College of Agriculture

College of Agriculture

Overview

Purdue Agriculture is one of the world's leading colleges that offers food, agricultural, and natural resources programs. We train the next generation, who will drive innovation and discovery to reshape life sciences, biosecurity, the environment, agriculture, and the food system. Purdue Agriculture graduates are in great demand. During the past two decades, more than 90 percent of our graduates were employed or were enrolled in graduate or professional schools within three months of graduation.

Undergraduate Degree

Your undergraduate program will blend courses and experiences in your major with preparation in the life and physical sciences, written and oral communication, social sciences and humanities, multicultural awareness, and international understanding. Professional work experiences, leadership development, participation in student organizations, study abroad, and directed research can add to your professional development.

Graduate Degree

Your master's or doctoral program will be specialized and flexible to prepare you to meet your professional objectives. You'll find that we offer a growing number of multidisciplinary graduate degree programs, using directed experiences and courses from faculty members in one or more Purdue departments or colleges. Business and industry, government, and academic institutions throughout the world recruit our graduates for leading positions.

College of Agriculture Undergraduate Admissions (website)

Admission to Teacher Education

Advising

Department	Contact	Phone Number	
Agricultural and Biological Engineering	Nate Engelberth	765-494-3060	ner
Agricultural Economics	LeeAnn Williams	765-494-4201	lee
Agricultural Sciences Education and Communication	Agricultural Education - B. Allen Talbert	765-494-8433	bta
Agricultural Sciences Education and Communication	Agricultural Communication - Mark Tucker	765-494-8433	ma

Department	Contact	Phone Number	
Agronomy	Jane Wiercioch	765-494-4788	jwi
Animal Sciences	Ashley York	765-494-4843	ash
Biochemistry	Sherry Pogranichniy	765-494-1612	spo
Botany and Plant Pathology	Darcy Allen	765-494-0352	dar
Entomology	Amanda L. Wilson	765-494-4594	ape
Food Science	Allison Kingery	765-494-2766	foo
Forestry and Natural Resources	J. Barny Dunning	765-494-3565	jdu
Horticulture and Landscape Architecture	Robin Tribbett	765-494-1302	hla
Natural Resources and Environmental Sciences	Tami Borror	765-496-9024	bor
Preveterinary Medicine	Tim Kerr	765-494-8481	pre

Contact Information

College of Agriculture
615 West State Street
West Lafayette, IN 47907-2053
Email: exp@purdue.edu
Phone: 765-494-8470

College of Agriculture Administration

About Agricultural Administration

Purdue University's College of Agriculture is one of the world's leading colleges of agricultural, food, life, and natural resource sciences. As a land-grant institution, we are committed to preparing our students to make a difference, wherever their careers take them; stretching the frontiers of science to find solutions to some of our most pressing global challenges; and, through Purdue Extension and engagement programs, helping the people of Indiana, the nation and the world improve their lives and livelihoods.

Faculty (website)

College of Agriculture Academic Programs (website)

Contact Information

College of Agriculture
615 West State Street
West Lafayette, IN 47907-2053
Email: exp@purdue.edu
Phone: 765-494-8470

Interdisciplinary Agriculture, BS Students are not admitted directly into this major. See your advisor for more information.

Baccalaureate

Interdisciplinary Agriculture, BS

Degree Requirements

120 Credit Hours

Departmental/Program Major Courses (1 credit)

Required Courses (1 credit)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 1XXXX - Introduction to Departmental Academic Programs - Credit Hours: .50

Other Departmental/Program Course Requirements (92-93 credits)

- MA 15800 - Precalculus- Functions And Trigonometry or
- MA 16010 - Applied Calculus I
- AGEC 21700 - Economics
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- STAT 30100 - Elementary Statistical Methods
- Agriculture Selective - Credit Hours: 15.00
- Agriculture Selective (30000+ level) - Credit Hours: 21.00
- Mathematics or Science Selective - Credit Hours: 9.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanites or Social Science Selective - Credit Hours: 3.00
- Humanites or Social Science Selective - Credit Hours: 3.00
- Humanites or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology and Society - Credit Hours: 3.00 (satisfies Science, Technology, & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)

- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Interdisciplinary Agriculture Supplemental Information

Electives (26-27 credits)

- Electives - Credit Hours: 26.00-27.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University

- AGR 1XXXX - Introduction to Departmental Academic Programs - Credit Hours: .50
- BIOL 11000 - Fundamentals Of Biology I
- CHM 11100 - General Chemistry
- Agricultural Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II
- CHM 11200 - General Chemistry
- MA 15800 - Precalculus- Functions And Trigonometry or
- MA 16010 - Applied Calculus I
- Agricultural Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 21700 - Economics
- Agricultural Selective - Credit Hours: 3.00
- Human Cultures: Humanities - Credit Hours: 3.00
- Mathematics and Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- STAT 30100 - Elementary Statistical Methods
- Agricultural Selective - Credit Hours: 6.00
- Science, Technology & Society Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 3rd year

- Agricultural Selective (30000+ Level) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Mathematics and Science Selective - Credit Hours: 6.00
- Written or Oral Communication Selective (20000+ Level) - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- Agricultural Selective (30000+ Level) - Credit Hours: 6.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 6.00

15 Credits

Fall 4th Year

- Agricultural Selective (30000+ Level) - Credit Hours: 6.00
- Elective - Credit Hours: 9.00

15 Credits

Spring 4th Year

- Agricultural Selective (30000+ Level) - Credit Hours: 6.00
- Humanities or Social Science Selective (30000+ Level) - Credit Hours: 3.00
- Elective - Credit Hours: 6.00

15 Credits

Notes

- Baccalaureate degree plans of study must include a capstone course or experience. Capstone course credits also may be used to fulfill core curriculum requirements or departmental requirements or electives.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Natural Resources and Environmental Science: Climate and Energy Solutions Concentration, BS

About the Program

Natural Resources and Environmental Science (NRES) is an interdisciplinary program that combines broad environmental knowledge and technical competency, with understanding of the economic, policy and human factors of environmental management to develop graduates who are well-equipped to deal with the environmental challenges of the 21st century. Students can choose from one of six concentration areas: energy and climate solutions, environmental policy and analysis, watershed management, environmental quality and restoration, sustainability science or emerging environmental challenges. NRES graduates work in an exciting variety of environmentally related careers in the public and private sector, including state and federal agencies, consulting firms and non-profits.

Students in the Climate and Energy Solutions Concentration choose 21 credit hours of course work to support evaluation of climate impacts, adaptation and mitigation, and alternative energy solutions.

Natural Resources and Environmental Science Website

Natural Resources and Environmental Science Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (13 credits)

- NRES 12500 - Environmental Science And Conservation
- NRES 20000 - Introduction To Environmental Careers
- NRES 21000 - Natural Resource Information Management
- NRES 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦

- NRES 42000 - Environmental Internship Reporting
- NRES 49700 - Current Topics in Environmental Sciences

Required Concentration Courses (21 Credits)

- AGRY 33500 - Weather And Climate ♦ or
- NRES 23000 - Survey Of Meteorology ♦
- EAPS 32000 - Physics Of Climate ♦
- POL 32700 - Global Green Politics ♦
- Climate and Energy Selective - 12.00 Credits

Other Departmental/Program Course Requirements (73-75 credits)

- AGEC 40600 - Natural Resource And Environmental Economics ♦
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦
- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦
- PHYS 15200 - Mechanics or
- PHYS 17200 - Modern Mechanics
- POL 22300 - Introduction To Environmental Policy
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
  Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
  Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦
  Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
  Science Communication Selective - Credit Hours: 3.00

- ASEC 58500 - Science Communication or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication
- Additional Mathematics or Statistics Selective - Credit Hours: 3.00
- Data Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Natural Resources and Environmental Science Supplemental Information

Electives (11-13 credits)

- Electives - Credit Hours: 11.00-13.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- NRES 12500 - Environmental Science And Conservation
- Elective - Credit Hours: 2.00-3.00

- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦

16 Credits

Spring 1st Year

- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
- CHM 11200 - General Chemistry ♦
- Additional Mathematics or Statistics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15-16 Credits

Fall 2nd Year

- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- NRES 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦
- PHYS 15200 - Mechanics or
- PHYS 17200 - Modern Mechanics
- POL 22300 - Introduction To Environmental Policy
- STAT 30100 - Elementary Statistical Methods

17 Credits

Spring 2nd Year

- AGRY 33500 - Weather And Climate ♦ or
- NRES 23000 - Survey Of Meteorology ♦
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- NRES 20000 - Introduction To Environmental Careers
- Elective - Credit Hours: 3.00

14 Credits

Fall 3rd Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦
- NRES 42000 - Environmental Internship Reporting
- POL 32700 - Global Green Politics ♦
- Data Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16-17 Credits

Spring 3rd Year

- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦
- EAPS 32000 - Physics Of Climate ♦
- FNR 21000 - Natural Resource Information Management
- Climate and Energy Concentration Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ASEC 58500 - Science Communication or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication
- AGEC 40600 - Natural Resource And Environmental Economics ♦
- NRES 49700 - Current Topics in Environmental Sciences

- Climate and Energy Concentration Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

14 Credits

Spring 4th Year

- Climate and Energy Concentration Selective - Credit Hours: 6.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 3.00-4.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student. (See Advising Resources)

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Natural Resources and Environmental Science: Emerging Environmental Challenges Concentration, BS

About the Program

Natural Resources and Environmental Science (NRES) is an interdisciplinary program that combines broad environmental knowledge and technical competency, with understanding of the economic, policy and human factors of environmental management to develop graduates who are well-equipped to deal with the environmental challenges of the 21st century. Students can choose from one of six concentration areas: energy and climate solutions, environmental policy and analysis, watershed management, environmental quality and restoration, sustainability science or emerging environmental challenges. NRES graduates work in an exciting variety of environmentally related careers in the public and private sector, including state and federal agencies, consulting firms and non-profits.

Students selecting Emerging Environmental Challenges work with the faculty directors to build a meaningful plan of study in an environmental focus area of their choosing.

Natural Resources and Environmental Science Website

Natural Resources and Environmental Science Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (13 credits)

- NRES 12500 - Environmental Science And Conservation (satisfies Science, Technology & Society Selective for core)
- NRES 20000 - Introduction To Environmental Careers
- NRES 21000 - Natural Resource Information Management
- NRES 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦
- NRES 42000 - Environmental Internship Reporting
- NRES 49700 - Current Topics in Environmental Sciences

Required Concentration Courses (21 credits)

- Emerging Environmental Challenges Selective - Credit Hours: 21.00

Other Departmental /Program Course Requirements (70-74 credits)

- AGEC 40600 - Natural Resource And Environmental Economics ♦
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦
- POL 22300 - Introduction To Environmental Policy
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦
  Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
  Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦
  Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
  Science Communication Selective - Credit Hours: 3.00
- ASEC 58500 - Science Communication or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication
- Additional Mathematics or Statistics Selective - Credit Hours: 3.00
- Broadening Science Selective - Credit Hours: 1.00-3.00
- Data Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Human Cultures: Behavioral/Social Sciences Selective - Credit Hours: 3.00
- Social Sciences Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here of Natural Resources and Environmental Science Supplemental Information

Electives (12-16 credits)

- Electives - Credit Hours: 12.00-16.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I ♦

- NRES 12500 - Environmental Science And Conservation
- Elective - Credit Hours: 3.00-4.00
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦

16-17 Credits

Spring 1st Year

- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
- CHM 11200 - General Chemistry ♦
- Social Sciences Selective - Credit Hours: 3.00
- Additional Mathematics or Statistics Selective - Credit Hours: 3.00
- Elective - Credit Hours: 4.00

15-17 Credits

Fall 2nd Year

- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- NRES 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦
- STAT 30100 - Elementary Statistical Methods
- POL 22300 - Introduction To Environmental Policy
- Broadening Science Selective - Credit Hours: 1.00-3.00

14-16 Credits

Spring 2nd Year

- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- NRES 20000 - Introduction To Environmental Careers
- Emerging Environmental Challenges Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

14-15 Credits

Fall 3rd Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦
- NRES 42000 - Environmental Internship Reporting
- Data Science Selective - Credit Hours: 3.00
- Emerging Environmental Challenges Concentration Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16-17 Credits

Spring 3rd Year

- NRES 21000 - Natural Resource Information Management
- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦
- Emerging Environmental Challenges Concentration Selectives - Credit Hours: 6.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC 40600 - Natural Resource And Environmental Economics ♦
- NRES 49700 - Current Topics in Environmental Sciences
- Emerging Environmental Challenges Concentration Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

Science Communication Selective - Credit Hours: 3.00

- ASEC 58500 - Science Communication or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication

14 Credits

Spring 4th Year

- Emerging Environmental Challenges Selective - Credit Hours: 6.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 3.00-4.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
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PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

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Natural Resources and Environmental Science: Environmental Policy and Analysis Concentration, BS

About the Program

Natural Resources and Environmental Science (NRES) is an interdisciplinary program that combines broad environmental knowledge and technical competency, with understanding of the economic, policy and human factors of environmental management to develop graduates who are well-equipped to deal with the environmental challenges of the 21st century. Students can choose from one of six concentration areas: energy and climate solutions, environmental policy and analysis, watershed management, environmental quality and restoration, sustainability science or emerging environmental challenges. NRES graduates work in an exciting variety of environmentally related careers in the public and private sector, including state and federal agencies, consulting firms and non-profits.

Students in the Environmental Policy and Analysis Concentration choose 21 credit hours of course work in policy, management and economics in order to address environmental challenges.

Natural Resources and Environmental Science Website

Natural Resources and Environmental Science Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (13 credits)

- NRES 12500 - Environmental Science And Conservation (satisfies Science, Technology & Society Selective for core)
- NRES 20000 - Introduction To Environmental Careers
- NRES 21000 - Natural Resource Information Management
- NRES 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦
- NRES 42000 - Environmental Internship Reporting
- NRES 49700 - Current Topics in Environmental Sciences

Required Concentration Courses (21 Credits)

- AGEC 52500 - Environmental Policy Analysis
- ASEC 58500 - Science Communication
- POL 32700 - Global Green Politics ♦
- Environmental Policy and Analysis Concentration Selective - Credit Hours: 12.00

Other Departmental/Program Course Requirements (70-74 credits)

- AGEC 40600 - Natural Resource And Environmental Economics ♦
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦

- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
  Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
  Oral Communication - Credit Hours: 3.00 (satisfies Oral Communication for core)
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦
  Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
  Science Communication Selective - Credit Hours: 3.00
- AGEC 52500 - Environmental Policy Analysis or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication
- Additional Mathematics or Science Selective - Credit Hours: 3.00
- Broadening Science Selective - Credit Hours: 1.00-3.00
- Data Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Natural Resources and Environmental Science Supplemental Information

Electives (12-16 credits)

- Electives - Credit Hours: 12.00-16.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00

- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- NRES 12500 - Environmental Science And Conservation
- Elective - Credit Hours: 3.00-4.00
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦

16-17 Credits

Spring 1st Year

- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦

- CHM 11200 - General Chemistry ♦
- Additional Mathematics or Statistic Selective - Credit Hours: 3.00
- Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

15-17 Credits

Fall 2nd Year

- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- NRES 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- STAT 30100 - Elementary Statistical Methods
- Brodening Science Selective - Credit Hours: 1.00-3.00

14-16 Credits

Spring 2nd Year

- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- NRES 20000 - Introduction To Environmental Careers
- Environmental Policy and Analysis Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

14-15 Credits

Fall 3rd Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦
- NRES 42000 - Environmental Internship Reporting
- POL 32700 - Global Green Politics ♦
- Data Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16-17 Credits

Spring 3rd Year

- ASEC 58500 - Science Communication
- NRES 21000 - Natural Resource Information Management
- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦
- Environmental Policy and Analysis Concentration Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC 40600 - Natural Resource And Environmental Economics ♦
- NRES 49700 - Current Topics in Environmental Sciences
- Humanities or Social Sciences Selective - Credit Hours: 3.00

Science Communication Selective - Credit Hours: 3.00

- ASEC 58500 - Science Communication or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication

14 Credits

Spring 4th Year

- Environmental Policy and Analysis Concentration Selective - Credit Hours: 6.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- **Consultation with an advisor may result in an altered plan customized for an individual student.**

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese

GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Natural Resources and Environmental Science: Environmental Quality And Restoration Concentration, BS

About the Program

Natural Resources and Environmental Science (NRES) is an interdisciplinary program that combines broad environmental knowledge and technical competency, with understanding of the economic, policy and human factors of environmental management to develop graduates who are well-equipped to deal with the environmental challenges of the 21st century. Students can choose from one of six concentration areas: energy and climate solutions, environmental policy and analysis, watershed management, environmental quality and restoration, sustainability science or emerging environmental challenges. NRES graduates work in an exciting variety of environmentally related careers in the public and private sector, including state and federal agencies, consulting firms and non-profits.

Students in the Environmental Quality and Restoration Concentration choose 21 credit hours of course work in soil physics, plant biology, and hazardous waste handling to allow for evaluation, remediation, restoration and preservation of air, water and soil resources.

Natural Resources and Environmental Science Website

Natural Resources and Environmental Science Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (13 credits)

- NRES 12500 - Environmental Science And Conservation (satisfies Science, Technology & Society Selective for core)
- NRES 20000 - Introduction To Environmental Careers
- NRES 21000 - Natural Resource Information Management
- NRES 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦
- NRES 42000 - Environmental Internship Reporting
- NRES 49700 - Current Topics in Environmental Sciences

Required Concentration Courses (21 credits)

- AGRY 56000 - Soil Physics ♦
- BTNY 30500 - Plant Evolution And Taxonomy ♦
- NRES 28000 - Hazardous Waste Handling ♦
- Environmental Quality and Restoration Selective - Credit Hours: 12.00

Other Departmental /Program Course Requirements (70-74 credits)

- AGEC 40600 - Natural Resource And Environmental Economics ♦
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- CHM 11100 - General Chemistry ♦
- CHM 11200 - General Chemistry ♦
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦
- POL 22300 - Introduction To Environmental Policy or
- FNR 22310 - Introduction To Environmental Policy
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦
  Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
  Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)

- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦
  Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
  Science Communication Selective - Credit Hours: 3.00
- ASEC 58500 - Science Communication or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication
- Additional Mathematics or Statistics Selective - Credit Hours: 3.00
- Broadening Science Selective - Credit Hours: 1.00-3.00
- Data Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Natural Resources and Environmental Science Supplemental Information

Electives (12-16 credits)

- Electives - Credit Hours: 12.00-16.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website.

- Human Cultures: Behavioral/Social Science (BSS)

- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- NRES 12500 - Environmental Science And Conservation
- MA 16010 - Applied Calculus I
- CHM 11100 - General Chemistry ♦
- Elective - Credit Hours: 3.00-4.00
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦

16-17 Credits

Spring 1st Year

- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦

- CHM 11200 - General Chemistry
- Additional Mathematics or Statistic Selective - Credit Hours: 3.00
- Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

15-17 Credits

Fall 2nd Year

- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- NRES 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦
- POL 22300 - Introduction To Environmental Policy or
- FNR 22310 - Introduction To Environmental Policy
- STAT 30100 - Elementary Statistical Methods
- Broadening Selective - Credit Hours: 1.00-3.00

14-16 Credits

Spring 2nd Year

- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- NRES 20000 - Introduction To Environmental Careers
- Environmental Quality and Restoration Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

14-15 Credits

Fall 3rd Year

- AGRY 56000 - Soil Physics ♦
- NRES 42000 - Environmental Internship Reporting
- Data Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics

16-17 Credits

Spring 3rd Year

- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦

- FNR 21000 - Natural Resource Information Management
- NRES 28000 - Hazardous Waste Handling
- Environmental Quality and Restoration Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC 40600 - Natural Resource And Environmental Economics ♦
- BTNY 30500 - Plant Evolution And Taxonomy
- NRES 49700 - Current Topics in Environmental Sciences
- Humanities or Social Science Selective - Credit Hours: 3.00
- ASEC 58500 - Science Communication or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication

14 Credits

Spring 4th Year

- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Environmental Quality and Restoration Concentration Selectives - Credit Hours: 6.00
- Electives - Credit Hours: 3.00-4.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- **Consultation with an advisor may result in an altered plan customized for an individual student.**

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Natural Resources and Environmental Science: Watershed Management Concentration, BS

About the Program

Natural Resources and Environmental Science (NRES) is an interdisciplinary program that combines broad environmental knowledge and technical competency, with understanding of the economic, policy and human factors of environmental management to develop graduates who are well-equipped to deal with the environmental challenges of the 21st century. Students can choose from one of six concentration areas: energy and climate solutions, environmental policy and analysis, watershed management, environmental quality and restoration, sustainability science or emerging environmental challenges. NRES graduates work in an exciting variety of environmentally related careers in the public and private sector, including state and federal agencies, consulting firms and non-profits.

Students in the Watershed Management Concentration choose 21 credit hours of course work in community involvement, hydrology, and soil conservation in order to engage and educate stakeholders to implement land use and water management practices to protect and improve water quality and natural resources.

Natural Resources and Environmental Science Website

Natural Resources and Environmental Science Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (13 credits)

- NRES 12500 - Environmental Science And Conservation (satisfies Science, Technology & Society Selective for core)
- NRES 20000 - Introduction To Environmental Careers
- NRES 21000 - Natural Resource Information Management

- NRES 25500 - Soil Science ♦ or

- AGRY 27000 - Forest Soils ♦
- NRES 42000 - Environmental Internship Reporting
- NRES 49700 - Current Topics in Environmental Sciences

Required Concentration Courses (21 credits)

- AGRY 33700 - Environmental Hydrology ♦
- AGRY 45000 - Soil Conservation and Water Management ♦
- FNR 57200 - Community Involvement In Natural Resource Management ♦
- FNR 27000 - Landscape-Level Planning ♦
- Watershed Management Selective - Credit Hours: 12.00

Other Departmental/Program Course Requirements (70-74 credits)

- AGEC 40600 - Natural Resource And Environmental Economics ♦
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦
- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
  Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
  Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦
  Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
  Science Communication Selective - Credit Hours: 3.00

- ASEC 58500 - Science Communication or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication
- Additional Mathematics or Statistics Selective - Credit Hours: 3.00
- Broadening Science Selective - Credit Hours:1.00-3.00
- Data Science Selective - Credit Hours: 3.00
- Social Sciences Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Natural Resources and Environmental Science Supplemental Information

Electives (12-16 credits)

- Electives - Credit Hours: 12.00-16.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
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- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- NRES 12500 - Environmental Science And Conservation
- Elective - Credit Hours: 3.00-4.00

- COM 11400 - Fundamentals Of Speech Communication ♦ or
- COM 21700 - Science Writing And Presentation ♦ or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills ♦

16-17 Credits

Spring 1st Year

- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦ or
- HONR 19903 - Interdisciplinary Approaches In Writing ♦
- CHM 11200 - General Chemistry ♦
- Additional Mathematics or Statistic Selective - Credit Hours: 3.00
- Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

15-17 Credits

Fall 2nd Year

- BIOL 11000 - Fundamentals Of Biology I ♦ or
- BTNY 12000 - Principles Of Plant Biology I ♦
- AGRY 27000 - Forest Soils ♦ or
- NRES 25500 - Soil Science ♦
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- STAT 30100 - Elementary Statistical Methods
- Broadening Selective - Credit Hours: 1.00-3.00

14-16 Credits

Spring 2nd Year

- AGRY 33800 - Environmental Hydrology Laboratory
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 12100 - Principles Of Plant Biology II ♦
- NRES 20000 - Introduction To Environmental Careers
- Watershed Management Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

14-15 Credits

Fall 3rd Year

- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- ECON 25100 - Microeconomics
- CHM 25500 - Organic Chemistry ♦ or
- CHM 25700 - Organic Chemistry ♦
- AGRY 45000 - Soil Conservation and Water Management ♦
- NRES 42000 - Environmental Internship Reporting
- Data Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16-17 Credits

Spring 3rd Year

- AGRY 33700 - Environmental Hydrology
- NRES 21000 - Natural Resource Information Management
- FNR 37500 - Human Dimensions of Natural Resource Management ♦ or
- SOC 34400 - Environmental Sociology ♦
- Watershed Management Concentration Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC 40600 - Natural Resource And Environmental Economics ♦

- FNR 57200 - Community Involvement In Natural Resource Management
- NRES 49700 - Current Topics in Environmental Sciences
- Humanities or Social Science Selective - Credit Hours: 3.00

Science Communication Selective - Credit Hours: 3.00

- ASEC 58500 - Science Communication or
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing or
- ENTM 20100 - Scientific And Technical Communication

13 Credits

Spring 4th Year

- FNR 27000 - Landscape-Level Planning ♦
- Watershed Management Concentration Selective - Credit Hours: 6.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

13-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- **Consultation with an advisor may result in an altered plan customized for an individual student.**

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student

must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Certificate

Deans Scholar Certificate

Selection Criteria

- All students who enter Purdue University College of Agriculture as recipients of the Board of Trustees Scholarship are encouraged to apply to the Dean's Scholars Program as are others fulfilling the following criteria:

  - 3.8/4.0 High School GPA and 1800 SAT/ACT 27 and above **OR** Valedictorian of high school

- First semester students will be asked to accept a Dean's Scholar status by May 15 and must accept the invitation prior to fall semester.

- Second semester freshmen, sophomores, and transfer students with 60 credits remaining at Purdue may apply if they have a GPA equal to or greater than 3.5. A written essay stating why the student is interested in being a Dean's Scholar is part of the formal application process. Review of applications will be administered by the Office of Academic Programs and the Departmental Honors Coordinator from the department in which the student is enrolled. Prosective Students Information

Requirements for the Certificate

- AGR 29000 - Special Topics In Agriculture - Credit Hours: 1.00 in Honors Course Seminar including participation in the Dean's Scholars Learning Community
- Honors Coursework - (12 credit hours) Honors Courses
- Undergraduate research (thesis) or Scholarly Project - engagement in a sustained project or creative project leading to new knowledge

Notes

- For more information, please visit the Dean's Scholars Website
- Undergraduate Research: UG Research Website AND UG Honors Research Website
- Scholarly (Creative) Projects
- Scholarly/creative project definitions (not proposal/completion process information unless also completing project for Honors College)
- GPA requirement to earn Dean's Scholars distinction at graduation is 3.25 or above.

Prerequisite Information

For current pre-requisites for courses, click here.

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Leadership Development Program Certificate

Everyone has leadership potential. Let LDCP help you tap yours!

