ANIMAL SCIENCE - BACHELOR OF SCIENCE IN AGRICULTURE

The animal industry option 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. The science option provides you with a strong background in technical science and prepares you for advanced studies leading to graduate or professional degrees.

Requirements

**Animal Science Core Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 100</td>
<td>Introductory Animal Science (or)</td>
<td>3</td>
</tr>
<tr>
<td>or ANSC 100 H</td>
<td>Introductory Animal Science</td>
<td></td>
</tr>
<tr>
<td>ANSC 100 L</td>
<td>Introductory Animal Science Laboratory</td>
<td>1</td>
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<tr>
<td>ANSC 220</td>
<td>Animal Science Career Development</td>
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<tr>
<td>ANSC 303</td>
<td>Livestock, Meat and Wool Evaluation</td>
<td>4</td>
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<tr>
<td>ANSC 304</td>
<td>Feeds and Feeding</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 370</td>
<td>Anatomy and Physiology of Farm Animals</td>
<td>4</td>
</tr>
<tr>
<td>ANSC/RGSC 402</td>
<td>Animal Science Seminar (or)</td>
<td>1</td>
</tr>
<tr>
<td>or ANSC 402 H</td>
<td>Animal Science Seminar</td>
<td></td>
</tr>
<tr>
<td>ANSC 421</td>
<td>Physiology of Reproduction</td>
<td>4</td>
</tr>
<tr>
<td>ANSC 422</td>
<td>Animal Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 423</td>
<td>Animal Breeding</td>
<td>3</td>
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</table>

**Ag Electives:** choose a total of 6 credit with no more than 3 credits in ANSC Experience

- RGSC 294 Rangeland Resource Management
- ANSC 103 Introductory Horse Science
- ANSC 112 Companion Animals in Society
- ANSC 262 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

**Other Required Courses**

- AXED 201G Effective Leadership and Communication in Agricultural Organizations
- or COMM 265G Principles of Human Communication
- BIOL 111G Natural History of Life
- BIOL 111GL Natural History of Life Laboratory
- CHEM 111G General Chemistry I
- MATH 121G College Algebra
- or MATH 191G Calculus and Analytic Geometry I
- A ST 311 Statistical Applications

Select one from the following:

- ECON 201G Introduction to Economics
- ECON 251G Principles of Macroeconomics
- ECON 252G Principles of Microeconomics

Select one from the following options:

- ECON 305 Principles of Genetics
- BIOL 211G Cellular and Organismal Biology

Total Credits 31-36

**Concentration: Animal Industry**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AG E 260</td>
<td>Introduction to Food and Agribusiness</td>
<td>3</td>
</tr>
<tr>
<td>or ANSC 325</td>
<td>Food and Agribusiness Finance and Planning</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 200</td>
<td>Introduction to Meat Animal Production</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 201</td>
<td>Introduction to Genetics for Animal Production</td>
<td>3</td>
</tr>
<tr>
<td>or ANSC 305</td>
<td>Principles of Genetics</td>
<td></td>
</tr>
<tr>
<td>ANSC 261</td>
<td>Introduction to Animal Metabolism</td>
<td>3</td>
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</tbody>
</table>

**Electives**

**Production Electives**

Select 9 credits from production courses offered in the department.

- 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 3 courses from the following:

- 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

**Business Electives**

Select one from the following:

- ACCT 221 Principles of Accounting I (Financial)
- AG E 305 Marketing and Food Agricultural Products
- AG E 456 Case Studies in Food and Agribusiness Management
- MGT 361 Small Business Management
- MKTG 312 Personal Selling

Or any ACCT, BUSA, MGT, MKTF numbered 300 & above that are NOT VWW courses

Total Credits 33

**Concentration: Science**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 305</td>
<td>Principles of Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 211G</td>
<td>Cellular and Organismal Biology</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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</tr>
<tr>
<td>BIOL 211GL</td>
<td>Cellular and Organismal Biology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 112G</td>
<td>General Chemistry II</td>
<td>4</td>
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<tr>
<td>CHEM 211</td>
<td>Organic Chemistry</td>
<td>4-8</td>
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<tr>
<td></td>
<td>or CHEM 313</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&amp; CHEM 314</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&amp; CHEM 315</td>
<td></td>
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<tr>
<td>BCHE 341</td>
<td>Survey of Biochemistry</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>or BCHE 395</td>
<td></td>
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</tbody>
</table>

**Electives**

**Production Electives**

Select two from the following: 6

- 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

**Designated Electives**

Select one from the following: 4

- MATH 191G  Calculus and Analytic Geometry I
- MATH 192G  Calculus and Analytic Geometry II
- PHYS 211G  General Physics I
- PHYS 211GL and General Physics I Laboratory
- PHYS 212G  General Physics II
- PHYS 212GL and General Physics II Laboratory

Select one from the following: 3

- ANSC 462  Parasitology
- ANSC 480  Environmental Physiology of Domestic Animals
- ANSC 484  Ruminant Nutrition
- TOX 361   Basic Toxicology
- TOX 461   Toxicology I

**Total Credits** 31-36