacation/sick time off, they may take more than 12 weeks if their supervisor approves.

- Your health insurance and any other benefits from your assistantship/pre- or postdoc appointment will remain intact during your Bridge Funding.

- Postdocs need to use your accrued vacation/sick time off concurrently with the Bridge Funding until you exhaust any accrued time.

- For questions regarding your eligibility for leave under the Family Medical Leave Act (FMLA) please consult University Human Resources at.fmla@iastate.edu.

**Hiring Departments/Units**

- Benefit costs will transfer with the stipend/salary.

- College contacts are:
  Human Sciences --- Ben Phillips;
  College of Agriculture and Life Sciences --- Jordan Gillespie;
  College of Design --- Pam Boehm;
  College of Veterinary Medicine --- Karol Krumm;
  College of Liberal Arts and Sciences --- Venita Currie;
  College of Engineering --- Mike Francom;
  Ivy College of Business --- Soma Mitra;
  Graduate College --- Lynette McBirnie Sprecher.

- Postdocs need to use sick time off/vacation concurrently with the Bridge Funding until they exhaust any accrued time. Sick time off/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 have or will soon (within two months) add one or more new children to their family through birth, fostering, or adoption.
   b. Postdoctoral and predoctoral research associates who have or will soon add one or more new children to their family through birth or adoption.
   c. Co-parents may both request Bridge Funding, if both are Graduate Assistants, Postdoctoral Scholars or Predoctoral Scholars, but the total time of Bridge Funding will not exceed 12 weeks per family per addition of a child (or in rare cases, multiple children).

2. How do I request Bridge Funding for the arrival of a child?
   a. Complete the form, Request for Bridge Funding: Arrival of New Children on the Graduate College website under: Faculty and Staff ➜ Academic Information ➜ Online & Paper Forms. There is a separate section for each co-parent that must be completed.

3. How long does the Bridge Funding last for the arrival of a child?
   a. Up to 12 weeks will be granted. If co-parents both qualify and wish to apply for funding, they must split the 12 weeks of funding between them.

4. Will anyone be denied Request for Bridge Funding?
   a. Graduate students not on assistantship will not be granted Bridge Funding.

5. I have a co-parent who is also a GA or postdoc. Can they apply for Bridge Funding, too?
   a. Funding will be limited to a total of twelve weeks but may be shared by two parents if both are graduate assistants, predocs, or postdocs (for example, six weeks each).

6. As a postdoc, will I need to use my vacation/sick time off during the Bridge Funding?
   a. Yes, you will need to use your accrued vacation/sick time off concurrently with the Bridge Funding.

7. As a postdoc, what if I don’t have enough vacation/sick time off for the whole 12 weeks of Bridge Funding?
   a. You will be covered up to 12 weeks during Bridge Funding regardless of how much vacation/sick time off you have accrued. If you are splitting Bridge Funding with a co-parent, the total number of weeks of Bridge Funding may not exceed 12 weeks.

8. 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 you choose to begin Bridge Funding (e.g., during pregnancy or preparation for adoption or following the birth of the child) less than 12 weeks before the start of your appointment, you can request Bridge Funding for the difference between the start date and 12 weeks. Example: If your child arrives on August 1, and your graduate assistantship begins on August 15, you could request 10 weeks of Bridge Funding.

9. Do I have to take the Bridge Funding all at one time?
   a. Yes. It is expected that the Bridge Funding would begin in late pregnancy (or in the final weeks before an adoption that requires travel or preparation) or immediately following the arrival of a child. Leaves must be continuous. If leaves are shared between co-parents, they may take their leaves simultaneously or sequentially, but each person’s leave must be continuous.

10. Do I have to take the full twelve weeks?
    a. No. Twelve weeks is the maximum amount that will be covered per family per addition of a child/children to the family.

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

The University also has procedures in place for requesting workplace accommodations for disability or religion: https://www.hr.iastate.edu/tools-for-employees/workplace-accommodations
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 (Chapter 9) 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 the 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.
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 responsively 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. ANS 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) ([https://cce.grad-college.iastate.edu/speaking/oect-for-itas](https://cce.grad-college.iastate.edu/speaking/oect-for-itas)) 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 in to 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
- 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.

**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 the DOGE, Dr. Nicholas Gabler, ngabler@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 (jsterle@iastate.edu), head of undergraduate teaching, or Dr. Nicholas Gabler (ngabler@iastate.edu), DOGE for Animal Science. Specific requirements for each BS-MS degree program are at https://www.ans.iastate.edu/files/page/files/BS_MS_degree_0.pdf.