In LDCP you will gain leadership experience tailored to you and your situation, enjoy one-on-one coaching, and develop the "soft skills" employers today are looking for. And when you complete LDCP and earn your certificate, it will appear on your academic transcript.

You are eligible for LDCP if you:

- Are enrolled as an undergraduate in the Purdue College of Agriculture
- Have at least three semesters remaining on campus before graduation
- Remain in good academic standing

Leadership Development Certificate Program

Program's Philosophy

The following philosophy about leadership was adopted by the College of Agriculture faculty on August 25, 2005. These beliefs serve as the foundation for the Leadership Development Certificate Program.

We believe that all students can and should exercise leadership. Leadership does not require formal authority or position and can be practiced by anyone interested in making a difference in his/her family, workplace, and community.

Leadership is a process of people working together toward common goals that bring about positive change. The effectiveness of leadership is based on trusting relationships. Through this exchange, people influence one another's thoughts and actions. By incorporating the diverse skills and viewpoints of others, individuals are empowered and group energy is mobilized to pursue collective goals. Decisions are made and actions are taken.

The development of leadership begins with personal initiative and an understanding of one's passions, motivations, strengths, limitations, and personal values. This also includes an understanding of the ethical nature of leadership as it relates to one's character and a commitment to act with trustworthiness, respect, responsibility, fairness, caring, and citizenship.

This process of self-discovery is ongoing and requires a commitment to lifelong learning through getting involved, reflecting on the experience, and stretching oneself to meet new challenges. The purpose of leadership development is not only for the benefit of oneself, but also to enable one to be a more effective leader in addressing important issues that affect oneself and others.

Leadership Competencies

The Leadership Development Certificate Program includes four general areas of leadership development and 13 specific skill areas. The faculty expects you to develop at least one skill in each of the four areas during this program.

- Personal leadership development
    - Understands leadership
    - Increases self-awareness
    - Practices ethical behavior
    - Sustains leadership over time
- Interpersonal leadership development
    - Values diversity
    - Enhances communication skills
    - Manages conflict
- Group and organizational leadership development
    - Develops teams
    - Leads change
    - Manages projects
- Community leadership development
    - Practices citizenship
    - Understands community
    - Serves others

Coaches

After you submit a Statement of Intent and a resume, you will be matched with a faculty or administrative professional staff member to guide and support you on your leadership journey. S/he will help you identify your leadership goals, connect you with campus resources, and encourage you to stretch yourself beyond your comfort zone by seeking out new leadership opportunities. The program, however, is yours, and the quality of your learning experiences is up to you.

Requirements for the Certificate

1. Submit your Statement of Intent along with your résumé. Application/Statement of Intent

2. Contact the coach who has been assigned to you.

3. Complete the Leadership Skills and Attributes Self-Assessment.

4. Complete a Personal Development Plan for how you will enhance your leadership development in each of the following leadership pillars (personal, interpersonal, group/organization, and community leadership development).

5. Complete required badges for all four leadership development pillars (5 points required for each pillar) for a minimum of 20 points total via Passport to complete the program. Each leadership activity is eligible for one, two or three points and is achieved when the coach approves the required written reflections submitted by the students via Passport. Badges for each of the four leadership pillars are achieved when written reflections are approved by coaches via Passport.

    a. Earn five points for Personal Leadership

    b. Earn five points for Interpersonal Leadership

c. Earn five points for Group/Organizational Leadership

d. Earn five points for Community Leadership

6. Develop an electronic portfolio via Passport that documents your progress on your goals including your personal reflections for each leadership activity and badge completion for the program.

Prerequisite Information

For current pre-requisites for courses, click here.

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Minor

Data Driven Agriculture Minor

The data revolution in agriculture is enabled by advances in sensing, communication, and computation technologies and spurred by demand for improved sustainability and transparency in areas such as natural resources use and food safety. Cheaper and more portable sensors generate measurements at previously unimagined spatial and temporal resolutions. As these new data products are becoming available, other data such as publicly available soil, topography, and weather information is also flowing more readily via improved connections. Agricultural professionals will be increasingly using these data in both research and in production, processing, and marketing. With increased intensity, volume, and applications, industry is expecting programming and data skills. The Purdue Data Driven Agriculture minor builds these proficiencies and efficiently packages content related to the data pipeline and data science analytics with a culmination in data-driven decision making. The minor includes courses that map to these skill sets:

- A foundation in mathematics and statistics
- Data acquisition and sensors
- Data literacy, ethics, management, and analytics
- Knowledge of how data is used in agricultural disciplines
- Data architecture and usage, including geographic information systems (GIS)
- Data-driven decision making

Requirements for the Minor (21 credits)

Required Courses (12 credits)

- ASM 10500 - Computing Technology With Applications or
- CS 17700 - Programming With Multimedia Objects or
- HORT 53000 - Introduction To Computing For Biologists

- AGR 33300 - Data Science For Agriculture

- ENTM 24200 - Data Science
- STAT 30100 - Elementary Statistical Methods

Data Acquisition - Choose One: (3 credits)

- ABE 31400 - Design Of Electronic Systems
- ABE 46000 - Sensors And Process Control
- ABE 53100 - Instrumentation And Data Acquisition
- AGRY 54500 - Remote Sensing Of Land Resources
- ASM 42000 - Electric Power And Controls
- FNR 35700 - Fundamental Remote Sensing

Data Architecture and Usage - Choose One: (3 Credits)

- ABE 20500 - Computations For Engineering Systems
- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- AGEC 45100 - Applied Econometrics
- ASM 54000 - Geographic Information System Application
- BCHM 42200 - Computational Genomics
- BCHM 52100 - Comparative Genomics
- FNR 35900 - Spatial Ecology And GIS
- FNR 55800 - Remote Sensing Analysis And Applications

Data to Decisions - Choose One: (3 credits)

- ABE 52700 - Computer Models In Environmental And Natural Resources Engineering
- AGEC 30500 - Agricultural Prices
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGEC 50600 - Agricultural Marketing And Price Analysis
- AGEC 51600 - Mathematical Tools For Agricultural And Applied Economics
- AGRY 44400 - Weather Analysis And Forecasting
- AGRY 48500 - Precision Crop Management
- ANSC 31100 - Animal Breeding
- ASM 42200 - Advanced Machine Technology For Agricultural Crop Production
- ASM 53000 - Power And Machinery Management
- BCHM 42100 - R For Molecular Biosciences
- BTNY 53500 - Plant Disease Management
- ENTM 41000 - Applied Insect Biology
- FNR 35500 - Quantitative Methods For Resource Management
- FNR 48800 - Global Environmental Issues
- FNR 55800 - Remote Sensing Analysis And Applications
- FS 44400 - Statistical Process Control
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- HORT 53100 - Applied Plant Genomics

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International Studies in Agriculture Minor

Requirements for the Minor (15 credits)

A. Basic Requirements

- Credit in a foreign lanugage through the fourth course (and one conversation course, if offered).
- In most cases, the language studied must be one spoken in the country or region in which the overseas experience is completed.
- Students whose overseas experience is an English-speaking country may meet the language requirement by studying any foreign language.
- Students whose overseas experience is in a country whose language is not taught at Purdue may substitute any other lanugage spoken in that region of the world.
- Fifteen credits of coursework with an international focus (See Below).
- At least six credits of this coursework should focus on the country/region of the student's overseas experience.
- Additional language courses can be used only if they are nonlinguistic in nature (i.e., literature, culture, etc).
- A minimum of six credits should be completed outside of the College of Agriculture.
- At least eight weeks abroad participating in an approved study abroad, cooperative work experience, internship, or cultural exchange.
- Completion and presentation of a summary paper in a seminar format which assimilates all components of the International Studies Minor.

B. Selective Courses (15 credits)

- AGEC 25000 - Economic Geography Of World Food And Resources
- AGEC 34000 - International Economic Development
- AGEC 45000 - International Agricultural Trade
- AGEC 49800 - Special Problems - *Title: Afghanistan Development Challenges*
- ANTH 10000 - Being Human: Introduction to Anthropology
- ANTH 20500 - Human Cultural Diversity
- ANTH 39200 - Selected Topics In Anthropology
- ASEC 33100 - The Role Of Horses In Human History, Culture And Society
- ASEC 55100 - International Engagement And Development Strategies
- CLCS 23010 - Survey Of Greek Literature In Translation
- CLCS 23100 - Survey Of Latin Literature
- CLCS 23200 - Classical Roots Of English Words
- CLCS 23300 - Comparative Mythology
- CLCS 23500 - Introduction To Classical Mythology
- CLCS 23700 - Gender And Sexuality In Greek And Roman Antiquity
- CLCS 23800 - The Tragic Vision

- CLCS 23900 - The Comic Vision
- CLCS 33900 - Literature And The Law
- ECON 37000 - International Trade
- ECON 46600 - International Economics
- ENGL 26600 - World Literature: From The Beginnings To 1700 A.D.
- ENGL 26700 - World Literature: From 1700 A.D. To The Present
- HIST 23005 - Hitler's Europe
- HIST 24000 - East Asia And Its Historic Tradition
- HIST 24100 - East Asia In The Modern World
- HIST 24300 - South Asian History And Civilizations
- HIST 24500 - Introduction To The Middle East History And Culture
- HIST 24600 - Modern Middle East And North Africa
- HIST 27100 - Introduction To Colonial Latin American History (1492-1810)
- HIST 27200 - Introduction To Modern Latin American History (1810 To The Present)
- HIST 30000 - Eve Of Destruction: Global Crises And World Organization In The 20th Century
- HIST 30200 - Historical Topics
- HIST 32300 - German History
- HIST 32400 - Modern France
- HIST 34000 - Modern China
- HIST 34300 - Traditional Japan
- HIST 34400 - History Of Modern Japan
- HIST 35100 - The Second World War
- HIST 40800 - Dictatorship And Democracy: Europe 1919-1945
- HIST 43900 - Communist China
- HIST 59500 - The Holocaust And Genocide
- PHIL 11000 - The Big Questions: Introduction To Philosophy
- PHIL 23000 - Religions Of The East
- PHIL 23100 - Religions Of The West
- POL 13000 - Introduction To International Relations
- POL 14100 - Governments Of The World
- POL 23100 - Introduction To United States Foreign Policy
- POL 23200 - Contemporary Crises In International Relations
- POL 23500 - International Relations Among Rich And Poor Nations
- POL 23700 - Modern Weapons And International Relations
- POL 32700 - Global Green Politics
- POL 33500 - China And The Challenges Of Globalization
- POL 34500 - West European Democracies In The Post-Industrial Era
- POL 34800 - East Asian Politics
- POL 43300 - International Organization
- POL 43500 - International Law

Notes

- Credits earned via a Purdue approved Study Abroad Program can be used as long as they fulfill the basic requirements listed above. Namely, focus on the country/region, etc.
- Departmental permission is required to enroll in this minor. Please contact Tim Kerr in Room 121 of the Agricultural Administration Building.

- Students must have their Plan of Study approved a minimum of six months prior to graduation.

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Natural Resources and Environmental Science Minor

Requirements for the Minor (15 credits)

Required Course (3 credits)

- NRES 12500 - Environmental Science And Conservation

Emphasis Areas Selectives - Choose one from a minimum of four areas: (12 credits)

General Environmental Science Emphasis

- FNR 21000 - Natural Resource Information Management
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- POL 22300 - Introduction To Environmental Policy

Ecology Emphasis

- AGRY 34900 - Soil Ecology
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- ENTM 31100 - Insect Ecology

Policy and Economic Emphasis

- AGEC 40600 - Natural Resource And Environmental Economics
- FNR 37500 - Human Dimensions of Natural Resource Management
- POL 32700 - Global Green Politics

Land Resources Emphasis

- ABE 32500 - Soil And Water Resource Engineering
- AGRY 33700 - Environmental Hydrology
- ASM 23600 - Environmental Systems Management
- NRES 38500 - Environmental Soil Chemistry

Sustainability Emphasis

- AD 39700 - Sustainability In The Built Environment
- BCM 51000 - Topics In Environmentally Sustainable Construction, Design And Development
- CE 35500 - Engineering Environmental Sustainability

Water Quality Emphasis

- ABE 32500 - Soil And Water Resource Engineering
- AGRY 12000 - Water And Food Security
- AGRY 33700 - Environmental Hydrology

Note

- Department permission is not required to enroll in this minor.

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Sustainable Environments Minor

Requirements for the Minor (15 credits)

Required Courses (3 credits)

- NRES 12500 - Environmental Science And Conservation

Selective Courses (12 credits)

- AD 39700 - Sustainability In The Built Environment
- ASM 23600 - Environmental Systems Management
- BCM 51000 - Topics In Environmentally Sustainable Construction, Design And Development
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- CE 35500 - Engineering Environmental Sustainability
- EAPS 30100 - Oil !
- EAPS 32700 - Climate, Science And Society
- EAPS 37500 - Great Issues - Fossil Fuels, Energy And Society
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 47000 - Fundamentals Of Planning
- HORT 44200 - Sustainability In The Managed Landscape
- NRES 39300 - Interdisciplinary Approaches To Environmental And Sustainability Studies
- POL 32700 - Global Green Politics

Note

- Departmental permission is not required to enroll in this minor.

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Pre-Program

Plant Studies - Exploratory (Pre)

About the Program

This pre-major is intended to serve as an optional entry point/portal for students interested in life sciences and enrolling in the Purdue College of Agriculture with an interest in plants but who are uncertain about the differences between all the majors and career options. As a Plant Studies - Exploratory major, students will make progress toward their Bachelor of Science degree and engage the numerous experiential learning opportunities (e.g. learning communities, clubs, leadership opportunities, Study Abroad, etc.) offered in the College. Students will have up to 4-semesters or 60 total credits to explore the various majors before selecting one that best meets their educational and career interests. It is anticipated that most students will likely select a major by the end of their first two semesters.

Plant Studies-Exploratory Major Change (CODO) Requirements

Degree Requirements

31.5-34.5 credits Required

Departmental/Program Major Courses (2.5 credits)

Required Major Courses (2.5 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12500 - Introduction To Plant Science
- AGR 29000 - Special Topics In Agriculture (Study Plants at Purdue Learning Community) - Credit Hours: 1.00

Other Departmental/Program Course Requirements (26-31 credits)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness ♦
- MA 16010 - Applied Calculus I
- BIOL 11000 - Fundamentals Of Biology I or

- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry or
- CHM 11500 - General Chemistry
- CHM 11200 - General Chemistry ♦ or
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II or
- STAT 30100 - Elementary Statistical Methods
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)

Selective Exploratory Plant Science - Credit Hours: 1.00-3.00

- AGRY 10500 - Crop Production
- AGRY 12300 - Genetics And Society
- AGRY 28500 - World Crop Adaptation And Distribution
- BTNY 20700 - The Microbial World
- BTNY 28500 - Plants And Civilization
- FNR 23000 - The World's Forests And Society
- HORT 10100 - Fundamentals Of Horticulture
- HORT 12100 - Medicine In The Garden
- LA 16100 - Land And Society
- LA 16600 - History And Theory Of Landscape Architecture
- SFS 31200 - Urban Agriculture

Electives (1-3 credits)

- Electives - Credit Hours: 1.00-3.00

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12500 - Introduction To Plant Science
- AGR 29000 - Special Topics In Agriculture (Study Plants at Purdue Learning Community) - Credit Hours: 1.00
- MA 16010 - Applied Calculus I
- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry or
- CHM 11500 - General Chemistry
- Written Communication Selective - Credit Hours: 3.00-4.00

15.5-17.5 Credits

Spring 1st Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- CHM 11200 - General Chemistry ♦ or
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II or
- STAT 30100 - Elementary Statistical Methods
- Selective Exploratory Plant Science - Credit Hours: 1.00-3.00
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours 1.00-3.00

14-19 Credits

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Pre-Environmental Studies

About the Program

The Pre-Environmental Studies program of study is intended to serve as a portal for students entering Purdue with an interest in environmental studies who are undecided as to the specific program of study in which they want to enroll. Students enrolled in Pre-Environmental Studies are advised about which courses to take in their first year to enable them to transfer into the major they choose at the end of that year.

Pre-Environmental Studies

Departmental/Program Major Courses (3 credits)

- NRES 12500 - Environmental Science And Conservation

Other Departmental/Program Course Requirements (23-24 credits)

- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University

- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- MA 16010 - Applied Calculus I
- MA 16020 - Applied Calculus II

- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 11000 - Introduction To Plant Science

- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)

Electives (3-4 credits)

- Electives - Credit Hours: 3.00-4.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12200 - Introduction To Natural Resources And Environmental Science Academic Programs
- CHM 11100 - General Chemistry
- MA 16010 - Applied Calculus I
- NRES 12500 - Environmental Science And Conservation
- Written Communication Selective - Credit Hours: 3.00-4.00

13-14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry
- MA 16020 - Applied Calculus II

- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 11000 - Introduction To Plant Science

- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

16-17 Credits

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Pre-Veterinary Medicine

About the Program

Preveterinary medicine is not really a major, but rather is a collection of prerequisites for admission to Purdue's College of Veterinary Medicine. Students may enter the College of Agriculture in this category, but later must pick a major to pursue. Students pursuing a wide variety of curricula may apply and be admitted to a veterinary college.

The preveterinary medicine curriculum includes courses that are required for admission to the Doctor of Veterinary Medicine degree program offered by the Purdue College of Veterinary Medicine. This program of study, coordinated by the College of Agriculture Office of Academic Programs, emphasizes the biological and physical sciences that are foundations for successful study of veterinary medicine. Also, the curriculum includes courses in communication and the social sciences.

OAP • Pre-Professional

Pre-Veterinary Medicine Major Change (CODO) Requirements

Degree Requirements

92-93 Credits Required

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12400 - Introduction To College Of Agriculture Pre Veterinary Medicine Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11500 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

15-16 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- VM 10200 - Careers In Veterinary Medicine
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills

15 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- Science, Technology, & Society Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- Agricultural Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

17 Credits

Fall 3rd Year

- BCHM 30700 - Biochemistry
- PHYS 22000 - General Physics
- STAT 30100 - Elementary Statistical Methods
- Agricultural Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- BIOL 22100 - Introduction To Microbiology
- PHYS 22100 - General Physics
- Humanities or Social Science Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00

14 Credits

Notes

- Official and complete prerequisite lists are in the course catalog
- The incomplete listing presented here regards this program and provides an idea of course sequencing.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Program Information

College of Agriculture Humanities or Social Science Selectives

Humanities or Social Sciences Selective

- AAS 10000-59999 - African American Studies
- AD 10000-59999 - Art and Design
- BAND 10000-59999 - Bands (Maximum of 3 credits can be used for Humanities)
- CHNS 10000-59999 - Chinese
- CLCS 10000-59999 - Classics
- CMPL 10000-59999 - Comparative Literature
- DANC 10000-59999 - Dance
- ECON 10000-59999 - Economics
- FR 10000-59999 - French
- FVS 10000-59999 - Film and Video Studies
- GER 10000-59999 - German
- GREK 10000-59999 - Greek
- HEBR 10000-59999 - Hebrew
- HIST 10000-59999 - History
- IDIS 10000-59999 - Interdisciplinary Studies

- ITAL 10000-59999 - Italian
- JPNS 10000-59999 - Japanese
- JWST 10000-59999 - Jewish Studies
- LALS 10000-59999 - Latin American and Latino Studies
- LING 10000-59999 - Linguistics
- MARS 10000-59999 - Medieval and Renaissance Studies
- MUS 10000-59999 - Music
- PHIL 10000-59999 - Philosophy
- POL 10000-59999 - Political Science
- PSY 10000-59999 - Psychological Sciences
- PTGS 10000-59999 - Portuguese
- REL 10000-59999 - Religious Studies
- RUSS 10000-59999 - Russian
- SOC 10000-59999 - Sociology
- SPAN 10000-59999 - Spanish
- THTR 10000-59999 - Theatre
- WOST 10000-59999 - Women's Studies
- AGEC 25000 - Economic Geography Of World Food And Resources
- AGEC 30500 - Agricultural Prices
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 34000 - International Economic Development
- AGEC 40600 - Natural Resource And Environmental Economics
- AGEC 41500 - Community And Resource Development
- AGEC 45000 - International Agricultural Trade
- AGEC 49800 - Special Problems - Afghanistan Development Challenges
- AGR 20100 - Communicating Across Culture
- AGRY 12300 - Genetics And Society
- AGRY 39900 - Individual Study - Afghanistan Development Challenges
- ASEC 33100 - The Role Of Horses In Human History, Culture And Society
- ASEC 35500 - Controversial Science And Media In The Public Sphere
- EDPS 23500 - Learning And Motivation
- EDPS 26500 - The Inclusive Classroom
- EDST 20000 - History And Philosophy Of Education
- ENGL 22700 - Elements Of Linguistics
- ENGL 23000 - Great Narrative Works
- ENGL 23100 - Introduction To Literature
- ENGL 23200 - Thematic Studies In Literature
- ENGL 23500 - Introduction To Drama
- ENGL 23700 - Introduction To Poetry
- ENGL 23800 - Introduction To Fiction
- ENGL 24000 - British Literature Before 1789
- ENGL 24100 - British Literature After 1789
- ENGL 25000 - Great American Books
- ENGL 25700 - Literature Of Black America
- ENGL 26400 - The Bible As Literature
- ENGL 26600 - World Literature: From The Beginnings To 1700 A.D.
- ENGL 26700 - World Literature: From 1700 A.D. To The Present
- ENGL 27600 - Shakespeare On Film

- ENGL 27900 - The American Short Story In Print And Film
- ENGL 33100 - Medieval English Literature
- ENGL 33300 - Renaissance English Literature
- ENGL 33500 - Restoration And Eighteenth-Century English Literature
- ENGL 33700 - Nineteenth-Century English Literature
- ENGL 35000 - American Literature Before 1865
- ENGL 35100 - American Literature After 1865
- ENGL 36000 - Gender And Literature
- ENGL 37300 - Science Fiction And Fantasy
- ENGL 37700 - Modern And Contemporary Poetry
- ENGL 37900 - The Short Story
- ENGL 38100 - The British Novel
- ENGL 38200 - The American Novel
- ENGL 38600 - History Of Film To 1950
- ENGL 38700 - History Of Film Since 1950
- ENGL 39600 - Studies In Literature And Language
- ENGL 41100 - Studies In Major Authors
- ENGL 41200 - Studies In Genre
- ENGL 41300 - Studies In Literature And History
- ENGL 41400 - Studies In Literature And Culture
- ENGL 44100 - Chaucer's Canterbury Tales
- ENGL 44200 - Shakespeare
- ENGL 44400 - Milton
- ENGL 46200 - The Bible As Literature: The Old Testament
- ENGL 46300 - The Bible As Literature: The New Testament
- ENGL 49200 - Literature In The Secondary Schools
- FNR 37500 - Human Dimensions of Natural Resource Management
- HDFS 28000 - Diversity In Individual And Family Life
- HONR 19900 - Interdisciplinary Honors - Introductory Seminar
- HONR 29900 - Interdisciplinary Honors - Experiential Learning
- HORT 30600 - History Of Horticulture

Humanities or Social Sciences Selective (30000-59999)

- AD 30000-59999 - Art and Design
- ANTH 30000-59999 - Anthropology
- ARAB 30000-59999 - Arabic
- BAND 30000-59999 - Bands (Maximum of 3 credits can be used for Humanities)
- CHNS 30000-59999 - Chinese
- CLCS 30000-59999 - Classics
- CMPL 30000-59999 - Comparative Literature
- DANC 30000-59999 - Dance
- ECON 30000-59999 - Economics
- FR 30000-59999 - French
- FVS 30000-59999 - Film and Video Studies
- GER 30000-59999 - German
- GREK 30000-59999 - Greek

- HEBR 30000-59999 - Hebrew
- HIST 30000-59999 - History
- IDIS 30000-59999 - Interdisciplinary Studies
- ITAL 30000-59999 - Italian
- JPNS 30000-59999 - Japanese
- JWST 30000-59999 - Jewish Studies
- LING 30000-59999 - Linguistics
- MARS 30000-59999 - Medieval and Renaissance Studies
- MUS 30000-59999 - Music
- PHIL 30000-59999 - Philosophy
- POL 30000-59999 - Political Science
- PSY 30000-59999 - Psychological Sciences
- PTGS 30000-59999 - Portuguese
- RUSS 30000-59999 - Russian
- SOC 30000-59999 - Sociology
- SPAN 30000-59999 - Spanish
- THTR 30000-59999 - Theatre
- AGEC 30500 - Agricultural Prices
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 34000 - International Economic Development
- AGEC 40600 - Natural Resource And Environmental Economics
- AGEC 41500 - Community And Resource Development
- AGEC 45000 - International Agricultural Trade
- AGEC 49800 - Special Problems - Afghanistan Development Challenges
- AGRY 39900 - Individual Study - Afghanistan Development Challenges
- ASEC 33100 - The Role Of Horses In Human History, Culture And Society
- ASEC 35500 - Controversial Science And Media In The Public Sphere
- ENGL 33100 - Medieval English Literature
- ENGL 33300 - Renaissance English Literature
- ENGL 33500 - Restoration And Eighteenth-Century English Literature
- ENGL 33700 - Nineteenth-Century English Literature
- ENGL 35000 - American Literature Before 1865
- ENGL 35100 - American Literature After 1865
- ENGL 36000 - Gender And Literature
- ENGL 37300 - Science Fiction And Fantasy
- ENGL 37700 - Modern And Contemporary Poetry
- ENGL 37900 - The Short Story
- ENGL 38100 - The British Novel
- ENGL 38200 - The American Novel
- ENGL 38600 - History Of Film To 1950
- ENGL 38700 - History Of Film Since 1950
- ENGL 39600 - Studies In Literature And Language
- ENGL 41100 - Studies In Major Authors
- ENGL 41200 - Studies In Genre
- ENGL 41300 - Studies In Literature And History
- ENGL 41400 - Studies In Literature And Culture
- ENGL 44100 - Chaucer's Canterbury Tales
- ENGL 44200 - Shakespeare

- ENGL 44400 - Milton
- ENGL 46200 - The Bible As Literature: The Old Testament
- ENGL 46300 - The Bible As Literature: The New Testament
- ENGL 49200 - Literature In The Secondary Schools
- FNR 37500 - Human Dimensions of Natural Resource Management
- HORT 30600 - History Of Horticulture

