# Focus Areas, Updated 5/1/16

## Beef Focus

**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

**Applied Science Courses:**
- ANSC 219 – Meat Technology
- ANSC 301 – Food Animal Prod, Mgmt, & Eval
- 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

**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

**Basic Science Courses:**
- ANSC 366 – Animal Behavior
- ANSC 406 – Zoo Animal Conservation Science
- ANSC 467 – Applied Animal Ecology

**Other Courses to Consider:**
- ANTH/IB 437 – Primate Behav Endocrinology (offered 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

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

**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

## 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
### Dairy Focus

**Basic Science Courses:**
- ANSC 420 – Ruminant Nutrition
- ANSC 438 – Lactation Biology

**Applied Science Courses:**
- ANSC 201 – Principles of Dairy Production
- ANSC 204 – Dairy Cattle Evaluation
- ANSC 322 – Livestock Feeds and Feeding
- ANSC 400 – Dairy Herd Management
- ANSC 471 – Leaders and Entrepreneurs

**Other courses to consider:**
- ANSC 314 – Adv Dairy Cattle Evaluation (judging team)
- ANSC 398 – Dairy Challenge (section M in spring)

### Equine Science Focus

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

**Applied Science Courses:**
- ANSC 206 – Horse Management

**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
- ANSC 448 – Math Modeling in Life Sciences
- ANSC 542 – Applied Bioinformatics
- ANSC 545 – Statistical Genomics

**Applied Science Courses:**
- ANSC 219 – Meat Technology
- ANSC 301 – Food Animal Prod, Mgmt, & Eval
- ANSC 309 – Meat Production and Marketing
- ANSC 310 – Meats Selection and Grading

**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

**Basic Science Courses:**
- ANSC 409 – Meat Science
- ANSC 452 – Growth and Development
- ANSC 509 – Muscle Biology

**Applied Science Courses:**
- ANSC 219 – Meat Technology
- ANSC 301 – Food Animal Prod, Mgmt, & Eval
- ANSC 309 – Meat Production and Marketing
- ANSC 310 – Meats Selection and Grading

**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 350 – Cellular Metabolism in Animals
  - ANSC 420 – Ruminant Nutrition
  - ANSC 422 – Companion Animal Nutrition
  - ANSC 524 – Nonruminant Nutrition Concepts

- **Applied Science Courses:**
  - ANSC 322 – Feeds and Feeding

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

  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

## Poultry Focus
- **Basic Science Courses:**
  - ANSC 524 – Nonruminant Nutrition Concepts

- **Applied Science Courses:**
  - ANSC 205 – World Animal Resources
  - ANSC 322 – Livestock Feeds and Feeding
  - ANSC 404 – Poultry Management

## 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 – General Biology with Lab**
- **MCB 100/101 (already required) – Microbiology with Lab**

## Reproduction Focus
- **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

- **Applied Science Courses:**
  - ANSC 437 – Advanced Repro Management

- **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

- **Other courses to consider:**
  - Poultry Consortium Courses
    - [http://www.mwpoultry.org/COEcourses.html](http://www.mwpoultry.org/COEcourses.html)
**Swine Focus**

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