Animal Sciences

ANSC 100 Intro to Animal Sciences credit: 4 hours.
Survey of beef and dairy cattle, companion animals, horses, poultry, sheep, and swine. Includes the importance of product technology and the basic principles of nutrition, genetics, physiology, and behavior as they apply to breeding, selection, feeding, and management. Lecture and lab.
Students must register for one lab and one lecture section.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>31288</td>
<td>Laboratory</td>
<td>AB1</td>
<td>08:00 AM - 09:50 AM</td>
<td>T</td>
<td>ARENA - Stock Pavilion</td>
<td>Parrett, D</td>
</tr>
<tr>
<td>31293</td>
<td>Laboratory</td>
<td>AB2</td>
<td>10:00 AM - 11:50 AM</td>
<td>T</td>
<td>ARENA - Stock Pavilion</td>
<td>Parrett, D</td>
</tr>
<tr>
<td>31298</td>
<td>Laboratory</td>
<td>AB3</td>
<td>03:00 PM - 04:50 PM</td>
<td>T</td>
<td>ARENA - Stock Pavilion</td>
<td>Parrett, D</td>
</tr>
<tr>
<td>31294</td>
<td>Laboratory</td>
<td>AB4</td>
<td>10:00 AM - 11:50 AM</td>
<td>R</td>
<td>ARENA - Stock Pavilion</td>
<td>Parrett, D</td>
</tr>
<tr>
<td>31296</td>
<td>Laboratory</td>
<td>AB5</td>
<td>03:00 PM - 04:50 PM</td>
<td>R</td>
<td>ARENA - Stock Pavilion</td>
<td>Parrett, D</td>
</tr>
<tr>
<td>31300</td>
<td>Lecture</td>
<td>AL1</td>
<td>02:00 PM - 02:50 PM</td>
<td>MWF</td>
<td>150 - Animal Sciences Laboratory</td>
<td>Beever, J Cardoso, F Cobb, A Dilger, A Fischer-Brown, A Kline, K Koelkebeck, K McCann, J Miller, D Parrett, D Parsons, C</td>
</tr>
</tbody>
</table>

Some seats are reserved for incoming freshman & transfer students. Any available seats will be opened on July 1, 2017.

ANSC 103 Working With Farm Animals credit: 2 hours.
Introductory course that will provide novice students with the fundamentals of animal-animal and animal-human interactions for domestic farm animals. Emphasizes hands-on experiences to develop a background in the concepts and practice of recognizing and
understanding the animal's physiology and behavior, animal well being, and animal responses to human interactions. Prerequisite: ANSC 100.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29835</td>
<td>Laboratory</td>
<td>A</td>
<td>03:00 PM - 04:50 PM</td>
<td>R</td>
<td>-</td>
<td>Cobb, A Hurley, W Parsons, C</td>
</tr>
<tr>
<td></td>
<td>Lecture</td>
<td>A</td>
<td>04:00 PM - 04:50 PM</td>
<td>T</td>
<td>2 - Education Building</td>
<td>Cobb, A Hurley, W Parsons, C</td>
</tr>
</tbody>
</table>

Not intended for First Time Freshman students. Restricted to students in the Animal Sciences department. Some spots being saved for Fall 2017 incoming transfer students. Remaining spots will be open on July 1, 2017. Students cannot take ANSC 103 if they plan on working at the Large Animal Intensive Care Unit or the Wildlife Medical Clinic concurrently.

ANSC 110  Life With Animals and Biotech  credit: 3 hours.
Lecture/discussion course that will provide students an overview of biotechnology and animals. Focuses on biotechnological achievements involving animals and how they influence the global development of agriculture, medicine, and industry. Topics will be covered from scientific, discovery, historical, social, and political perspectives.
This course satisfies the General Education Criteria for a:
Nat Sci & Tech - Life Sciences

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29841</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>03:00 PM - 04:50 PM</td>
<td>MW</td>
<td>107 - Animal Sciences Laboratory</td>
<td>Allen, C</td>
</tr>
<tr>
<td>40336</td>
<td>Lecture-Discussion</td>
<td>B</td>
<td>03:00 PM - 04:20 PM</td>
<td>TR</td>
<td>131 - Animal Sciences Laboratory</td>
<td>Allen, C</td>
</tr>
</tbody>
</table>

Nat Sci & Tech - Life Sciences course. Restricted to Liberal Arts & Sciences. Restricted to NONE:LAS General Curr-UIUC or NONE: LAS Undeclared -UIUC. Seats are reserved for LAS Access and Achievement Program students, specifically for Undeclared students until August 1, and then seats will open for LAS EOP and PAP students. If you do not meet this requirement, please contact the Access and Achievement Program Office in 2002 Lincoln Hall to be placed on the waiting list. Restricted to EOP - Obligatory, Pres Award Program Recip, President's Award Honors, Srch High Abil Minority Stds, or AAP - Undeclared students.