College of Agriculture International Understanding Selective

International Understanding

- AGEC 25000 - Economic Geography Of World Food And Resources
- AGEC 34000 - International Economic Development
- AGEC 45000 - International Agricultural Trade
- AGR 49500 - International Professional Experience In Agriculture, Food, Or Natural Resources
- AGR 49300 - Special Topics In International Agriculture
- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 35000 - Global Awareness
- AGRY 39900 - Individual Study - *Titles: Afghanistan Development Challenges, Exploring International Agriculture*
- AGRY 59800 - Special Problems - *Title: African Development Challenges*
- ANSC 29400 - Exploring International Animal Agriculture
- ANTH 10000 - Being Human: Introduction to Anthropology
- ANTH 20500 - Human Cultural Diversity
- ANTH 39200 - Selected Topics In Anthropology - *Title: Globalization and Culture*
- ARAB 10000-59900 - Arabic
- ASEC 33100 - The Role Of Horses In Human History, Culture And Society
- ASEC 43100 - Planning For International Engagement Methods
- ASEC 43120 - Evaluating International Engagement Methods
- ASEC 55100 - International Engagement And Development Strategies
- CHNS 10000-59900 - Chinese
- COM 22400 - Communicating In The Global Workplace
- ECON 37000 - International Trade
- ECON 46600 - International Economics
- ENGL 26600 - World Literature: From The Beginnings To 1700 A.D.
- ENGL 26700 - World Literature: From 1700 A.D. To The Present
- FNR 23000 - The World's Forests And Society
- FNR 30200 - Global Sustainability Issues
- FNR 46000 - International Natural Resources Summer Program
- FNR 48800 - Global Environmental Issues
- FR 10000-59900 - French
- GER 10000-59900 - German
- GREK 10000-59900 - Greek
- HEBR 10000-59900 - Hebrew
- HIST 23005 - Hitler's Europe
- HIST 23800 - History Of Russia From Medieval Times To 1861
- HIST 23900 - History Of Russia From 1861 To The Present

- HIST 24000 - East Asia And Its Historic Tradition
- HIST 24100 - East Asia In The Modern World
- HIST 24300 - South Asian History And Civilizations
- HIST 24500 - Introduction To The Middle East History And Culture
- HIST 24600 - Modern Middle East And North Africa
- HIST 27100 - Introduction To Colonial Latin American History (1492-1810)
- HIST 27200 - Introduction To Modern Latin American History (1810 To The Present)
- HIST 30000 - Eve Of Destruction: Global Crises And World Organization In The 20th Century
- HIST 32300 - German History
- HIST 32400 - Modern France
- HIST 34000 - Modern China
- HIST 34300 - Traditional Japan
- HIST 34400 - History Of Modern Japan
- HIST 35100 - The Second World War
- HIST 37005 - Queens And Empresses In Early Modern Europe
- HIST 43900 - Communist China
- HIST 44100 - Africa In The Twentieth Century
- HIST 59500 - The Holocaust And Genocide
- HONR 19900 - Interdisciplinary Honors - Introductory Seminar
- HONR 29900 - Interdisciplinary Honors - Experiential Learning
- HORT 30600 - History Of Horticulture
- HORT 40300 - Tropical Horticulture
- HORT 45000 - In The English Landscape:Integrating History, Horticulture, and Landscape Architecture
- HTM 39800 - International Special Topics
- ITAL 10000-59900 - Italian
- JPNS 10000-59900 - Japanese
- LA 45000 - In The English Landscape:Integrating History, Horticulture, and Landscape Architecture
- LA 16600 - History And Theory Of Landscape Architecture
- PHIL 11000 - The Big Questions: Introduction To Philosophy
- PHIL 23000 - Religions Of The East
- PHIL 23100 - Religions Of The West
- POL 13000 - Introduction To International Relations
- POL 14100 - Governments Of The World
- POL 23100 - Introduction To United States Foreign Policy
- POL 23200 - Contemporary Crises In International Relations
- POL 23500 - International Relations Among Rich And Poor Nations
- POL 23700 - Modern Weapons And International Relations
- POL 32700 - Global Green Politics
- POL 33500 - China And The Challenges Of Globalization
- POL 34500 - West European Democracies In The Post-Industrial Era
- POL 34800 - East Asian Politics
- POL 43300 - International Organization
- POL 43500 - International Law
- PTGS 10000-59900 - Portuguese
- REL 23000 - Religions Of The East
- REL 23100 - Religions Of The West
- RUSS 10000-59900 - Russian

- SPAN 10000-59900 - Spanish

College of Agriculture Multicultural Awareness Selective

Multicultural Awareness

- AGR 20100 - Communicating Across Culture
- ANTH 20500 - Human Cultural Diversity
- EDCI 28500 - Multiculturalism And Education
- PSY 33500 - Stereotyping And Prejudice
- SOC 22000 - Social Problems
- SOC 31000 - Race And Ethnicity

College of Agriculture Written or Oral Communication Selectives

Written or Oral Communication Selectives

- ASL 10000:59999
- COM 20000:59999
- ENGL 20000:59999
- AGR 20100 - Communicating Across Culture
- ASEC 44000 - Methods Of Teaching Agricultural Education
- ASEC 28500 - Introduction To Publication Design
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills
- ENTM 20100 - Scientific And Technical Communication

Interdisciplinary Agriculture Supplemental Information

Agriculture Selective (15 credits)

- ABE 10000:59999
- AGEC 10000:59999
- AGR 10000:59999
- AGRY 10000:59999
- ANSC 10000:59999
- ASEC 10000:59999
- ASM 10000:59999
- BCHM 10000:59999
- BTNY 10000:59999
- ENTM 10000:59999
- FNR 10000:59999
- FS 10000:59999
- HORT 10000:59999

- LA 10000:59999
- NRES 10000:59999
- SFS 10000:59999

Agriculture Selective 30000+ Level (21 credits)

- ABE 30000:59999
- AGEC 30000:59999
- AGR 30000:59999
- AGRY 30000:59999
- ANSC 30000:59999
- ASEC 30000:59999
- ASM 30000:59999
- BCHM 30000:59999
- BTNY 30000:59999
- ENTM 30000:59999
- FNR 30000:59999
- FS 30000:59999
- HORT 30000:59999
- LA 30000:59999
- NRES 30000:59999
- SFS 30000:59999

Mathematics or Science Selective (9 credits)

- AGEC 45100 - Applied Econometrics
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGR 33300 - Data Science For Agriculture
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- AGRY 12500 - Environmental Science And Conservation
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology

- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 11000 - Introduction To Plant Science
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 22400 - Introductory Quantitative Analysis
- CS 18000 - Problem Solving And Object-Oriented Programming
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 12500 - Environmental Science And Conservation
- EAPS 22100 - Survey Of Atmospheric Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 24200 - Data Science
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 35300 - Insecticides And Environment
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 12500 - Environmental Science And Conservation
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics
- FNR 35700 - Fundamental Remote Sensing
- HONR 49900 - Honors Research Project - Human Diseases and Disorders
- HORT 30100 - Plant Physiology
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II

- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 12500 - Environmental Science And Conservation
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 24100 - Electricity And Optics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- STAT 22500 - Introduction To Probability Models
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis
- STAT 50200 - Experimental Statistics II

Natural Resources and Environmental Science Supplemental Information

NRES General Selectives

Additional Mathematics or Statistics Selective (3 credits)

- MA 16020 - Applied Calculus II
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26200 - Linear Algebra And Differential Equations
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Broadening Science Selective (3 credits)

Courses meant to encourage exploration at introductory level in related fields, or to encourage optional laboratory courses. In addition to the College of Agriculture's 'Additional Math and Science Selectives', any concentration selective that is not being used to complete the NRES requirement can count.

Concentrations requiring this selective: Emerging Environmental Challenges; Environmental Policy & Analysis; Environmental Quality & Restoration; Watershed Management; Sustainability Science

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGRY 25500 - Soil Science

- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25701 - Organic Chemistry Laboratory
- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- CS 15900 - C Programming
- CS 18000 - Problem Solving And Object-Oriented Programming
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 12500 - Environmental Science And Conservation
- EAPS 22100 - Survey Of Atmospheric Science
- ENTM 10200 - The Practice Of Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 35300 - Insecticides And Environment
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 20100 - Marine Biology

- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 30500 - Conservation Genetics
- FNR 35700 - Fundamental Remote Sensing
- HORT 30100 - Plant Physiology
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics

Data Science Selective (3 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGEC 51600 - Mathematical Tools For Agricultural And Applied Economics
- AGR 33300 - Data Science For Agriculture
- AGRY 54500 - Remote Sensing Of Land Resources
- BTNY 20800 - Introduction To Plant Science Research
- CS 17700 - Programming With Multimedia Objects
- ENTM 30100 - Experimentation And Analysis
- STAT 22500 - Introduction To Probability Models
- STAT 50200 - Experimental Statistics II

NRES Concentration Selectives

Climate and Energy Solutions Concentration Selectives (12 credits)

- AD 39700 - Sustainability In The Built Environment
- ASEC 35500 - Controversial Science And Media In The Public Sphere
- ASEC 58500 - Science Communication
- CE 35500 - Engineering Environmental Sustainability or
- EEE 35500 - Engineering Environmental Sustainability
- EAPS 12900 - Earth System Dynamics
- EAPS 22500 - Science Of The Atmosphere
- EAPS 31500 - Biogeochemistry
- EAPS 32000 - Physics Of Climate

- EAPS 32700 - Climate, Science And Society
- EAPS 37500 - Great Issues - Fossil Fuels, Energy And Society
- EAPS 42000 - Global Change Modeling
- EAPS 53000 - Extreme Weather And Climate: Science And Risk
- ECET 12000 - Gateway To Electrical Engineering Technology
- ECET 27300 - Modern Energy Systems
- ECET 53500 - Energy Sustainability
- EPCS 40100 - Senior Participation In EPICS or
- EPCS 40200 - Senior Participation In EPICS
- MET 53000 - Facilities Engineering Technology
- NRES 28000 - Hazardous Waste Handling
- PHIL 40300 - Moral Psychology And Climate Change
- POL 42800 - The Politics Of Regulation

Emerging Environmental Challenges Concentration Selectives (20 credits)

Students define an interdisciplinary topic of study that is not currently captured by any existing majors on campus. In consultation with a faculty mentor and/or the co-directors the student will propose a sequence of classes that addresses the identified topic.

1. All NRES core academic requirements must be met.
2. No more than 2 classes can be under 30000+ level.
3. The classes as a group should pursue an environmentally related subject.
4. The courses should not originate from a single department. NRES strives to be interdisciplinary, and the student initiated concentration should be interdisciplinary.
5. The student must meet with his/her academic advisor to plan the student initiated concentration.
6. The NRES director must approve the selected courses.
7. No more than 3 credits can come from independent study.

Environmental Policy and Analysis Concentration Selectives (12 credits)

- ANTH 32700 - Environment And Culture
- CE 51200 - The Comprehensive Urban Planning Process
- ECON 36700 - Law And Economics
- ENGL 34400 - Environmental Ethics, Policy, And Sustainability
- EPCS 40100 - Senior Participation In EPICS or
- EPCS 40200 - Senior Participation In EPICS
- FNR 58600 - Urban Ecology
- NRES 28000 - Hazardous Waste Handling
- PHIL 29000 - Environmental Ethics
- POL 32300 - Comparative Environmental Policy
- POL 42300 - International Environmental Policy
- POL 42800 - The Politics Of Regulation
- POL 46100 - Constitutional Law I
- POL 52300 - Environmental Politics And Public Policy
- SOC 41900 - Sociology Of Law
- SYS 40000 - Science And Technology Policy

Environmental Quality and Restoration Concentration Selectives (12 credits)

- AGRY 33500 - Weather And Climate
- AGRY 33700 - Environmental Hydrology
- AGRY 34900 - Soil Ecology
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 45000 - Soil Conservation and Water Management
- AGRY 58500 - Soils And Land Use
- ASEC 58500 - Science Communication
- ASM 23600 - Environmental Systems Management
- CE 35000 - Introduction To Environmental And Ecological Engineering or
- EEE 35000 - Introduction To Environmental And Ecological Engineering
- CE 35500 - Engineering Environmental Sustainability or
- EEE 35500 - Engineering Environmental Sustainability
- CE 45700 - Air Pollution Control And Design
- CE 55700 - Air Quality Management
- EEE 30000 - Environmental And Ecological Systems Modeling
- EPCS 40100 - Senior Participation In EPICS or
- EPCS 40200 - Senior Participation In EPICS
- FNR 20100 - Marine Biology
- FNR 35100 - Aquatic Sampling Techniques
- FNR 35500 - Quantitative Methods For Resource Management
- FNR 35700 - Fundamental Remote Sensing
- FNR 58600 - Urban Ecology
- HSCI 20200 - Essentials Of Environmental, Occupational, And Radiological Health Sciences
- HSCI 34500 - Introduction To Occupational And Environmental Health Sciences
- NRES 23000 - Survey Of Meteorology
- SFS 30200 - Principles Of Sustainability

Watershed Management Concentration Selectives (12 credits)

- ABE 32500 - Soil And Water Resource Engineering
- AGRY 33500 - Weather And Climate
- AGRY 34900 - Soil Ecology
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 56000 - Soil Physics
- AGRY 56500 - Soils And Landscapes
- AGRY 58500 - Soils And Land Use
- ASM 23600 - Environmental Systems Management
- BIOL 28600 - Introduction To Ecology And Evolution
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- CE 54900 - Computational Watershed Hydrology
- EDCI 50600 - Environmental Education
- EEE 30000 - Environmental And Ecological Systems Modeling
- EPCS 40100 - Senior Participation In EPICS or
- EPCS 40200 - Senior Participation In EPICS

- FNR 35100 - Aquatic Sampling Techniques
- FNR 35700 - Fundamental Remote Sensing
- FNR 35900 - Spatial Ecology And GIS
- FNR 58600 - Urban Ecology
- NRES 23000 - Survey Of Meteorology
- NRES 28000 - Hazardous Waste Handling
- SFS 30100 - Agroecology

Department of Agricultural and Biological Engineering

Overview

Welcome to the Department of Agricultural & Biological Engineering at Purdue University. Our mission is to prepare students, citizens, and industry for the future through innovative education and extension/outreach programs and the discovery of knowledge.

Our cross-disciplinary strengths include academic and research programs in agriculture, biology, and engineering, as well as dual degree programs. Agricultural and Biological Engineering offers three degree programs, including two engineering programs: Bachelor of Science in Agricultural Engineering (BSAGE) and Bachelor of Science in Biological Engineering (BSBE), and one agriculture program: Agricultural Systems Management, BS. ABE's degree programs also offer multiple majors and concentrations. The job market remains strong for our graduates who have excellent career opportunities, and demand for our graduates is very high.

Our faculty, students and staff are pursuing cutting-edge research that improves quality of life as well as advances scientific and engineering frontiers. Our extension programs are helping citizens of Indiana and beyond improve their lives.

Agricultural Systems Management

The Agricultural Systems Management program prepares graduates to develop and manage technology-intensive agricultural production and processing systems. ASM graduates are problem solvers. They benefit from a diverse applied agricultural curriculum that includes opportunities for extensive career-related experience at home and abroad.

Biological Engineering

This program deals with the applications of basic scientific and engineering principles to the design, development and operation of large scale manufacture of food and biologically-based products. Such products are environmentally friendly, renewable and represent a future wave of consumer demand for better health and environment. In addition to learning the engineering aspects of food and biological processing, you will also learn the basic principles in biochemistry and food sciences.

Dual Degree programs with Biological Engineering and Biochemistry or Pharmaceutical Sciences are also offered - these programs require an additional year of courses leading to two degrees.

Agricultural Engineering - emphasis in Environmental & Natural Resources Engineering

This emphasis area prepares engineers with specialized expertise to design and analyze new and environmentally sound ways to produce food and fiber while conserving our natural resources. Students gain expertise in areas such as watershed management, geographic information systems, computer-based watershed modeling, and contaminant transport models, and soil and water conservation engineering practices.

Agricultural Engineering - emphasis in Machine Systems Engineering

This emphasis area prepares students with a background in mechanical design, hydraulics, instrumentation and control, finite element analysis, electronics and sensors to design, develop, analyze and operate machines and systems for agricultural and biological products and processes, materials handling, construction and mining, forestry, lawn- and ground-care, and food and fiber production and processing.

Faculty (website)

Department of Agricultural and Biological Engineering (website)

Contact Information

Purdue University

Agricultural and Biological Engineering

225 South University Street
West Lafayette, IN 47907-2093
Phone: (765) 494-1162
Fax: (765) 496-1115

Email: joinabe@ecn.purdue.edu

Current Undergraduate Students (website)

Furture Undergraduate Students (website)

Graduate Information

For Graduate Information please see Agricultural and Biological Engineering Graduate Program Information.

Baccalaureate

Agricultural Engineering, BSAGE

About the Program

The Agricultural Engineering program is accredited by the Engineering Accreditation Commission of ABET.

Agricultural engineers apply their knowledge of agricultural systems, natural resources, and engineering to equipment design and assure environmental compatibility of practices used by production agriculture. The Agricultural Engineering curriculum offers great breadth, with specialization choices in machine systems engineering and environmental and natural resources engineering. Subject areas include computer-aided engineering, fluid power, finite element analysis, natural resource conservation, and engineering properties of biological materials. Excellent career opportunities exist in product engineering, equipment research and design, facilities design, environmental consulting, and engineering management. Students in this program earn a Bachelor of Science in Agricultural Engineering, (BSAGE).

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Agricultural Engineering Major Change (CODO) Requirements

Degree Requirements

128 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (34 credits)

- ABE 20500 - Computations For Engineering Systems
- ABE 21000 - Thermodynamics Principles Of Engineering And Biological Systems
- ABE 29000 - Sophomore Seminar (satisfies Science, Technology, & Society for core)
- ABE 30500 - Physical Properties Of Biological Materials
- ABE 31400 - Design Of Electronic Systems
- ABE 32000 - Solid Modeling, Simulation, And Analysis
- ABE 32500 - Soil And Water Resource Engineering
- ABE 33000 - Design Of Machine Components
- ABE 43500 - Hydraulic Control Systems For Mobile Equipment
- ABE 45000 - Finite Element Method In Design And Optimization
- ABE 48400 - Project Planning And Management
- ABE 48600 - Agricultural Engineering Design (Capstone)
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering

Other Departmental/Program Course Requirements (91-93 credits)

Click here for First-Year Engineering Requirements

Click here for Pre-Agricultural and Biological Engineering Requirements

(If pursuing Bachelor of Science in Agricultural Engineering, either CHM 11600 - General Chemistry or CS 15900 - Programming Applications For Engineers are required to graduate, but not required to complete the First Year Engineering program. CS 15900 is preferred.)

- ENGR 13100 - Transforming Ideas To Innovation I
- ENGR 13200 - Transforming Ideas To Innovation II
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry or
- CS 15900 - C Programming
- MA 16500 - Analytic Geometry And Calculus I
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26200 - Linear Algebra And Differential Equations
- ME 27000 - Basic Mechanics I ♦
- ME 27400 - Basic Mechanics II ♦
- NUCL 27300 - Mechanics Of Materials ♦
- PHYS 17200 - Modern Mechanics
- PHYS 24100 - Electricity And Optics
- AGRY 25500 - Soil Science
- CE 34000 - Hydraulics ♦ and
- CE 34300 - Elementary Hydraulics Laboratory ♦
  OR
- ME 30900 - Fluid Mechanics ♦

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Agricultural Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Engineering Technical Selective - Credit Hours: 3.00
- Engineering Technical Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)

- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written and Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Agricultural Engineering Supplemental Information

Elective (1-3 credits)

- Elective - Credit Hours: 1.00-3.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- CHM 11500 - General Chemistry
- Written Communication Selective - Credit Hours: 3.00-4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16-17 Credits

Spring 1st Year

- ENGR 13200 - Transforming Ideas To Innovation II
- PHYS 17200 - Modern Mechanics
- MA 16600 - Analytic Geometry And Calculus II
- CHM 11600 - General Chemistry or
- CS 15900 - C Programming
- Oral Communication Selective - Credit Hours: 3.00

16-17 Credits

Fall 2nd Year

- ABE 20500 - Computations For Engineering Systems
- ABE 29000 - Sophomore Seminar
- MA 26100 - Multivariate Calculus
- ME 27000 - Basic Mechanics I ♦
- PHYS 24100 - Electricity And Optics
  Economics Selective - **Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

17 Credits

Spring 2nd Year

- ABE 21000 - Thermodynamics Principles Of Engineering And Biological Systems
- MA 26200 - Linear Algebra And Differential Equations
- ME 27400 - Basic Mechanics II
- NUCL 27300 - Mechanics Of Materials ♦
- Biological Science Selective - Credit Hours: 4.00

17 Credits

Fall 3rd Year

- ABE 30500 - Physical Properties Of Biological Materials
- ABE 32500 - Soil And Water Resource Engineering
- AGRY 25500 - Soil Science
- CE 34000 - Hydraulics ♦ and
- CE 34300 - Elementary Hydraulics Laboratory ♦
  OR
- ME 30900 - Fluid Mechanics ♦
- Agricultural Selective - Credit Hours: 3.00

17 Credits

Spring 3rd Year

- ABE 31400 - Design Of Electronic Systems
- ABE 32000 - Solid Modeling, Simulation, And Analysis
- ABE 33000 - Design Of Machine Components
- Biological Science Selective - Credit Hours: 4.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- ABE 43500 - Hydraulic Control Systems For Mobile Equipment
- ABE 45000 - Finite Element Method In Design And Optimization
- ABE 48400 - Project Planning And Management
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- Engineering Technical Selective - Credit Hours: 3.00
- Written and Oral Communication Selective (20000+level) - Credit Hours: 3.00

14 Credits

Spring 4th Year

- ABE 48600 - Agricultural Engineering Design
- Engineering Technical Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 1.00-3.00

13-15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.
- Official and complete prerequisite lists are in the course catalog.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agricultural Systems Management, BS

About the Program

Agricultural Systems Management (ASM) prepares individuals to organize and manage environmentally sound, technology-based businesses. The program's emphasis is on planning and directing an industry or business project with responsibility for results. ASM is based on an understanding of how equipment and buildings are used with plants and animals and their products. These processes require an understanding of the biological sciences to produce and maintain top product quality.

Computer skills are taught and used throughout the curriculum. Computers are used to collect and analyze data, and then using that information, to control machines and processes. Other uses involve planning layouts of equipment and buildings, creating graphics for reports, etc. Agricultural Systems Management students also take several of courses in communications, business management and agricultural sciences, in addition to their specialty courses based in the Agricultural and Biological Engineering Department. The program provides an in-depth technical knowledge for selecting and applying advanced technologies in the food, feed, fiber, and fuel system. Graduates are prepared to solve a wide variety of business and technical problems in a job field that continues to grow.

Agricultural Systems Management students also take several of courses in communications, business management and agricultural sciences, in addition to their specialty courses based in the Agricultural and Biological Engineering Department. The program provides an in-depth technical knowledge for selecting and applying advanced technologies in the food, feed, fiber, and fuel system. Graduates are prepared to solve a wide variety of business and technical problems in a job field that continues to grow.

In addition to the established Agricultural Systems Management program, students can choose to specialize in one of the following concentrations.

- Data & Information Systems
- Leadership & Management
- Agro-Security

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Agricultural Systems Management Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (28 credits)

- ASM 10400 - Introduction To Agricultural Systems
- ASM 10500 - Computing Technology With Applications
- ASM 21100 - Technical Graphic Communications
- ASM 22100 - Career Opportunities Seminar
- ASM 22200 - Crop Production Equipment
- ASM 33300 - Facilities Planning And Management
- ASM 34500 - Power Units And Power Trains
- ASM 35000 - Safety In Agriculture
- ASM 42000 - Electric Power And Controls
- ASM 42100 - Senior Seminar
- ASM 49400 - Project Planning And Management
- ASM 49500 - Agricultural Systems Management Capstone Project

Major Selectives (6 credits)

- ASM 23600 - Environmental Systems Management or
- ASM 24500 - Materials Handling And Processing
- Major Selective (ASM 40000+ level) - Credit Hours: 3.00

Other Departmental /Program Course Requirements (82-84 credits)

- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11100 - Introduction To Agricultural And Biological Engineering Academic Programs
- AGRY 25500 - Soil Science
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- PHYS 21400 - The Nature Of Physics ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- AGEC 22000 - Economics Of Agricultural Markets or
- AGEC 32100 - Principles Of Commodity Marketing or
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 31000 - Farm Organization or
- AGEC 33000 - Management Methods For Agricultural Business
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
  Economics Selective - **Credit Hours: 3.00** (satisfies Human Cultures: Behavioral/Social Sciences for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
- Agricultural Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Science, Technology & Society Selective - Credit Hours: 1.00-3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Agricultural Systems Management Supplemental Information

Electives (1-4 credits)

- Electives - Credit Hours: 1.00-4.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11100 - Introduction To Agricultural And Biological Engineering Academic Programs
- ASM 10400 - Introduction To Agricultural Systems
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

- ASM 10500 - Computing Technology With Applications ♦
- CHM 11200 - General Chemistry
- PHYS 21400 - The Nature Of Physics ♦
- Written Communication Selective - Credit Hours: 3.00-4.00
  Economics Selective - **Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

15-16 Credits

Fall 2nd Year

- ASM 21100 - Technical Graphic Communications
- ASM 22100 - Career Opportunities Seminar
- ASM 22200 - Crop Production Equipment
- STAT 30100 - Elementary Statistical Methods ♦
- Biological Science Selective - Credit Hours: 4.00

14 Credits

Spring 2nd Year

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGRY 25500 - Soil Science
- Biological Science Selective - Credit Hours: 4.00
- ASM 23600 - Environmental Systems Management or
- ASM 24500 - Materials Handling And Processing
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

16 Credits

Fall 3rd Year

- AGEC 22000 - Economics Of Agricultural Markets or
- AGEC 32100 - Principles Of Commodity Marketing or
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- Agricultural Selective - Credit Hours: 3.00

- Science, Technology, & Society Selective - Credit Hours: 1.00-3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

13-15 Credits

Spring 3rd Year

- ASM 33300 - Facilities Planning And Management
- ASM 34500 - Power Units And Power Trains
- ASM 35000 - Safety In Agriculture
- ASM 42000 - Electric Power And Controls
- Humanities or Social Science Selective - Credit Hours: 3.00

- AGEC 31000 - Farm Organization or
- AGEC 33000 - Management Methods For Agricultural Business

16 Credits

Fall 4th Year

- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- ASM 42100 - Senior Seminar
- ASM 49400 - Project Planning And Management
- Agricultural Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

14 Credits

Spring 4th Year

- ASM 49500 - Agricultural Systems Management Capstone Project
- Major Selective (ASM 40000+ level) - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 1.00-4.00

13-16 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

- Official and complete prerequisite lists are in the course catalog; the incomplete listing presented here regards this program and course sequencing.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agricultural Systems Management: AgroSecurity, BS

About the Program

Agricultural Systems Management (ASM) prepares individuals to organize and manage environmentally sound, technology-based businesses. The program's emphasis is on planning and directing an industry or business project with responsibility for results. ASM is based on an understanding of how equipment and buildings are used with plants and animals and their products. These processes require an understanding of the biological sciences to produce and maintain top product quality.

