

FOOD SCIENCE AREA OF INTEREST

2024-2025 FOUR-YEAR PLAN

This document is an **example** schedule for planning purposes only and is meant to be a guide for students and advisors. 120 credits total needed to complete degree. For official degree information, refer to Degree Audit and speak with your advisor.

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|----------------------|---|-------|------------------------|--|-------|
| YEAR 1 • FALL | ANSC 1001 Introduction to Animal Science | 3 | YEAR 1 • SPRING | ANSC 1111 Principles of Animal Nutrition and Feeding | 3 |
| | BIOL 1107 Principles of Biology I | 4 | | BIOL 1108 Principles of Biology II | 4 |
| | ENGL 1007 or 1010 Information Literacy | 4 | | CHEM 1127 General Chemistry I | 4 |
| | UNIV 1810 Animal Science Learning Community | 1 | | GEN ED/MATH/STAT | 3-4 |
| | GEN ED/MATH/STAT | 3 | | ANSC 1645 The Science of Food | 3 |
| | TOTAL CREDITS | 15 | | TOTAL CREDITS | 17-18 |
| YEAR 2 • FALL | PATH 2100 Anatomy and Physiology of Animals | 4 | YEAR 2 • SPRING | ANSC 3122 Reproductive Physiology | 4 |
| | ANSC 3121 Principles of Animal Genetics | 3 | | CHEM 2441 Organic Chemistry | 3 |
| | CHEM 1128 General Chemistry II | 4 | | ANSC ELECTIVE (Group B) | 3 |
| | ANSC ELECTIVE (Group B) | 3-4 | | NUSC 1167 Food, Culture and Society | 3 |
| | NUSC 1165 Fundamentals of Nutrition | 3 | | ANSC 3194 Seminar | 1 |
| | TOTAL CREDITS | 17-18 | | TOTAL CREDITS | 14 |
| YEAR 3 • FALL | ANSC 3343/ANSC 3344W* Animal Food Products | 4 | YEAR 3 • SPRING | ANSC 3641 Animal Food Products: Dairy Technology | 3 |
| | 2000-LEVEL RELATED or ELECTIVE | 3 | | ANSC 4341 Food Microbiology and Safety | 3 |
| | NUSC 3233/3234 Food Composition and Preparation | 4 | | ANSC 3642W* or ANSC 4342W* Scientific Writing in Animal Food Products: Dairy Technology or Food Microbiology and Safety | 1 |
| | GEN ED | 3 | | GEN ED | 3 |
| | GEN ED | 3 | | GEN ED | 3 |
| | TOTAL CREDITS | 17 | | TOTAL CREDITS | 13 |
| YEAR 4 • FALL | ANSC 3318 Probiotics and Prebiotics | 3 | YEAR 4 • SPRING | ANSC 5641 Food Chemistry | 3 |
| | ANSC 4343 Muscle Biology & Muscle Food Chemistry | 3 | | ANSC ELECTIVE (Group B/C) | 3-4 |
| | 2000-LEVEL RELATED or ELECTIVE | 3 | | NUSC 3350 Nutrient and Food Analysis | 3 |
| | MCB 2000 Intro to Biochemistry | 4 | | 2000-LEVEL RELATED or ELECTIVE | 3 |
| | GEN ED | 3 | | 2000-LEVEL RELATED or ELECTIVE | 3 |
| | TOTAL CREDITS | 16 | | TOTAL CREDITS | 15-16 |

*W course must be taken with the corresponding C course

Animal Science degree requirements are organized into five groups, Group A-1, A-2, A-3, B, and C.

- All courses in Group A-1 must be completed.
- Options exist for Group A-2 (General and Organic Chemistry depending on the student's interest area).
- One course from each of Group A-3, Group B, and Group C must be completed.
- Additionally, one course from either Group B or Group C must be completed.
- A single class cannot be used to satisfy more than one degree requirement.