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.

You will complete, submit, and revise your POSC through AccessPlus. You will need to log in to AccessPlus and find and click on the student tab in the upper right-hand corner on your AccessPlus homepage. Once you’re on the homepage, find the Graduate Student Status tab on the left menu, and click on it. On the Graduate Student Status page, you’ll see two columns. Go to the middle section of the right column and find the button labeled MY POSC Form, and click on it. Once you have your POSC form open on AccessPlus, it’s time to begin filling it out.

POSC Practice Worksheet: https://www.grad-college.iastate.edu/student/forms/
POSC Help Page: https://www.grad-college.iastate.edu/posc/help/
POSC FAQ’s: https://www.grad-college.iastate.edu/posc/

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 ISU undergraduate student (per ISU Graduate College Handbook 6.3.2).

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:

- With approval of the student’s Program of Study Committee, up to 6 graduate credits a student earned as an ISU undergraduate may be used to meet the requirements of the graduate degree.
- Grades of B or better are required in the courses that led to these credits.
- These credits must have been earned when the student was classified as an undergraduate, not as a nondegree undergraduate (special) student.
- These credits could have been used to meet undergraduate degree requirements.
- For students in concurrent undergraduate and graduate status, these credits (up to 6) may be in addition to the 6 credits identified on the Transfer of Courses for Concurrent B.S./Graduate form.

Graduate programs may accept undergraduate-level courses (300- and/or 400-level) taken by the student as an undergraduate at ISU to meet background deficiencies or to demonstrate proficiencies in subject matter necessary for the degree. These courses are not eligible for inclusion on the POSC form but may be articulated for transfer internally. The student would be required to meet the minimum number of credits required for the degree without the inclusion of these undergraduate-level courses.

Policy on transferring credits from another institution (per ISU Graduate College Handbook 6.3.8)

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 (per ISU Graduate College Handbook 5.1.2)

With POS-committee approval, graduate students will be permitted to use undergraduate classes from both within and outside of their majors on POS 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.
- For graduate students who entered degree programs prior to spring semester of 2018, 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.
- For graduate students who entered 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.
- If a 300-level class is used, it must be from outside of the student’s major.

Please note:
• Graduate students who take undergraduate classes are not required to do extra work or to be exposed to material more advanced than what is taught to undergraduates.
• In contrast, dual-listed courses (offered at both the undergraduate and graduate level) are required to expect more of graduate students who enroll at the 500 level.

Individual graduate programs may prohibit the use of undergraduate classes or may make the use of undergraduate classes more restrictive than does the university-wide policy.

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 section 4.3.3.

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 https://www.grad-college.iastate.edu/documents/forms/POSC.pdf. 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. 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. For further details see below.

Changes in Graduate Program or Status (per ISU Graduate College Handbook 4.2)

4.2.1 Transferring from One Major/Degree/Certificate to Another

Students who have been admitted to a graduate program and to the Graduate College may request to transfer at a later date to another major or degree. Because graduate students are admitted to particular programs, transfers require the approval of both the receiving program and the Graduate College. Students seeking transfer to another major or degree
should first discuss their wishes with the new program DOGE (Director of Graduate Education) to determine requirements and interest by the new program. When a student receives a favorable preliminary response from the new program, they should fill out the student portion of the form entitled “Transfer From One Major/Degree/Certificate to Another” and submit this form to their current DOGE. The current DOGE will fill out the Current Program Information adding any comments they believe the new program should consider and forward the form to the proposed new program. This form is available from the Graduate College website at https://www.grad-college.iastate.edu/student/forms/.

The receiving program will generally give the student the same consideration and employ the same admissions standards that are used for original applications for admission and will expect the same application materials (transcripts, letters of recommendation, test scores, etc.). During this process, the new and old programs and the Graduate College are authorized and encouraged to seek and disclose information related to the student's overall fitness for studies in the receiving program. Programs are authorized to inquire into the student's prior conduct at the university, both with the prior department and with the Dean of Students.

Upon departmental action (acceptance or denial), the request to transfer form must be sent to the Graduate College for approval. Programs will receive a copy of the completed form from the Graduate College. Students desiring to transfer from a degree-seeking status to a nondegree-seeking status need to fill out the “Transfer from One Major/Program/Department to Nondegree” form available at https://www.grad-college.iastate.edu/student/forms/ and bring it to the Graduate College. Students desiring to transfer from nondegree-seeking status to a degree-seeking status must be admitted by a program through the regular graduate admission process. Students who are in interdepartmental majors should complete the Home Department form to change departments.