ANSC 199  Undergraduate Open Seminar  credit: 1 TO 5 hours.
An experimental course on a special topic in animal sciences. Topic may not be repeated except in accordance with the Code. May be repeated to a maximum of 12 hours. No more than 12 hours may be counted toward graduation.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>10232</td>
<td>Independent Study</td>
<td></td>
<td>ARRANGED</td>
<td></td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Instructor Approval Required
<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29846</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>03:00 PM - 04:50 PM</td>
<td>TR</td>
<td>120 - Meat Science Laboratory</td>
<td>Klehm, B</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours
Intro to Meat Evaluation
Meets 23-Oct-17 - 13-Dec-17.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69880</td>
<td>Laboratory</td>
<td>B</td>
<td>08:00 AM - 11:50 AM</td>
<td>S</td>
<td>-</td>
<td>Henley, P</td>
</tr>
<tr>
<td></td>
<td>Lecture</td>
<td>B</td>
<td>04:00 PM - 04:50 PM</td>
<td>MWF</td>
<td>-</td>
<td>Shike, D</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Intro to Livestock Evaluation
Not intended for students with Freshman class standing.
Meets 23-Oct-17 - 13-Dec-17.
Lecture will meet in room 110 Stock Pavilion.

ANSC 201  **Principles of Dairy Production**  credit: 3 hours.
Surveys the dairy industry; examines principles of breeding, selection, reproduction, feeding, milking and management of dairy cattle.
Prerequisite: ANSC 100.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29854</td>
<td>Laboratory</td>
<td>A</td>
<td>01:00 PM - 02:20 PM</td>
<td>T</td>
<td>107 - Animal Sciences Laboratory</td>
<td>Cardoso, F</td>
</tr>
<tr>
<td></td>
<td>Lecture</td>
<td>A</td>
<td>01:00 PM - 01:50 PM</td>
<td>R</td>
<td>107 - Animal Sciences Laboratory</td>
<td>Cardoso, F</td>
</tr>
</tbody>
</table>

This course is taught every other fall (in odd years).

ANSC 206  **Horse Management**  credit: 3 hours.
Focus on the principles of managing horses from birth through breeding; topics include reproductive physiology, breeding management, nutrition, diseases, parasites, herd health programs, genetics, facility design and exercise physiology.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29863</td>
<td>Lecture-Discussion</td>
<td>1</td>
<td>12:30 PM - 01:50 PM</td>
<td>TR</td>
<td>ARR - Stock Pavilion</td>
<td>Kline, K</td>
</tr>
</tbody>
</table>

Course will be held in 107 Stock Pavilion.

ANSC 207  **Companion Animal Biology &Care**  credit: 3 hours.
An introduction to companion animal biology through consideration of the physical structure, nutrition, behavior, and reproduction of animal species most commonly kept as companions. The basic information is applied to discussion of basic preventive health care. Course content is largely focused on cats and dogs, although other mammals, birds and reptiles will be briefly considered. Legal and economic issues, and ethical considerations associated with companion animals are also incorporated into the course discussion.
Each week students will be guided through asynchronous lecture/background materials online, and will complete tasks online through the week (Monday through Friday). Students will also log in to one synchronous discussion session per week.
This course satisfies the General Education Criteria for a:
Nat Sci & Tech - Life Sciences

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>51564</td>
<td>Online</td>
<td>AN1</td>
<td>12:00 PM - 12:50 PM</td>
<td>R</td>
<td>-</td>
<td>Fischer-Brown, A Lewis, J</td>
</tr>
<tr>
<td>51565</td>
<td>Online</td>
<td>AN2</td>
<td>01:00 PM - 01:50 PM</td>
<td>R</td>
<td>-</td>
<td>Fischer-Brown, A Hackett, M</td>
</tr>
<tr>
<td>51566</td>
<td>Online</td>
<td>AN3</td>
<td>02:00 PM - 02:50 PM</td>
<td>R</td>
<td>-</td>
<td>Fischer-Brown, A Hackett, M</td>
</tr>
<tr>
<td>56248</td>
<td>Online</td>
<td>AN4</td>
<td>03:00 PM - 03:50 PM</td>
<td>R</td>
<td>-</td>
<td>Elliott, A Fischer-Brown, A</td>
</tr>
<tr>
<td>56256</td>
<td>Online</td>
<td>AN5</td>
<td>04:00 PM - 04:50 PM</td>
<td>R</td>
<td>-</td>
<td>Elliott, A Fischer-Brown, A</td>
</tr>
<tr>
<td>56258</td>
<td>Online</td>
<td>AN6</td>
<td>11:00 AM - 11:50 AM</td>
<td>R</td>
<td>-</td>
<td>Fischer-Brown, A Lewis, J</td>
</tr>
<tr>
<td>29867</td>
<td>Online</td>
<td>LN1</td>
<td>ARRANGED -</td>
<td></td>
<td></td>
<td>Brandt, J Fischer-Brown, A</td>
</tr>
</tbody>
</table>

Nat Sci & Tech - Life Sciences course.
Not intended for students in the Animal Sciences department.

**ANSC 219  Meat Technology  credit: 3 hours.**
Student participation in the transformation of live animals through harvest and carcass fabrication into food products for human consumption; includes laboratory. Purchase of personal equipment is required.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>59996</td>
<td>Laboratory</td>
<td>A</td>
<td>06:00 AM - 08:50 AM</td>
<td>TR</td>
<td>120 - Meat Science Laboratory</td>
<td>Boler, D</td>
</tr>
</tbody>
</table>
ANSC 221  **Cells, Metabolism and Genetics**  credit: 3 hours.
Provides an introductory background in basic aspects of cell biology, physiology, and genetics. Topics addressed include cell structure, cell organelles, and different types of cells, protein synthesis and gene expression, chromosome structure, basic mechanisms of chromosome replication, basic principles of quantitative and population genetics, and an introduction to genomics and proteomics. Prerequisite: ANSC 100, CHEM 102 and 103 or concurrent enrollment.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>55435</td>
<td>Lecture</td>
<td>A</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>150 - Animal Sciences Laboratory</td>
<td>Beever, J Gaskins, H</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours

