

### Required Courses

The Department of Animal Science offers six areas of interest within the ANSC B.S. degree program: **Pre-Vet/Pre-Grad, Animal Biotechnology, Food Science, Equine Science, Business and Production**. Only required courses are listed below; please refer to the Undergraduate Catalog for additional ANSC courses offered.

**Note:** See pages 2 and 3 for courses recommended for each Area of Interest. ANSC required courses are listed on page 4.

**Typical scheduling for ANSC required courses.** Required courses fill quickly; students unable to enroll in a given semester should register for the course as soon as possible.

### ANSC Group A – Example of Eight Semester Schedule

#### First Semester

ANSC 1001 Introduction to Animal Sciences  
 BIOL 1107 Principles of Biology I  
 Then add courses in: ENGL, UNIV (FYE & LC),  
 GERs (*General Education Requirements*)

#### Second Semester

ANSC 1111 Principles of Animal Nutrition and Feeding  
 BIOL 1108 Principles of Biology II  
 Then add courses in: CHEM, ENGL,  
 GERs (*General Education Requirements*)

#### Third Semester

PVS 2100 Anatomy and Physiology of Animals  
 ANSC 3121 Principles of Animal Genetics  
 Then add courses in: CHEM, ANSC Group B/C,  
 GERs (*General Education Requirements*)

#### Fourth Semester

ANSC3122 Reproductive Physiology  
 ANSC 3194 Seminar  
 Then add courses in: CHEM, ANSC Group B/C,  
 GERs (*General Education Requirements*)

#### Fifth Semester

Then add courses in: CHEM, ANSC Group B/C,  
 GERs (*General Education Requirements*)

#### Sixth Semester

ANSC Group B/C, GERs (*General Education Requirements*)

#### Seventh and Eighth Semesters

Complete ANSC Group B/C and ANSC W Requirements

#### ● Pre-Vet/Pre-Grad, Biotechnology or Food Science interest:

(Complete as scheduled above or as soon as possible)

Required: ENGL 1010 or 1011 or 2011 (only one course required)  
 CHEM 1127Q, 1128Q, 2443, 2444, 2445 (2445 Organic Lab is required for Pre-Vet)

Recommended for Freshmen in their first semester:  
 UNIV 1810 (ANSC Learning Community) or UNIV 1800 or UNIV 1820

#### ● Equine, Business or Production interest:

(Complete as scheduled above or as soon as possible)

Required: ENGL 1010 or 1011 or 2011 (only one course required)  
 CHEM 1122, 2241

Recommended for Freshmen in their first semester:  
 UNIV 1810 (FYE; ANSC Learning Community) or UNIV 1800 or UNIV 1820

### ANSC Group B, C and W courses:

Group B **Fall:** ANSC 2251, 3261, 3273

Group C **Fall:** ANSC 3313, 3323, 3343, 4311

W Courses **Fall:** ANSC 3314W, 3324W, 3344W, 4312W

**Spring:** ANSC 2251, ANSC 2271, 3272

**Spring:** ANSC 3311, 3316, 3641, 4341

**Spring:** ANSC 3312W 3317W, 3642W, 4342W, 4662W

*Note that 1 cr. W courses are taken concurrently with associated Group C lecture course.*

**Department of Animal Science (ANSC)**  
**Recommended Sequence of Courses**  
**Pre-Vet/Pre-Grad, Biotechnology or Food Science Interest**

The following courses are recommended for specific interests. Note that completion of additional courses beyond these recommendations will be necessary to meet additional University requirements, such as a minimum of 120 credits to complete a B.S. degree. Courses are listed in approximate chronological order in order to incorporate pre-requisite requirements; when pre-reqs are not involved more latitude in semester scheduling can be incorporated into academic progress.

If you are interested in **Pre-Vet/Pre-Grad**, recommended courses are\*:

Course	Credits	Recommended Semester
COMM 1100 Principles of Public Speaking	3	1 or 2
MATH 1131Q Calculus I	4	1 or 2
MATH 1132Q Calculus II	4	2 or 3
PHYS 1201Q General Physics	4	1 or 2
PHYS 1202Q General Physics	4	2 or 3
MCB 2610 Fundamentals of Microbiology	4	5 or 6
ANSC 3313 Growth Biology and Metabolism of Domestic Animals	3	5 or 7
ANSC 3323 Animal Embryology and Biotechnology	3	5 or 7
ANSC 3311 Comparative Exercise Physiology	3	6 or 8
MCB 2000 Biochemistry	4	7
ANSC 3316 Endocrinology of Farm Animals	3	6 or 8

\*Check with advisor for requirements of particular veterinary schools

If you are interested in a **Biotechnology** focus, recommended courses are:

ANSC 1602 Behavior and Training of Domestic Animals	3	2
COMM 1100 Principles of Public Speaking	3	1 or 2
STAT 1100Q Elementary Concepts of Statistics	4	1 or 2
MCB 2410 Genetics	3	3 or 4
MCB 2610 Fundamentals of Microbiology	4	5 or 6
MCB 2000 Introduction to Biochemistry	4	5 or 6
ANSC 3323 Animal Embryology and Biotechnology	3	5 or 7
MCB 3412 Genetic Engineering and Functional Genomics	3	5 or 7
ANSC 5619 Signaling Pathways	3	5 or 7
ANSC 2699 Independent Study (Research Project)	Var	7 or 8