Computer skills are taught and used throughout the curriculum. Computers are used to collect and analyze data, and then using that information, to control machines and processes. Other uses involve planning layouts of equipment and buildings, creating graphics for reports, etc. Agricultural Systems Management students also take several of courses in communications, business management and agricultural sciences, in addition to their specialty courses based in the Agricultural and Biological Engineering Department. The program provides an in-depth technical knowledge for

selecting and applying advanced technologies in the food, feed, fiber, and fuel system. Graduates are prepared to solve a wide variety of business and technical problems in a job field that continues to grow.

Agricultural Systems Management students also take several of courses in communications, business management and agricultural sciences, in addition to their specialty courses based in the Agricultural and Biological Engineering Department. The program provides an in-depth technical knowledge for selecting and applying advanced technologies in the food, feed, fiber, and fuel system. Graduates are prepared to solve a wide variety of business and technical problems in a job field that continues to grow.

Agriculture is vulnerable to a wide range of threats with the potential of disrupting both local and national food security. The Agro-security concentration enables students to acquire a higher level of specialization in the principles and practices needed to pursue employment in areas related to the prevention, preparedness, mitigation, response, and recovery related to threats to agricultural resources from field to table. Completion of this concentration will open up opportunities in positions that address loss prevention, risk management, regulatory compliance, and emergency management. Students will still also get the Food and Agribusiness Management Minor.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Agricultural Systems Management Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (37 credits)

Required Major Courses (31 credits)

- ASM 10400 - Introduction To Agricultural Systems
- ASM 10500 - Computing Technology With Applications
- ASM 21100 - Technical Graphic Communications
- ASM 22100 - Career Opportunities Seminar
- ASM 22200 - Crop Production Equipment
- ASM 24500 - Materials Handling And Processing
- ASM 33300 - Facilities Planning And Management

- ASM 35000 - Safety In Agriculture
- ASM 42000 - Electric Power And Controls
- ASM 42100 - Senior Seminar
- ASM 49400 - Project Planning And Management
- ASM 49500 - Agricultural Systems Management Capstone Project
- ASM 51000 - Agrosecurity-Emergency Management For Agricultural Production Operations

Major Selectives (6 credits)

- ASM 23600 - Environmental Systems Management or
- ASM 34500 - Power Units And Power Trains
- Major Selective (ASM 40000+ level) - Credit Hours: 3.00

Other Departmental/Program Course Requirements (79-81 credits)

- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11100 - Introduction To Agricultural And Biological Engineering Academic Programs
- AGRY 25500 - Soil Science
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CNIT 51100 - Foundations In Homeland Security Studies ♦
- CNIT 51200 - Managing Resources And Applications For Homeland Security ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- PHYS 21400 - The Nature Of Physics ♦
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

Economics Selective - **Credit Hours: 3.00** (satisfies Human Cultures: Behavioral/Social Sciences for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Agrosecurity Selective - **Credit Hours: 3.00**

- ASM 59000 - Special Problems
- NRES 28000 - Hazardous Waste Handling
- TLI 35520 - Organization Development And Change

Marketing Selective - Credit Hours: 3.00

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 32100 - Principles Of Commodity Marketing

- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 1.00-3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Agricultural Systems Management Supplemental Information

Electives (2-4 credits)

- Electives - Credit Hours: 2.00-4.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11100 - Introduction To Agricultural And Biological Engineering Academic Programs
- ASM 10400 - Introduction To Agricultural Systems
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Oral Communication Selective - Credit Hours: 3.00

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

16 Credits

Spring 1st Year

- ASM 10500 - Computing Technology With Applications
- CHM 11200 - General Chemistry ♦
- PHYS 21400 - The Nature Of Physics ♦
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Fall 2nd Year

- ASM 21100 - Technical Graphic Communications
- ASM 22100 - Career Opportunities Seminar
- ASM 22200 - Crop Production Equipment
- STAT 30100 - Elementary Statistical Methods ♦
- Biological Science Selective - Credit Hours: 4.00

14 Credits

Spring 2nd Year

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGRY 25500 - Soil Science
- ASM 24500 - Materials Handling And Processing
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- Biological Science Selective - Credit Hours: 4.00

16 Credits

Fall 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- ASM 23600 - Environmental Systems Management or
- ASM 34500 - Power Units And Power Trains
  AgroSecurity Selective - Credit Hours: 3.00
- ASM 59000 - Special Problems
- NRES 28000 - Hazardous Waste Handling
- TLI 35520 - Organization Development And Change
- Science, Technology & Society Selective - Credit Hours: 1.00-3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

13-15 Credits

Spring 3rd Year

- AGEC 33000 - Management Methods For Agricultural Business
- ASM 33300 - Facilities Planning And Management
- ASM 35000 - Safety In Agriculture
- ASM 42000 - Electric Power And Controls
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- ASM 42100 - Senior Seminar
- ASM 49400 - Project Planning And Management
- ASM 51000 - Agrosecurity-Emergency Management For Agricultural Production Operations
- CNIT 51100 - Foundations In Homeland Security Studies
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
  Marketing Selective - Credit Hours: 3.00
- AGEC 22000 - Economics Of Agricultural Markets

- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing

14 Credits

Spring 4th Year

- ASM 49500 - Agricultural Systems Management Capstone Project
- CNIT 51200 - Managing Resources And Applications For Homeland Security
- Major Selective (ASM 40000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-4.00

13-16 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agricultural Systems Management: Data and Information Systems, BS

About the Program

Agricultural Systems Management (ASM) prepares individuals to organize and manage environmentally sound, technology-based businesses. The program's emphasis is on planning and directing an industry or business project with responsibility for results. ASM is based on an understanding of how equipment and buildings are used with plants and animals and their products. These processes require an understanding of the biological sciences to produce and maintain top product quality.

Computer skills are taught and used throughout the curriculum. Computers are used to collect and analyze data, and then using that information, to control machines and processes. Other uses involve planning layouts of equipment and buildings, creating graphics for reports, etc. Agricultural Systems Management students also take several of courses in communications, business management and agricultural sciences, in addition to their specialty courses based in the Agricultural and Biological Engineering Department. The program provides an in-depth technical knowledge for selecting and applying advanced technologies in the food, feed, fiber, and fuel system. Graduates are prepared to solve a wide variety of business and technical problems in a job field that continues to grow.

Agricultural Systems Management students also take several of courses in communications, business management and agricultural sciences, in addition to their specialty courses based in the Agricultural and Biological Engineering Department. The program provides an in-depth technical knowledge for selecting and applying advanced technologies in the food, feed, fiber, and fuel system. Graduates are prepared to solve a wide variety of business and technical problems in a job field that continues to grow.

The Data and Information Systems concentration supports the growing data and information need in agriculture and is structured so that students can readily obtain the Computer and Information Systems minor. Industry is seeking graduates who understand cropping and animal agriculture; they also wish they had stronger information technology skills such as programming, app development, and data handling. This concentration addresses this need and complements the facility and equipment technology focus of the ASM major. Students will still also get the Food and Agribusiness Management Minor.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Agricultural Systems Management Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (25 credits)

- ASM 10400 - Introduction To Agricultural Systems
- ASM 10500 - Computing Technology With Applications
- ASM 21100 - Technical Graphic Communications
- ASM 22100 - Career Opportunities Seminar
- ASM 22200 - Crop Production Equipment
- ASM 33300 - Facilities Planning And Management
- ASM 35000 - Safety In Agriculture
- ASM 42100 - Senior Seminar
- ASM 49400 - Project Planning And Management
- ASM 49500 - Agricultural Systems Management Capstone Project
- ASM 54000 - Geographic Information System Application

Major Selectives (9 credits)

- ASM Selective - Credit Hours: 9.00

Other Departmental /Program Course Requirements (82-84 credits)

- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11100 - Introduction To Agricultural And Biological Engineering Academic Programs
- AGRY 25500 - Soil Science
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CNIT 15501 - Introduction To Software Development Concepts ♦
- CNIT 18000 - Introduction To Systems Development ♦
- CNIT 25501 - Object-Oriented Programming Introduction ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- PHYS 21400 - The Nature Of Physics ♦
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- AGEC 45500 - Agricultural Law or

- MGMT 45500 - Legal Background For Business I
  CNIT Selective - **Credit Hours: 3.00**
- CNIT 27200 - Database Fundamentals
- CNIT 28000 - Systems Analysis And Design Methods
- CNIT 31500 - Systems Programming
- CNIT 32500 - Object-Oriented Application Development
- CNIT 35500 - Software Development For Mobile Computers
  Economics Selective - **Credit Hours: 3.00** (sastisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
  Marketing Selective - **Credit Hours: 3.00**
- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 1.00-3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Agricultural Systems Management Supplemental Information

Electives (1-4 credits)

- Electives - Credit Hours: 1.00-4.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00

- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11100 - Introduction To Agricultural And Biological Engineering Academic Programs
- ASM 10400 - Introduction To Agricultural Systems
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Oral Communication Selective - Credit Hours: 3.00

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

16 Credits

Spring 1st Year

- ASM 10500 - Computing Technology With Applications
- CHM 11200 - General Chemistry ♦
- PHYS 21400 - The Nature Of Physics ♦
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Fall 2nd Year

- ASM 21100 - Technical Graphic Communications
- ASM 22100 - Career Opportunities Seminar
- ASM 22200 - Crop Production Equipment
- CNIT 18000 - Introduction To Systems Development ♦
- Biological Science Selective - Credit Hours: 4.00

14 Credits

Spring 2nd Year

- AGRY 25500 - Soil Science
- CNIT 15501 - Introduction To Software Development Concepts ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Biological Science Selective - Credit Hours: 4.00
- ASM Major Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
  Marketing Selective - **Credit Hours: 3.00**
- AGEC 20200 - Spreadsheet Use In Agricultural Business or
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- ASM Major Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGEC 33000 - Management Methods For Agricultural Business
- ASM 33300 - Facilities Planning And Management
- ASM 35000 - Safety In Agriculture
- CNIT 25501 - Object-Oriented Programming Introduction ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Fall 4th Year

- ASM 42100 - Senior Seminar
- ASM 49400 - Project Planning And Management
- ASM 54000 - Geographic Information System Application
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
  CNIT Selective - **Credit Hours: 3.00**
- CNIT 27200 - Database Fundamentals or
- CNIT 28000 - Systems Analysis And Design Methods or
- CNIT 31500 - Systems Programming or
- CNIT 32500 - Object-Oriented Application Development or
- CNIT 35500 - Software Development For Mobile Computers
- Humanities or Social Science Selective - Credit Hours: 3.00

14 Credits

Spring 4th Year

- ASM 49500 - Agricultural Systems Management Capstone Project
- ASM Major Selective - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 1.00-3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-4.00

12-16 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Agricultural Systems Management: Leadership and Management, BS

About the Program

Agricultural Systems Management (ASM) prepares individuals to organize and manage environmentally sound, technology-based businesses. The program's emphasis is on planning and directing an industry or business project with responsibility for results. ASM is based on an understanding of how equipment and buildings are used with plants and animals and their products. These processes require an understanding of the biological sciences to produce and maintain top product quality.

Computer skills are taught and used throughout the curriculum. Computers are used to collect and analyze data, and then using that information, to control machines and processes. Other uses involve planning layouts of equipment and buildings, creating graphics for reports, etc. Agricultural Systems Management students also take several of courses in communications, business management and agricultural sciences, in addition to their specialty courses based in the Agricultural and Biological Engineering Department. The program provides an in-depth technical knowledge for selecting and applying advanced technologies in the food, feed, fiber, and fuel system. Graduates are prepared to solve a wide variety of business and technical problems in a job field that continues to grow.

Agricultural Systems Management students also take several of courses in communications, business management and agricultural sciences, in addition to their specialty courses based in the Agricultural and Biological Engineering Department. The program provides an in-depth technical knowledge for selecting and applying advanced technologies

in the food, feed, fiber, and fuel system. Graduates are prepared to solve a wide variety of business and technical problems in a job field that continues to grow.

The Leadership & Management concentration more adequately prepares graduates for supervision and leadership in the technology arena of agribusiness. The 4 Organizational Leadership and Supervision (or Technology Leadership and Innovation) courses lead to the Organizational and Leadership Supervision minor for added credentials in this area. Students will still also get the Food and Agribusiness Management Minor.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Agricultural Systems Management Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (22 credits)

- ASM 10400 - Introduction To Agricultural Systems
- ASM 10500 - Computing Technology With Applications
- ASM 21100 - Technical Graphic Communications
- ASM 22100 - Career Opportunities Seminar
- ASM 22200 - Crop Production Equipment
- ASM 33300 - Facilities Planning And Management
- ASM 35000 - Safety In Agriculture
- ASM 42100 - Senior Seminar
- ASM 49400 - Project Planning And Management
- ASM 49500 - Agricultural Systems Management Capstone Project

Major Selectives (12 credits)

- ASM Major Selective - Credit Hours: 9.00
- ASM Major Selective (40000+ level) - Credit Hours: 3.00

Other Departmental /Program Course Requirements (82-84 credits)

- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11100 - Introduction To Agricultural And Biological Engineering Academic Programs
- AGRY 25500 - Soil Science
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- OLS 25200 - Human Relations In Organizations ♦
- OLS 27400 - Applied Leadership ♦
- OLS 28400 - Leadership Principles ♦
- OLS 38600 - Leadership For Organizational Change And Innovation ♦
- PHYS 21400 - The Nature Of Physics ♦
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

  Economics Selective - **Credit Hours: 3.00** (satisfies Human Cultures: Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

  Marketing Selective - **Credit Hours: 3.00**
- AGEC 22000 - Economics Of Agricultural Markets or
- AGEC 32100 - Principles Of Commodity Marketing or
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 1.00-3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Agricultural Systems Management Supplemental Information

Electives (2-4 credits)

- Electives - Credit Hours: 2.00-4.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11100 - Introduction To Agricultural And Biological Engineering Academic Programs
- ASM 10400 - Introduction To Agricultural Systems
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
  Economics Selective **- Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or

- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

- ASM 10500 - Computing Technology With Applications
- CHM 11200 - General Chemistry ♦
- PHYS 21400 - The Nature Of Physics ♦
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Fall 2nd Year

- ASM 21100 - Technical Graphic Communications
- ASM 22100 - Career Opportunities Seminar
- ASM 22200 - Crop Production Equipment
- STAT 30100 - Elementary Statistical Methods ♦
- Biological Science Selective - Credit Hours: 4.00

14 Credits

Spring 2nd Year

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGRY 25500 - Soil Science
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- Biological Science Selective - Credit Hours: 4.00
- ASM Major Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
  Marketing Selective - **Credit Hours: 3.00**
- AGEC 22000 - Economics Of Agricultural Markets or

- AGEC 32100 - Principles Of Commodity Marketing or
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- ASM Major Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 1.00-3.00

13-15 Credits

Spring 3rd Year

- AGEC 33000 - Management Methods For Agricultural Business
- ASM 33300 - Facilities Planning And Management
- ASM 35000 - Safety In Agriculture
- OLS 25200 - Human Relations In Organizations ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- ASM 42100 - Senior Seminar
- ASM 49400 - Project Planning And Management
- OLS 27400 - Applied Leadership ♦
- OLS 28400 - Leadership Principles ♦
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- ASM Major Selective - Credit Hours: 3.00

14 Credits

Spring 4th Year

- ASM 49500 - Agricultural Systems Management Capstone Project
- OLS 38600 - Leadership For Organizational Change And Innovation ♦
- ASM Major Selective (40000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 1.00-4.00

13-16 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Biological Engineering, BSBE

About the Program

The Biological Engineering program is accredited by the Engineering Accreditation Commission of ABET.

The world has tremendous need for solutions to problems related to the environment, energy, health, food, and sustainability. Biological systems are related to or at the heart of all of these issues. A biological engineer learns to design and analyze biological systems to develop innovative and practical solutions. Our B.S. graduates are well prepared for careers in the food industry, pharmaceutical industry, biotechnology, and bioprocessing as well as entrance into graduate or medical school. Students may select a major and plan of study within biological engineering that is tailored to their specific career goals. Students in this program earn a Bachelor of Science in Biological Engineering, (BSBE). Some areas of focus include:

BioEnvironmental Engineering: Bioprocessing manufacturers, including food and pharmaceutical industries are looking for innovative environmental controls, waste processing, and water treatment to meet corporate sustainability goals and to comply with increasingly strict governmental regulations. The engineering rules-of-thumb and design heuristics based on past practices that have been the standard in municipal wastewater treatment design are less

applicable to treating the highly variable waste stream characteristics of specialized industries. In addition, there exists a high potential for identifying value added products from these water streams.

Cellular and Biomolecular Engineering: This emerging field is expected to rapidly advance and open opportunities in biomanufacturing, drug design, human therapeutics, tissue and organ regeneration, bioenergy and biofuel production, bioremediation, and biodefense.

Food & Biological Process Engineering: This is an interdisciplinary field that applies the basic sciences, mathematics, and engineering to convert agricultural commodities into edible foods and biological materials through various processing steps. Advances in genetic engineering lead to new types of crops and new processing methods to create value added products.

Pharmaceutical Process Engineering: This program of study is targeted to provide graduates with unique skills and job opportunities to take on roles within all phases of the pharmaceutical industry including research, product and process development, processing engineering, manufacturing, and marketing.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Biological Engineering Major Change (CODO) Requirements

Degree Requirements

129 Credits Required

Departmental/Program Major Courses (45 credits)

Required Major Courses (39 credits)

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 29000 - Sophomore Seminar (satisfies Science, Technology, & Society for core)

- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- ABE 45700 - Transport Operations In Food And Biological Engineering I
- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- ABE 55800 - Process Design For Food And Biological Systems

ABE Engineering Major Selectives (6 Credits)

- ABE 31400 - Design Of Electronic Systems
- ABE 32500 - Soil And Water Resource Engineering
- ABE 44000 - Cell And Molecular Design Principles
- ABE 58000 - Process Engineering Of Renewable Resources

Other Departmental/Program Course Requirements (83 credits)

Click here for First-Year Engineering Requirements

Click here for Pre-Agricultural and Biological Engineering Requirements.

- ENGR 13100 - Transforming Ideas To Innovation I
- ENGR 13200 - Transforming Ideas To Innovation II
- PHYS 17200 - Modern Mechanics
- MA 16500 - Analytic Geometry And Calculus I
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26200 - Linear Algebra And Differential Equations
- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry
- CS 15900 - C Programming

- CHM 25500 - Organic Chemistry ♦ and
- CHM 25501 - Organic Chemistry Laboratory
  OR
- CHM 25700 - Organic Chemistry ♦
  Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21700 - Economics or

- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Life Science Selective - Credit Hours: 3.00
- Life Science or Engineering Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Biological Engineering Supplemental Information

Electives (1 credits)

- Electives - Credit Hours: 1.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)

- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- CHM 11500 - General Chemistry
- PHYS 17200 - Modern Mechanics
- Written Communication Selective - Credit Hours: 3.00-4.00

17-18 Credits

Spring 1st Year

- ENGR 13200 - Transforming Ideas To Innovation II
- MA 16600 - Analytic Geometry And Calculus II
- CHM 11600 - General Chemistry
- CS 15900 - C Programming
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 29000 - Sophomore Seminar
- MA 26100 - Multivariate Calculus
- Biological Science Selective - Credit Hours: 4.00

- CHM 25500 - Organic Chemistry ♦ and
- CHM 25501 - Organic Chemistry Laboratory
  OR
- CHM 25700 - Organic Chemistry ♦

17 Credits

Spring 2nd Year

- ABE 20200 - Thermodynamics In Biological Systems II
- MA 26200 - Linear Algebra And Differential Equations
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
- Life Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences
- Biological Science Selective - Credit Hours: 4.00

16 Credits

Spring 3rd Year

- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 45700 - Transport Operations In Food And Biological Engineering I
- ABE Engineering Selective - Credit Hours: 3.00

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21700 - Economics or

- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

18 Credits

Fall 4th Year

- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

13 Credits

Spring 4th Year

- ABE 55800 - Process Design For Food And Biological Systems
- ABE Engineering Selective - Credit Hours: 3.00
- Life Science or Engineering Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 1.00

16 Credits

Notes

- Students must have a graduation index of 2.0
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese

GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Biological Engineering: BioEnvironmental Engineering Concentration, BSBE

About the Program

The Biological Engineering program is accredited by the Engineering Accreditation Commission of ABET.

The world has tremendous need for solutions to problems related to the environment, energy, health, food, and sustainability. Biological systems are related to or at the heart of all of these issues. A biological engineer learns to design and analyze biological systems to develop innovative and practical solutions. Our B.S. graduates are well prepared for careers in the food industry, pharmaceutical industry, biotechnology, and bioprocessing as well as entrance into graduate or medical school. Students may select a major and plan of study within biological engineering that is tailored to their specific career goals. Students in this program earn a Bachelor of Science in Biological Engineering, (BSBE). Some areas of focus include:

Bioprocessing manufacturers, including food and pharmaceutical industries are looking for innovative environmental controls, waste processing, and water treatment to meet corporate sustainability goals and to comply with increasingly strict governmental regulations. The engineering rules-of-thumb and design heuristics based on past practices that have been the standard in municipal wastewater treatment design are less applicable to treating the highly variable waste stream characteristics of specialized industries. In addition, there exists a high potential for identifying value added products from these water streams.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Biological Engineering Major Change (CODO) Requirements

Degree Requirements

129 Credits Required

Departmental/Program Major Courses (49 credits)

Required Major Courses (46 credits)

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 29000 - Sophomore Seminar (satisfies Science, Technology, and Society for core)
- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 31400 - Design Of Electronic Systems
- ABE 32500 - Soil And Water Resource Engineering
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- ABE 45700 - Transport Operations In Food And Biological Engineering I
- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- ABE 55800 - Process Design For Food And Biological Systems

BioEnvironmental Major Selective (3 credits)

The BioEnvironmental Concentration requires 3 credits of courses labeled *BioEnvironmental Selectives*. Other engineering courses can be selected, but must be reviewed for acceptable on an individual basis. See your academic advisor for additional assistance.

- ABE 58000 - Process Engineering Of Renewable Resources

Other Departmental/Program Course Requirements (82-84 credits)

Click here for First-Year Engineering Requirements

Click here for Pre-Agricultural and Biological Engineering Requirement

- ENGR 13100 - Transforming Ideas To Innovation I
- ENGR 13200 - Transforming Ideas To Innovation II
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry
- CHM 25500 - Organic Chemistry ♦ and
- CHM 25501 - Organic Chemistry Laboratory ♦
  OR
- CHM 25700 - Organic Chemistry ♦

- MA 16500 - Analytic Geometry And Calculus I
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26200 - Linear Algebra And Differential Equations
- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences
- PHYS 17200 - Modern Mechanics
- CS 15900 - C Programming
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
- AGRY 25500 - Soil Science

Economics Selective - **Credit Hours: 3.00** (satisfies Human Culture Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

- Biological Science Selectives - Credit Hours: 4.00
- Biological Science Selectives - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Biological Engineering Supplemental Information .

Elective (0-1 credit)

- Elective - Credit Hour: 0.00-1.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- CHM 11500 - General Chemistry
- PHYS 17200 - Modern Mechanics
- Written Communication Selective - Credit Hours: 3.00-4.00

17-18 Credits

Spring 1st Year

- ENGR 13200 - Transforming Ideas To Innovation II
- MA 16600 - Analytic Geometry And Calculus II
- CHM 11600 - General Chemistry
- CS 15900 - C Programming
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 29000 - Sophomore Seminar
- MA 26100 - Multivariate Calculus
- Biological Science Selective - Credit Hours: 4.00

- CHM 25500 - Organic Chemistry ♦ and
- CHM 25501 - Organic Chemistry Laboratory ♦
  OR
- CHM 25700 - Organic Chemistry ♦

17 Credits

Spring 2nd Year

- ABE 20200 - Thermodynamics In Biological Systems II
- AGRY 25500 - Soil Science
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
- MA 26200 - Linear Algebra And Differential Equations
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 32500 - Soil And Water Resource Engineering
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences

16 Credits

Spring 3rd Year

- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 31400 - Design Of Electronic Systems
- ABE 45700 - Transport Operations In Food And Biological Engineering I
  Economics Selective **- Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

18 Credits

Fall 4th Year

- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00

17 Credits

Spring 4th Year

- ABE 55800 - Process Design For Food And Biological Systems
- BioEnvironmental Selective - Credit Hours 3.00 (ABE 58000)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hour: 0.00-1.00

12-13 Credits

Notes

- Students must have a graduation index of 2.0
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Biological Engineering: Cellular and Biomolecular Engineering Concentration, BSBE

About the Program

The Biological Engineering program is accredited by the Engineering Accreditation Commission of ABET.

