ANIMAL SCIENCES | ANIMAL BIOLOGY

Potential careers for animal sciences majors include livestock production (beef cattle, dairy cattle, swine, poultry and horses), livestock processing and utilization (meat, milk, performance and recreation), allied service industries (feed, health care, genetics, equipment, supplies, marketing, promotion, finance and education) and preparation for graduate or veterinary medical school.

About this Program
- **College:** Agricultural and Life Sciences
- **Degree:** Bachelor of Science
- **Credits for Degree:** 120
- **Specializations:** Animal Biology | Equine | Food Animal
- **Additional Information**

To graduate with this major, students must complete all university, college, and major requirements.

By choosing appropriate electives, students can earn a minor or a dual major in agribusiness management, extension education or agricultural operations management while completing the degree requirements for the equine or food animal specialization.

Animal Biology
This specialization is for students who wish to pursue professional or graduate programs. Students who plan to apply to the UF College of Veterinary Medicine in the equine, food animal or mixed-practice tracks are encouraged to select electives from the animal sciences programs.

Related Animal Sciences Programs
- **Combined Degree**

Critical Tracking
Critical Tracking records each student's progress in courses that are required for entry to each major. Please note the critical-tracking requirements below on a per-semester basis.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites may be used for transfer students.

Semester One
- Complete 1 of 5 critical-tracking courses, excluding labs: CHM 2045 and CHM 2045L, CHM 2046 and CHM 2046L, MAC 2311
- 2.5 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Credits: 13

Semester Two
- Complete 1 additional critical-tracking course, excluding labs
- 2.5 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Credits: 17

Semester Three
Select one:
- AEC 3033C Research and Business Writing in Agricultural and Life Sciences (Writing Requirement)
- ENC 2210 Technical Writing
- BSC 2010 & 2010L Integrated Principles of Biology 1 and Integrated Principles of Biology Laboratory 1 (Critical Tracking, Gen Ed Biological Sciences)

Electives Credits: 9

Credits: 16

Semester Four
- Complete 2 additional critical-tracking course, excluding labs
- 2.5 GPA required for all critical-tracking courses
- 2.0 UF GPA required

Credits: 17

Semester Five
- Complete all critical-tracking courses, including labs

Credits: 17
Semester Four

BSC 2011 & 2011L Integrated Principles of Biology 2 and Integrated Principles of Biology Laboratory 2 (Critical Tracking; Gen Ed Biological Sciences) 4
MAC 2311 Analytic Geometry and Calculus 1 (Critical Tracking; State Core Gen Ed Mathematics) 4
Gen Ed Social and Behavioral Sciences with International 3
Electives 4

Semester Five

Credits

ANS 3006 & 3006L Introduction to Animal Science and Introduction to Animal Science Laboratory 4
ANS 3440 Principles of Animal Nutrition 4
CHM 2210 Organic Chemistry 1 3
Elective 3

Semester Six

Credits

ANS 3319C Reproductive Physiology and Endocrinology in Domestic Animals 4
CHM 2211 & 2211L Organic Chemistry 2 and Organic Chemistry Laboratory 5
Approved elective 3
Elective 3

Semester Seven

Credits

ANS 3043 Growth and Development of Farm Animals 3
BCH 3025 or BCH 4024 Fundamentals of Biochemistry or Introduction to Biochemistry and Molecular Biology 4
STA 2023 Introduction to Statistics 1 (Gen Ed Mathematics) 3
Approved elective 3
Elective 3

Semester Eight

Credits

MCB 3020 & 3020L Basic Biology of Microorganisms and Laboratory for Basic Biology of Microorganisms 4
Approved elective 2
Electives 8

Total Credits 120

Approved Electives

Students must take a minimum of 8 credits of ANS courses in addition to the ANS courses listed in the model semester plan; 4 credits each of lecture and laboratory courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ANS 2002</td>
<td>The Meat We Eat</td>
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<tr>
<td>ANS 2615C</td>
<td>Meat Selection and Grading</td>
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<tr>
<td>ANS 3251</td>
<td>Biology and Management of Dairy Cattle</td>
<td>2</td>
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<td>ANS 3384C</td>
<td>Genetics of Domestic Animals</td>
<td>3</td>
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<tr>
<td>ANS 3404C</td>
<td>Food Animal Nutrition and Feeding</td>
<td>3</td>
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<tr>
<td>ANS 3405</td>
<td>Equine Nutrition and Feeding Management</td>
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<tr>
<td>ANS 3934</td>
<td>Careers in the Livestock Industry</td>
<td>2</td>
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<td>ANS 3217C</td>
<td>Equine Health Management</td>
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<tr>
<td>ANS 3239L</td>
<td>Techniques in Equine Science</td>
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Electives

Consider these pre-vet requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>AEC 3030C</td>
<td>Genetics</td>
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<td>PCS 3064C</td>
<td>Genetics (Gen Ed Biological Sciences)</td>
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<tr>
<td>PHV 2053</td>
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<td>PHV 2054</td>
<td>Physics 2</td>
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Academic Learning Compact

Animal sciences majors receive a broad education in the healthy production of animals and animal products. Students' knowledge will be developed through formal courses, laboratories and field trips and will be applied in internships, team projects and presentations. Students will develop the ability to apply conceptual knowledge to solve problems in animal production and to make management decisions.

Before Graduating Students Must

- Pass the animal sciences competency exam, given in three parts. One part will be given in each of these required courses:
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<tr>
<td>ANS 3006</td>
<td>Introduction to Animal Science</td>
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<tr>
<td>ANS 3043</td>
<td>Growth and Development of Farm Animals</td>
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</tr>
<tr>
<td>ANS 3319C</td>
<td>Reproductive Physiology and Endocrinology in Domestic Animals</td>
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- Achieve minimum grades of C in AEC 3030C and AEC 3033C. These courses are graded using rubrics developed by a faculty committee.

- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to

Student Learning Outcomes (SLOs)

Content

1. Describe and explain fundamental concepts, skills and processes in animal sciences.
2. Apply fundamental concepts, skills and processes in animal sciences.

Critical Thinking

3. Critically evaluate information (or data) in animal sciences.
4. Solve problems in animal sciences.

Communication

5. Effectively communicate in written form in a manner appropriate in animal sciences.
6. Effectively communicate orally in a manner appropriate in animal sciences.

**Curriculum Map**

*I = Introduced; R = Reinforced; A = Assessed*

<table>
<thead>
<tr>
<th>Courses</th>
<th>SLO 1</th>
<th>SLO 2</th>
<th>SLO 3</th>
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**Assessment Types**

- Grades
- Academic assessment exam
  - Students in the equine specialization must complete a case study in ANS 4234
  - Students in the food animal specialization must complete an economic assessment plan in ANS 3613L