Department of Animal Science

Bachelor of Science Degree

Animal Enterprise and Innovation 2026-2027 **128 Credits**

Animal Science Core (30 credits)

		Cr	
ANS 1100	*Orientation in ANS*	1	
ANS 1010	*Working w/ Animals*	2	
ANS 1140	*Survey of Animal Industry*	2	
ANS 2100	*Career Prep. in ANS*	1	
ANS 2110	*Issues Facing ANS*	1	
ANS 2140, 2140L	*Dom. An. Anat/Physiol w/ lab*	4	
ANS 2000 Option	*Species Focus with Lab*	3	
ANS 2000 Option	*Species Focus with Lab*	3	
ANS 2700, 2700L	*Foods of Animal Origin*	3	
ANS 2190 or ANS 3190	*Animal Nutrition*	3	
ANS 4110	*Addressing Issues in ANS*	1	
ANS 4XXX (see back)	*Anim. Enterprise & Innovat.*	3	
ANS 4XXX (see back)	*AEI Capstone*	3	

Biological and Physical Sciences (12 cr.)

BIOL 2120 + 2120L	*Biology II*	4	
MICRO 2010 + 3000L	*Microbiology*	3	
CHEM 1630 + 1630L	*General Chemistry*	5	

Math/Statistics (6 cr.)

MATH 1500, 1510, 1600 or 1650	*Math for Bus.*	3	
STAT 2026	*Intro to Business Statistics*	3	

Business and Accounting (6 cr.)

ECON 1010	*Microeconomics*	3	
ACCT 2840	*Financial Accounting*	3	

Composition and Communication (10 cr.)

ENGL 1500	3	
ENGL 2500	3	
LIB 1600	1	
SPCM 2120, AGEDS 3110, or COMST 2140	3	

Personal Development Courses (15 cr.)

Social Science	*Choose 1 from list*	3	
Humanities	*Choose 1 from list*	3	
Ethics	*Choose 1 from list*	3	
U.S. Cultures & Communities	*Choose 1 from list*	3	
International Perspectives	*Choose 1 from list*	3	

Animal Enterprise Core (15 cr.)

		Cr	
ECON 2300 or 2340	*Farm or Small Bus. Mgmt.*	3	
ENTSP 3100	*Entrepreneurship & Innovation*	3	
SCM 3010	*Supply Chain Mgmt.*	3	
TSM 1150	*Solving Technology Problems*	3	
ECON 2710	*Intro to Data Anal. in Agri. Indust.*		
or COMS 1130	*Intro to Spreadsheets and Databases*	3	

Choose 15 cr. from within a focus area below

1. Management in Food Animal Agriculture

ECON 2350	*Intro to Ag. Markets*	3	
ECON 3340	*Entrepr. in Agriculture*	3	
ECON 3350	*Econ. Global Ag. Food & Bio-Energy*	3	
ECON 3370	*Agri. Marketing*	3	
ACCT 2150	*Legal Environment of Business*	3	
Additional course options listed on the back			

2. Entrepreneurship in Animal Industries

AGEDS 3150	*Entrepreneurial Leadership Agric.*	3	
ECON 3340	*Entrepreneurship in Agric.*	3	
ENTSP 3130	*Feasibility Anal. for New Ventures*	3	
ENTSP 3810	*Managing Family Businesses*	3	
ENTSP 4610	*Entrepreneurship & Accounting*	3	
Additional course options listed on the back		3	

3. Data and Technology in Animal Industries

COMS 1270	*Introduction to Comp. Programming*	3	
DS 2010	*Introduction to Data Science*	3	
DS 2020	*Data Acquist. & Explor. Data Anal.*	3	
TSM 3270	*Livest./Poult. Sys.-Facil., Tech., Mgmt.*	3	
TSM 3800	*Modeling of Biological Systems*	3	
Additional course options listed on the back			

4. General Animal Enterprise & Innovation Focus

Choose 15 credits across any/all focus areas		

General Free Electives (19 cr.)

Choose any 19 credits		

Notes:

Contact your advisor to review graduation requirements. Please note that the course lists are evolutionary and new courses may be added at any time. See the Animal Science department website (http://www.ans.iastate.edu/) for any updates to group requirements or other curriculum requirements.

Animal Science requirements:
A minimum of 15 credits in animal science must be completed at Iowa State University.

ANS 2000-Option (Choose 2): ANS 2160 (Equine Science), **2230** (Poultry Science), **2240** (Companion Animal Science), **2250** (Swine Science), **2260** (Beef Cattle Science), **2280** (Lab Animal Science), **2290** (Sheep Science), **2350** (Dairy Cattle Science)

ANS 4XXX Option – Animal Enterprise and Innovation: ANS 4550X (Digital Tech in Animal Prod Sys) – More courses coming soon!

ANS 4XXX AEI Capstone: ANS 4560X (Entrepreneurship & Opportunity Recog. in Anim. & An. Product Enterprises) – More courses coming soon!

Focus Area: Management in Food Animal Agriculture

ECON 2350 (Intro to Ag. Markets), ECON 3300 (Adv. Farm Bus. Mgmt.), ECON 3340 (Entrepr. in Ag.), ECON 3350 (Econ. of Global Ag. & Bio-Energy), ECON 3370 (Ag. Marketing), ECON 3550 (Intl. Trade & Finance), ECON 3620 (Applied Ethics in Agri. Business), ACCT 2150 (Legal Env. of Bus.), ACCT 2850 (Managerial Account.)

Focus Area: Entrepreneurship in Animal Industries

ENTSP 3130 (Feasibility Analysis for New Ventures), ENTSP 3810 (Managing Family Business), ENTSP 4100 (Social Entrepr.), ENTSP 4540 (Entrepr. Marketing), ENTSP 4610 (Entrepr. and Accounting), ENTSP 4970X (AGEDS 3150 (Entrepr. Leadership in Ag.), AGEDS 4500 (Farm Mgmt. and Operation), ECON 3340 (Entrepr. in Ag.), ECON 3830X (Economics of Innovation)

Focus Area: Data and Technology in Animal Industries

COMS 1270 (Intro to Comp. Programming), COMS 2070 (Fundamentals of Comp. Programming), DS 2010 (Intro to Data Science), DS 2020 (Data Acquisition and Exploratory Data Analysis), DS 3010 (Applied Data Modeling and Predictive Analysis), TSM 2100 (Fundamentals of Technology), TSM 3220/3220L (Preservation of Grain Quality), TSM 3270 (Livestock and Poultry Production – Facilities, Tech, Mgmt.), TSM 3800 (Fundamentals, Applications and Modeling of Biological Systems), TSM 4550 (Feed Processing and Technology), TSM 4570 (Feed Safety, Ingredient Quality, and Analytics)

Communications

The College of Agriculture and Life Sciences requires the completion of **6 credits of English composition** and **3 credits of speech**, each with a **minimum grade of C**.

Personal Development

Although some classes appear on multiple lists and satisfy multiple requirements in this group***, a total of 15 credits must be completed in this area***. Lists of classes that satisfy these requirements can be found here: https://www.cals.iastate.edu/academic-advising under "Approved Course Lists"