ANSC 222  **Anatomy and Physiology**  credit: 3 hours.
Provides an introductory background in basic and fundamental principles of animal anatomy and physiology. The major organ systems (muscle, skeletal, neural, endocrine, cardiovascular, respiratory, and renal) will be presented with an emphasis on comparative anatomy, integrated function, and specific homeostatic mechanisms. Prerequisite: ANSC 100.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>55434</td>
<td>Lecture</td>
<td>A</td>
<td>09:00 AM - 09:50 AM</td>
<td>MWF</td>
<td>150 - Animal Sciences Laboratory</td>
<td>Dailey, M Wheeler, M</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours

ANSC 250  **Companion Animals in Society**  credit: 3 hours.
Explores the current and historical functions and influences of companion animals in American society. Topics include the evolution of animal protection, the use of assistance and service animals, and the growth of the pet supply industry. Controversial issues which are of current concern to society will also be examined.
This course satisfies the General Education Criteria for a:
Cultural Studies - Western

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>53235</td>
<td>Lecture</td>
<td>A</td>
<td>12:30 PM - 01:50 PM</td>
<td>TR</td>
<td>112 - Gregory Hall</td>
<td>Albert, S</td>
</tr>
</tbody>
</table>

Cultural Studies - Western course.

ANSC 298  **Undergraduate Seminar**  credit: 1 hours.
Presentations and discussion of employment opportunities, departmental research activities, and topics relevant to animal agriculture. Prerequisite: Sophomore standing.
ANSC 305  **Human Animal Interactions**  credit: 3 hours.
Examines the relationships between humans and companion animals and the roles and functions that animals play in today's society. This course is intended for Animal Sciences majors and restricted to Animal Sciences major(s). Some spots being saved for Fall 2017 incoming transfer students. Remaining spots will be open on July 1, 2017.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29860</td>
<td>Lecture-Discussion</td>
<td>1</td>
<td>09:30 AM - 10:50 AM</td>
<td>TR</td>
<td>107 - Animal Sciences Laboratory</td>
<td>Albert, S</td>
</tr>
</tbody>
</table>

Prerequisite: ANSC 250

ANSC 307  **Companion Animal Management**  credit: 3 hours.
This course provides an advanced overview of companion animal biology through consideration of the physical structure, nutrition, behavior, and reproduction of animal species most commonly kept as companions. Course content is applied to discussion of best management practices and basic preventive health care. Legal and economic issues, ethical considerations, and career opportunities associated with companion animals are also incorporated into course discussion. Credit is not given for both ANSC 307 and ANSC 207.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>62773</td>
<td>Discussion/Recitation</td>
<td>AN1</td>
<td>11:00 AM - 12:20 PM</td>
<td>TR</td>
<td>131 - Animal Sciences Laboratory</td>
<td>Fischer-Brown, A</td>
</tr>
</tbody>
</table>

ANSC 309  **Meat Production and Marketing**  credit: 2 hours.
General approach to meat utilization with emphasis on selecting, grading, cutting, and pricing meat for the retail, restaurant, and food service industry. This course includes laboratory and may use field trips to establishments to highlight course concepts.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>65393</td>
<td>Laboratory</td>
<td>A</td>
<td>01:00 PM - 02:50 PM</td>
<td>R</td>
<td>120 - Meat Science Laboratory</td>
<td>Boler, D</td>
</tr>
<tr>
<td></td>
<td>Lecture</td>
<td>A</td>
<td>01:00 PM - 01:50 PM</td>
<td>T</td>
<td>120 - Meat Science Laboratory</td>
<td>Boler, D</td>
</tr>
</tbody>
</table>

Class is taught every other fall (odd years).

ANSC 310  **Meat Selection and Grading**  credit: 3 hours.
Study characteristics associated with the value of carcasses, primal and retail cuts from meat animals; emphasize USDA grading and specifications as well as written communication. Field trips to meat packing plants are required.

Students are responsible for personal expenses on field trips.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29869</td>
<td>Laboratory</td>
<td>A</td>
<td>08:00 AM - 11:50 AM</td>
<td>S</td>
<td>120 - Meat Science Laboratory</td>
<td>Klehm, B</td>
</tr>
<tr>
<td></td>
<td>Laboratory</td>
<td>A</td>
<td>03:00 PM - 04:50 PM</td>
<td>MWF</td>
<td>120 - Meat Science Laboratory</td>
<td>Klehm, B</td>
</tr>
</tbody>
</table>

**ANSC 312  Advanced Livestock Evaluation**  credit: 3 hours.

Advanced instruction in the selection of breeding animals of beef, sheep, and swine species and in the evaluation of market animals for slaughter. This course requires visits to farms, related companies, and events to observe the latest techniques and scientific principles associated with livestock selection and evaluation. Prerequisite: ANSC 211 or consent of instructor.