The world has tremendous need for solutions to problems related to the environment, energy, health, food, and sustainability. Biological systems are related to or at the heart of all of these issues. A biological engineer learns to design and analyze biological systems to develop innovative and practical solutions. Our B.S. graduates are well prepared for careers in the food industry, pharmaceutical industry, biotechnology, and bioprocessing as well as entrance into graduate or medical school. Students may select a major and plan of study within biological engineering that is tailored to their specific career goals. Students in this program earn a Bachelor of Science in Biological Engineering, (BSBE). Some areas of focus include:

This emerging field is expected to rapidly advance and open opportunities in biomanufacturing, drug design, human therapeutics, tissue and organ regeneration, bioenergy and biofuel production, bioremediation, and biodefense.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Biological Engineering Major Change (CODO) Requirements

Degree Requirements

129 Credits Required

Departmental/Program Major Courses (49 credits)

Required Major Courses (49 credits)

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 22600 - Biotechnology Laboratory I ♦
- ABE 22700 - Biotechnology Laboratory II ♦
- ABE 29000 - Sophomore Seminar (satisfies Science, Technology, & Society for core)
- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- ABE 44000 - Cell And Molecular Design Principles
- ABE 45700 - Transport Operations In Food And Biological Engineering I
- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- ABE 55800 - Process Design For Food And Biological Systems
- ABE 58000 - Process Engineering Of Renewable Resources

Other Departmental /Program Course Requirements (79-80 credits)

Click here for First-Year Engineering Requirements

Click here for Pre-Agricultural and Biological Engineering Requirement

- ENGR 13100 - Transforming Ideas To Innovation I
- ENGR 13200 - Transforming Ideas To Innovation II
- CHM 11500 - General Chemistry (satisfies Science #1 for core)
- CHM 11600 - General Chemistry (satisfies Science #2 for core)
- CS 15900 - C Programming
- MA 16500 - Analytic Geometry And Calculus I
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26200 - Linear Algebra And Differential Equations
- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences
- PHYS 17200 - Modern Mechanics
- BIOL 23000 - Biology Of The Living Cell ♦
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
- CHM 25500 - Organic Chemistry ♦ and
- CHM 25501 - Organic Chemistry Laboratory ♦
  OR
- CHM 25700 - Organic Chemistry ♦
  Economics Selective - **Credit Hours: 3.00** (satisfies Human Cultures: Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Biological Science Selective - Credit Hours: 4.00
- Biological Science or Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Biological Engineering Supplemental Information

Elective (0-1 credit)

- Electives - Credit Hours: 0.00-1.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- PHYS 17200 - Modern Mechanics
- CHM 11500 - General Chemistry
- Written Communication Selective - Credit Hours: 3.00-4.00

17-18 Credits

Spring 1st Year

- ENGR 13200 - Transforming Ideas To Innovation II
- MA 16600 - Analytic Geometry And Calculus II
- CHM 11600 - General Chemistry

- CS 15900 - C Programming
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 29000 - Sophomore Seminar
- ABE 22600 - Biotechnology Laboratory I ♦
- MA 26100 - Multivariate Calculus
- BIOL 23000 - Biology Of The Living Cell ♦
- CHM 25500 - Organic Chemistry ♦ and
- CHM 25501 - Organic Chemistry Laboratory ♦
  OR
- CHM 25700 - Organic Chemistry ♦

18 Credits

Spring 2nd Year

- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 22700 - Biotechnology Laboratory II ♦
- MA 26200 - Linear Algebra And Differential Equations
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
  Economics Selective - **Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

15 Credits

Fall 3rd Year

- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences
- Biological Science Selective - Credit Hours: 4.00

16 Credits

Spring 3rd Year

- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 45700 - Transport Operations In Food And Biological Engineering I
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- Biological Science or Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 4th Year

- ABE 44000 - Cell And Molecular Design Principles
- ABE 55800 - Process Design For Food And Biological Systems
- ABE 58000 - Process Engineering Of Renewable Resources
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 0.00-1.00

16 Credits

Notes

- Students must have a graduation index of 2.0
- Consultation with an advisor may result in an altered plan customized for individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese

GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
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Critical Course

The ♦ course is considered critical.

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Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Biological Engineering: Food and Biological Process Engineering Concentration, BSBE

About the Program

The Biological Engineering program is accredited by the Engineering Accreditation Commission of ABET.

The world has tremendous need for solutions to problems related to the environment, energy, health, food, and sustainability. Biological systems are related to or at the heart of all of these issues. A biological engineer learns to design and analyze biological systems to develop innovative and practical solutions. Our B.S. graduates are well prepared for careers in the food industry, pharmaceutical industry, biotechnology, and bioprocessing as well as entrance into graduate or medical school. Students may select a major and plan of study within biological engineering that is tailored to their specific career goals. Students in this program earn a Bachelor of Science in Biological Engineering, (BSBE). Some areas of focus include:

This is an interdisciplinary field that applies the basic sciences, mathematics, and engineering to convert agricultural commodities into edible foods and biological materials through various processing steps. Advances in genetic engineering lead to new types of crops and new processing methods to create value added products.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes

- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Biological Engineering Major Change (CODO) Requirements

Degree Requirements

129 Credits Required

Required Major Courses (45 credits)

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 29000 - Sophomore Seminar (satisfies Science, Technology, and Society for core)
- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 31400 - Design Of Electronic Systems
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- ABE 45700 - Transport Operations In Food And Biological Engineering I
- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- ABE 55800 - Process Design For Food And Biological Systems
- ABE 58000 - Process Engineering Of Renewable Resources

Other Departmental/Program Course Requirements (83-84 credits)

Click here for First-Year Engineering Requirements

Click here for Pre-Agricultural and Biological Engineering Requirement

- ENGR 13100 - Transforming Ideas To Innovation I
- ENGR 13200 - Transforming Ideas To Innovation II
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry
- CHM 25500 - Organic Chemistry ♦ and

- CHM 25501 - Organic Chemistry Laboratory ♦
  OR
- CHM 25700 - Organic Chemistry ♦
- MA 16500 - Analytic Geometry And Calculus I
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26200 - Linear Algebra And Differential Equations
- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences
- PHYS 17200 - Modern Mechanics
- CS 15900 - C Programming
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 22100 - Introduction To Microbiology ♦
- NUTR 20500 - Food Science I ♦ or
- BCHM 30700 - Biochemistry ♦
  Economics Selective - **Credit Hours: 3.00** (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Biological or Food Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Biological Engineering Supplemental Information

Elective (0-1 credit)

- Electives - Credit Hours: 0.00-1.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00

- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- CHM 11500 - General Chemistry
- PHYS 17200 - Modern Mechanics
- Written Communication Selective - Credit Hours: 3.00-4.00

17-18 Credits

Spring 1st Year

- ENGR 13200 - Transforming Ideas To Innovation II
- MA 16600 - Analytic Geometry And Calculus II
- CHM 11600 - General Chemistry
- CS 15900 - C Programming
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 29000 - Sophomore Seminar
- BIOL 11000 - Fundamentals Of Biology I ♦
- MA 26100 - Multivariate Calculus
- CHM 25500 - Organic Chemistry ♦ and
- CHM 25501 - Organic Chemistry Laboratory ♦
  OR
- CHM 25700 - Organic Chemistry ♦

17 Credits

Spring 2nd Year

- ABE 20200 - Thermodynamics In Biological Systems II
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
- MA 26200 - Linear Algebra And Differential Equations
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- NUTR 20500 - Food Science I ♦ or
- BCHM 30700 - Biochemistry ♦

16 Credits

Fall 3rd Year

- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- BIOL 22100 - Introduction To Microbiology ♦
- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences

16 Credits

Spring 3rd Year

- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 31400 - Design Of Electronic Systems
- ABE 45700 - Transport Operations In Food And Biological Engineering I
  Economics Selective - **Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or

- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

18 Credits

Fall 4th Year

- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

13 Credits

Spring 4th Year

- ABE 55800 - Process Design For Food And Biological Systems
- ABE 58000 - Process Engineering Of Renewable Resources
- Biological or Food Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 0.00-1.00

16 Credits

Notes

- Students must have a graduation index of 2.0
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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Biological Engineering: Pharmaceutical Process Engineering Concentration, BSBE

About the Program

The Biological Engineering program is accredited by the Engineering Accreditation Commission of ABET.

The world has tremendous need for solutions to problems related to the environment, energy, health, food, and sustainability. Biological systems are related to or at the heart of all of these issues. A biological engineer learns to design and analyze biological systems to develop innovative and practical solutions. Our B.S. graduates are well prepared for careers in the food industry, pharmaceutical industry, biotechnology, and bioprocessing as well as entrance into graduate or medical school. Students may select a major and plan of study within biological engineering that is tailored to their specific career goals. Students in this program earn a Bachelor of Science in Biological Engineering, (BSBE). Some areas of focus include:

This program of study is targeted to provide graduates with unique skills and job opportunities to take on roles within all phases of the pharmaceutical industry including research, product and process development, processing engineering, manufacturing, and marketing.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Biological Engineering Major Change (CODO) Requirements

Degree Requirements

129 Credits Required

Departmental/Program Major Courses (45 credits)

Required Major Courses (45 credits)

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 29000 - Sophomore Seminar (satisfies Science, Technology, & Society for core)
- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 31400 - Design Of Electronic Systems
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- ABE 45700 - Transport Operations In Food And Biological Engineering I
- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- ABE 55800 - Process Design For Food And Biological Systems
- ABE 58000 - Process Engineering Of Renewable Resources

Other Departmental/Program Requirements (84-85 credits)

Click here for First-Year Engineering Requirements

Click here for Pre-Agricultural and Biological Engineering Requirement

- ENGR 13100 - Transforming Ideas To Innovation I
- ENGR 13200 - Transforming Ideas To Innovation II
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry
- CHM 25500 - Organic Chemistry ♦ and
- CHM 25501 - Organic Chemistry Laboratory ♦
  OR
- CHM 25700 - Organic Chemistry ♦
- MA 16500 - Analytic Geometry And Calculus I
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26200 - Linear Algebra And Differential Equations

- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences
- PHYS 17200 - Modern Mechanics
- CS 15900 - C Programming
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 22100 - Introduction To Microbiology ♦
- BCHM 30700 - Biochemistry ♦
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
- IPPH 56200 - Introduction To Pharmaceutical Manufacturing Processes ♦

Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Electives (0 credits)

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)

- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- CHM 11500 - General Chemistry
- PHYS 17200 - Modern Mechanics
- Written Communication Selective - Credit Hours: 3.00-4.00

17-18 Credits

Spring 1st Year

- ENGR 13200 - Transforming Ideas To Innovation II
- MA 16600 - Analytic Geometry And Calculus II
- CHM 11600 - General Chemistry
- CS 15900 - C Programming
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 29000 - Sophomore Seminar
- MA 26100 - Multivariate Calculus ♦
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 25500 - Organic Chemistry ♦ and
- CHM 25501 - Organic Chemistry Laboratory ♦
  OR
- CHM 25700 - Organic Chemistry ♦

17 Credits

Spring 2nd Year

- ABE 20200 - Thermodynamics In Biological Systems II
- CHE 32000 - Statistical Modeling And Quality Enhancement ♦
- BCHM 30700 - Biochemistry ♦
- MA 26200 - Linear Algebra And Differential Equations
- Humanities or Social Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- BIOL 22100 - Introduction To Microbiology ♦
- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences

16 Credits

Spring 3rd Year

- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 30800 - Heat And Mass Transfer In Food And Biological Systems
- ABE 31400 - Design Of Electronic Systems
- ABE 45700 - Transport Operations In Food And Biological Engineering I
  Economics Selective - **Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

18 Credits

Fall 4th Year

- ABE 46000 - Sensors And Process Control
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- ABE 55700 - Transport Operations In Food And Biological Systems II
- IPPH 56200 - Introduction To Pharmaceutical Manufacturing Processes ♦
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

17 Credits

Spring 4th Year

- ABE 55800 - Process Design For Food And Biological Systems
- ABE 58000 - Process Engineering Of Renewable Resources
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

12 Credits

Notes

- Students must have a graduation index of 2.0
- The student is ultimately responsible for knowing and completing all degree requirements.
- Consultation with an advisor may result in an altered plan customized for a student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Environmental and Natural Resources Engineering, BSAGE

About the Program

The Environmental and Natural Resources Engineering program is accredited by the Engineering Accreditation Commission of ABET.

This major prepares engineers to understand environmental and economic sustainability challenges. You learn about ecosystem processes (the water cycle, nutrient transformation processes, and biological systems), how human activities such as agriculture affect these complex systems, and how to design sustainable solutions. You will also gain the background in chemistry and biology necessary to understand the influences of contaminants on the environment. Basic engineering principles, as well as some of the newest technological approaches such as geographical information systems, finite element analysis, sensor design, hydrologic modeling, and soil and water remediation are applied to solve challenges related to soil and plant environments, surface and ground water quality, air quality, animal environments, and food safety.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences
- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Watch a video and take a look at some senior projects. We hope to see you in ABE soon!

Environmental and Natural Resources Engineering Major Change (CODO) Requirements

Degree Requirements

128 Credits Required

Departmental/Program Major Courses (28 credits)

Required Major Courses (28 credits)

- ABE 20500 - Computations For Engineering Systems
- ABE 21000 - Thermodynamics Principles Of Engineering And Biological Systems
- ABE 29000 - Sophomore Seminar (satisfies Science, Technology, and Society for core)
- ABE 30500 - Physical Properties Of Biological Materials
- ABE 31400 - Design Of Electronic Systems
- ABE 32500 - Soil And Water Resource Engineering
- ABE 33000 - Design Of Machine Components
- ABE 45000 - Finite Element Method In Design And Optimization

- ABE 48400 - Project Planning And Management
- ABE 48600 - Agricultural Engineering Design (Capstone)
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering

Other Departmental /Program Course Requirements (98-99 credits)

Click here for First-Year Engineering Requirement

- ENGR 13100 - Transforming Ideas To Innovation I
- ENGR 13200 - Transforming Ideas To Innovation II
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry
- PHYS 17200 - Modern Mechanics
- PHYS 24100 - Electricity And Optics ♦
- MA 16500 - Analytic Geometry And Calculus I
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26200 - Linear Algebra And Differential Equations
- ME 27000 - Basic Mechanics I ♦
- ME 27400 - Basic Mechanics II ♦
- NUCL 27300 - Mechanics Of Materials ♦
- AGRY 25500 - Soil Science
- CE 34000 - Hydraulics ♦ and
- CE 34300 - Elementary Hydraulics Laboratory ♦
  Economics Selective - **Credit Hours: 3.00** (satisfies Human Cultures: Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Agricultural Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Engineering Technical Selective - Credit Hours: 3.00
- Engineering Technical Selective - Credit Hours: 3.00
- Environmental and Natural Resources Engineering Technical Selective - Credit Hours: 3.00
- Environmental and Natural Resources Engineering Technical Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core
- Written and Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Environmental and Natural Resources Engineering Supplemental Information

Electives (1-2 credits)

- Electives - Credit Hours: 1.00-2.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- CHM 11500 - General Chemistry
- Written Communication Selective - Credit Hours: 3.00-4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16-17 Credits

Spring 1st Year

- ENGR 13200 - Transforming Ideas To Innovation II
- MA 16600 - Analytic Geometry And Calculus II
- CHM 11600 - General Chemistry
- PHYS 17200 - Modern Mechanics
- Oral Communication Selective - Credit Hours: 3.00

17 Credits

Fall 2nd Year

- ABE 20500 - Computations For Engineering Systems
- ABE 29000 - Sophomore Seminar
- MA 26100 - Multivariate Calculus
- ME 27000 - Basic Mechanics I ♦
- PHYS 24100 - Electricity And Optics ♦
  Economics Selective - **Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

17 Credits

Spring 2nd Year

- ABE 21000 - Thermodynamics Principles Of Engineering And Biological Systems
- MA 26200 - Linear Algebra And Differential Equations
- ME 27400 - Basic Mechanics II ♦
- NUCL 27300 - Mechanics Of Materials ♦
- Biological Science Selective - Credit Hours: 4.00

17 Credits

Fall 3rd Year

- ABE 30500 - Physical Properties Of Biological Materials
- ABE 32500 - Soil And Water Resource Engineering
- AGRY 25500 - Soil Science
- CE 34000 - Hydraulics ♦

- CE 34300 - Elementary Hydraulics Laboratory ♦
- Humanities or Social Science Selective - Credit Hours: 3.00

17 Credits

Spring 3rd Year

- ABE 31400 - Design Of Electronic Systems
- ABE 33000 - Design Of Machine Components
- Agricultural Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- Environmental and Natural Resources Engineering Technical Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- ABE 45000 - Finite Element Method In Design And Optimization
- ABE 48400 - Project Planning And Management
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering
- Environmental and Natural Resources Engineering Technical Selective - Credit Hours: 3.00
- Engineering Technical Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

14 Credits

Spring 4th Year

- ABE 48600 - Agricultural Engineering Design
- Engineering Technical Selective - Credit Hours: 3.00
- Humanities or Social Selective - Credit Hours: 3.00
- Humanities or Social Selective (30000+) - Credit Hours: 3.00
- Elective - Credit Hours: 1.00-2.00

13-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
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PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

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Minor

Agricultural Systems Management Minor

Requirements for the Minor (18 credits)

Required Courses (6 credits)

- ASM 10400 - Introduction To Agricultural Systems
- ASM 10500 - Computing Technology With Applications

ASM Selectives (9 credits)

- ASM 20100 - Construction And Maintenance
- ASM 21100 - Technical Graphic Communications
- ASM 22200 - Crop Production Equipment
- ASM 23600 - Environmental Systems Management
- ASM 24500 - Materials Handling And Processing
- ASM 33300 - Facilities Planning And Management
- ASM 34500 - Power Units And Power Trains
- ASM 42000 - Electric Power And Controls

- ASM 42200 - Advanced Machine Technology For Agricultural Crop Production
- ASM 49000 - Special Problems
- ASM 49100 - Special Topics
- ASM 51000 - Agrosecurity-Emergency Management For Agricultural Production Operations
- ASM 53000 - Power And Machinery Management
- ASM 54000 - Geographic Information System Application
- ASM 55000 - Grain Drying And Storage
- ASM 59000 - Special Problems
- ASM 59100 - Special Topics

Selective (3 credits)

- AGEC 31000 - Farm Organization
- AGEC 33000 - Management Methods For Agricultural Business
- AGRY 37500 - Crop Production Systems
- ANSC 22100 - Principles Of Animal Nutrition

Notes

- At least six credits must be 30000+ level courses.
- Department Permission is not required to enroll in this minor.
- No more than 6 credits of special problems (ASM 49000 and/or 59000) may apply to the minor and application of the special problems to the minor must be stated on the course contract form.

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Biotechnology Minor

Biotechnology refers to harnessing the properties of a living organism to develop and manufacture products that benefit human life. With this minor, you will gain the basic knowledge and understanding of life science-based products, processess, and product quality to prepare you for employment oppurtunities in the area of biotechnology and biotech-manufacturing.

Requirements for the Minor (16 credits)

Required Courses (7 credits)

- ABE 22600 - Biotechnology Laboratory I
- ABE 22700 - Biotechnology Laboratory II
- ABE 51100 - Drug Development or
- ABE 51200 - Good Regulatory Practices

Lab Science Selectives (6 credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 11500 - General Chemistry
- CHM 11600 - General Chemistry
- CHM 12901 - General Chemistry With A Biological Focus

Statistics Selective (3 credits)

- CHE 32000 - Statistical Modeling And Quality Enhancement
- IET 31600 - Statistical Quality Control
- IT 34200 - Introduction To Statistical Quality
- STAT 50300 - Statistical Methods For Biology
- STAT 30100 - Elementary Statistical Methods
- STAT 35000 - Introduction To Statistics
- STAT 22500 - Introduction To Probability Models
- STAT 51100 - Statistical Methods

Notes

- All courses must have a grade of a "C" or higher.

Disclaimer

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The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Pre-Program

Pre-Agricultural and Biological Engineering

About the Program

Upon successful completion of the one year Pre-Agricultural and Biological Engineering curriculum students can move to their professional program of choice within Agricultural and Biological Engineering.

Some of the factors that contribute to Agricultural & Biological Engineering at Purdue University being a top ranked program:

- Multiple opportunities for interaction with faculty in laboratories and in classes
- Student Competitions, Clubs, Global Experiences

- Personalized advising and attention from faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Department of Agricultural and Biological Engineering

Check our program videos below and take a look at some senior projects. We hope to see you in ABE soon!

- Biological Engineering Video
- Environmental and Natural Resources Engineering Video
- Machine Systems Engineering Video

Program Requirements

Fall 1st Year

- ENGR 13100 - Transforming Ideas To Innovation I ♦ (satisfies Information Literacy for core)
- CHM 11500 - General Chemistry ♦ (satisfies Science for core)
- MA 16500 - Analytic Geometry And Calculus I (satisfies Quantitative Reasoning for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16-17 Credits

Spring 1st Year

- ENGR 13200 - Transforming Ideas To Innovation II ♦
- MA 16600 - Analytic Geometry And Calculus II
- PHYS 17200 - Modern Mechanics ♦
- CHM 11600 - General Chemistry ♦ or
- CS 15900 - C Programming ♦
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)

16-17 Credits

Notes

- MA 16100 and MA 16200 are alternatives to MA 16500 and 16600, respectively.
- Students pursuing the Agricultural Engineering major may take CHM 11600 or CS 15900. All others should take CHM 11600.
- Students must earn a C- or better in all courses used to fulfill the above requirements if the grade is posted to the Purdue transcript, with the exception of the Human Culture Humanities Selective.

- Official and complete prerequisite lists are in the course catalog; the incomplete listing presented here regards this program and course sequencing.

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Program Information

Agricultural Engineering Supplemental Information

Agricultural Selective (3 Credits)

- ABE 10000:59999
- AGEC 10000:59999
- AGR 10000:59999
- AGRY 10000:59999
- ANSC 10000:59999
- ASEC 10000:59999
- ASM 10000:59999
- BCHM 10000:59999
- BTNY 10000:59999
- ENTM 10000:59999
- FNR 10000:59999
- FS 10000:59999
- HORT 10000:59999
- LA 10000:59999
- NRES 10000:59999

Biological Science Selective (8 Credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 19500 - Special Assignments - *Title: First Year Biology Lab*
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 29500 - Special Assignments - *Title: Quant Biol Living Cell*
- BTNY 11000 - Introduction To Plant Science

- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II

Engineering Technical Selective (6 Credits)

- ABE 46000 - Sensors And Process Control
- ABE 49500 - Select Topics In Agricultural And Biological Engineering
- ABE 49800 - Undergraduate Research In Agricultural And Biological Engineering
- ABE 49900 - Thesis Research
- ABE 50100 - Welding Engineering
- ABE 53100 - Instrumentation And Data Acquisition
- ABE 54500 - Design Of Off-Highway Vehicles
- ABE 58000 - Process Engineering Of Renewable Resources
- CE 38300 - Geotechnical Engineering I
- ECE 20700 - Electronic Measurement Techniques
- IE 37000 - Manufacturing Processes I
- IE 34300 - Engineering Economics
- IE 57700 - Human Factors In Engineering
- ME 26300 - Introduction To Mechanical Engineering Design, Innovation And Entrepreneurship
- ME 30000 - Thermodynamics II
- ME 31500 - Heat And Mass Transfer
- ME 36500 - Measurement And Control Systems I
- ME 37500 - Measurement And Control Systems II
- ME 41300 - Noise Control
- ME 41800 - Engineering Of Environmental Systems And Equipment
- ME 43300 - Principles Of Turbomachinery
- ME 44000 - Automotive Prime Movers: Green Engines And Clean Fuel
- ME 47500 - Automatic Control Systems
- MSE 23000 - Structure And Properties Of Materials

Agricultural Systems Management Supplemental Information

Agricultural Selective (12 Credits)

- ABE 10000:59999
- AGEC 10000:59999
- AGR 10000:59999
- AGRY 10000:59999
- ANSC 10000:59999
- ASM 10000:59999
- BCHM 10000:59999
- BTNY 10000:59999
- ENTM 10000:59999
- FNR 10000:59999
- FS 10000:59999
- HORT 10000:59999

- LA 10000:59999
- NRES 10000:59999
- SFS 10000:59999
- YDAE 10000:59999

Biological Science Selective (8 Credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First Year Biology Laboratory
- BIOL 19500 - Special Assignments - *Title: First Year Biology Lab*
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 29500 - Special Assignments - *Title: Quant Biol Living Cell*
- BTNY 11000 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II

Biological Engineering Supplemental Information

Biological Engineering General Selectives

Biological Science Selectives

- ABE 22600 - Biotechnology Laboratory I
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First Year Biology Laboratory
- BIOL 19500 - Special Assignments
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology

- BTNY 11000 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II
- HORT 30100 - Plant Physiology

Engineering or Life Science Selective

Engineering Selectives:

- ABE 58000 - Process Engineering Of Renewable Resources

Life Science Selectives:

- ABE 22700 - Biotechnology Laboratory II
- AGRY 25500 - Soil Science
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BIOL 30100 - Human Design: Anatomy And Physiology
- BIOL 30200 - Human Design: Anatomy And Physiology
- BIOL 43200 - Reproductive Physiology
- BIOL 43600 - Neurobiology
- BIOL 47800 - Introduction to Bioinformatics
- BIOL 53300 - Medical Microbiology
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- FS 36100 - Food Plant Sanitation
- FS 36200 - Food Microbiology
- FS 45300 - Food Chemistry
- HORT 30100 - Plant Physiology
- IPPH 56200 - Introduction To Pharmaceutical Manufacturing Processes
- NUTR 20500 - Food Science I
- NUTR 31500 - Fundamentals Of Nutrition
- NUTR 45300 - Food Chemistry

Cellular and Biomoecular Engineering Concentration

Biological Science or Science Selective

- ABE 51100 - Drug Development
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 53300 - Medical Microbiology
- BIOL 47800 - Introduction to Bioinformatics
- BIOL 43200 - Reproductive Physiology
- BIOL 43600 - Neurobiology
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 30100 - Human Design: Anatomy And Physiology
- BIOL 30200 - Human Design: Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory

Food and Biological Process Engineering Concentration

Biological or Food Science Selective

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BIOL 28600 - Introduction To Ecology And Evolution
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- FS 36100 - Food Plant Sanitation
- FS 36200 - Food Microbiology
- FS 45300 - Food Chemistry
- NUTR 45300 - Food Chemistry
- NUTR 31500 - Fundamentals Of Nutrition

Environmental and Natural Resources Engineering Supplemental Information

Agriculture Selective (3 credits)

- ABE 10000:59999

- AGEC 10000:59999
- AGR 10000:59999
- AGRY 10000:59999
- ANC 10000:59999
- ASM 10000:59999
- BCHM 10000:59999
- BTNY 10000:59999
- ENTM 10000:59999
- FNR 10000:59999
- FS 10000:59999
- HORT 10000:59999
- LA 10000:59999
- NRES 10000:59999
- YDAE 10000:59999

