INTEGRATIVE ANIMAL SCIENCES

Animal Sciences students study reproduction, genetics, nutrition, physiology, growth, behavior, biotechnology, and management of livestock species. They also study animal sourced food processing. Increasingly, Animal Sciences students also take additional courses in communication, education, business economics, environmental science, and data science. Animal Sciences graduates often work with the science and business of producing domestic livestock species or animal-related products. Many Animal Sciences students prepare to pursue veterinary studies or graduate studies for future work with companion animals, livestock, or other species.

About this Program

- **College:** Agricultural and Life Sciences (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/)
- **Degree:** Bachelor of Science
- **Specializations:** Animal Biology (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/ANS_BS/ANS_BS01/) | Equine (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/ANS_BS/ANS_BS02/) | Food Animal (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/ANS_BS/ANS_BS03/) | Integrative Animal Sciences (p. 1)
- **Credits for Degree:** 120

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

Department Information

The Department of Animal Sciences creates new solutions to tomorrow's problems in the areas of teaching, research, and extension, by integrating the most modern technologies available with personal expertise and attention to the needs of both students and industry.
More Info (https://animal.ifas.ufl.edu/) | 352.392.1981 (tel) | 352.392.7652 (fax)

P.O. BOX 110910
2250 Shealy Drive
GAINESVILLE FL 32608
Map (http://campusmap.ufl.edu/#/index/0459)

Curriculum

- Animal Genetics Certificate
- Animal Sciences
- Combination Degrees

This specialization is for students who wish to obtain a customized degree in animal sciences with a focus on a discipline rather than an animal species and are not pursuing a professional program in the health sciences. Examples include integration of the Animal Sciences with advanced training in artificial intelligence, or reproduction, or animal behavior, or environmental sciences. By choosing appropriate electives, students can earn a minor, or a dual-major in other fields.

Critical Tracking

Critical Tracking records each student's progress in courses that are required for progress toward 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 (https://cpm.flvc.org/advance-search/) may be used for transfer students.

SEMESTER 1

- Complete 2 of 6 critical-tracking courses, excluding labs: BSC 2010 and BSC 2010L, BSC 2011 and BSC 2011L, CHM 2045 and CHM 2045L, MAC 1147,STA 2023, and AEB 2014 or ECO 2013 or ECO 2023
- 2.0 GPA required for all critical-tracking courses
- 2.0 UF GPA required

SEMESTER 2

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

SEMESTER 3

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

SEMESTER 4

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

SEMESTER 5

- Complete all critical-tracking courses, including labs
- Complete ANS 3006 and ANS 3006L
- 2.0 GPA required for all critical-tracking courses
- 2.0 upper division GPA required
- 2.0 UF GPA required

SEMESTER 6

- Complete ANS 3043 or ANS 3319C
- 2.0 upper division GPA required
- 2.0 UF GPA required

SEMESTER 7

- Complete ANS 3043 or ANS 3319C
- 2.0 upper division GPA required
- 2.0 UF GPA required

SEMESTER 8

- Complete ANS 4931 and ANS 4941
- 2.0 upper division GPA required
- 2.0 UF GPA required

Model Semester Plan

To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example progression through the major. Actual courses and course order may be different depending on the student's academic record and scheduling availability of courses. Prerequisites still apply.

Course	Title	Credits
Semester One		
BSC 2010 & 2010L	Integrated Principles of Biology 1 and Integrated Principles of Biology Laboratory 1 (**Critical Tracking**; State Core Gen Ed Biological and Physical Sciences)	4
ENC 1101	Expository and Argumentative Writing (State Core Gen Ed Composition (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext); Writing Requirement)	3
MAC 1147	Precalculus Algebra and Trigonometry (State Core Gen Ed Mathematics (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext))	4
State Core Gen Ed Humanities with Diversity (http://catalog.ufl.edu/UGRD/academic-programs/general-education/#genedcoursestext)		3
	Credits	**14**
Semester Two		
Quest 1 (Gen Ed Humanities)		3
AEC 3030C or SPC 2608	Effective Oral Communication or Introduction to Public Speaking	3

BSC 2011 & 2011L	Integrated Principles of Biology 2 and Integrated Principles of Biology Laboratory 2 (**Critical Tracking**; Gen Ed Biological Sciences)	4
ECO 2013	Principles of Macroeconomics (**Critical Tracking**; State Core Gen Ed Social and Behavioral Sciences)	4
ENC 1102	Argument and Persuasion (Gen Ed Composition)	3
	Credits	**17**
Semester Three		
Quest 2 (Gen Ed Social and Behavioral Sciences)		3
Select one:		3
AEC 3033C	Research and Business Writing in Agricultural and Life Sciences (Writing Requirement)	
ENC 2210	Technical Writing	
ANS 2090	Survey of Veterinary Professions (or ANS 2XXX Careers in Animal Sciences)	2
CHM 2045 & 2045L	General Chemistry 1 and General Chemistry 1 Laboratory (**Critical Tracking**; Gen Ed Biological and Physical Sciences)	4
Elective		3
	Credits	**15**
Semester Four		
MCB 2000 & 2000L	Microbiology and Microbiology Laboratory (Gen Ed Biological Sciences)	4
STA 2023	Introduction to Statistics 1 (**Critical Tracking**; Gen Ed Mathematics)	3
Gen Ed Diversity with International		3
Approved electives		5
	Credits	**15**
Semester Five		
ANS 3006 & 3006L	Introduction to Animal Science and Introduction to Animal Science Laboratory (**Critical Tracking**)	4
ANS 3440	Principles of Animal Nutrition	4
ANS Advisor approved electives		6
	Credits	**14**
Semester Six		
ANS 3319C	Reproductive Physiology and Endocrinology in Domestic Animals (**Critical Tracking**)	4
ANS 3384C	Genetics of Domestic Animals	3
ANS Advisor approved electives		4
Approved electives		4
	Credits	**15**
Summer After Semester Six		
ANS 4941	Full-Time Practical Work Experience in Animal Science (**Critical Tracking**)	3-8
	Credits	**3-8**
Semester Seven		
ANS 3043	Growth and Development of Farm Animals (**Critical Tracking**)	3
ANS 4931	Senior Seminar	1
ANS Advisor approved electives		10
	Credits	**14**
Semester Eight		
ANS 4905	Problems in Animal Science (Capstone Experience)	2
ANS Advisor approved electives		11
	Credits	**13**
	Total Credits	**120**

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:

Code	Title	Credits
ANS 3006	Introduction to Animal Science	3
ANS 3043	Growth and Development of Farm Animals	3
ANS 3319C	Reproductive Physiology and Endocrinology in Domestic Animals	4

- 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

Courses	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 6
AEC 3030C						I, R, A
AEC 3033C					I, R, A	
ANS 3006	I	I			R	
ANS 3043	R	R	I	R	R	
ANS 3319C	R	R	I	I, R	R	
ANS 4931	R	R	R	R	R	R
Academic Assessment Exam	A	A	A	A		

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 3613C