Course Titles, Credits, and Semester Offered

| | Course | Title | Credits | Offered | Prerequisites |
|-----------|------------|---|---------|--------------|--|
| GROUP A-1 | ANSC 1001 | Introduction to Animal Science | 3 | Fall | |
| | ANSC 1111 | Principles of Animal Nutrition and Feeding | 3 | Spring | |
| | ANSC 3121 | Principles of Animal Genetics | 3 | Fall | BIOL 1108 |
| | ANSC 3122 | Reproductive Physiology | 4 | Spring | |
| | ANSC 3194 | Seminar | 1 | Spring | |
| | BIOL 1107 | Principles of Biology I | 4 | Fall, Spring | |
| | BIOL 1108 | Principles of Biology II | 4 | Fall, Spring | |
| | PATH 2100 | Anatomy and Physiology of Animals | 4 | Fall | BIOL 1107 or Eq. |
| GROUP A-2 | CHEM 1122 | Chemical Principles and Applications | 4 | Fall, Spring | |
| | CHEM 1124Q | Fundamentals of General Chemistry I | 4 | Fall, Spring | MATH 1011Q or Eq. |
| | CHEM 1125Q | Fundamentals of General Chemistry II | 3 | Fall, Spring | CHEM 1124Q |
| | CHEM 1127Q | General Chemistry I | 4 | Fall, Spring | |
| | CHEM 2241 | Organic Chemistry | 3 | Fall, Spring | CHEM 1122, 1124Q, 1127Q, 1137Q, or 1147Q |
| | CHEM 2443 | Organic Chemistry | 3 | Fall, Spring | CHEM 1128Q, 1138Q, 1148Q, or 1126Q |
| GROUP A-3 | MCB 2000 | Introduction to Biochemistry | 4 | Fall, Spring | CHEM 2241 or 2444 |
| | MCB 2610 | Fundamentals of Microbiology | 4 | Fall, Spring | CHEM 2241 or 2443 |
| | ANSC 4341 | Food Microbiology and Safety | 3 | Spring | BIOL 1107 |
| GROUP B | ANSC 2251 | Horse Science | 3 | Fall, Spring | |
| | ANSC 2271 | Principles of Poultry Science | 3 | Spring | |
| | ANSC 3261 | Dairy Cattle Management | 3 | Fall | |
| | ANSC 3272 | Laboratory Animal Science | 3 | Fall, Spring | BIOL 1107 or Eq. |
| | ANSC 3273 | Livestock Management | 4 | Fall | |
| GROUP C | ANSC 3311 | Comparative Exercise Physiology | 3 | Spring | PATH 2100 or PNB 2265 or 2275 |
| | ANSC 3313 | Growth Biology & Metabolism in Domestic Livestock | 3 | Fall | PATH 2100 |
| | ANSC 3316 | Endocrinology of Farm Animals | 3 | Spring | PATH 2100 or Eq. |
| | ANSC 3323 | Animal Embryology and Biotechnology | 3 | Fall | ANSC 3122 or MCB 4219 |
| | ANSC 3343 | Animal Food Products | 3 | Fall | |
| | ANSC 3641 | Animal Food Products: Dairy Technology | 3 | Spring | |
| | ANSC 4311 | Advanced Animal Nutrition | 3 | Fall | ANSC 1111 |

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

| Course | Title | Credits | Group | Offered | Prerequisites |
|------------|--|---------|-------|--------------|-------------------------------------|
| ANSC 1645 | The Science of Food | 3 | | Spring | |
| ANSC 3318 | Probiotics and Prebiotics | 3 | | Spring | MCB 2610 or Eq. |
| ANSC 3343 | Animal Food Products | 3 | C | Fall | |
| ANSC 3641 | Animal Food Products: Dairy Technology | 3 | C | Spring | |
| ANSC 4341 | Food Microbiology and Safety | 3 | | Spring | BIOL 1107 |
| ANSC 4343 | Muscle Biology and Muscle Food Chemistry | 3 | | Fall | ANSC 3343 or CHEM 2241 or CHEM 2443 |
| ANSC 5641 | Food Chemistry | 3 | | Spring | |
| ARE 2260 | Food Policy | 3 | | Fall, Spring | ARE 1150 or ECON 1200 or 1201 |
| MCB 2000 | Introduction to Biochemistry | 4 | A-3 | Fall, Spring | CHEM 2241 or 2444 |
| NUSC 1165 | Fundamentals of Nutrition | 3 | | Fall, Spring | |
| NUSC 1167 | Food, Culture and Society | 3 | | Fall, Spring | |
| NUSC 3233 | Food Composition and Preparation | 3 | | Fall | NUSC 1165 |
| NUSC 3234 | Food Composition and Preparation Lab | 1 | | Fall | NUSC 1165 |
| NUSC 3350 | Nutrient and Food Analysis | 3 | | Spring | CHEM 2241 and NUSC 1165 |
| SPSS 2100E | Environmental Sustainability of Food Production in Developed Countries | 3 | | Fall | |
| STAT 1100Q | Elementary Concepts of Statistics | 4 | | Fall, Spring | |