ANIMAL SCIENCES

http://www.ansci.illinois.edu

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Graduate Program Coordinator: Sandra Rodriguez-Zas
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Major: Animal Sciences
Degrees offered: M.A.N.S.C., M.S., Ph.D.

Major: Bioinformatics
Degrees offered: M.S.
Graduate Concentration: Animal Sciences

Medical Scholars Program: Doctor of Philosophy (Ph.D.) in Animal Sciences and Doctor of Medicine (M.D.) through the Medical Scholars Program (http://www.med.illinois.edu/mdphd)

Graduate Degree Programs
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.S.N.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.

- Master of Animal Sciences in Animal Sciences (http://catalog.illinois.edu/graduate/graduate-majors/animal-sci/mas-animal-science)
- Master of Science in Animal Sciences (http://catalog.illinois.edu/graduate/graduate-majors/animal-sci/ms-animal-science)
- Master of Science in Bioinformatics, Animal Sciences Concentration (http://catalog.illinois.edu/graduate/graduate-majors/animal-sci/ms-bioinformatics)

Animal Sciences, PhD
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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Advanced lecture and laboratory courses (400- and 500-level courses; excludes ANSC 590 and ANSC 599)</td>
<td>20-28</td>
<td></td>
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<tr>
<td>Graduate seminar (ANSC 590) enrollment is required every semester (max 4 hours can be applied to the degree)</td>
<td>4</td>
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<tr>
<td>ANSC 599</td>
<td>Thesis Research (min/max applied toward degree)</td>
<td>32-40</td>
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<tr>
<td>Total Hours</td>
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<td>64</td>
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Other Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
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<tbody>
<tr>
<td>Masters Degree Required for Admission to PhD?</td>
<td>Masters level requirements must be met</td>
</tr>
<tr>
<td>Qualifying Exam Required</td>
<td>No</td>
</tr>
<tr>
<td>Preliminary Exam Required</td>
<td>Yes</td>
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</table>

Information listed in this catalog is current as of 07/2019
Final Exam/Dissertation Defense: 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.

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<tr>
<td></td>
<td>Advanced lecture and laboratory courses (400- and 500-level courses; excludes ANSC 590 and ANSC 599)</td>
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<td>Graduate seminar (ANSC 590) enrollment is required every semester (max 4 hours can be applied to the degree)</td>
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<tr>
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<td>ANSC 599 Thesis Research (min/max applied toward degree)</td>
<td>40-48</td>
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Total Hours: 96

**Other Requirements**

1 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).