

# ANIMAL SCIENCE (ANIMAL INDUSTRY) - BACHELOR OF SCIENCE IN AGRICULTURE

The animal industry concentration includes courses that prepare you for work in many phases of the livestock industry, such as livestock production on farms and ranches, the meat industry, the feed industry, livestock breed associations, and livestock publications.

Students must complete all University degree requirements, which include: General Education requirements, Viewing a Wider World requirements, and elective credits to total at least 120 credits with 48 credits in courses numbered 300 or above. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Prefix	Title	Credits
<b>General Education</b>		
<i>Area I: Communications</i>		
	English Composition - Level 1 <sup>1</sup>	4
	English Composition - Level 2 <sup>1</sup>	3
	Oral Communication	3
<i>Area II: Mathematics</i>		
MATH 1220G	College Algebra <sup>2</sup>	3-4
	or MATH 1511G	Calculus and Analytic Geometry I
<i>Area III/IV: Laboratory Sciences and Social/Behavioral Sciences</i>		
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	4
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4
	Choose one from the following:	3
	ECON 1110G	Survey of Economics
	ECON 2110G	Macroeconomic Principles
	ECON 2120G	Principles of Microeconomics
	<i>Area V: Humanities</i> <sup>1</sup>	3
	<i>Area VI: Creative and Fine Arts</i> <sup>1</sup>	3
	General Education Elective <sup>1</sup>	3-4
	<b>Viewing A Wider World</b> <sup>3</sup>	<b>6</b>
<b>Departmental/College Requirements</b> <sup>4</sup>		
ANSC 1110	Animal Science Careers	1
ANSC 1120	Introduction to Animal Science	3
	or ANSC 1120H	Introduction to Animal Science Honors
ANSC 1120L	Introduction to Animal Science Lab	1
ANSC 303	Livestock, Meat and Wool Evaluation	4
	or ANSC 308	Horse Evaluation
ANSC 304	Feeds and Feeding	3
ANSC 370	Anatomy and Physiology of Farm Animals	4
ANSC/RGSC 402	Animal Science Seminar (or)	1
	or ANSC 402 H	Animal Science Seminar
ANSC 421	Physiology of Reproduction	4
ANSC 422	Animal Nutrition	3
ANSC 423	Animal Breeding	3

<i>Ag Electives: choose a total of 6 credit with no more than 3 credits in ANSC Experience</i>		6
RGSC 2110	Introduction to Rangeland Management	
ANSC 1160	Introductory Horse Science	
ANSC 1180	Companion Animal in Society	
ANSC 1140	Introduction to Dairy Science	
ANSC 2310	Introduction to Meat Science	
ANSC 301	Animal and Carcass Evaluation	
ANSC Experience		
ANSC 390	Internship	
ANSC 391	Undergraduate Research Experience	
ANSC 392	Animal Sciences Teaching/Extension Experience	
<i>Concentration</i>		
AEEC 2120	Introduction to Food and Agribusiness Accounting	3
	or ACCT 2110	Principles of Accounting I
ANSC 2330	Animal Production	3
ANSC 2340	Genetics in Animal Science	3
	or ANSC 305	Principles of Genetics
ANSC 1170	Introduction to Animal Metabolism	3
<i>Electives</i>		
Production Electives		
	Select 9 credits from production courses offered in the department	9
	ANSC 424	Swine Production
	ANSC 425	Horse Science and Management
	ANSC 426	Beef Production: Cow-Calf Management
	ANSC 427	Dairy Production
	ANSC 428	Sheep and Wool Production
	ANSC 429	Beef Production: Feedlot Management
	ANSC 468	Advanced Dairy Herd Management
Ranch Management Electives		
	Select three courses from the following:	9
	AEEC 2140	Technology and Communication for Business Management
	AEEC 3270	Spreadsheet Applications in Food and Agriculture
	ANSC 383	Equine Reproductive Management
	ANSC 480	Environmental Physiology of Domestic Animals
	RGSC 316	Rangeland Plants
	RGSC 318	Watershed Management
	RGSC 325	Rangeland Restoration Ecology
	RGSC 458	Livestock Behavior, Welfare and Handling
	Or any AEEC or RGSC numbered 300/3000 & above except AEEC 3210 and AEEC 4530	
Business Electives		
	Select one from the following:	
	AEEC 3210	Marketing and Food Agricultural Products
	AEEC 4530	Case Studies in Food and Agribusiness Management
	MGMT 361	Small Business Management
	MKTG 312	Personal Selling
	Or any BUSA, MGMT, MKTG numbered 300/3000 & above that are not VWW courses	
<b>Non-Departmental Requirements (in addition to Gen.Ed/VWW)</b>		
A ST 311	Statistical Applications	3
<b>Second Language: (not required)</b>		

<b>Electives, to bring the total to 120<sup>5</sup></b>	<b>13-15</b>
<b>Total Credits</b>	<b>120</b>

<sup>1</sup> See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses.