Students are responsible for personal expenses on field trips.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29872</td>
<td>Laboratory</td>
<td>1</td>
<td>03:00 PM - 04:50 PM</td>
<td>MWF</td>
<td>ARENA - Stock Pavilion</td>
<td>Henley, P</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shike, D</td>
</tr>
</tbody>
</table>

**ANSC 313  Horse Appraisal**  credit: 2 hours.

Advanced course for students interested in improving their performance and conformation evaluation skills; provides exposure to the horse show industry and the career opportunities associated with this facet of the horse industry; students may compete in intercollegiate judging contests.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29877</td>
<td>Laboratory-Discussion</td>
<td>1</td>
<td>01:00 PM - 02:50 PM</td>
<td>MW</td>
<td>292 - Animal Sciences Laboratory</td>
<td>Hagstrom, D</td>
</tr>
</tbody>
</table>

**ANSC 314  Adv Dairy Cattle Evaluation**  credit: 2 hours.

Advanced instruction in the selection of breeding dairy animals. Involves visits to farms, related companies and events to observe the latest techniques and scientific principles associated with dairy cattle selection and evaluation. Field trips for cattle judging are required. May be repeated to a maximum of 4 hours. Prerequisite: ANSC 204 or consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29880</td>
<td>Laboratory-Discussion</td>
<td>1</td>
<td>ARRANGED -</td>
<td></td>
<td></td>
<td>McCoy, G</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Miller, D</td>
</tr>
</tbody>
</table>

**ANSC 322  Livestock Feeds and Feeding**  credit: 3 hours.
Livestock feeds and practical feeding applications for livestock will be addressed. Feed identification and ration formulation will be strongly emphasized. One session of this class will take place at the UIUC Feed Mill. Prerequisite: ANSC 223.

### ANSC 350  Cellular Metabolism in Animals  credit: 3 hours.

Principles and regulation of cellular metabolism in animals, emphasizing energy derivation and its relationship to domestic animal and food production. Prerequisite: CHEM 104, CHEM 105, and ANSC 221 or equivalent.

### ANSC 370  Companion Animal Policy  credit: 3 hours.

This course provides an overview of public policy with respect to the use and treatment of companion animals in the United States. Current and alternative policies are considered in terms of their effectiveness in improving or otherwise altering the treatment of companion animals. The influences of animal protection organizations, consumer groups, politicians, the scientific community, and other stakeholders on the development and enforcement of policies are examined in detail. Prerequisite: ANSC 250

Junior standing required.

### ANSC 398  UG Experiential Learning  credit: 1 TO 5 hours.

Student-directed experiential learning on special topics directly pertaining to subject matter in animal sciences. Students are required to complete a Memorandum of Agreement prior to enrolling in this course. Approved for both letter and S/U grading. May be repeated up to 5 hours per semester, up to a maximum of 10 total hours.
### Undergraduate Research
Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Type</th>
<th>Letter</th>
<th>Status</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60743</td>
<td>Conference</td>
<td>B</td>
<td>ARRANGED</td>
<td>-</td>
</tr>
<tr>
<td>60744</td>
<td>Conference</td>
<td>C</td>
<td>ARRANGED</td>
<td>-</td>
</tr>
<tr>
<td>60745</td>
<td>Conference</td>
<td>D</td>
<td>ARRANGED</td>
<td>-</td>
</tr>
<tr>
<td>60746</td>
<td>Conference</td>
<td>E</td>
<td>ARRANGED</td>
<td>-</td>
</tr>
<tr>
<td>60747</td>
<td>Conference</td>
<td>F</td>
<td>ARRANGED</td>
<td>-</td>
</tr>
<tr>
<td>60748</td>
<td>Conference</td>
<td>G</td>
<td>ARRANGED</td>
<td>-</td>
</tr>
<tr>
<td>60749</td>
<td>Conference</td>
<td>H</td>
<td>ARRANGED</td>
<td>-</td>
</tr>
</tbody>
</table>

### Honors Research Project
Departmental Approval Required
James Scholars, and Camp Honors/Chanc Schol course.
Meets 23-Oct-17 - 13-Dec-17.

### Evaluation Team Experience
Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.

### Domestic or International Exp.
Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.

### Off-Campus Internship
Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.

### On-Campus Internship
Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.

### CC Humane Society Internship
Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.
Veterinary Assistant Intern.
Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>60750</td>
<td>Conference</td>
<td>I</td>
<td>ARRANGED -</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Experiential Learning (Other)
Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>60800</td>
<td>Conference</td>
<td>J</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Albert, S&lt;br&gt;Fischer-Brown, A&lt;br&gt;Stein, H</td>
</tr>
</tbody>
</table>

Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.
This section is for Satisfactory/Unsatisfactory grading.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>67632</td>
<td>Conference</td>
<td>K</td>
<td>ARRANGED -</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Departmental Approval Required
Meets 23-Oct-17 - 13-Dec-17.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69670</td>
<td>Conference</td>
<td>L</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Allen, C</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Tanzania Study Abroad
Meets 23-Oct-17 - 13-Dec-17.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69915</td>
<td>Conference</td>
<td>M</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Davis, L</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
VIDA Pre-Vet Trip
Meets 23-Oct-17 - 13-Dec-17.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>66080</td>
<td>Conference</td>
<td>MBW</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Wheeler, M</td>
</tr>
</tbody>
</table>

Departmental Approval Required

**ANSC 401  Beef Production  credit: 3 hours.**
The principles of the management of beef cattle enterprises. Applies science and technology to the breeding, selection, feeding, health and production of beef and beef products. Emphasizes the use of research findings in decision-making. 3 undergraduate hours. 3 graduate hours. Credit is not given for both ANSC 401 and ANSC 213. Prerequisite: ANSC 223 or equivalent.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29887</td>
<td>Lecture</td>
<td>1</td>
<td>11:00 AM - 11:50 AM</td>
<td>131 - Animal Sciences Laboratory</td>
<td>Parrett, D&lt;br&gt;Shike, D</td>
</tr>
</tbody>
</table>

**ANSC 420  Ruminant Nutrition  credit: 3 hours.**
Physiology and microbiology of digestion in the ruminant, and biochemical pathways of utilization of the absorbed nutrients for productive purposes. 3 undergraduate hours. 3 graduate hours. Prerequisite: ANSC 223 or equivalent.
### ANSC 431  **Advanced Reproductive Biology** credit: 3 hours.

