Focus Areas, Updated 10/2/15

**Beef Focus**

Applied Science Courses:
- ANSC 209 – Meat Animal Carcass Eval
- ANSC 219 – Meat Technology
- ANSC 309 – Meat Production and Marketing
- ANSC 322 – Livestock Feeds and Feeding
- ANSC 401 – Beef Production
- ANSC 437 – Adv Reproductive Management
- ANSC 471 – Leaders and Entrepreneurs

Basic Science Courses:
- ANSC 363 – Behavior of Domestic Animals
- ANSC 409 – Meat Science
- ANSC 420 – Ruminant Nutrition
- ANSC 431 – Adv Repro Biology
- ANSC 444 – Applied Animal Genetics
- ANSC 452 – Animal Growth and Development
- ANSC 467 – Applied Animal Ecology

Other Courses to Consider:
- ANSC 211 – Breeding Animal Evaluation (judging team)
- ANSC 310 – Meat Selection and Grading (judging team)
- ANSC 312 – Advanced Livestock Evaluation (judging team)

**Behavior Focus**

Applied Science Courses:
- ANSC 307 – Companion Animal Management
- ANSC 407 – Animal Shelter Management
- ANSC 499 – Various Companion Animal Topics

Basic Science Courses:
- ANSC 366 – Animal Behavior
- ANSC 363 – Behavior of Domestic Animals
- ANSC 406 – Zoo Animal Conservation Science
- ANSC 467 – Applied Animal Ecology

Other courses to consider:
- ANTH/IB 437 – Primate Behav Endocrinology (offered very infrequently)
- IB 432 – Genes and Behavior
- IB 467 – Principles of Systematics
- IB 431 – Behavioral Ecology
Business and Management Focus
Minors to consider:
Business for Non-Business Majors
Food and Agribusiness Management
Leadership Studies

Companion Animals Focus
Applied Science Courses:
ANSC 250 – Companion Animals in Society
ANSC 305 – Human-Animal Interactions
ANSC 307 – Companion Animal Management
ANSC 370 – Companion Animal Policy
ANSC 407 – Animal Shelter Management
ANSC 499 – Various Companion Animal Topics

Basic Science Courses:
ANSC 363 – Behavior of Domestic Animals
ANSC 406 – Zoo Animal Conservation Science
ANSC 422 – Companion Animal Nutrition

Conservation Biology Focus
Basic Science Courses:
ANSC 366 – Animal Behavior
ANSC 406 – Zoo Animal Conservation Science
ANSC 446 – Population Genetics

Other courses to consider:
CPSC 452 – Evol Genetics and Genomics
IB 203 – Ecology
IB 439 – Conservation Biology
IB 451 – Biogeography
NRES 101 – Wildlife Conservation in the 21st Century
NRES 102 – Introduction to NRES
NRES 407 – Wildlife Population Ecology

Dairy Focus
Applied Science Courses:
ANSC 201 – Principles of Dairy Production
ANSC 204 – Dairy Cattle Evaluation
ANSC 400 – Dairy Herd Management
ANSC 471 – Leaders and Entrepreneurs

Basic Science Courses:
ANSC 322 – Livestock Feeds and Feeding
ANSC 420 – Ruminant Nutrition
ANSC 438 – Lactation Biology

Other Courses to Consider:
ANSC 314 – Adv Dairy Cattle Evaluation (judging team)
ANSC 398 – Dairy Challenge (section M in spring)
**Equine Science Focus**

Applied Science Courses:
ANSC 206 – Horse Management

Basic Science Courses:
ANSC 306 – Equine Science
ANSC 406 – Zoo Animal Conservation Science

Other courses to consider:
ANSC 256 – Horse’s Role in Human History
ANSC 313 – Horse Appraisal (Judging Team)

**Genetics Focus**

Basic Science Courses:
ANSC 350 – Cellular Metabolism in Animals
ANSC 406 – Zoo Animal Conservation Science
ANSC 440 – Applied Statistical Methods I
ANSC 444 – Applied Animal Genetics
ANSC 445 – Statistical Methods
ANSC 446 – Population Genetics
ANSC 499, section B – Advanced Genetics & Genomics (will be approved as ANSC 447 in the future)
ANSC 448 – Math Modeling in Life Sciences
ANSC 542 – Applied Bioinformatics
ANSC 545 – Statistical Genomics