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: https://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 5 credits for full-time status and 3 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 Science Graduate Program Learning Goals

Thesis and Dissertation Programs

1. Demonstrate comprehensive understanding of scholarly literature in Animal Sciences and related disciplines.
2. Form testable hypotheses and articulate research objectives that, when met, will lead to significant contributions to Animal Sciences and related disciplines.
3. Conduct qualitative and/or quantitative research via appropriate acquisition, analysis, and reporting of data and information.
4. Interpret research results appropriately, integrating them into the existing knowledge in the discipline.
5. Clearly and accurately communicate research findings using written, oral, visual, and electronic means of communication.
6. Conduct scholarship, in teams or with independence, in ways that consistently demonstrate ethical practice and professionalism.

Non-Thesis, Coursework only, and Certificate Programs

1. Demonstrate mastery of subject matter in animal science and related disciplines.
2. Demonstrate expertise in evaluation and assessment of new developments and new technologies in animal science and related disciplines.
3. Clearly and accurately communicate technical information using written, oral, verbal and electronic means of communication.
# 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>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>POSC 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>POSC 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>POSC Approved</td>
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</tr>
<tr>
<td>Mendelian Genetics</td>
<td>GDCB 510 or 511 POSC approved</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>POSC 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>2</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 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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<td></td>
</tr>
</tbody>
</table>

### 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>POSC Approved</td>
<td>9</td>
</tr>
<tr>
<td>Quantitative Genetics &amp; Animal Breeding</td>
<td>POSC Approved</td>
<td>9</td>
</tr>
<tr>
<td>Molecular Genetics or Immunogenetics</td>
<td>POSC Approved</td>
<td>2</td>
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</table>

#### Molecular Genetics

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry</td>
<td>POSC Approved</td>
<td>6</td>
</tr>
<tr>
<td>Molecular Genetics</td>
<td>POSC Approved</td>
<td>11</td>
</tr>
<tr>
<td>Immunogenetics</td>
<td>POSC Approved</td>
<td>2</td>
</tr>
<tr>
<td>Animal Breeding</td>
<td>POSC Approved</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Immunogenetics

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry</td>
<td>POSC Approved</td>
<td>6</td>
</tr>
<tr>
<td>Microbiology and Immunology</td>
<td>POSC Approved</td>
<td>7</td>
</tr>
<tr>
<td>Immunogenetics</td>
<td>POSC Approved</td>
<td>2</td>
</tr>
<tr>
<td>Molecular Genetics</td>
<td>POSC Approved</td>
<td>5</td>
</tr>
<tr>
<td>Animal Breeding</td>
<td>POSC 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 [here](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>
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</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>
<td>1</td>
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</tbody>
</table>

**At the PhD degree Level**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</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 [here](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 587</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>2</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 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>
<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 587</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 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 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/).

**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 571</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 571</td>
<td>3</td>
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</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>
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</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>
</tr>
<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 571</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 587</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>
<tr>
<td>At least one course from at least two of the five subject areas in Animal Science.</td>
<td>Animal Breeding and Genetics: ANS 561 (4 cr.)&lt;br&gt; Nutrition: ANS 518 (3 cr.)&lt;br&gt; Nutrition: ANS 520 (3 cr.)&lt;br&gt; Physiology: ANS 549 (4 cr.)&lt;br&gt; Reproduction ANS 533 (2 cr.)&lt;br&gt; Meat Science: A ANS 570 (3 cr.)</td>
<td>5-8</td>
</tr>
</tbody>
</table>

### 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>
<td>1</td>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 587 &amp; 571</td>
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<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>At least one course from three of the five subject areas in Animal Science</td>
<td>Animal Breeding and Genetics: ANS 561 (4 cr.)&lt;br&gt; Nutrition: ANS 518 (3 cr.)&lt;br&gt; Nutrition: ANS 520 (3 cr.)&lt;br&gt; Physiology: ANS 549 (4 cr.)&lt;br&gt; Reproduction: ANS 533 (2 cr.)&lt;br&gt; Meat Science: ANS 570 (3 cr.)</td>
<td>8-11</td>
</tr>
</tbody>
</table>

### 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 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/).
### MEAT SCIENCE
### GRADUATE MAJOR 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>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 587</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 at least 30 total credits)</td>
<td>POSC Approved</td>
<td></td>
</tr>
</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 587 &amp; 571</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.