Course is an upper-level undergraduate or entry-level graduate course dealing with reproductive biology. It will include the study of basic cell biology of reproduction, lactation, growth and hormone regulation of domestic and non-domestic animals as well as humans, including biotechnology methods of reproduction control, manipulation, performance enhancement of lactation and growth, and disease control. 3 undergraduate hours. 3 graduate hours. Prerequisite: ANSC 224 or equivalent.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29891</td>
<td>Lecture</td>
<td>A</td>
<td>10:00 AM - 10:50 AM</td>
<td>MWF</td>
<td>131 - Animal Sciences Laboratory</td>
<td>Drackley, J Loor, J</td>
</tr>
</tbody>
</table>

### ANSC 437  **Adv Reproductive Management** credit: 2 hours.

The focus of this course is advanced techniques and technologies used to manage production livestock. The course will emphasize advanced and emerging technologies such as embryo transfer, cloning, semen sexing, and ultrasound pregnancy diagnosis and fetal sexing and innovations in existing procedures including artificial insemination, reproductive health management, and estrus synchronization. Implementation of existing and emerging techniques and technologies and research and discovery will be covered for individuals focusing on careers in livestock production, clinical veterinary medicine, education, technical service/support, and research and development. 2 undergraduate hours. 2 graduate hours. Prerequisite: ANSC 331 or equivalent, or consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>40958</td>
<td>Lecture-Discussion</td>
<td>AR</td>
<td>01:00 PM - 01:50 PM</td>
<td>MWF</td>
<td>166 - Bevier Hall</td>
<td>Bahr, J Nowak, R</td>
</tr>
</tbody>
</table>

**Topic: Advanced Reproductive Physiology**

### ANSC 440  **Applied Statistical Methods I** credit: 4 hours.

Same as ABE 440, CPSC 440, FSHN 440, and NRES 440. See CPSC 440.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>34101</td>
<td>Lecture</td>
<td>AL1</td>
<td>03:30 PM - 04:50 PM</td>
<td>TR</td>
<td>150 - Animal Sciences Laboratory</td>
<td>Lipka, A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>34033</td>
<td>Laboratory-Discussion</td>
<td>AY2</td>
<td>10:00 AM - 11:50 AM</td>
<td>W</td>
<td>M205 - Turner Hall</td>
<td>Lipka, A</td>
</tr>
</tbody>
</table>

Meets 11-Sep-17 - 13-Nov-17.

This course is completely online and includes online synchronous class sessions where students will meet using the GoToWebinar. The live sessions will be held every Monday afternoon from 7 to 8 pm CT with all lectures being archived for later review if you cannot attend the live sessions. Students will need reliable high-speed internet. For more information about the course, other enrollment options and additional required educational material please go to http://online.anisci.illinois.edu/. Course materials will be accessible in class via the class website. Students interested in enrolling for Noncredit or Continuing Education Units (20 CEUs) for Veterinarians and American Registry of Professional Animal Scientists (ARPAS), contact Jim Baltz at jhbaltz@illinois.edu.
Restricted to MS:Crop Sciences -UIUC, MS:Crop Sciences -UIUC, MS: Agricultural Educ -UIUC, MS: Nat Res Env Sci -UIUC, MS: Nat Res & Envrn Sci -UIUC, NDEG:Grad Nondegree-CE-UIUC, or NDEG:Undergrad Nondeg-CE-UIUC.

Online scheduled class sessions require each student to have high speed internet access and either a headset with microphone or an external microphone and speakers so they may participate in the class discussions. Wireless internet is not recommended.

**ANSC 445  Statistical Methods**  credit: 4 hours.
Design and analysis of experiments: multiple regression, method of fitting constants, factorial experiments with unequal subclass numbers, analysis of covariance, experimental design; computer applications to agricultural experiments using statistical packages. Same as ABE 445 and NRES 445. 4 undergraduate hours. 4 graduate hours. Prerequisite: CPSC 440, or equivalent.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>67021</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>09:30 AM - 10:50 AM</td>
<td>TR</td>
<td>22 - ACES Lib, Info &amp; Alum Ctr</td>
<td>Rodriguez-Zas, S</td>
</tr>
</tbody>
</table>

**ANSC 447  Advanced Genetics and Genomics**  credit: 4 hours.
Current principles and methods in genetics and genomics to better understand genome function, genome evolution, the genetic architecture of complex traits, the genetic basis of human and animal diseases, and animal productivity. To build a strong foundation for the application of novel genomic tools, the course will provide an overview of main concepts in genetics and genomics, including gene-environment interaction and epigenetic modifications. The focus of the course will be on mammals, but novel applications of the new sequencing technologies to other systems will be discussed. In addition to the presentation of scientific concepts and discoveries, the course will include a significant practical component. Students will learn software programs used for genetic mapping and bioinformatics analysis, will review and present scientific papers, and will write a research paper proposing their own experiments. 4 undergraduate hours. 4 graduate hours. Prerequisite: ANSC 221, MCB 150, or IB 150.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>67792</td>
<td>Laboratory</td>
<td>A</td>
<td>01:00 PM - 03:50 PM</td>
<td>F</td>
<td>107 - Animal Sciences Laboratory</td>
<td>Beever, J</td>
</tr>
<tr>
<td></td>
<td>Lecture</td>
<td>A</td>
<td>11:00 AM - 12:20 PM</td>
<td>TR</td>
<td>107 - Animal Sciences Laboratory</td>
<td>Kukekova, A</td>
</tr>
</tbody>
</table>
ANSC 452  **Animal Growth and Development**  credit: 3 OR 4 hours.