Other courses to consider:
CPSC 261 – Biotechnology in Agriculture
CPSC 265 – Genetics Engineering Lab
CPSC 452 – Evol Genetics and Genomics
CPSC 563 – Chromosomes
CPSC 564 – Molecular Marker Data Analyses
MCB 450 – Introductory Biochemistry
IB 432 – Genes and Behavior

**Meat Science Focus**

Applied Science Courses:
ANSC 209: Meat Animal Carcass Evaluation
ANSC 219: Meat Technology
ANSC 309: Meat Production and Marketing
ANSC 310: Meats Selection and Grading

Basic Animal Science Courses:
ANSC 409: Meat Science
ANSC 452: Growth and Development
ANSC 509: Muscle Biology

Other courses to consider:
Additional Animal Production Courses:
ANSC 401 – Beef Production  
ANSC 402 – Sheep Production  
ANSC 403 – Pork Production  
ANSC 404 – Poultry Science  
ANSC 420 – Ruminant Nutrition  
ANSC 422 – Companion Animal Nutrition  
FSHN 101 – Introduction to Food Science and Nutrition  
FSHN 471 – Food and Industrial Microbiology

**Nutrition Focus**

Basic Science Courses:
- ANSC 322 – Feeds and Feeding  
- ANSC 350 – Cellular Metabolism in Animals  
- ANSC 420 – Ruminant Nutrition  
- ANSC 422 – Companion Animal Nutrition  
- ANSC 524 – Nonruminant Nutrition Concepts  

Concepts of nutrition will be found in the management courses below. We recommend choosing a course(s) that focuses on your species of choice:
- ANSC 306 – Equine Science  
- ANSC 307 – Companion Animal Management  
- ANSC 400 – Dairy Herd Management  
- ANSC 401 – Beef Production  
- ANSC 402 – Sheep Production  
- ANSC 403 – Pork Production  
- ANSC 404 – Poultry Science  

Other courses to consider:
- FSHN 420 – Nutritional aspects of disease  
- FSHN 426 – Biochemical Nutrition I  
- MCB 450 – Introductory Biochemistry

**Poultry Focus**

- ANSC 404 – Poultry Management  
- ANSC 205 – World Anim Resources  
- ANSC 322 – Livestock Feeds and Feeding  
- ANSC 524 – Nonruminant Nutrition Concepts  

Poultry Consortium Courses (http://www.mwpoultry.org/COEcourses.html)

**Prevet Focus**

- CHEM 232/233 – Elementary Organic Chemistry I and Lab  
- CHEM 332 – Elementary Organic Chemistry II  
- MCB 450 – Introductory Biochemistry  
- PHYS 101 – College Physics: Mech & Heat  
- PHYS 102 – College Physics: E&M & Modern  
- IB 104, IB 150 & 151, or MCB 150 & 151  
- **MCB 100/101 (already required)**
Reproduction Focus

Applied Science Courses:
ANSC 437 – Advanced Reproductive Management

Basic Science Courses:
ANSC 331 – Biology of Reproduction
ANSC 350 – Cellular Metabolism in Animals
ANSC 431 – Advanced Reproductive Biology
ANSC 452 – Animal Growth and Development
ANSC 533 – Repro Physiology Lab Methods

Other courses to consider:
CHEM 232/233 – Elementary Organic Chemistry I and Lab
CHEM 332 – Elementary Organic Chemistry II
MCB 180 – Human Reproduction and Society
MCB 401/403 – Cell & Membrane Physiology and Lab
MCB 402/404 – Sys & Integrative Physiology and Lab
MCB 408 – Immunology
MCB 410 – Developmental Biology
MCB 413 – Endocrinology
MCB 450 – Introductory Biochemistry

Swine Focus

Applied Science Courses:
ANSC 209 Meat Animal Carcass Eval
ANSC 219 – Meat Technology
ANSC 309 Meat Production and Marketing
ANSC 322 Livestock Feeds and Feeding
ANSC 403 Pork Production
ANSC 437 Adv Reproductive Management
ANSC 471 – Leaders and Entrepreneurs

Basic Science Courses:
ANSC 363 Behavior of Domestic Animals
ANSC 409 Meat Science
ANSC 420 Ruminant Nutrition
ANSC 431 Adv Repro Biology
ANSC 444 Applied Animal Genetics
ANSC 452 Animal Growth and Development
ANSC 467 Applied Animal Ecology

Other Courses to Consider:
ANSC 211 – Breeding Animal Evaluation (judging team)
ANSC 310 – Meat Selection and Grading (judging team)
ANSC 312 – Advanced Livestock Evaluation (judging team)