Biological Science Selective (8 credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 19500 - Special Assignments
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 29500 - Special Assignments
- BTNY 11000 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II
- HORT 30100 - Plant Physiology

Engineering Technical Selective (6 credits)

- ABE 43500 - Hydraulic Control Systems For Mobile Equipment
- ABE 46000 - Sensors And Process Control
- ABE 49500 - Select Topics In Agricultural And Biological Engineering
- ABE 49800 - Undergraduate Research In Agricultural And Biological Engineering
- ABE 49900 - Thesis Research
- ABE 52200 - Ecohydrology
- ABE 52500 - Irrigation Management And Design
- ABE 52700 - Computer Models In Environmental And Natural Resources Engineering
- ABE 52900 - Nonpoint Source Pollution Engineering
- ABE 53100 - Instrumentation And Data Acquisition
- ABE 54500 - Design Of Off-Highway Vehicles

- ABE 58000 - Process Engineering Of Renewable Resources
- CE 35000 - Introduction To Environmental And Ecological Engineering
- CE 35200 - Biological Principles Of Environmental Engineering
- CE 35300 - Physico-Chemical Principles Of Environmental Engineering
- CE 35500 - Engineering Environmental Sustainability
- CE 38300 - Geotechnical Engineering I
- CE 40800 - Geographic Information Systems In Engineering
- CE 44000 - Urban Hydraulics
- CE 44300 - Introductory Environmental Fluid Mechanics
- CE 45600 - Wastewater Treatment Processes
- CE 45700 - Air Pollution Control And Design
- CE 49700 - Civil Engineering Projects
- CE 54000 - Open Channel Hydraulics
- CE 54200 - Hydrology
- CE 54300 - Coastal Engineering
- CE 54400 - Subsurface Hydrology
- CE 54500 - Sediment Transport Engineering
- CE 54900 - Computational Watershed Hydrology
- CE 55000 - Physico-Chemical Processes In Environmental Engineering I
- CE 55700 - Air Quality Management
- CE 55900 - Water Quality Modeling
- CE 59300 - Environmental Geotechnology
- EEE 35000 - Introduction To Environmental And Ecological Engineering
- EEE 35500 - Engineering Environmental Sustainability
- EPCS 30100 - Junior Participation In EPICS and
- EPCS 30200 - Junior Participation In EPICS
- EPCS 41100 - Senior Design Participation In EPICS and
- EPCS 41200 - Senior Design Participation In EPICS
- GEP Global Engineering Projects

Environmental and Natural Resources Engineering Technical Selectives (6 credits)

- ABE 46000 - Sensors And Process Control
- ABE 49500 - Select Topics In Agricultural And Biological Engineering
- ABE 49800 - Undergraduate Research In Agricultural And Biological Engineering
- ABE 49900 - Thesis Research
- ABE 52200 - Ecohydrology
- ABE 52500 - Irrigation Management And Design
- ABE 52700 - Computer Models In Environmental And Natural Resources Engineering
- ABE 52900 - Nonpoint Source Pollution Engineering
- ABE 53100 - Instrumentation And Data Acquisition
- ABE 59000 - Special Problems
- ABE 59100 - Special Topics
- AGRY 33700 - Environmental Hydrology
- AGRY 33800 - Environmental Hydrology Laboratory
- AGRY 54500 - Remote Sensing Of Land Resources

- ASM 54000 - Geographic Information System Application
- CE 35000 - Introduction To Environmental And Ecological Engineering
- CE 35500 - Engineering Environmental Sustainability
- CE 38300 - Geotechnical Engineering I
- CE 54200 - Hydrology
- EEE 35000 - Introduction To Environmental And Ecological Engineering
- EEE 35500 - Engineering Environmental Sustainability
- FNR 55800 - Remote Sensing Analysis And Applications
- FNR 21000 - Natural Resource Information Management
- FNR 35700 - Fundamental Remote Sensing

Department of Agricultural Economics

Overview

The Department of Agricultural Economics has a long history of preparing students for careers in the food and agricultural industry as well as preparation for graduate and law school. The variation of majors offers students the opportunity to focus in agribusiness, economics, sales and marketing, or farm management.

Students have the opportunity to learn from faculty who lead the department's Center for Food and Agricultural Business and the Center for Commercial Agriculture. The Center for Food and Agricultural Business combines research with real-world applications to offer seminars, workshops, and custom programs to the same companies that are hiring our undergraduate students for internships and full-time positions. The Center for Commercial Agriculture has a vision to "be the leading source of management education and knowledge generation for farmers" bringing a wealth of experienced faculty to guide students interested in a career path in production agriculture.

Students are advised by a passionate group of academic advisors who encourage students to enhance their Purdue experience by participating in transformational experiences. These experiences range from attending a national or campus leadership conference, studying abroad, competing in an academic competition, completing an undergraduate research project, serving as an officer in one of the numerous campus organizations, etc.

Faculty (website)

Department of Agricultural Economics (website)

Contact Information

Department of Agricultural Economics

Purdue University

Krannert Building
403 West State Street
West Lafayette, IN 47907
Phone: (765) 494-4201

Email: LeeAnn Williams (leewill@purdue.edu)

Advising & Student Services Office: Krannert Building (KRAN), Room 681

Prospective Undergraduate Students (website)

Current Undergraduate Students (website)

Graduate Information

For Graduate Information please see Agricultural Economics Graduate Program Information.

Baccalaureate

Agribusiness: Agribusiness Management Concentration, BS

About the Program

Students completing a degree in Agribusiness must choose a concentration from five choices: Agribusiness Management, Agricultural Finance, Agricultural Marketing, Commodity Marketing, and Food Marketing. The Agribusiness Management concentration requires courses in supply chain management, human relations management, strategic management, and agricultural or business law. Students are prepared to enter managerial positions in a wide variety of agribusiness and non-agribusiness firms as Supply Chain Manager, Production Manager, Account Manager, Human Resource Specialist, and Facilities Location Manager.

Agricultural Economics Website

Agribusiness Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (33 credits)

Required Major Courses (30 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33000 - Management Methods For Agricultural Business

- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 43000 - Agricultural And Food Business Strategy (Capstone)
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I

Major Selectives (3 credits)

- AGEC Selective (AGEC 20300:59999) - Credit Hours: 3.00

Other Departmental/Program Course Requirements (69-70 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- STAT 30100 - Elementary Statistical Methods ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning and Information Literacy for core)
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
  Human Relations Management Selective - Credit Hours: 3.00
- OLS 25200 - Human Relations In Organizations or
- OLS 27400 - Applied Leadership or
- TLI 11200 - Foundations Of Organizational Leadership or
- TLI 15200 - Business Principles For Organizational Leadership
  Industrial Technology Selective - Credit Hours: 3.00
- IET 21400 - Introduction To Supply Chain Management Technology or
- IET 23500 - Introduction To Lean And Sustainable Systems or
- IET 31600 - Statistical Quality Control or
- IET 41400 - Financial Analysis For Technology Systems
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Economics Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Agribusiness Supplemental Information

Electives (17-18 credits)

- Electives - Credit Hours: 17.00-18.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- MA 16010 - Applied Calculus I
- Biological Sciences Selective - Credit Hours: 4.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- Biological Sciences Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selectives - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGEC 33000 - Management Methods For Agricultural Business
- CHM 11200 - General Chemistry ♦
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦

Human Relations Management Selective - Credit Hours: 3.00

- OLS 25200 - Human Relations In Organizations or
- OLS 27400 - Applied Leadership or
- TLI 11200 - Foundations Of Organizational Leadership or
- TLI 15200 - Business Principles For Organizational Leadership

- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
  Industrial Technology Selective - Credit Hours: 3.00
- IET 21400 - Introduction To Supply Chain Management Technology or
- IET 23500 - Introduction To Lean And Sustainable Systems or
- IET 31600 - Statistical Quality Control or
- IET 41400 - Financial Analysis For Technology Systems

- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC Major Selective (AGEC 20300:59999) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00
- Electives - Credit Hours: 5.00

14 Credits

Spring 4th Year

- AGEC 43000 - Agricultural And Food Business Strategy
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Electives - Credit Hours: 6.00-7.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.
- Official and complete prerequisite lists are in the course catalog; the incomplete listing presented here regards this program and course sequencing.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agribusiness: Agricultural Finance Concentration, BS

About the Program

Students completing a degree in Agribusiness must choose a concentration from five choices: Agribusiness Management, Agricultural Finance, Agricultural Marketing, Commodity Marketing, and Food Marketing. The Agricultural Finance concentration requires courses in estate planning or federal income tax law, capital investment analysis, strategic management, agricultural or business law, and additional accounting. Students are prepared to enter a vast number of finance careers including Analyst, Financial Services Officer, Commercial Business Banker or Loan Officer.

Agricultural Economics Website

Agribusiness Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (39 credits)

Required Major Courses (36 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 43000 - Agricultural And Food Business Strategy (Capstone)
- AGEC 52400 - Agricultural Finance
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- AGEC 42500 - Estate Planning And Property Transfer or
- AGEC 45600 - Federal Income Tax Law
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I

Major Selectives (3 credits)

- AGEC Selective (AGEC 20300:59999) - Credit Hours: 3.00

Other Departmental /Program Course Requirements (63 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- MGMT 20100 - Management Accounting I
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Economics Selective - Credit Hours: 3.00

- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective for core - Credit Hours: 3.00 (satisfies Science, Technology & Society for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)

Additional Degree Requirements

Click here for Agribusiness Supplemental Information

Electives (17-18 credits)

- Electives - Credit Hours: 17.00-18.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- MA 16010 - Applied Calculus I
- Biological Sciences Selective - Credit Hours: 4.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- Biological Sciences Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGEC 33000 - Management Methods For Agricultural Business
- CHM 11200 - General Chemistry ♦

- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- MGMT 20100 - Management Accounting I
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- AGEC Major Selective (AGEC 20300:59999) - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC 42500 - Estate Planning And Property Transfer or
- AGEC 45600 - Federal Income Tax Law
- Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 4.00-5.00

13-14 Credits

Spring 4th Year

- AGEC 43000 - Agricultural And Food Business Strategy
- AGEC 52400 - Agricultural Finance
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00
- Elective - Credit Hours: 4.00

13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agribusiness: Agricultural Marketing Concentration, BS

About the Program

Students completing a degree in Agribusiness must choose a concentration from five choices: Agribusiness Management, Agricultural Finance, Agricultural Marketing, Commodity Marketing, and Food Marketing. The Agricultural Marketing concentration requires courses in sales and marketing analytics and then allows the students to select four business courses to complete the concentration. Students are prepared for careers as a Sales Representative,

Marketing Representative, District Sales Manager, and Brand Manager in a wide variety of agribusiness and non-agribusiness firms.

Agricultural Economics Website

Agribusiness Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (38 credits)

Required Major Courses (32 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 42700 - Advanced Agribusiness Marketing (Capstone)
- AGEC 42900 - Agribusiness Marketing Workshop
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

Major Selectives (6 credits)

- AGEC Selective (AGEC 20300:59999) - Credit Hours: 3.00
- AGEC Selective (AGEC 20300:59999) - Credit Hours: 3.00

Other Departmental/Program Course Requirements (63-64 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Biological Science Selective - Credit Hours: 4.00

- Biological Science Selective - Credit Hours: 4.00
- Economics Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 6.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)

Additional Degree Requirements

Click here for Agribusiness Supplemental Information

Electives (18-19 credits)

- Electives - Credit Hours: 18.00-19.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)

- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- MA 16010 - Applied Calculus I
- Biological Sciences Selective - Credit Hours: 4.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- Biological Sciences Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGEC 33000 - Management Methods For Agricultural Business
- CHM 11200 - General Chemistry ♦

- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGEC Selective (AGEC 20300:59999) - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours 3.00

15 Credits

Fall 4th Year

- AGEC 42700 - Advanced Agribusiness Marketing
- Economics Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Spring 4th Year

- AGEC 42900 - Agribusiness Marketing Workshop
- AGEC Selective (AGEC 20300:59999) - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00

- Electives - Credit Hours: 6.00-7.00

14-15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agribusiness: Commodity Marketing Concentration, BS

About the Program

Students completing a degree in Agribusiness must choose a concentration from five choices: Agribusiness Management, Agricultural Finance, Agricultural Marketing, Commodity Marketing, and Food Marketing. The Commodity Marketing concentration requires courses in price analysis, commodity marketing, strategic management,

and production agriculture. Students are prepared for careers in commodity merchandising and procurement for a vast number of agricultural firms such as grain handling companies; feed manufacturers; and meat, dairy, and poultry processing industries.

Agricultural Economics Website

Agribusiness Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (39 credits)

Required Major Courses (36 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 30500 - Agricultural Prices
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 42100 - Advanced Commodity Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 43000 - Agricultural And Food Business Strategy (Capstone)
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

Major Selectives (3 credits)

- AGEC Selective (AGEC 20300:59999) - Credit Hours: 3.00

Other Departmental /Program Course Requirements (63-64 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦

- Agronomy or Animal Science Selective (AGRY 20000+ level or ANSC 20000+ level) - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Economics Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)

Additional Degree Requirements

Click here for Agribusiness Supplemental Information

Electives (17-18 credits)

- Electives - Credit Hours: 18.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)

- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- MA 16010 - Applied Calculus I
- Biological Sciences Selective - Credit Hours: 4.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- Biological Sciences Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGEC 33000 - Management Methods For Agricultural Business
- CHM 11200 - General Chemistry ♦

- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦

- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGEC 42100 - Advanced Commodity Marketing
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Agronomy or Animal Science Selective (AGRY 20000+ level or ANSC 20000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC 30500 - Agricultural Prices
- AGEC Selective (AGEC 20300:59999) - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00
- Electives - Credit Hours: 5.00

14 Credits

Spring 4th Year

- AGEC 43000 - Agricultural And Food Business Strategy
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science - Credit Hours: 3.00
- Electives - Credit Hours: 3.00-4.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.
- Official and complete prerequisite lists are in the course catalog; the incomplete listing presented here regards this program and course sequencing.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
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Critical Course

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Agribusiness: Food Marketing Concentration, BS

About the Program

Students completing a degree in Agribusiness must choose a concentration from five choices: Agribusiness Management, Agricultural Finance, Agricultural Marketing, Commodity Marketing, and Food Marketing. The Food Marketing concentration requires courses in sales, food retailing and distribution, marketing, food science, food packaging, nutrition, and food regulations. Students are prepared for careers as a Sales Representative, Marketing Representative, District Sales Manager, Brand Manager, and Retail Manager with food manufacturers and retail food businesses.

Agricultural Economics Website

Agribusiness Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (33 credits)

Required Major Courses (33 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 42700 - Advanced Agribusiness Marketing (Capstone)
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

Other Departmental /Program Course Requirements (68-69 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- FS 16100 - Science Of Food ♦
- FS 24500 - Food Packaging
- FS 34000 - Introduction To Food Law And Regulations
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)

- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- NUTR 30300 - Essentials Of Nutrition or
- NUTR 31500 - Fundamentals Of Nutrition
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Agribusiness Supplemental Information

Electives (18-19 credits)

- Electives - Credit Hours: 18.00-19.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)

- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- MA 16010 - Applied Calculus I
- Biological Sciences Selective - Credit Hours: 4.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- Biological Sciences Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry ♦
- FS 16100 - Science Of Food ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGEC 33000 - Management Methods For Agricultural Business
- CHM 11200 - General Chemistry ♦
- FS 24500 - Food Packaging
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGEC 33300 - Food Distribution - A Retailing Perspective
- FS 34000 - Introduction To Food Law And Regulations
- NUTR 30300 - Essentials Of Nutrition or
- NUTR 31500 - Fundamentals Of Nutrition
- Mathematics or Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 6.00

16 Credits

Fall 4th Year

- AGEC 42700 - Advanced Agribusiness Marketing
- Economics Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Spring 4th Year

- Humanities or Social Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 6.00-7.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

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Agricultural Economics: Applied Agricultural Economics Concentration, BS

About the Program

Students completing a degree in Agricultural Economics must choose a concentration from three choices: Applied Agricultural Economics, Commodity Marketing, and Quantitative Analysis. The Applied Agricultural Economics concentration offers students a great deal of flexibility with 18 Agricultural Economics electives allowing the student to design their focus within the department and developing a strong foundation in economic theory.

Agricultural Economics Website

Agricultural Economics Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (32 credits)

Major Required Courses (14 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

Agricultural Economics Major Selectives (18 credits)

- Agricultural Economics Selective (AGEC 10000:59900) - Credit Hours: 3.00
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- Agricultural Economics Selective (AGEC 10000:59900) - Credit Hours: 3.00
- Agricultural Economics Selective (AGEC 10000:59900) - Credit Hours: 3.00

Other Departmental /Program Course Requirements (63-64 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- MGMT 20000 - Introductory Accounting ♦ or

- MGMT 21200 - Business Accounting ♦
- Economics Selective (ECON 25300:59999) - Credit Hours: 9.00
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Agricultural Economics Supplemental Information

Electives (24-25 credits)

- Electives - Credit Hours: 24.00-25.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)

- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- MA 16010 - Applied Calculus I
- Biological Sciences Selective - Credit Hours: 4.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- Biological Sciences Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- CHM 11200 - General Chemistry ♦
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Agricultural Economics Selective (AGEC 10000:59900) - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- Agricultural Economics Selective (AGEC 10000:59900) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- Mathematics or Science Selective - Credit Hours: 3.00
- Agricultural Economics Selective (AGEC 10000:59900) - Credit Hours: 6.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- Agricultural Economics Selective (AGEC 10000:59900) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00
- Electives - Credit Hours: 6.00

15 Credits

Spring 4th Year

- Agricultural Economics Selective (AGEC 10000:59900) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Electives - Credit Hours: 6.00-7.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agricultural Economics: Commodity Marketing Concentration, BS

About the Program

Students completing a degree in Agricultural Economics must choose a concentration from three choices: Applied Agricultural Economics, Commodity Marketing, and Quantitative Analysis. The Commodity Marketing concentration requires courses in price analysis, commodity marketing, farm or strategic management, and production agriculture.

Students are prepared for careers in commodity merchandising and procurement for a vast number of agricultural firms such as grain handling companies; feed manufacturers; and meat, dairy, and poultry processing industries.

Agricultural Economics Website

Agricultural Economics Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (29 credits)

Major Required Courses (26 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 30500 - Agricultural Prices
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 42100 - Advanced Commodity Marketing
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- AGEC 41100 - Farm Management or
- AGEC 43000 - Agricultural And Food Business Strategy (Capstone)

Major Selectives (3 credits)

- Agricultural Economics Selective (AGEC 20300:59900) - Credit Hours: 3.00

Other Departmental /Program Course Requirements (66 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦

- Agronomy or Animal Science Selective (AGRY 20000+ level or ANSC 20000+ level) - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00

- Economics Selective - Credit Hours: 6.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Agricultural Economics Supplemental Information

Electives (24-25 credits)

- Electives - Credit Hours: 24.00-25.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)

- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- MA 16010 - Applied Calculus I
- Biological Sciences Selective - Credit Hours: 4.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- Biological Sciences Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- CHM 11200 - General Chemistry ♦
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Agricultural Economics Selective (AGEC 20300:59999) - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGEC 42100 - Advanced Commodity Marketing
- Agronomy or Animal Science Selective (20000+ level) - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC 30500 - Agricultural Prices
- AGEC 41100 - Farm Management or
- AGEC 43000 - Agricultural And Food Business Strategy
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- Economics Selective - Credit Hours: 3.00
- Electives - Credit Hours: 9.00-10.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agricultural Economics: Quantitative Analysis Concentration, BS

About the Program

Students completing a degree in Agricultural Economics must choose a concentration from three choices: Applied Agricultural Economics, Commodity Marketing, and Quantitative Analysis. The Quantitative Analysis concentration

requires students to complete the Undergraduate Honors Program, and courses in optimization, econometrics, advanced economic theory, and math for applied economics.

Students are prepared to apply economic principles and use quantitative tool to analyze data which assists the agricultural sector in making better decisions. These decisions involve a wide array of issues including price analysis, international development, international trade, environmental resources, and agricultural policy.

Agricultural Economics Website

Agricultural Economics Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (26 credits)

Required Major Courses (26 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 37500 - The Process Of Economic Research
- AGEC 45100 - Applied Econometrics
- AGEC 49900 - Thesis (Capstone) - Credit Hours: 5.00
- AGEC 51600 - Mathematical Tools For Agricultural And Applied Economics

Other Departmental/Program Course Requirements (69-70 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- ECON 34000 - Intermediate Microeconomic Theory
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)

- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦

- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Economics Selective - Credit Hours: 3.00

- Economics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Agricultural Economics Supplemental Information

Electives (24-25 credits)

- Elective - Credit Hours: 24.00-25.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- MA 16010 - Applied Calculus I
- Biological Science Selective - Credit Hours: 4.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- MA 16020 - Applied Calculus II
- Biological Sciences Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Science, Technology, & Society Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGEC 37500 - The Process Of Economic Research
- AGEC 45100 - Applied Econometrics

- CHM 11200 - General Chemistry ♦
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 49900 - Thesis - Credit Hours: 2.00
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

14 Credits

Spring 3rd Year

- AGEC 49900 - Thesis - Credit Hours: 1.00
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

14 Credits

Fall 4th Year

- AGEC 49900 - Thesis - Credit Hours: 1.00
- AGEC 51600 - Mathematical Tools For Agricultural And Applied Economics
- ECON 34000 - Intermediate Microeconomic Theory
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00
- Electives - Credit Hours: 6.00

16 Credits

Spring 4th Year

- Economics Selective - Credit Hours: 3.00
- Electives - Credit Hours: 9.00-10.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Farm Management, BS

About the Program

Farm Management prepares people for managing the home farm, professional farm management, or understanding the challenge of managing a farm. Emphasis is placed on production, finance, marketing, and management strategies.

Agricultural Economics Website

Farm Management Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (28 credits)

Required Major Courses (28 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 31000 - Farm Organization
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 41100 - Farm Management (Capstone)
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

Other Departmental /Program Course Requirements (75-76 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦

- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Economics Selective - Credit Hours: 3.00
- Farm Management Business Selective - Credit Hours: 3.00
- Farm Management Business Selective - Credit Hours: 3.00
- Farm Management Business Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Production Agriculture Selective - Credit Hours: 3.00
- Production Agriculture Selective - Credit Hours: 3.00
- Production Agriculture Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

- Science, Technology & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 - 4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Farm Management Supplemental Information

Electives (16-17 credits)

- Electives - Credit Hours: 17.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- AGEC 21700 - Economics
- CHM 11200 - General Chemistry ♦
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 1.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- STAT 30100 - Elementary Statistical Methods ♦
- Biological Science Selective - Credit Hours: 4.00
- Production Agriculture Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

16 Credits

Spring 2nd Year

- AGEC 31000 - Farm Organization
- Biological Science Selective - Credit Hours: 4.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Farm Management Business Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- Economics Selective - Credit Hours: 3.00
- Farm Management Business Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Production Agriculture Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC 41100 - Farm Management
- AGEC 42400 - Financial Management Of Agricultural Business
- Production Agriculture Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00

14 Credits

Spring 4th Year

- Farm Management Business Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Electives - Credit Hours: 7.00-8.00

13-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

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Sales and Marketing, BS

About the Program

Sales and marketing graduate complete a degree program with a focus in sales, marketing, and management that give them the ability to enter numerous entry-level sales positions for agricultural and non-agricultural firms. These positions lead to professional careers in sales or marketing management. A wide spectrum of agricultural marketing organizations, food manufacturing companies, and farm supply industries are marketing-oriented and depend extensively on agricultural graduates who are well-trained in marketing tools and concepts.

Agricultural Economics Website

Sales and Marketing Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (37 credits)

Required Major Courses (37 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 42700 - Advanced Agribusiness Marketing (Capstone)
- AGEC 43000 - Agricultural And Food Business Strategy (Capstone)
- AGEC 43100 - Advanced Agri-Sales And Marketing (Capstone)
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

Other Departmental /Program Course Requirements (63-64 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- CHM 11100 - General Chemistry ♦(satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦(satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MGMT 45500 - Legal Background For Business I
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Communication Marketing Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology and Society Selective - Credit Hours: 3.00 (satisfies Science, Technology and Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Sales and Marketing Supplemental Information

Electives (19-20 credits)

- Elective - Credit Hours: 19.00-20.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University

- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- MA 16010 - Applied Calculus I
- Biological Sciences Selective - Credit Hours: 4.00
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- Biological Sciences Selective - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry ♦
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Communication Marketing Selective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- CHM 11200 - General Chemistry ♦
- MGMT 20000 - Introductory Accounting ♦ or
- MGMT 21200 - Business Accounting ♦
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- MGMT 45500 - Legal Background For Business I
- Economics Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGEC 42700 - Advanced Agribusiness Marketing
- AGEC 43100 - Advanced Agri-Sales And Marketing
- Electives - Credit Hours: 6.00

13 Credits

Spring 4th Year

- AGEC 43000 - Agricultural And Food Business Strategy
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00
- Electives - Credit Hours: 7.00 - 8.00

13-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)

ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Certificate

Industrial Selling Certificate

The Certificate in Industrial Selling is open to students in any major who are interested in Industrial Selling.

It has three required courses and a capstone course, totaling thirteen credit hours. Each certificate earner must also complete a day long industry sales experience with a B2B sales practitioner in their area of professional interest, and must participate in a sales or marketing oriented experience on campus. It is expected that additional courses (sales management, negotiations, etc.) will be developed over time as alternatives and complements to this set of initial courses.

Requirements for the Certificate (13 credits)

Required Courses (9 credits)

- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- CSR 31500 - Relationship Selling

Capstone Course (4 credits)

- AGEC 43100 - Advanced Agri-Sales And Marketing

Prerequisite Information

For current pre-requisites for courses, click here.

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Minor

Farm Management Minor

Requirements for the Minor (18 credits)

Required Courses (13 credits)

- AGEC 31000 - Farm Organization
- AGEC 41100 - Farm Management
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

Selective Courses (5 credits)

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 30500 - Agricultural Prices
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 41000 - Agricultural Policy
- AGEC 41200 - Farm Business Management Workshop
- AGEC 42100 - Advanced Commodity Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 42500 - Estate Planning And Property Transfer
- AGEC 45600 - Federal Income Tax Law
- AGEC 45000 - International Agricultural Trade
- AGEC 52400 - Agricultural Finance
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- MGMT 44301 - Management Of Human Resources or
- MGMT 44362 - Leadership & Organizational Change or
- TLI 11200 - Foundations Of Organizational Leadership or
- TLI 15200 - Business Principles For Organizational Leadership

Notes

- Department permission is not required to enroll in this minor.
- The required 18 credits are beyond the three-credit economics selective that is a part of core requirements for students in the College of Agriculture. For students from programs outside of the College of Agriculture, three credits of an economics selective are required in addition to the 18 credits noted above.