Basic principles of animal growth from early fetal development through typical marketing ages for the major domestic animal species. Topics discussed include molecular and cellular determinants of tissue development and whole animal growth, with coverage of current and future technologies for manipulating growth to enhance animal production. 3 or 4 undergraduate hours. 4 graduate hours. Prerequisite: ANSC 221, ANSC 222, ANSC 223, and ANSC 224.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29889</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>09:00 AM - 09:50 AM</td>
<td>MWF</td>
<td>120 - Meat Science Laboratory</td>
<td>Dilger, A</td>
</tr>
</tbody>
</table>

James Scholars who would like to use this course as a 500-level course and all Graduate Students should sign up for 4 credit hours. All other Undergraduate students should take this course for 3 credit hours.

ANSC 467  **Applied Animal Ecology**  credit: 3 hours.

An in-depth multidisciplinary approach (physiology, behavior, immunology, neuroscience) to understanding animal-environment interactions (including thermal, air, microbic, photic and behavioral factors) as basis for prescribing practical environments for keeping animals. Courses in physiology, biology, nutrition, microbiology, and genetics are recommended. 3 undergraduate hours. 3 graduate hours. Prerequisite: ANSC 221 or equivalent, ANSC 222 or equivalent, and ANSC 223 or equivalent; or consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>31305</td>
<td>Laboratory</td>
<td>AL1</td>
<td>08:00 AM - 09:20 AM</td>
<td>R</td>
<td>131 - Animal Sciences Laboratory</td>
<td>Johnson, J</td>
</tr>
<tr>
<td></td>
<td>Lecture</td>
<td>AL1</td>
<td>08:00 AM - 09:20 AM</td>
<td>T</td>
<td>131 - Animal Sciences Laboratory</td>
<td>Johnson, J</td>
</tr>
</tbody>
</table>

ANSC 471  **ANSC Leaders & Entrepreneurs**  credit: 3 hours.

Designed to familiarize students with the tools and skills necessary for successful business operation in industry and entrepreneurial environments including food animal production farms. The overall aim is to explore how enhanced interpersonal and leadership skills facilitate positive relations in business. Students will design a business plan, an entrepreneurial enterprise, that will be read by an external committee of professors, community members, and business owners and evaluated for its viability and creativity. This course is relevant for leaders as well as future entrepreneurs interested in acquiring valuable skills that may be applied to many careers. 3 undergraduate hours. 3 graduate hours. Prerequisites: Any advanced composition course.

Junior, Senior or Graduate standing required.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>61674</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>08:00 AM - 09:20 AM</td>
<td>TR</td>
<td>107 - Animal Sciences Laboratory</td>
<td>Cardoso, F</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Restricted to students with Junior, Senior, or Graduate class standing.

ANSC 498  **Integrating Animal Sciences**  credit: 2 hours.
Introduction to the theoretical basis of and skills associated with leadership, inquiry, and collaborative learning. Capstone experience in integrating knowledge, practicing skills, and applying theory through collaborative projects that address current issues in animal sciences. Projects relate to the impact of animals and animal use on humans and societal issues facing the world today. 2 undergraduate hours. 2 graduate hours. Prerequisite: Must have completed one of the following: ANSC 293, ANSC 294, ANSC 295, ANSC 299, ANSC 396, ANSC 398, ACES 293, ACES 298 or ACES 299.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>59523</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>04:00 PM - 05:50 PM</td>
<td>M</td>
<td>131 - Animal Sciences Laboratory</td>
<td>Jones-Hamlow, K</td>
</tr>
</tbody>
</table>

Restricted to Animal Sciences major(s). Restricted to students with Senior class standing.

**ANSC 499 Seminar**  credit: 1 TO 4 hours.

Group discussion or an experimental course on a special topic in animal sciences. 1 to 4 undergraduate hours. 1 to 4 graduate hours. May be repeated.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>10254</td>
<td>Independent Study</td>
<td></td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Instructor Approval Required

