Agricultural Production

The Professional Science Master’s (PSM) program in agricultural production prepares students for careers in agribusiness or environmental management. While developing an in-depth understanding of agricultural sciences, students learn the skills necessary to transform rapidly changing scientific knowledge into meaningful, sustainable products and services. This is critical, as food production and resource management become increasingly important. Food production capacity must double if we are to feed the burgeoning world population expected by 2050.

Agricultural innovation requires understanding and managing relationships—the connections among laboratory, field, farmer, consumer, regulator, investor, and more. The depth of the science curriculum plus the breadth of the business curriculum enables students to not only understand these connections, but to create strategies, innovate, and make decisions that will enhance food production.

Business curriculum includes courses in technology management, marketing, entrepreneurship, finance, process management, and more. The cross-disciplinary industry seminars offer opportunities to personally interact with industry and government leaders.

The program can be completed in 16-months of full-time study on the Urbana-Champaign campus. Summer enrollment is required while completing the internship. A thesis is not required.

**Career Opportunities**

- Breeding manager
- Production farm manager
- Sales/Marketing representative
  (e.g. pharmaceutical or seed company)
- Natural resource manager
- International development analyst or advocate
- Sustainability coordinator
- Laboratory manager
- Consultant in water, energy conservation
- Wildlife biologist
- Sustainable farming consultant

**Specializations**

- Crop Production
- Food Animal Production
- Sustainable Production Systems

**Faculty Coordinator**

Dr. Robert Knox
Department of Animal Sciences
rknox@illinois.edu
(217) 244-5177

Coordinated by the University of Illinois College of Agricultural, Consumer and Environmental Sciences (ACES) in cooperation with the Graduate College.
### ADMISSION REQUIREMENTS

- Bachelor's degree from a regionally accredited U.S. Institution or a comparable degree from a recognized institution abroad,
- Grade point average of 3.0 or higher (4.0 scale) for the last 60 hours of undergraduate work and for any graduate work,
- Graduate Record Examination (GRE),
- Test of English as a Foreign Language (TOEFL) for non-native speakers of English, and
- Three (3) letters of recommendation.

### SAMPLE PROGRAM OF STUDY (ANIMAL PRODUCTION SPECIALIZATION)

#### Year 1: Fall

**Science Curriculum**
- ANSC 401 Beef Production
- ANSC 524 Nonruminant Nutrition Concepts
- ANSC 452 Animal Growth and Development

**Business Curriculum**
- Two 2-hour courses in
  - Business Fundamentals, and
  - Management and Marketing
- PSM 501 Industry Seminar I

#### Year 1: Spring

**Science Curriculum**
- ANSC 403 Pork Production
- ANSC 404 Poultry Science
- ANSC 444 Applied Animal Genetics
- ANSC 520 Protein and Energy Nutrition

**Business Curriculum**
- Two 2-hour courses in
  - Project Management, and
  - Finance
- PSM 502 Industry Seminar II

#### Summer Internship

PSM 555 PSM Internship

#### Year 2: Fall

**Science Curriculum**
- ACE 432 Farm Management
- ANSC 420 Ruminant Nutrition
- ANSC 523 Techniques in Animal Nutrition
- ANSC 592 Environmental Stress Physiology

**Business Curriculum**
- One 2-hour course in Science and Regulatory Policy
- PSM 503 Industry Seminar III

#### December Graduation

---

This is a sample curriculum; your courses will depend upon your individual interests and career plans. For additional course offerings, visit: [http://psm.illinois.edu/agricultural-production](http://psm.illinois.edu/agricultural-production)

Students have interned at:
- Carthage Innovative Swine Solutions,
- Lallemand Animal Nutrition,
- PAWS Chicago,
- Tribute Farms,
- Tyson Foods,
- and others.

Graduates have been hired by:
- Boehringer Ingelheim Vetmedica, Inc.
- Deli Star Corporation,
- Farmers National Company,
- Prairie State Semen Supply,
- Tyson,
- and others.
SAMPLE PROGRAM OF STUDY (CROP PRODUCTION SPECIALIZATION)

Year 1: Fall

Science Curriculum
- CPSC 407 Diseases of Field Crops
- CPSC 426 Weed Mgt. in Agronomic Crops
- CPSC 466 Genomics for Plant Improvement
- CPSC 598 Crop Sciences Seminar

Business Curriculum
- Two 2-hour courses in Business Fundamentals, and Management and Marketing
- PSM 501 Industry Seminar I

Year 1: Spring

Science Curriculum
- CPSC 518 Crop Growth and Development
- CPSC 484 Plant Physiology
- CPSC 488 Soil Fertility and Fertilizers
- CPSC 526 Herbicide Action in Plants

Business Curriculum
- Two 2-hour courses in Project Management, and Finance
- PSM 502 Industry Seminar II

Summer Internship
- PSM 555 PSM Internship

Year 2: Fall

Science Curriculum
- CPSC 479 Insect Pest Management
- CPSC 414 Forage Crops and Pasture Eco
- CPSC 440 Applied Statistical Methods I

Business Curriculum
- One 2-hour course in Science and Regulatory Policy
- PSM 503 Industry Seminar III

December Graduation

This is a sample curriculum; your courses will depend upon your individual interests and career plans. For additional course offerings, visit: http://psm.illinois.edu/agricultural-production

Students have interned at:
- Bayer CropScience,
- Beck’s Superior Hybrids,
- Dow AgroSciences,
- Monsanto,
- Pioneer Hybrids,
- and others.

Graduates have been hired by:
- ACGT, Inc.
- Dow AgroSciences,
- Farmers National Company,
- Monsanto,
- University of Illinois,
- and others.
### Sample Program of Study (Sustainable Production Specialization)

#### Year 1: Fall

**Science Curriculum**
- NRES 403 Watersheds and Water Quality
- NRES 477 Introduction to Remote Sensing
- NRES 510 Adv. Natural Resource Economics

**Business Curriculum**
- Two 2-hour courses in Business Fundamentals, and Management and Marketing
- PSM 501 Industry Seminar I

#### Year 1: Spring

**Science Curriculum**
- NRES 446 Sustainable Planning Seminar
- NRES 474 Soil and Water Conservation
- NRES 500 Graduate Seminar
- NRES 592 Sustainable Urban Systems

**Business Curriculum**
- Two 2-hour courses in Project Management, and Finance
- PSM 502 Industry Seminar II

**Summer Internship**
- PSM 555 PSM Internship

#### Year 2: Fall

**Science Curriculum**
- NRES 430 Comm. in Env. Social Movements
- NRES 454 GIS in Natural Resource Mgmt.
- NRES 488 Soil Fertility and Fertilizers

**Business Curriculum**
- One 2-hour course in Science and Regulatory Policy
- PSM 503 Industry Seminar III

#### December Graduation

---

This is a sample curriculum; your courses will depend upon your individual interests and career plans. For additional course offerings, visit: [http://psm.illinois.edu/](http://psm.illinois.edu/agricultural-production)

“The growing demands on our food production and environmental systems will provide tremendous opportunities for students with advanced education in the business of agricultural and natural resource biosciences.”

— Dr. Rob Knox

Students have interned at:
- Wild Bear Mountain Ecology Center

Graduates have been hired by:
- Soil & Water Conservation District, Onondaga County, NY