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Food and Agribusiness Management Minor

Requirements for the Minor (18 credits)

Required Courses (9 credits)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- AGEC 33000 - Management Methods For Agricultural Business or
- MGMT 20100 - Management Accounting I
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting

Selective Courses (9 credits)

Agricultural Economics (AGEC) courses - At least 6 credits

- AGEC 30500 - Agricultural Prices
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 41000 - Agricultural Policy
- AGEC 42100 - Advanced Commodity Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 42700 - Advanced Agribusiness Marketing
- AGEC 43000 - Agricultural And Food Business Strategy
- AGEC 43100 - Advanced Agri-Sales And Marketing
- AGEC 45000 - International Agricultural Trade
- AGEC 45100 - Applied Econometrics
- AGEC 52400 - Agricultural Finance

- HORT 43500 - Developing An Agricultural Startup
- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- MGMT 44301 - Management Of Human Resources or
- MGMT 44362 - Leadership & Organizational Change or
- TLI 11200 - Foundations Of Organizational Leadership or
- MGMT Courses (20000-59900) - Credit Hours: 3.00
- OLS Courses (20000-59900) - Credit Hours: 3.00
- TLI 15200 - Business Principles For Organizational Leadership

Notes

- Department permission is not required to enroll in this minor.

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

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Global Food and Agriculture Systems Minor

About this Program:

This minor will provide students a course of study emphasizing the global development, policy, and sustainability of the food and agribusiness industry.

Requirements for the Minor (18 credits)

Required Courses (6 credits)

- AGEC 22000 - Economics Of Agricultural Markets or
- ECON 34000 - Intermediate Microeconomic Theory
- AGEC 21700 - Economics or
- ECON 25200 - Macroeconomics

Additional Courses - Choose Four (12 credits)

- AGEC 25000 - Economic Geography Of World Food And Resources
- AGEC 30500 - Agricultural Prices
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 34000 - International Economic Development
- AGEC 40600 - Natural Resource And Environmental Economics
- AGEC 41000 - Agricultural Policy

- AGEC 42100 - Advanced Commodity Marketing
- AGEC 45000 - International Agricultural Trade
- AGEC 52600 - International Food And Agribusiness Marketing Strategy
- AGEC 53200 - World Food Problems

Notes

- Department Permission is not required to enroll in this minor.

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Program Information

Agribusiness Supplemental Information

Biological Science Selective (8 Credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First Year Biology Laboratory
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 29500 - Special Assignments - Quant Biol Living Cell
- BTNY 11000 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II

Economics Selective (3 Credits)

- AGEC 30500 - Agricultural Prices
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 34000 - International Economic Development
- AGEC 40600 - Natural Resource And Environmental Economics

- AGEC 41000 - Agricultural Policy
- AGEC 45000 - International Agricultural Trade
- ECON 25300:59999

Food and Agribusiness Management Selective

- AGEC 31000 - Farm Organization
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 41100 - Farm Management
- AGEC 41200 - Farm Business Management Workshop
- AGEC 42100 - Advanced Commodity Marketing
- AGEC 42500 - Estate Planning And Property Transfer
- AGEC 42700 - Advanced Agribusiness Marketing
- AGEC 42900 - Agribusiness Marketing Workshop
- AGEC 43000 - Agricultural And Food Business Strategy
- AGEC 43100 - Advanced Agri-Sales And Marketing
- AGEC 45500 - Agricultural Law
- AGEC 45600 - Federal Income Tax Law
- AGEC 52400 - Agricultural Finance
- AGEC 52600 - International Food And Agribusiness Marketing Strategy
- AGEC 53300 - Supply Chain Management For Food And Agribusiness
- CSR 20900 - Introduction To Retail Management
- CSR 28200 - Customer Relations Management
- CSR 30900 - Leadership Strategies
- CSR 31500 - Relationship Selling
- CSR 33100 - Consumer Behavior
- CSR 33200 - Cross-Cultural Marketing And International Retailing
- CSR 34200 - Personal Finance
- CSR 34400 - Fundamentals Of Negotiations
- CSR 38600 - Risk Management
- CSR 40100 - Buying Of Merchandise
- CSR 40400 - Strategic Issues For Sales And Retailing
- CSR 41500 - Sales Force Management
- CSR 48100 - Ethics And Compliance In Financial Counseling And Planning
- HORT 43500 - Developing An Agricultural Startup
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership
- ENTR 20000:59999
- MGMT 20100:59999
- IT 20000:59999
- OBHR 20000:59999
- OLS 25200:59999
- TLI 20000:59999

Mathematics or Science Selective (3 Credits)

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGR 33300 - Data Science For Agriculture
- AGRY 12500 - Environmental Science And Conservation
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 11000 - Introduction To Plant Science
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- CS 18000 - Problem Solving And Object-Oriented Programming
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 12500 - Environmental Science And Conservation
- EAPS 22100 - Survey Of Atmospheric Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 24200 - Data Science

- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 35300 - Insecticides And Environment
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics
- FNR 35700 - Fundamental Remote Sensing
- HONR 49900 - Honors Research Project - Human Diseases and Disorders
- HORT 30100 - Plant Physiology
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics
- STAT 50100 - Experimental Statistics I
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Agricultural Economics Supplemental Information

Biological Science Selective (8 Credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First Year Biology Laboratory
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function

- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BTNY 11000 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II

Economics Selective

- AGEC 30500 - Agricultural Prices
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 34000 - International Economic Development
- AGEC 45000 - International Agricultural Trade
- AGEC 40600 - Natural Resource And Environmental Economics
- AGEC 41000 - Agricultural Policy
- ECON 25200:59999

Food and Agribusiness Management Selective (3 Credits)

- ENTR 20000:59999
- MGMT 20100:59999
- IT 20000:59999
- OBHR 20000:59999
- OLS 25200:59999
- TLI 20000:59999
- AGEC 31000 - Farm Organization
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 41100 - Farm Management
- AGEC 41200 - Farm Business Management Workshop
- AGEC 42100 - Advanced Commodity Marketing
- AGEC 42500 - Estate Planning And Property Transfer
- AGEC 42700 - Advanced Agribusiness Marketing
- AGEC 42900 - Agribusiness Marketing Workshop
- AGEC 43000 - Agricultural And Food Business Strategy
- AGEC 43100 - Advanced Agri-Sales And Marketing
- AGEC 45500 - Agricultural Law
- AGEC 45600 - Federal Income Tax Law
- AGEC 52400 - Agricultural Finance
- AGEC 52600 - International Food And Agribusiness Marketing Strategy
- AGEC 53300 - Supply Chain Management For Food And Agribusiness
- CSR 20900 - Introduction To Retail Management
- CSR 28200 - Customer Relations Management
- CSR 30900 - Leadership Strategies
- CSR 31500 - Relationship Selling
- CSR 33100 - Consumer Behavior
- CSR 33200 - Cross-Cultural Marketing And International Retailing

- CSR 34200 - Personal Finance
- CSR 34400 - Fundamentals Of Negotiations
- CSR 38600 - Risk Management
- CSR 40100 - Buying Of Merchandise
- CSR 40400 - Strategic Issues For Sales And Retailing
- CSR 41500 - Sales Force Management
- CSR 48100 - Ethics And Compliance In Financial Counseling And Planning
- HORT 43500 - Developing An Agricultural Startup
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership

Mathematics or Science Selective (3 Credits)

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGR 33300 - Data Science For Agriculture
- AGRY 12500 - Environmental Science And Conservation
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 11000 - Introduction To Plant Science
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory

- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- CS 18000 - Problem Solving And Object-Oriented Programming
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 12500 - Environmental Science And Conservation
- EAPS 22100 - Survey Of Atmospheric Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 24200 - Data Science
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 35300 - Insecticides And Environment
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 12500 - Environmental Science And Conservation
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics
- FNR 35700 - Fundamental Remote Sensing
- HONR 49900 - Honors Research Project - Human Diseases and Disorders
- HORT 30100 - Plant Physiology
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 12500 - Environmental Science And Conservation
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Farm Management Supplemental Information

Biological Science Selective (8 Credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First Year Biology Laboratory
- BIOL 19500 - Special Assignments - First Year Biology Lab
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 29500 - Special Assignments - Quantative Biology, Living Cell
- BTNY 11000 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II

Economics Selective (3 Credits)

- ECON 25200:59999
- AGEC 30500 - Agricultural Prices
- AGEC 34000 - International Economic Development
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 40600 - Natural Resource And Environmental Economics
- AGEC 41000 - Agricultural Policy
- AGEC 45000 - International Agricultural Trade

Farm Management Business Selective (9 Credits)

- ENTR 20000:59999
- IT 20000:59999
- MGMT 20100:59999
- OBHR 20000:59999
- OLS 20000:59999
- TLI 20000:59999
- AGEC 28900 - Foundational Internship
- AGEC 30500 - Agricultural Prices
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 41000 - Agricultural Policy
- AGEC 41200 - Farm Business Management Workshop

- AGEC 42100 - Advanced Commodity Marketing
- AGEC 42500 - Estate Planning And Property Transfer
- AGEC 42700 - Advanced Agribusiness Marketing
- AGEC 45500 - Agricultural Law
- AGEC 45600 - Federal Income Tax Law
- AGEC 52400 - Agricultural Finance
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership

Production Agriculture Selective (9 Credits)

- AGRY 25500 - Soil Science
- AGRY 32000 - Genetics
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 37500 - Crop Production Systems
- AGRY 50500 - Forage Management
- AGRY 52500 - Crop Physiology And Ecology
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 44100 - Beef Management
- ANSC 44200 - Sheep Management
- ANSC 44300 - Swine Management
- ANSC 44400 - Dairy Management
- ANSC 44500 - Commercial Poultry Management
- ASM 10400 - Introduction To Agricultural Systems
- ASM 20100 - Construction And Maintenance
- ASM 22200 - Crop Production Equipment
- ASM 24500 - Materials Handling And Processing
- ASM 33300 - Facilities Planning And Management
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory

Sales and Marketing Supplemental Information

Biological Science Selective (8 Credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First Year Biology Laboratory
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology

- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 29500 - Special Assignments
- HORT 30100 - Plant Physiology
- BTNY 11000 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II

Communication Marketing Selective (3 Credits)

- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 25300 - Introduction To Public Relations
- COM 25600 - Introduction To Advertising
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication
- COM 32500 - Interviewing: Principles And Practice

Economics Selective (3 Credits)

- AGEC 30500 - Agricultural Prices
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 34000 - International Economic Development
- AGEC 40600 - Natural Resource And Environmental Economics
- AGEC 41000 - Agricultural Policy
- AGEC 45000 - International Agricultural Trade
- ECON 25200:59999

Mathematics or Science Selective (3 Credits)

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGR 33300 - Data Science For Agriculture
- AGRY 12500 - Environmental Science And Conservation
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition

- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 11000 - Introduction To Plant Science
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- CS 18000 - Problem Solving And Object-Oriented Programming
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 12500 - Environmental Science And Conservation
- EAPS 22100 - Survey Of Atmospheric Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 24200 - Data Science
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 35300 - Insecticides And Environment
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 12500 - Environmental Science And Conservation
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics

- FNR 35700 - Fundamental Remote Sensing
- HONR 49900 - Honors Research Project -Human Diseases and Disorders
- HORT 30100 - Plant Physiology
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 12500 - Environmental Science And Conservation
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics
- STAT 22500 - Introduction To Probability Models
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Department of Agricultural Sciences Education and Communication

Overview

Welcome to the Department of Agricultural Sciences Education and Communication at Purdue University. The department's motto is "Empower, Educate, and Enhance."

These three very powerful words clearly and succinctly identify the purposes of the department. Empowering, Educating and Enhancing is accomplished by this interdisciplinary department with undergraduate programs in Agricultural Education and Agricultural Communication and a nationally recognized graduate program focused on learning and communication in the context of agriculture.

Department of Agricultural Sciences Education and Communication (website)

Faculty (website)

Contact Information

Agricultural Sciences Education and Communication

Purdue University
Lilly Hall of Life Sciences (LILY)
915 West State Street
West Lafayette, IN 47907
Phone: (765) 494-8423

Main Office**:** Lilly Hall of Life Sciences(LILY) 3rd Floor, Room 230
Email: agedundergrad@lists.purdue.edu

Graduate Information

For Graduate Information please see Agricultural Sciences Education and Communication Graduate Program Information .

Baccalaureate

Agricultural Communication, BS

About the Program

Agricultural Communication is a specialized communication field that serves business and society by promoting awareness of issues in food, agriculture, and science. You will develop skills and experience in public relations, agriculture, journalism, and more. You will engage in cutting-edge science and agricultural coursework in a world-renowned College of Agriculture and develop technical media and communication expertise in the Brian Lamb School of Communication. You can also pursue exciting study abroad experiences through the College and University as well as competitive communication internship opportunities. Because the Agricultural Communication program is flexible, you can pursue a course of study that matches your personal interests and career aspirations.

Agricultural Communication Website

Agricultural Communication Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (24 credits)

Required Major Courses (24 credits)

- ASEC 15200 - Agricultural Communication Seminar
- ASEC 28000 - Digital Storytelling
- ASEC 38000 - Feature Writing And Production
- ASEC 48000 - Agricultural Communication Capstone Seminar

- COM 20400 - Critical Perspectives On Communication ♦
- COM 25200 - Writing For Mass Media ♦
- COM 31100 - Copy Editing ♦
- COM 31800 - Principles Of Persuasion ♦

Other Departmental /Program Course Requirements (86-87 credits)

- AGEC 21700 - Economics
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12100 - Introduction To Agricultural Sciences Education And Communication Academic Programs
- AGR 20100 - Communicating Across Culture
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)

Communication or Agriculture Communication Selective - Credit Hours: 11.00

- ASEC 28500 - Introduction To Publication Design
- ASEC 49100 - Special Topics In Agricultural Science And Education Communication - *Titles: AG Publication Design; AGCM Internship; Interactive WEB Strat for AG; Multimedia in AG Comm*
- COM 10000:59999

Communication or Agriculture Communication Selective (30000+ level) - Credit Hours: 3.00

- ASEC 30000:59999
- COM 30000:59999
- Agricultural Selective - Credit Hours: 15.00
- Agricultural Selective (30000+ level) - Credit Hours: 6.00
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Science, Technology and Society - Credit Hours: 3.00 (satisfies Science, Technology, & Society for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)

Additional Degree Requirements

Click here for Agricultural Communication Supplemental Information

Electives (9-10 credits)

- Electives - Credits Hours: 9.00-10.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12100 - Introduction To Agricultural Sciences Education And Communication Academic Programs
- ASEC 15200 - Agricultural Communication Seminar
- Biological Science Selective - Credit Hours: 4.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- AGEC 21700 - Economics

- MA 15800 - Precalculus- Functions And Trigonometry
- Agricultural Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGR 20100 - Communicating Across Culture
- CHM 11100 - General Chemistry
- COM 20400 - Critical Perspectives On Communication ♦
- Agricultural Selective - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- ASEC 28000 - Digital Storytelling
- CHM 11200 - General Chemistry
- COM 31800 - Principles Of Persuasion ♦
- Communication or Agricultural Communication Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- COM 25200 - Writing For Mass Media ♦
- STAT 30100 - Elementary Statistical Methods
- Agricultural Selective - Credit Hours: 6.00
- Communication or Agricultural Communication Selective - Credit Hours: 2.00

14 Credits

Spring 3rd Year

- ASEC 38000 - Feature Writing And Production
- Agricultural Selective (30000+ Level) - Credit Hours: 3.00
- Communication or Agricultural Communication Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- COM 31100 - Copy Editing ♦
- ASEC 48000 - Agricultural Communication Capstone Seminar
- Agricultural Selective - Credit Hours: 3.00
- Communication or Agriculture Communication Selective (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

15 Credits

Spring 4th Year

- Communication or Agricultural Communication Selective - Credit Hours: 3.00
- Agricultural Selective (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Electives - Credit Hours: 6.00-7.00

15-16 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should

know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agricultural Education, BS

About the Program

Agricultural education students combine their interest in agriculture with their desire to work with people. Students are prepared to teach agricultural science, business, and related subjects in junior high, high school, or college settings. They also can pursue careers in agricultural service industries. There is a high demand for agricultural science and business teachers in Indiana and across the United States.

Agricultural Education Website

Agricultural Education Major Change (CODO) Requirements

Degree Requirements

128 Credits Required

Departmental/Program Major Courses (47 credits)

Required Major Course (3 credits)

- ASEC 21200 - Greenhouse And Landscape Fundamentals For Educators

Professional Education Foundation Courses (19 credits)

- ASEC 24000 - Seminar In Agricultural Education
- EDCI 20500 - Exploring Teaching As A Career
- EDCI 27000 - Introduction To Educational Technology And Computing
- EDCI 28500 - Multiculturalism And Education
- EDPS 23500 - Learning And Motivation
- EDPS 26500 - The Inclusive Classroom
- EDPS 32700 - Classroom Assessment - Credit Hours: 1.00
- EDPS 43010 - Secondary Creating And Managing Learning Environments - Credit Hours: 1.00
- EDST 20010 - Educational Policies And Laws - Credit Hours: 1.00

Professional Education Methods Courses (25 credits)

- ASEC 31800 - Coordination Of Supervised Agricultural Experience Programs
- ASEC 31900 - Planning Agricultural Science And Business Programs
- ASEC 34000 - Laboratory Practices In Agricultural Education
- ASEC 34100 - Curriculum Development In Agricultural Education
- ASEC 44000 - Methods Of Teaching Agricultural Education
- ASEC 44200 - Curriculum Implementation In Agricultural Education
- EDCI 49800 - Supervised Teaching (Capstone) - Credit Hours: 12.00

Other Departmental /Program Course Requirements (81-82 credits)

- AGEC 31000 - Farm Organization ♦ or
- AGEC 33000 - Management Methods For Agricultural Business ♦
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12100 - Introduction To Agricultural Sciences Education And Communication Academic Programs
- AGRY 25500 - Soil Science
- AGRY 32000 - Genetics
- AGRY 37500 - Crop Production Systems
- ANSC 10200 - Introduction To Animal Agriculture ♦ or
- ANSC 10600 - Biology Companion Animal ♦
- ANSC 22100 - Principles Of Animal Nutrition
- ASM 20100 - Construction And Maintenance

- BIOL 11000 - Fundamentals Of Biology I and
- BIOL 11100 - Fundamentals Of Biology II
  OR
  BIOL 11000 - Fundamentals Of Biology I and
- BTNY 11000 - Introduction To Plant Science
  OR
- BTNY 12000 - Principles Of Plant Biology I and
- BTNY 12100 - Principles Of Plant Biology II
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- FNR 12500 - Environmental Science And Conservation (satisfies Science, Technology, & Society for core)
- FS 16100 - Science Of Food ♦ or
- NUTR 20500 - Food Science I ♦
- HORT 10100 - Fundamentals Of Horticulture
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
  Economics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or

- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- ASM 1XXXX Welding Transfer Credits - Credit Hours: 3.00
- Technical Agriculture Selective - Credit Hours: 9.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)

Additional Degree Requirements

Click here for Agricultural Education Supplemental Information

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12100 - Introduction To Agricultural Sciences Education And Communication Academic Programs
- ASEC 24000 - Seminar In Agricultural Education
- HORT 10100 - Fundamentals Of Horticulture
- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 12000 - Principles Of Plant Biology I
  Economics Selective - Credit Hours: 3.00
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Oral Communication Selective - Credit Hours: 3.00

15 Credits

Spring 1st Year

- EDCI 20500 - Exploring Teaching As A Career
- EDCI 28500 - Multiculturalism And Education
- ANSC 10200 - Introduction To Animal Agriculture ♦ or
- ANSC 10600 - Biology Companion Animal ♦
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science or
- BTNY 12100 - Principles Of Plant Biology II
- Written Communication Selective - Credit Hours: 3.00-4.00

16-17 Credits

Fall 2nd Year

- CHM 11100 - General Chemistry
- EDPS 23500 - Learning And Motivation
- EDPS 26500 - The Inclusive Classroom
- FNR 12500 - Environmental Science And Conservation
- MA 15800 - Precalculus- Functions And Trigonometry
- ASM 1XXXX Welding (transfer credits) - Credit Hours: 3.00

18 Credits

Spring 2nd Year

- ASEC 21200 - Greenhouse And Landscape Fundamentals For Educators
- ASEC 31800 - Coordination Of Supervised Agricultural Experience Programs
- ASEC 31900 - Planning Agricultural Science And Business Programs
- CHM 11200 - General Chemistry
- EDCI 27000 - Introduction To Educational Technology And Computing
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory

16 Credits

Fall 3rd Year

- AGRY 25500 - Soil Science
- ANSC 22100 - Principles Of Animal Nutrition
- ASEC 34000 - Laboratory Practices In Agricultural Education
- ASM 20100 - Construction And Maintenance
- Technical Agriculture Selective - Credit Hours: 3.00

14 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- AGRY 37500 - Crop Production Systems
- ASEC 34100 - Curriculum Development In Agricultural Education
- AGEC 31000 - Farm Organization ♦ or
- AGEC 33000 - Management Methods For Agricultural Business ♦
- Technical Agriculture Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

17 Credits

Fall 4th Year

- ASEC 44000 - Methods Of Teaching Agricultural Education
- STAT 30100 - Elementary Statistical Methods
- EDPS 32700 - Classroom Assessment - Credit Hours: 1.00
- EDPS 43010 - Secondary Creating And Managing Learning Environments - Credit Hours: 1.00
- EDST 20010 - Educational Policies And Laws - Credit Hours: 1.00
- FS 16100 - Science Of Food ♦ or
- NUTR 20500 - Food Science I ♦
- Technical Agriculture Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours 3.00

18 Credits

Spring 4th Year

- ASEC 44200 - Curriculum Implementation In Agricultural Education
- EDCI 49800 - Supervised Teaching (Capstone) - Credit Hours: 12.00

14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- There is a 2.5 GPA requirement for stage-gates in this degree
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

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Program Information

Agricultural Communication Supplemental Information

Agricultural Selective (15 Credits)

- ABE 10000:59999
- AGEC 10000:59999
- AGR 10000:59999
- AGRY 10000:59999
- ANSC 10000:59999
- ASEC 10000:59999
- ASM 10000:59999
- BCHM 10000:59999
- BTNY 10000:59999
- ENTM 10000:59999
- FNR 10000:59999
- FS 10000:59999
- HORT 10000:59999
- LA 10000:59999
- NRES 10000:59999
- SFS 10000:59999

Agricultural Selective 30000+ Level (6 Credits)

- ABE 30000:59999
- AGEC 30000:59999
- AGR 30000:59999
- AGRY 30000:59999
- ANSC 30000:59999
- ASEC 30000:59999
- ASM 30000:59999
- BCHM 30000:59999
- BTNY 30000:59999
- ENTM 30000:59999
- FNR 30000:59999
- FS 30000:59999
- HORT 30000:59999
- LA 30000:59999
- NRES 30000:59999
- SFS 30000:59999

Biological Science Selective (8 Credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First Year Biology Laboratory
- BIOL 20300 - Human Anatomy And Physiology

- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BTNY 11000 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II

Mathematics or Science Selective (3 Credits)

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGR 33300 - Data Science For Agriculture
- AGRY 12500 - Environmental Science And Conservation
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- CHM 26100 - Organic Chemistry

- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 22100 - Survey Of Atmospheric Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 24200 - Data Science
- FNR 12500 - Environmental Science And Conservation
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics
- FNR 35700 - Fundamental Remote Sensing
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 12500 - Environmental Science And Conservation
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics
- STAT 22500 - Introduction To Probability Models
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Agricultural Education Supplemental Information

Biological Science Selective (8 Credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- BIOL 13500 - First Year Biology Laboratory
- BIOL 20300 - Human Anatomy And Physiology

- BIOL 20400 - Human Anatomy And Physiology
- BIOL 22100 - Introduction To Microbiology
- BIOL 23000 - Biology Of The Living Cell
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 29500 - Special Assignments - *Title: Quant Biol Living Cell*
- BTNY 11000 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II
- HORT 30100 - Plant Physiology

Technical Agriculture Selective (15 Credits)

- AGEC 10000:59999
- AGRY 10000:59999
- ANSC 10000:59999
- ASM 10000:59999
- ENTM 10000:59999
- FNR 10000:59999
- FS 10000:59999
- HORT 10000:59999
- LA 10000:59999
- NRES 10000:59999
- SFS 10000:59999

Department of Agronomy

Overview

The Department of Agronomy provides progressive and relevant undergraduate, graduate and extension education programs; conducts high impact fundamental and applied research at multiple scales to ensure that our science addresses immediate problems and anticipates future challenges; actively engages partners in the public and private sectors; and contributes to the development of the national and international agenda for research and education.

Faculty (website)

Department of Agronomy (website)

Contact Information

Department of Agronomy

Purdue University

Lilly Hall of Life Sciences
915 W. State Street
West Lafayette, IN 47907-2054
Phone: 765-494-4773

Email: agronomy@purdue.edu

The Undergraduate Academic Services office is located in LILY 2-414.

Graduate Information

For Graduate Information please see Agronomy Graduate Program Information.

Baccalaureate

Agronomy: Agronomic Business and Marketing Concentration, BS

About the Program

Agronomic Business and Marketing prepares students to meet the high demand for professionals in technical sales and marketing or professional field agronomy with strength in business. Students have the flexibility to tailor plans of study to meet their individualized interests and needs by combining strengths in business, marketing, and agronomy. The unique advantage of this option is the primary strength generated in cropping system management amplified by strength in agri-business management.

