

# ANIMAL SCIENCES, PHD

*for the Doctor of Philosophy in Animal Sciences*

The Department of Animal Sciences offers graduate work leading to the Doctor of Philosophy degrees. Fields of specialization include:

- animal breeding, genetics, and bioinformatics
- animal behavior
- biochemistry
- environmental physiology
- immunobiology
- meat science and muscle biology
- microbiology
- nutrition
- systems of animal management and production, precision management
- physiology of lactation
- physiology of reproduction

Beef and dairy cattle, horses, poultry, sheep, swine, and companion and laboratory animals are available for study. Experience in teaching, extension, or outreach is encouraged as part of the academic work.

## Admission

Candidates for admission to the Ph.D. program must have a bachelor's or Master's degree from an accredited institution equivalent to those from the University of Illinois Urbana-Champaign. A grade point average of 3.0 or higher (A = 4.0) for the last two years of undergraduate work and for any graduate study is required for admission. Candidates for admission that have a GPA between 2.75 and 2.99 can request special consideration of the application materials submitted. Graduate Record Examination (GRE) scores are not required for admission. English proficiency requirements for admission follow Graduate College requirements. Application materials include baccalaureate degree transcripts, a resume, a personal statement, and three letters of recommendation. Admission is possible for fall (mid-August), spring (mid-January), and summer (mid-June) semesters. Candidates for admission are encouraged to submit the complete application package no later than 2 months before the start of the desired admission semester.

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For additional details and requirements refer to the department's Graduate Handbook (<http://ansci.illinois.edu/grads/degree-requirements/>) and the Graduate College Handbook (<http://www.grad.illinois.edu/gradhandbook/>).

### Entering with an approved Master's Degree

Students must pass preliminary and final examinations administered by committees appointed by the dean of the Graduate College.

Code	Title	Hours
	Advanced lecture and laboratory courses (400- and 500-level courses in consultation with the faculty advisor or Animal Sciences graduate programs office); excludes ANSC 590 or ANSC 591 and ANSC 599)	20-28
	Graduate seminar (ANSC 590 or ANSC 591) enrollment is required every semester (max 4 hours can be applied to the degree)	4
ANSC 599	Thesis Research (min/max applied toward degree)	32-40
<b>Total Hours</b>		<b>64</b>

### Other Requirements

Requirement	Description
Other requirements and conditions may overlap	
Masters Degree Required for Admission to PhD?	Masters level requirements must be met
Qualifying Exam Required:	No
Preliminary Exam Required:	Yes
Final Exam/Dissertation Defense Required:	Yes
Dissertation Deposit Required:	Yes
Minimum GPA:	3.0

### Entering with an approved baccalaureate degree

Students must pass a qualifier examination and preliminary and final examinations administered by committees appointed by the dean of the Graduate College.

Students enrolled in this baccalaureate to Doctor of Philosophy program will not be granted automatically a Masters in Animal Sciences degree. Students enrolled in the baccalaureate to Doctor of Philosophy that wish to receive a Masters degree will be transferred to the Masters in Animal Sciences program and will be expected to fulfill the requirements to secure a Masters degree. Students that secure a Masters in Animal Sciences can be transferred to the Doctor of Philosophy program.

Code	Title	Hours
	Advanced lecture and laboratory courses (400- and 500-level courses in consultation with the faculty advisor or Animal Sciences graduate programs office); excludes ANSC 590 or ANSC 591, and ANSC 599)	42-50
	Graduate seminar (ANSC 590 or ANSC 591) enrollment is required every semester (max 6 hours can be applied to the degree)	6
ANSC 599	Thesis Research (min/max applied toward degree)	40-48
<b>Total Hours</b>		<b>96</b>

### Other Requirements

Requirement	Description
Other requirements and conditions may overlap	
Masters Degree Required for Admission to PhD?	No
Qualifying Exam Required:	Yes
Preliminary Exam Required:	Yes

Final Exam/Dissertation Defense Yes

Required:

Dissertation Deposit Required: Yes

Minimum GPA: 3.0

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The recipient of a Doctor of Philosophy in Animal Sciences will demonstrate:

1. Graduate-level understanding of advanced concepts and approaches in the area of animal science specialization. The advanced concepts will enable the graduate to secure a leadership position in industry or government agencies or a professor position in academia and to advance throughout the professional ranks.
2. Capacity to independently execute dissertation research including:
  - a. ability to formulate hypotheses and research objectives, to use appropriate materials, methods, and advanced data analysis approaches, and to evaluate the results; and
  - b. leadership on the implementation of the scientific method and research activities, interpretation of findings, and identification of implications.
3. Ability to effectively communicate advanced disciplinary knowledge and dissertation research findings in oral and written formats.
4. Aptitude to lead interdisciplinary research and education efforts to improve food security, food safety, animal and human health and well-being or environmental stewardship.

## Graduate Degree Programs in Animal Sciences

### Graduate Majors:

- Animal Sciences, MANSC (<http://catalog.illinois.edu/graduate/aces/animal-sciences-mansc/>)
- Animal Sciences, MS (<http://catalog.illinois.edu/graduate/aces/animal-sciences-ms/>)
- Animal Sciences, PhD (p. 1)

### Graduate Concentrations:

- Bioinformatics: Animal Sciences, MS (<http://catalog.illinois.edu/graduate/aces/concentration/animal-sciences/bioinformatics/>)

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## Department of Animal Sciences

Director of Graduate Studies: Sandra Rodriguez Zas  
([rodrgzzs@illinois.edu](mailto:rodrgzzs@illinois.edu))

Program Website (<https://ansc.illinois.edu/academics/graduate-degrees/>)

Department Faculty (<https://ansc.illinois.edu/directory/>)

110 Animal Sciences Laboratory  
1207 West Gregory Drive  
Urbana, IL 61801

(217) 333-3131  
[ansc-gradprog@illinois.edu](mailto:ansc-gradprog@illinois.edu)

## College of Agricultural, Consumer & Environmental Sciences

College Website (<https://aces.illinois.edu/>)

## Admissions

Grad College Admissions & Requirements (<https://grad.illinois.edu/admissions/apply/>)