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>63333</td>
<td>Lecture-Discussion</td>
<td>F1</td>
<td>01:00 PM - 02:50 PM</td>
<td>W</td>
<td>1020 - Lincoln Hall</td>
<td>Albert, S Fischer-Brown, A</td>
</tr>
<tr>
<td></td>
<td>Online</td>
<td>F1</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td>Albert, S Fischer-Brown, A</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Comp. Animal Comm. Outreach
Students will examine and evaluate services that can be provided to communities to help companion animals, pet owners, and local animal shelters and rescue groups. Work outside of class, including several weekend outings to community outreach events, is required for this class. Prerequisite: ANSC 250. Not intended for First Time Freshman students.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>65582</td>
<td>Online</td>
<td>GM</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td>Miller, G</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Tropical Epidemiology
Instructor Approval Required
Not intended for students with Freshman or Sophomore class standing.
Meets 16-Oct-17 - 13-Dec-17.
Information will be provided by the instructor. Prerequisite: completion of a biology course. Course introduces the basic concepts and methods of epidemiology and biostatistics through the lens of tropical medicine. This class focuses primarily on understanding current health issues in the tropics and applying epidemiological approaches to investigation, control, and prevention of these current health issues including Malaria, Lassa fever, HIV, and nutritional challenges among others. Final project/assignments will officially end on December 15.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>48300</td>
<td>Online</td>
<td>XM</td>
<td>03:00 PM - 03:50 PM</td>
<td>M</td>
<td>-</td>
<td>Hutjens, M</td>
</tr>
</tbody>
</table>
This course is completely online and includes online synchronous class sessions where students will meet using the GoToWebinar. The live sessions will be held every Monday afternoon from 3 to 4 pm CT with all lectures being archived for later review if you cannot attend the live sessions. Students will need reliable high-speed internet. For more information about the course, other enrollment options and additional required educational material please go to http://online.ansci.illinois.edu/. Course materials will be accessible in class via the class website. Students interested in enrolling for Noncredit or Continuing Education Units (10 CEUs) for Veterinarians and American Registry of Professional Animal Scientists (ARPAS), contact Jim Baltz at jhbaltz@illinois.edu.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>65617</td>
<td>Online XM1</td>
<td>05:00 PM- 05:50 PM</td>
<td>M -</td>
<td>Hutjens, M</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours
Ration Building & Balancing
Meets 11-Sep-17 - 30-Oct-17.

This course is completely online and includes online synchronous class sessions where students will meet using the GoToWebinar. The live sessions will be held every Monday afternoon from 5 to 6 pm CT with all lectures being archived for later review if you cannot attend the live sessions. Students will need reliable high-speed internet. For more information about the course, other enrollment options and additional required educational material please go to http://online.ansci.illinois.edu/. Course materials will be accessible in class via the class website. This Course will feature Spartan III (Michigan State University) rumen modeling software. Students interested in enrolling for Noncredit or Continuing Education Units (10 CEUs) for Veterinarians and American Registry of Professional Animal Scientists (ARPAS), contact Jim Baltz at jhbaltz@illinois.edu.

ANSC 523  Techniques in Animal Nutrition  credit: 3 hours.

Discusses and applies methods of laboratory analysis and animal experimentation frequently used in nutrition research. Same as NUTR 523. 3 graduate hours. No professional credit. Prerequisite: Courses in nutrition, physiology, and biochemistry and consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29894</td>
<td>Lecture-Discussion</td>
<td>1</td>
<td>02:30 PM- 04:20 PM</td>
<td>TR</td>
<td>107 - Animal Sciences Laboratory</td>
<td>Dilger, R</td>
</tr>
</tbody>
</table>

Restricted to Graduate - Urbana-Champaign.

ANSC 524  Nonruminant Nutrition Concepts  credit: 2 hours.

Review of literature in nonruminant nutrition. Emphasizes basic concepts associated with food intake, carbohydrate and fat utilization, protein quality, bioavailability of nutrients, and diet formulation. Same as NUTR 524. 2 graduate hours. No professional credit. Prerequisite: Consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29895</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>11:00 AM- 11:50 AM</td>
<td>TR</td>
<td>292 - Animal Sciences Laboratory</td>
<td>Parsons, C</td>
</tr>
</tbody>
</table>

This course is taught every other year (odd years).

ANSC 525  Topics in Nutrition Research  credit: 1 hours.

Same as FSHN 510 and NUTR 510. See NUTR 510.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>34605</td>
<td>Lecture</td>
<td>A</td>
<td>11:00 AM- 12:20 PM</td>
<td>TR</td>
<td>326 - David Kinley Hall</td>
<td>Murphy, M</td>
</tr>
</tbody>
</table>

History of Nutrition
ANSC 541  **Regression Analysis**  credit: 5 hours.
Same as CPSC 541. See CPSC 541.