If you are interested in a **Food Science** focus, recommended courses are:

STAT 1100Q Elementary Concepts of Statistics	4	1 or 2
NUSC 1167 Food, Culture and Society	3	1 or 3
ANSC 1645 The Science of Food	3	2 or 4
ANSC 3343 Animal Food Products	3	5 or 7
MCB 2610 Fundamentals of Microbiology	4	5 or 6
MCB 2000 Introduction to Biochemistry	4	5 or 6
NUSC 3233 Food Composition and Preparation	3	5 or 7
ANSC 3318 Probiotics and Prebiotics	3	6 or 8
ANSC 3641 Animal Food Products: Dairy Technology	3	6 or 8
ANSC 4241 Food Microbiology and Safety	3	6 or 8
ANSC 4642 Food Microbiology Laboratory ( <i>meets in even years</i> )	1	6 or 8
ANSC 5618 Probiotics and Prebiotics	3	6 or 8
ANSC 5641 Food Chemistry	3	8

**Department of Animal Science**  
**Recommended Sequence of Courses**  
**Equine, Business or Production Interest**

The following courses are recommended for specific interests. Note that completion of additional courses beyond these recommendations will be necessary to meet additional University requirements, such as a minimum of 120 credits to complete a B.S. degree. Courses are listed in approximate chronological order in order to incorporate pre-requisite requirements; when pre-reqs are not involved, more latitude in semester scheduling can be incorporated into academic progress.

If you are interested in an **Equine** focus, recommended courses are:

Course		Credits	Recommended Semester
MATH 1030Q	Elementary Discrete Mathematics	3	1 or 2
PYSC 1100	General Psychology I	3	1 or 2
ANSC 1602	Behavior and Training of Domestic Animals	3	2
ANSC 2251	Horse Science	3	3 or 4
PSYC 3201	Animal Behavior	3	3 or 4
ANSC 3453	Pleasure Horse Appreciation and Use	1	3 or 5
PVS 2301	Health and Disease Management of Animals	3	4
ANSC 3452	Horse Breeding Farm Management	3	4 or 6
ARE 3215	Business Management	3	5 or 6
ANSC 3455	Developing the Driving Horse	2	5 or 7
ANSC 3273	Livestock Management	4	5 or 7
ANSC 3311	Comparative Exercise Physiology	3	6 or 8
ANSC 3456	Light Horse Training and Management	2	6 or 8
ANSC 3454	Horse Selection and Evaluation	2	6 or 8
ANSC 4457	Methods of Equitation Instruction	2	8

If you are interested in a **Business** focus, recommended courses are:

ECON 1202	Principles of Macroeconomics	3	1 or 2
MATH 1070Q	Mathematics for Business and Economics	3	1 or 2
COMM 1100	Principles of Public Speaking	3	1 or 2
STAT 1100Q	Elementary Concepts of Statistics	4	1 or 2
ARE 1150	Principles of Agriculture and Resource Economics	3	2 or 3
ECON 1201	Principles of Microeconomics	3	2 or 3
MATH 1071Q	Calculus for Business and Economics	3	2 or 3
ACCT 2001	Principles of Financial Accounting	3	3 or 4
ARE 3215	Business Management	3	5 or 6
ARE 3225	Price Analysis and Futures Trading	3	5 or 7
MKTG 3101	Introduction to Marketing Management	3	5 or 6
BLAW 3175	Legal and Ethical Environment of Business	3	5
MGMT 3101	Managerial and Interpersonal Behavior	3	5 or 6
BLAW 3671	Contract and Property Law	3	6
ARE 3221	Business Strategies and Policy in Food Industries	3	5 or 7
ARE 4217	Business Finance In Food and Resource Industries	3	5 or 7
ARE 4275	Managerial Economics	3	5 or 7
ARE 3260	Food Policy	3	6 or 8

If you are interested in a **Production** focus, recommended courses are:

ECON 1201	Principles of Microeconomics	3	1 or 2
ECON 1202	Principles of Macroeconomics	3	2 or 3
ANSC 1602	Behavior and Training of Domestic Animals	3	2 or 4
ARE 1150	Principles of Agriculture and Resource Economics	3	2 or 3
PVS 2301	Health and Disease Management of Animals	3	2 or 4
ANSC 2271	Principles of Poultry Management	3	2 or 4
ANSC 3273	Livestock Management	4	5 or 7
ANSC 3261	Dairy Cattle Management	3	5 or 7
ARE 4311	Advanced Nutrition	3	5 or 7
ANSC 3343	Animal Food Products	3	5 or 7
ARE 3215	Business Management	3	5 or 6
ANSC 3313	Growth Biology and Metabolism of Domestic Animals	3	5 or 7
ANSC 3674	Livestock and Carcass Evaluation	2	6 or 8