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# 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>
<td>1</td>
</tr>
</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>
</tr>
<tr>
<td>Statistics</td>
<td>STAT 587</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.
**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/](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. Courses do expire from eligibility to fulfil requirements on your Program of Study.

From Section 4.4.5 of the Graduate Handbook:

The inclusion in the program of study/committee (POSC) of coursework that is beyond the time limit (“expired” courses) must be justified in the **Expired Course Petition** found on the Graduate College student forms page. This petition must be submitted in conjunction with the POSC form.

**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 programs (including animal breeding and genetics, animal physiology, animal science, and meat science). Both examinations are prepared and administered by the Program of Study committee. The preliminary exam is intended to rigorously test for knowledge in the major field and in supporting subject areas, including all course work taken for the Program of Study. 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 Program of Study committee members must be present for the oral examination and must sign the report form indicating the final results of the exam. In some cases, it might be necessary to convene a meeting with one committee member participating at a distance. This is permitted, pending approval by the Program of Study committee. Further, the mode of communication must permit full participation of the committee member at a distance. The Graduate College must be notified in advance. There is a form entitled “Preliminary or Final Oral examination with Committee member at a distance” on the Graduate college web page. The format of the preliminary exam is at the discretion of the Program of Study committee. The preliminary exam is private unless otherwise specified by the Program of Study committee. There is no time limit on a written or oral portion of the exam unless established by the Program of Study committee. 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 [https://www.grad-college.iastate.edu/calendar/](https://www.grad-college.iastate.edu/calendar/). For example, an “Application for Graduation” form 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 “Final Oral Exam Request” form ([https://www.grad-college.iastate.edu/student/forms/](https://www.grad-college.iastate.edu/student/forms/)) 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.

Final Exam

Final exams must be scheduled with the Graduate College at least three weeks before the scheduled exam. In addition, the Graduate College has a deadline (a “no later than” date) published for each semester ([https://www.grad-college.iastate.edu/calendar/](https://www.grad-college.iastate.edu/calendar/)). The scheduled exams are posted on the graduate college web page. All Program of Study committee members must be present for the oral examination and must sign the report form indicating the final results of the exam. In some cases, it might be necessary to convene a meeting with one committee member participating at a distance. This is permitted, pending approval by the Program of Study committee. Further, the mode of communication must permit full participation of the committee member at a distance. The Graduate College must be notified in advance. There is a form entitled “Preliminary or Final Oral examination with Committee member at a distance” on the Graduate college web page. The faculty member that will be participating at a distance is required to complete this online form. It is not recommended, but it is possible for a committee of five members to have two members attend at a distance. The Graduate College must approve this ahead of time and the location of the exam must be approved by the Graduate
The creative component/thesis/dissertation should be submitted to all Program of Study committee members at least two weeks before the final exam. The final exam format must include a public sharing of the student’s original work and an examination conducted by the Program of Study committee. The public event is a seminar that summarizes the literature and the work conducted by the student. Alternate formats of the public event are permissible when a seminar is not possible because of disability. The public event is usually held immediately before the examination portion of final exam, but it can be scheduled at a separate time (for example as part of a departmental seminar). The examination portion is held with the Program of Study committee. There is no time limit unless established by the Program of Study Committee. This event is generally closed to the public, but the Program of Study committee can make exceptions and may invite others to attend. Visitors to this portion of the exam are not included in questioning the student or in the committee deliberations. Exceptions to the described format and procedure can be requested by the Program of Study committee. Each request will be reviewed by the Animal Science Department Graduate Affairs committee. The Graduate Affairs committee will make their recommendation to the Department Chair.

The “Report of the Final Oral Examination” form must be submitted to the Graduate College immediately after the examination. On this form the POS committee indicates whether the student

- has passed the examination and may be granted the degree sought,
- must meet some conditions before the degree may be granted. These conditions are specified on the report form and will remain in effect until the major professor and/or committee if specified, notifies the Graduate College, in writing, that they have been satisfied and the degree may be granted,
- has not passed but the exam may be retaken. Two months must elapse before the exam may be retaken (a written explanation should be provided with the report form), or
- has not passed and the exam may not be retaken at a future date. The degree is denied (a written explanation should be provided with the report form)

Appendix- Forms
The Graduate College maintains a “Deadlines” Web site at the following URL: 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.

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