ANIMAL SCIENCES, MS

for the Master of Science in Animal Sciences

department head: Rodney Johnson
graduate program coordinator: Sandra Rodriguez-Zas
department website: https://ansc.illinois.edu
department faculty: https://ansc.illinois.edu/directory/faculty/

ANIMAL SCIENCES, MANSC (http://catalog.illinois.edu/graduate/aces/animal-sciences-mansc/)
Animal Sciences, MS (p. 1)
Animal Sciences, PhD (http://catalog.illinois.edu/graduate/aces/animal-sciences-phd/)

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

Research Areas
The Department of Animal Sciences offers graduate work leading to the Master of Animal Sciences, Master of Science, and Doctor of Philosophy degrees. Fields of specialization include:

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

Beef and dairy cattle, horses, poultry, sheep, swine, and a variety of companion and laboratory animals are available for study.

The genomic and proteomic projects are generating large amounts of complex biological data that require effective storage, retrieval, analysis and interpretation. The bioinformatics degree program provides students with the skills necessary to augment the understanding and use of agricultural, biological and medical information and resources through the application of molecular, chemical, physical, computational, statistical, mathematical and informatic techniques. Students interested in this program may come with undergraduate training in one of the following areas:

1. biological and agricultural sciences,
2. statistical, mathematical and computer sciences,
3. informatics and engineering sciences.

Graduates from the Bioinformatics program will be able to integrate basic and applied concepts in the three areas and applied them to biotechnology and medical research.

Admission
Candidates for admission to the M.S. and Ph.D. programs must have a bachelor's degree from an accredited institution equivalent to those from the University of Illinois at 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. Students must take the Graduate Record Examination (GRE) and are recommended to take the advanced test in biology. English proficiency requirements for admission follow Graduate College requirement. Emphasis is placed on a student's interest and ability in research as demonstrated by previous work and letters of recommendation. Admission is possible for spring and summer semesters.

For the M.A.N.S.C., application materials include baccalaureate degree transcripts, resume, personal statement, Graduate Record Examination (GRE) general test scores, and three letters of recommendation. One letter of recommendation must be provided by the Animal Sciences faculty member that will advise the student indicating commitment to mentor. A departmental committee will evaluate the applications and recommend admissions.

Graduate Teaching Experience
Experience in teaching is considered a vital part of the graduate program and is encouraged as part of the academic work of students in the M.S. and Ph.D. programs.

for the Master of Science in Animal Sciences

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Lecture and laboratory classes (400- and at least 2 hours of 500-level courses; excludes ANSC 590 and ANSC 599)</td>
<td>22</td>
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<td>Graduate seminar (ANSC 590) enrollment is required every semester (max 2 hours can be applied to the degree)</td>
<td>2</td>
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<tr>
<td>ANSC 599</td>
<td>Thesis Research (min/max applied toward degree)</td>
<td>8</td>
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<td></td>
<td>Total Hours</td>
<td>32</td>
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Other Requirements

Other Requirements and conditions may overlap
Minimum Hours Overall Required Within the Unit: 8
Minimum 500-level Hours Required Overall: 12
A comprehensive oral examination concerning the thesis and other areas of animal agriculture are required.
Thesis Deposit Required: Yes
Minimum GPA: 3.0
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/).