ANSC 590  **Animal Sciences Seminar**  credit: 0 TO 2 hours.
Discussions of current research and literature. Registration for 0 to 2 hours each term is expected for animal sciences graduate students. Approved for both letter and S/U grading. May be repeated to a maximum of 2 hours for Masters students and 4 hours for Ph.D. students.
Students enrolled for 0 credit will received S/U grades; those enrolled for 1 hour will received letter grades.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>36763</td>
<td>Lecture-Discussion</td>
<td>B</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Koelkebeck, K</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Animal Breeding and Genetics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class will be held in 296 ASL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43993</td>
<td>Lecture-Discussion</td>
<td>B1</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Koelkebeck, K</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43994</td>
<td>Lecture-Discussion</td>
<td>B2</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Koelkebeck, K</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36765</td>
<td>Lecture-Discussion</td>
<td>C</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Koelkebeck, K</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43995</td>
<td>Lecture-Discussion</td>
<td>C1</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Koelkebeck, K</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43996</td>
<td>Lecture-Discussion</td>
<td>C2</td>
<td>ARRANGED -</td>
<td>-</td>
<td>Koelkebeck, K</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36766</td>
<td>Lecture-Discussion</td>
<td>D</td>
<td>12:00 PM - 12:50 PM</td>
<td>W</td>
<td>208 - Meat Science Laboratory</td>
<td>Boler, D</td>
</tr>
<tr>
<td></td>
<td>Meat Science &amp; Muscle Biology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43997</td>
<td>Lecture-Discussion</td>
<td>D1</td>
<td>12:00 PM - 12:50 PM</td>
<td>W</td>
<td>208 - Meat Science Laboratory</td>
<td>Boler, D</td>
</tr>
<tr>
<td></td>
<td>Meat Science &amp; Muscle Biology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43998</td>
<td>Lecture-Discussion</td>
<td>D2</td>
<td>12:00 PM - 12:50 PM</td>
<td>W</td>
<td>208 - Meat Science Laboratory</td>
<td>Boler, D</td>
</tr>
<tr>
<td></td>
<td>Meat Science &amp; Muscle Biology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRN</td>
<td>Title</td>
<td>Days</td>
<td>Time</td>
<td>Room</td>
<td>Instructor</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------</td>
<td>-------</td>
<td>-----------------</td>
<td>---------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>36767</td>
<td>Nutrition 0 hours</td>
<td>E</td>
<td>12:00 PM - 12:50 PM</td>
<td>W</td>
<td>292 - Animal Sciences Laboratory Drackley, J</td>
<td></td>
</tr>
<tr>
<td>43999</td>
<td>Lecture - Discussion E1</td>
<td>E1</td>
<td>12:00 PM - 12:50 PM</td>
<td>W</td>
<td>292 - Animal Sciences Laboratory Drackley, J</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Credit Hours: 1 hours Nutrition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44000</td>
<td>Lecture - Discussion E2</td>
<td>E2</td>
<td>12:00 PM - 12:50 PM</td>
<td>W</td>
<td>292 - Animal Sciences Laboratory Drackley, J</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Credit Hours: 2 hours Nutrition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36769</td>
<td>Lecture - Discussion F</td>
<td>F</td>
<td>04:00 PM - 04:50 PM</td>
<td>W</td>
<td>3526 - Vet Med Basic Sciences Bldg Reddi, P Spinella, M</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reproductive Physiol Seminar 0 hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44001</td>
<td>Lecture - Discussion F1</td>
<td>F1</td>
<td>04:00 PM - 04:50 PM</td>
<td>W</td>
<td>3526 - Vet Med Basic Sciences Bldg Reddi, P Spinella, M</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Credit Hours: 1 hours Reproductive Physiol Seminar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44002</td>
<td>Lecture - Discussion F2</td>
<td>F2</td>
<td>04:00 PM - 04:50 PM</td>
<td>W</td>
<td>3526 - Vet Med Basic Sciences Bldg Reddi, P Spinella, M</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Credit Hours: 2 hours Reproductive Physiol Seminar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36774</td>
<td>Lecture - Discussion H</td>
<td>H</td>
<td>04:00 PM - 04:50 PM</td>
<td>T</td>
<td>404 - Animal Sciences Laboratory Mackie, R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Microbiology 0 hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44005</td>
<td>Lecture - Discussion H1</td>
<td>H1</td>
<td>04:00 PM - 04:50 PM</td>
<td>T</td>
<td>404 - Animal Sciences Laboratory Mackie, R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Credit Hours: 1 hours Microbiology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44006</td>
<td>Lecture - Discussion H2</td>
<td>H2</td>
<td>04:00 PM - 04:50 PM</td>
<td>T</td>
<td>404 - Animal Sciences Laboratory Mackie, R</td>
<td></td>
</tr>
<tr>
<td>CRN</td>
<td>Type</td>
<td>Section</td>
<td>Time</td>
<td>Days</td>
<td>Location</td>
<td>Instructor</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>---------</td>
<td>----------</td>
<td>------</td>
<td>----------</td>
<td>------------</td>
</tr>
<tr>
<td>36776</td>
<td>Lecture-Discussion</td>
<td>I</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td>Steelman, A</td>
</tr>
</tbody>
</table>

Immunobiology
0 hours

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>44007</td>
<td>Lecture-Discussion</td>
<td>I1</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td>Steelman, A</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours
Immunobiology

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>36777</td>
<td>Lecture-Discussion</td>
<td>N</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td>Wheeler, M</td>
</tr>
</tbody>
</table>

Developmental Biology
0 hours

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>44011</td>
<td>Lecture-Discussion</td>
<td>N1</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td>Wheeler, M</td>
</tr>
</tbody>
</table>

Credit Hours: 1 hours
Developmental Biology

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>44012</td>
<td>Lecture-Discussion</td>
<td>N2</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td>Wheeler, M</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Developmental Biology

Credit Hours: 2 hours

**ANSC 592  Adv Topics in Animal Science**  credit: 1 TO 4 hours.
Selected topics associated with teaching, research, and production related to the animal industry. Prerequisite: Consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>48629</td>
<td>Online</td>
<td>JJ1</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td>Johnson, J</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Environmental Stress Physiology

**ANSC 593  Res Studies in Animal Sciences**  credit: 1 TO 4 hours.
Directed and supervised study of selected research topics in Animal Sciences. May be repeated to a maximum of 4 hours. Prerequisite: Consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>10258</td>
<td>Independent Study</td>
<td>ARRANGED -</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Instructor Approval Required
ANSC 599  **Thesis Research**  credit: 0 TO 16 hours.
Approved for S/U grading only. May be repeated.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>10264</td>
<td>Independent Study</td>
<td></td>
<td>ARRANGED -</td>
<td></td>
<td></td>
<td>Instructor</td>
</tr>
</tbody>
</table>

Instructor Approval Required