<sup>2</sup> MATH 1220G College Algebra or MATH 1511G Calculus and Analytic Geometry I is required for the degree but students may need to take any prerequisites needed to enter MATH 1220G or MATH 1511G first.

<sup>3</sup> See the Viewing a Wider World (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext>) section of the catalog for a full list of courses

<sup>4</sup> Required of Industry and Science Options

<sup>5</sup> Elective credit may vary based on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

## A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1220G College Algebra and ENGL 1110G Composition I. The contents and order of this roadmap may vary depending on initial student placement in mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

### First Year

Semester 1		Credits
ANSC 1120	Introduction to Animal Science	3
ANSC 1120L	Introduction to Animal Science Lab	1
MATH 1220G	College Algebra	3
ENGL 1110G	Composition I	4
ACES 1120	Freshman Orientation	1
Ag Elective: choose one based on interest		3
ANSC 1160	Introductory Horse Science	
ANSC 1180	Companion Animal in Society	
RGSC 2110	Introduction to Rangeland Management	
<b>Credits</b>		<b>15</b>

### Semester 2

ANSC 1110	Animal Science Careers	1
ANSC 2330	Animal Production	3
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution	3
BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	1
ACOM 1130G	Effective Leadership and Communication in Agriculture	3
Choose an elective course. Consider a minor in horse management, human animal interaction, dairy science range science or ranch management.		4
<b>Credits</b>		<b>15</b>

### Second Year

#### Semester 1

ANSC 2340	Genetics in Animal Science	3
-----------	----------------------------	---

AEEC 2120	Introduction to Food and Agribusiness Accounting	3
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4
CHEM 1121	General Supplemental Instruction I	1
ENGL 2210G	Professional and Technical Communication Honors	3
<b>Credits</b>		<b>14</b>

#### Semester 2

ANSC 1170	Introduction to Animal Metabolism	3
ANSC 304	Feeds and Feeding	3
ECON 2120G	Principles of Microeconomics	3
Area VI: Creative and Fine Arts -see catalog for complete list <sup>1</sup>		3
Ranch Management Elective: - see degree plan for complete list		3
<b>Credits</b>		<b>15</b>

### Third Year

#### Semester 1

ANSC 370	Anatomy and Physiology of Farm Animals	4
ANSC 303	Livestock, Meat and Wool Evaluation or ANSC 308 or Horse Evaluation	4
Viewing a Wider World class - see catalog for complete list <sup>2</sup>		3
Area V: Humanities - see catalog for complete list <sup>1</sup>		3
<b>Credits</b>		<b>14</b>

#### Semester 2

ANSC 421	Physiology of Reproduction	4
Viewing a Wider World - see catalog for complete list <sup>2</sup>		3
Ranch Management Elective - see degree plan for complete list		3
General Education Elective <sup>1</sup>		3
Choose an elective course. Consider a minor in horse management, human animal interaction, dairy science range science or ranch management.		3
<b>Credits</b>		<b>16</b>

### Fourth Year

#### Semester 1

ANSC 402	Animal Science Seminar	1
ANSC 422	Animal Nutrition	3
ANSC 423	Animal Breeding	3
A ST 311	Statistical Applications	3
Choose production course from degree plan		3
Choose Business Elective from degree plan		3
<b>Credits</b>		<b>16</b>

#### Semester 2

Choose production course from degree plan		3
Choose production course from degree plan		3
Ranch Management Elective - see degree plan for complete list		3
Ag Elective - see degree plan for complete list. Recommend Internship		3
Choose an elective course. Consider a minor in horse management, human animal interaction, dairy science range science or ranch management.		3
<b>Credits</b>		<b>15</b>
<b>Total Credits</b>		<b>120</b>

<sup>1</sup> See the General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section of the catalog for a full list of courses.

<sup>2</sup> See the Viewing a Wider World (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext>) section of the catalog for a full list of courses