Agronomy Website

Agronomy Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (14 credits)

Required Major Courses (14 credits)

- AGRY 25500 - Soil Science
- AGRY 32000 - Genetics
- AGRY 36500 - Soil Fertility
- AGRY 39800 - Agronomy Seminar
- AGRY 49800 - Agronomy Senior Seminar (Capstone)
- AGRY 12500 - Environmental Science And Conservation (satisfies Science, Technology, & Society for core) or
- AGRY 28500 - World Crop Adaptation And Distribution (satisfies Science, Technology, & Society for core)

Other Departmental/Program Course Requirements (99 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 33100 - Principles Of Selling In Agricultural Business
- BIOL 11000 - Fundamentals Of Biology I and
- BIOL 11100 - Fundamentals Of Biology II
  OR
  BIOL 11000 - Fundamentals Of Biology I and
- BTNY 11000 - Introduction To Plant Science
  OR
- BTNY 12000 - Principles Of Plant Biology I and
- BTNY 12100 - Principles Of Plant Biology II
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- ENGL 42000 - Business Writing
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- STAT 30100 - Elementary Statistical Methods (satisfies Quantitative Reasoning for core)
- AGEC 31100 - Accounting For Farm Business Planning or
- MGMT 21200 - Business Accounting
- AGEC 32700 - Principles Of Food And Agribusiness Marketing or
- MGMT 32300 - Principles Of Marketing
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core) or
- MA 16010 - Applied Calculus I
  Agricultural Economics Selective - Credit Hours: 6.00-7.00
- AGEC 31000 - Farm Organization
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 41100 - Farm Management
- Agricultural Economics *(AGEC 21800:59999)*, Consumer Science and Retailing *(CSR 20000:59999)*, Horticulture *(HORT 10100:59999)*, or OLS *(OLS 20000:49999)* Selective - Credit Hours: 6.00
- Agronomy Selective *(AGRY 10500:59999)* - Credit Hours: 3.00
- Agronomy Crops Selective - Credit Hours: 3.00
- Ecology Selective - Credit Hours: 3.00

- Additional Mathematics or Science Selective - Credit Hours: 8.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Agronomy: Agronomic Business and Marketing Supplemental Information

Electives (5-7 credits)

- Electives - Credit Hours: 5.00-7.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- CHM 11100 - General Chemistry ♦
- Agronomy Crops Selective - Credit Hours: 3.00
- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 12000 - Principles Of Plant Biology I
- MA 15800 - Precalculus- Functions And Trigonometry or
- MA 16010 - Applied Calculus I

14 Credits

Spring 1st Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- CHM 11200 - General Chemistry ♦
- Agronomy Selective *(AGRY 10500:59999)* - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science or
- BTNY 12100 - Principles Of Plant Biology II

16-17 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science
- AGRY 39800 - Agronomy Seminar
- BTNY 30100 - Introductory Plant Pathology
- CHM 25700 - Organic Chemistry
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 1.00

15 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- STAT 30100 - Elementary Statistical Methods

- AGRY 12500 - Environmental Science And Conservation or
- AGRY 28500 - World Crop Adaptation And Distribution
- Agricultural Economics Selective - Credit Hours: 3.00-4.00
- Ecology Selective - Credit Hours: 3.00

15-16 Credits

Fall 3rd Year

- BTNY 30400 - Introductory Weed Science
- AGEC 31100 - Accounting For Farm Business Planning or
- MGMT 21200 - Business Accounting
- Additional Math or Science Selectives - Credit Hours: 4.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15 Credits

Spring 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGRY 32000 - Genetics
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- Additional Math or Science Selectives - Credit Hours: 4.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Fall 4th Year

- AGRY 49800 - Agronomy Senior Seminar
- Agricultural Economics Selective - Credit Hours: 3.00
- Human Cultures Humanities Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

13 Credits

Spring 4th Year

- ENGL 42000 - Business Writing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing or
- MGMT 32300 - Principles Of Marketing

- Agricultural Economics, Consumer Science and Retailing, Horticulture, or OLS Selective - Credit Hours: 6.00
- Electives - Credit Hours: 2.00-4.00

16 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agronomy: Crop and Soil Management Concentration, BS

About the Program

Crop and Soil Management is for students interested in applying basic agronomic information to practical situations or problems. This is an ideal option for students who plan to become a professional crops/soils manager as an agronomist, farm manager, soil conservationist, or a related profession. Those interested in crop management frequently select cropping systems, crop physiology, plant breeding, and forage management courses.

Agronomy Website

Agronomy Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (17 credits)

Required Major Courses (17 credits)

- AGRY 10500 - Crop Production
- AGRY 25500 - Soil Science
- AGRY 32000 - Genetics
- AGRY 36500 - Soil Fertility
- AGRY 39800 - Agronomy Seminar
- AGRY 49800 - Agronomy Senior Seminar (Capstone)
- AGRY 12500 - Environmental Science And Conservation (satisfies Science, Technology, & Society for core) or
- AGRY 28500 - World Crop Adaptation And Distribution (satisfies Science, Technology, & Society for core)

Other Departmental/Program Course Requirements (90-91 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs

- BIOL 11000 - Fundamentals Of Biology I and
- BIOL 11100 - Fundamentals Of Biology II
  OR
  BIOL 11000 - Fundamentals Of Biology I and
- BTNY 11000 - Introduction To Plant Science
  OR
- BTNY 12000 - Principles Of Plant Biology I and
- BTNY 12100 - Principles Of Plant Biology II

- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core) or

- MA 16010 - Applied Calculus I
  Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Sciences for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Agronomy Selective *(AGRY 10500:59999)* - Credit Hours: 3.00
- Ecology or Plant Ecology Selective - Credit Hours: 3.00
- Directed Selectives - Credit Hours: 27.00
- Additional Mathematics or Science Selectives - Credit Hours: 8.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Agronomy: Crop and Soil Management Supplemental Information

Electives (12-13 credits)

- Electives - Credit Hours: 12.00-13.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)

- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- AGRY 10500 - Crop Production
- CHM 11100 - General Chemistry ♦
- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 12000 - Principles Of Plant Biology I

- MA 15800 - Precalculus- Functions And Trigonometry or
- MA 16010 - Applied Calculus I

14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry ♦
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science or
- BTNY 12100 - Principles Of Plant Biology II
  Economics Selective - **Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Written Communication Selective - Credit Hours: 3.00-4.00
- Electives - Credit Hours: 3.00

16-17 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science
- AGRY 39800 - Agronomy Seminar
- CHM 25700 - Organic Chemistry
- Directed Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 1.00

15 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- STAT 30100 - Elementary Statistical Methods
- AGRY 12500 - Environmental Science And Conservation or
- AGRY 28500 - World Crop Adaptation And Distribution
- Ecology or Plant Ecology Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- Directed Selectives - Credit Hours: 6.00
- Math or Science Selectives - Credit Hours: 4.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- Agronomy Selective - Credit Hours: 3.00
- Directed Selective - Credit Hours: 3.00
- Math or Science Selectives - Credit Hours: 4.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

16 Credits

Fall 4th Year

- AGRY 49800 - Agronomy Senior Seminar
- Directed Selectives - Credit Hours: 6.00
- Humanities Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 4th Year

- Directed Selectives - Credit Hours: 9.00
- Electives - Credit Hours: 3.00-4.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Agronomy: International Agronomy Concentration, BS

About the Program

International Agronomy is designed for students interested in the agronomic aspects of international agricultural development. The program prepares students for opportunities in world agriculture through careers with social action agencies, government and/or private industry. Students in this major build a strong foundation in science to go along with their study of international trade, culture, religion, language, food security, and agricultural development.

Agronomy Website

Agronomy Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (21 credits)

Required Major Courses (24 credits)

- AGRY 25500 - Soil Science
- AGRY 28500 - World Crop Adaptation And Distribution (satisfies Science, Technology, & Society for core)
- AGRY 32000 - Genetics
- AGRY 33500 - Weather And Climate
- AGRY 35000 - Global Awareness - Credit Hours: 1.00
- AGRY 36500 - Soil Fertility
- AGRY 39800 - Agronomy Seminar
- AGRY 49800 - Agronomy Senior Seminar (Capstone)
- AGRY 56500 - Soils And Landscapes
- AGRY 59800 - Special Problems - Credit Hours: 3.00

Other Departmental/Program Course Requirements (86-87 credits)

- AGEC 34000 - International Economic Development
- AGEC 45000 - International Agricultural Trade
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs

- BIOL 11000 - Fundamentals Of Biology I and

- BIOL 11100 - Fundamentals Of Biology II
  OR
  BIOL 11000 - Fundamentals Of Biology I and
- BTNY 11000 - Introduction To Plant Science
  OR
- BTNY 12000 - Principles Of Plant Biology I and
- BTNY 12100 - Principles Of Plant Biology II
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
  Macroeconomics Selective - **Credit Hours: 3.00**
- AGEC 21700 - Economics
- ECON 21700 - Economics
- ECON 25200 - Macroeconomics
  Microeconomics Selective - **Credit Hours: 3.00** (satisfies Human Cultures: Behavioral/Social Sciences for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- ECON 25100 - Microeconomics
  Directed Selective - **Credit Hours: 6.00**
- ENTM 20600 - General Entomology with ENTM 20700 - General Entomology Laboratory
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- Additional Mathematics or Science Selectives - Credit Hours: 8.00
- Agriculture or Science Selectives - Credit Hours: 6.00
- Conversation Language Selective - Credit Hours: 2.00
- Ecology or Plant Ecology Selective - Credit Hours: 3.00
- Foreign Language Selective - Credit Hours: 9.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Agronomy: International Agronomy Supplemental Information

Electives (9-10 credits)

- Electives - Credit Hours: 9.00-10.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- CHM 11100 - General Chemistry ♦
- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 12000 - Principles Of Plant Biology I
- MA 15800 - Precalculus- Functions And Trigonometry or
- MA 16010 - Applied Calculus I
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- AGRY 28500 - World Crop Adaptation And Distribution
- CHM 11200 - General Chemistry ♦
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science or
- BTNY 12100 - Principles Of Plant Biology II
  Microeconomics Selective - **Credit Hours: 3.00**
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- Written Communication Selective - Credit Hours: 3.00-4.00

16-17 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science
- AGRY 39800 - Agronomy Seminar
- CHM 25700 - Organic Chemistry
  Macroeconomics Selective - **Credit Hours: 3.00**
- AGEC 21700 - Economics or
- ECON 21700 - Economics or
- ECON 25200 - Macroeconomics
- Foreign Language Selective - Credit Hours: 3.00

14 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- STAT 30100 - Elementary Statistical Methods
- Ecology or Plant Ecology Selective - Credit Hours: 3.00
- Additional Mathematics or Science Selective - Credit Hours: 4.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGEC 45000 - International Agricultural Trade
- Directed Selective - Credit Hours: 3.00
- Foreign Language Selective - Credit Hours: 3.00
- Additional Mathematics or Science Selectives - Credit Hours: 4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGEC 34000 - International Economic Development
- AGRY 32000 - Genetics
- AGRY 33500 - Weather And Climate
- AGRY 35000 - Global Awareness
- Conversation Language Selective - Credit Hours: 2.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGRY 49800 - Agronomy Senior Seminar
- AGRY 56500 - Soils And Landscapes
- AGRY 59800 - Special Problems - Credit Hours: 3.00
- Foreign Language Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 Credits

Spring 4th Year

- Directed Selectives - Credit Hours: 3.00
- Agriculture or Science Selective - Credit Hours: 6.00
- Electives - Credit Hours: 6.00-7.00

15-16 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
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PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

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Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Applied Meteorology and Climatology, BS

About the Program

Many graduates pursue careers with the National Weather Service, the National Environmental Satellite Data and Information Service, the Environmental Research Laboratories, and the Department of Defense. Graduates also pursue careers with private meteorological or environmental consulting firms that provide weather information and apply atmospheric sciences to air pollution control, energy distribution, marketing, transportation, weather modification, and agriculture. Graduates also work for insurance and commodities industries that employ meteorologists who are educated in statistics, agriculture, and world climates.

Applied meteorologists apply weather and climate information to problems facing agriculture and commerce. Students acquire the skills and tools necessary to improve the health, safety, and productivity of today's world. Graduates work on many environmental problems such as air quality, renewable energy sources, climate change and the impacts of climate change.

The option involves extensive coursework in meteorology, physics, and mathematics, as well as first-hand experience in applying basic concepts to real world situations. Internship programs are available with private industry, the National Weather Service, or the National Oceanic and Atmospheric Administration. In addition there are regular opportunities to work in University laboratories and the State Climate Office.

Agronomy Website

Applied Meteorology and Climatology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (32 credits)

Required Major Courses (32 credits)

- AGRY 28500 - World Crop Adaptation And Distribution (satisfies Science, Technology, & Society for core)
- AGRY 33500 - Weather And Climate
- AGRY 33700 - Environmental Hydrology
- AGRY 39800 - Agronomy Seminar
- AGRY 43100 - Atmospheric Thermodynamics
- AGRY 43200 - Atmospheric Dynamics I
- AGRY 43300 - Atmospheric Dynamics II
- AGRY 44100 - Synoptic Laboratory I
- AGRY 44200 - Synoptic Laboratory II
- AGRY 44300 - Synoptic Laboratory III
- AGRY 49800 - Agronomy Senior Seminar (Capstone)
- AGRY 53500 - Boundary Layer Meteorology
- AGRY 53600 - Environmental Biophysics
- AGRY 54500 - Remote Sensing Of Land Resources

Other Departmental /Program Course Requirements (79-80 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CS 17700 - Programming With Multimedia Objects
- EAPS 22700 - Introduction To Atmospheric Observation And Measurements
- EAPS 43400 - Weather Analysis And Forecasting
- EAPS 53200 - Atmospheric Physics I
- MA 16100 - Plane Analytic Geometry And Calculus I (satisfies Quantitative Reasoning for core)
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26200 - Linear Algebra And Differential Equations
- PHYS 17200 - Modern Mechanics
- PHYS 24100 - Electricity And Optics
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- BIOL 11000 - Fundamentals Of Biology I and
- BIOL 11100 - Fundamentals Of Biology II
  OR
- BIOL 11000 - Fundamentals Of Biology I and
- BTNY 11000 - Introduction To Plant Science
  OR
- BTNY 12000 - Principles Of Plant Biology I and
- BTNY 12100 - Principles Of Plant Biology II
  Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or

- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Electives (8-9 credits)

- Electives - Credit Hours: 8.00-9.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- CHM 11100 - General Chemistry ♦
- MA 16100 - Plane Analytic Geometry And Calculus I
- Oral Communication Selective - Credit Hours: 3.00

- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 12000 - Principles Of Plant Biology I

16 Credits

Spring 1st Year

- MA 16200 - Plane Analytic Geometry And Calculus II
- CHM 11200 - General Chemistry ♦
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science or
- BTNY 12100 - Principles Of Plant Biology II
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Fall 2nd Year

- AGRY 39800 - Agronomy Seminar
- CS 17700 - Programming With Multimedia Objects
- EAPS 22700 - Introduction To Atmospheric Observation And Measurements
- MA 26100 - Multivariate Calculus
- PHYS 17200 - Modern Mechanics

15 Credits

Spring 2nd Year

- AGRY 33500 - Weather And Climate
- AGRY 44100 - Synoptic Laboratory I
- MA 26200 - Linear Algebra And Differential Equations
- PHYS 24100 - Electricity And Optics
- Humanities or Social Science Selective - Credit Hours: 3.00

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21100 - Contemporary Economic Problems or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

17 Credits

Fall 3rd Year

- AGRY 43100 - Atmospheric Thermodynamics
- STAT 30100 - Elementary Statistical Methods
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 43200 - Atmospheric Dynamics I
- AGRY 44200 - Synoptic Laboratory II
- Humanities or Social Science Selective - Credit Hours: 3.00
- Electives - Credit Hours: 3.00

13 Credits

Fall 4th Year

- AGRY 43300 - Atmospheric Dynamics II
- AGRY 44300 - Synoptic Laboratory III
- AGRY 49800 - Agronomy Senior Seminar
- AGRY 53500 - Boundary Layer Meteorology
- AGRY 54500 - Remote Sensing Of Land Resources
- Elective - Credit Hours: 2.00

13 Credits

Spring 4th Year

- AGRY 33700 - Environmental Hydrology

- AGRY 53600 - Environmental Biophysics
- EAPS 43400 - Weather Analysis And Forecasting
- EAPS 53200 - Atmospheric Physics I
- Elective - Credit Hours: 3.00-4.00

15-16 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Crop Science, BS

About the Program

Crop science provides an education in the basic sciences, with applications in crop plant management and crop improvement. Opportunities are numerous and encompass a broad range in science, business, and education. Students are especially qualified for graduate study in plant nutrition, environmental science, crop physiology and ecology, biotechnology and plant genetics, and plant breeding.

Agronomy Website

Crop Science Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (33-34 credits)

Required Major Courses (27-28 credits)

- AGRY 10500 - Crop Production
- AGRY 25500 - Soil Science
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 39800 - Agronomy Seminar
- AGRY 49800 - Agronomy Senior Seminar (Capstone)
- AGRY 51500 - Plant Mineral Nutrition
- AGRY 12500 - Environmental Science And Conservation (satisfies Science, Technology, & Society for core) or
- AGRY 28500 - World Crop Adaptation And Distribution (satisfies Science, Technology, & Society for core)
- AGRY 52500 - Crop Physiology And Ecology or
- HORT 30100 - Plant Physiology

Agronomy Selectives (6 credits)

- AGRY 10000:59999 - Credit Hours: 6.00

Other Departmental /Program Course Requirements (77 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)

- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- BIOL 11000 - Fundamentals Of Biology I and
- BIOL 11100 - Fundamentals Of Biology II
  OR
- BIOL 11000 - Fundamentals Of Biology I and
- BTNY 11000 - Introduction To Plant Science
  OR
- BTNY 12000 - Principles Of Plant Biology I and
- BTNY 12100 - Principles Of Plant Biology II
  Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Business Selective - Credit Hours: 3.00 *(AGEC 10000:59999; ECON 10000:59999; MGMT 10000:59999; OLS 10000:59999)*
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Electives (8-10 credits)

- Elective - Credit Hours: 8.00-10.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00

- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- AGRY 10500 - Crop Production
- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 12000 - Principles Of Plant Biology I
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00-4.00

17-18 Credits

Spring 1st Year

- CHM 11200 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science or
- BTNY 12100 - Principles Of Plant Biology II

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Agronomy Selective (AGRY 10000:59999) - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science
- AGRY 39800 - Agronomy Seminar
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- STAT 30100 - Elementary Statistical Methods
- AGRY 12500 - Environmental Science And Conservation or
- AGRY 28500 - World Crop Adaptation And Distribution
- Agronomy Selective (AGRY 10000:59999) - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-3.00

14-15 Credits

Fall 3rd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BTNY 30100 - Introductory Plant Pathology
- PHYS 22000 - General Physics
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

17 Credits

Spring 3rd Year

- AGRY 33500 - Weather And Climate
- PHYS 22100 - General Physics
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

13 Credits

Fall 4th Year

- AGRY 49800 - Agronomy Senior Seminar
- AGRY 51500 - Plant Mineral Nutrition
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- Elective - Credit Hours: 3.00

14 Credits

Spring 4th Year

- BTNY 30400 - Introductory Weed Science
- AGRY 52500 - Crop Physiology And Ecology or
- HORT 30100 - Plant Physiology
- Business Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 0.00-1.00

13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean

PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Plant Genetics, Breeding, and Biotechnology, BS

About the Program

Plant genetics, breeding, and biotechnology students are interested in agricultural biotechnology, genetic engineering, and research in genetic mechanisms that control crop growth and development. Students prepare for many research opportunities in industry and acquire the necessary background for graduate studies. Students also learn the fundamentals of genetics and practical plant breeding as well as the latest developments in genetic engineering, environmentally sound crop production practices, development of varieties appropriate for the agriculture of developing countries, and strategies for developing plant lines adapted to environmental stresses. Opportunities exist for training both in laboratory and field practices important to modern genetics research. A professional internship involving practical aspects of the option is required.

Plant Genetics, Breeding, and Biotechnology Website

Plant Genetics, Breeding and Biotechnology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (21-22 credits)

Required Major Courses (21-22 credits)

- AGRY 25500 - Soil Science

- AGRY 28500 - World Crop Adaptation And Distribution (satisfies Science, Technology, & Society for core)
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 39800 - Agronomy Seminar
- AGRY 48000 - Plant Genetics
- AGRY 49800 - Agronomy Senior Seminar (Capstone)
- AGRY 52000 - Principles And Methods Of Plant Breeding
- AGRY 52500 - Crop Physiology And Ecology or
- HORT 30100 - Plant Physiology

Other Departmental /Program Course Requirements (89-91 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- AGR 12500 - Introduction To Plant Science
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- CHM 11500 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11600 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- BIOL 11000 - Fundamentals Of Biology I and
- BIOL 11100 - Fundamentals Of Biology II
  OR
- BIOL 11000 - Fundamentals Of Biology I and
- BTNY 11000 - Introduction To Plant Science
  OR
- BTNY 12000 - Principles Of Plant Biology I and
- BTNY 12100 - Principles Of Plant Biology II
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function or
- BTNY 42000 - Plant Cellular And Developmental Biology
- BIOL 41500 - Introduction To Molecular Biology or
- BTNY 35000 - Biotechnology In Agriculture
- PHYS 17200 - Modern Mechanics or
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics or
- PHYS 24100 - Electricity And Optics

Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or

- ECON 25200 - Macroeconomics
- Directed Selective - Credit Hours: 12.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Plant Genetics, Plant Breeding & Biotechnology Supplemental Information

Electives (8-9 credits)

- Elective - Credit Hours: 8.00-9.00 *(Credits required depend on Math, Physics, & Physiology course choices)*

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- AGR 12500 - Introduction To Plant Science
- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 12000 - Principles Of Plant Biology I
- CHM 11500 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00-4.00

16-17 Credits

Spring 1st Year

- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science or
- BTNY 12100 - Principles Of Plant Biology II
- Elective - Credit Hours: 3.00

14 Credits

Fall 2nd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 39800 - Agronomy Seminar
- PHYS 17200 - Modern Mechanics or
- PHYS 22000 - General Physics
- Directed Selective - Credit Hours: 3.00
  Economics Selective - Credit Hours: 3.00
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

15 Credits

Spring 2nd Year

- AGRY 28500 - World Crop Adaptation And Distribution
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- PHYS 22100 - General Physics or
- PHYS 24100 - Electricity And Optics
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 1.00

15-16 Credits

Fall 3rd Year

- AGRY 25500 - Soil Science ♦
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 23100 - Biology III: Cell Structure And Function or
- BTNY 42000 - Plant Cellular And Developmental Biology
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15 Credits

Spring 3rd Year

- BIOL 22100 - Introduction To Microbiology
- Directed Selective - Credit Hours: 6.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Fall 4th Year

- AGRY 48000 - Plant Genetics
- AGRY 49800 - Agronomy Senior Seminar
- AGRY 52000 - Principles And Methods Of Plant Breeding
- STAT 30100 - Elementary Statistical Methods
- BIOL 41500 - Introduction To Molecular Biology or
- BTNY 35000 - Biotechnology In Agriculture

13 Credits

Spring 4th Year

- AGRY 52500 - Crop Physiology And Ecology or
- HORT 30100 - Plant Physiology
- Directed Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-3.00

14-16 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

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Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Soil and Water Sciences, BS

About the Program

The Soil and Water Sciences option provides a strong science education, while preparing students to apply this knowledge in many technical phases of soil, water resources and environmental management. Opportunities are numerous and encompass a broad range in science, management, and education with diverse applications addressing agricultural water use, food security, soil and water quality and secure water supplies. Students are especially qualified for graduate study in hydrology, water resources, soil chemistry, soil physics, soil microbiology, environmental science, soil mineralogy and genesis, and ecology.

Soil and Water Sciences Website

Soil And Water Sciences Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (29-30 credits)

Required Major Courses (29-30 credits)

- AGRY 12500 - Environmental Science And Conservation (satisfies Science, Technology, & Society for core)
- AGRY 25500 - Soil Science ♦
- AGRY 33500 - Weather And Climate
- AGRY 33700 - Environmental Hydrology
- AGRY 36500 - Soil Fertility
- AGRY 39800 - Agronomy Seminar
- AGRY 46500 - Soil Physical Properties
- AGRY 49800 - Agronomy Senior Seminar (Capstone)
- AGRY 56500 - Soils And Landscapes
- AGRY 34900 - Soil Ecology or
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 45000 - Soil Conservation and Water Management or
- AGRY 58500 - Soils And Land Use (Capstone)

Other Departmental/Program Course Requirements (79 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs

- BIOL 11000 - Fundamentals Of Biology I and
- BIOL 11100 - Fundamentals Of Biology II

OR
BIOL 11000 - Fundamentals Of Biology I and

- BTNY 11000 - Introduction To Plant Science
  OR
- BTNY 12000 - Principles Of Plant Biology I and
- BTNY 12100 - Principles Of Plant Biology II

- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- EAPS 11100 - Physical Geology
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics

Genetics or Crop Physiology and Ecology, or Biochemistry Selective - Credit Hours: 3.00

- AGRY 32000 - Genetics or
- AGRY 52500 - Crop Physiology And Ecology or
- BCHM 30700 - Biochemistry

- Agricultural Economics, Economics, Management or Techology Leadership & Innovation Selective *(AGEC 10000:59999; ECON 10000:59999; MGMT 10000:59999; OLS 10000:59999)* - Credit Hours: 3.00

Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Sciences for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

- Crop or Plant Science Selective - Credit Hours: 3.00
- Ecology Selective - Credit Hours: 3.00
- Engineering or Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Soil & Water Sciences Supplemental Information

Electives (11-12 credits)

- Elective - Credit Hours: 11.00-12.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs

- BIOL 11000 - Fundamentals Of Biology I or
- BTNY 12000 - Principles Of Plant Biology I

- CHM 11100 - General Chemistry ♦

- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science or
- BTNY 12100 - Principles Of Plant Biology II

- Economics Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science ♦
- AGRY 12500 - Environmental Science And Conservation
- AGRY 39800 - Agronomy Seminar
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- Crop or Plant Science Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- PHYS 22000 - General Physics
- Oral Communication Selective - Credit Hours: 3.00
- Ecology Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15 Credits

Fall 3rd Year

- EAPS 11100 - Physical Geology
- PHYS 22100 - General Physics
- AGRY 34900 - Soil Ecology or
- AGRY 38500 - Environmental Soil Chemistry

- Human Cultures: Humanities - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15-16 Credits

Spring 3rd Year

- AGRY 33700 - Environmental Hydrology
- STAT 30100 - Elementary Statistical Methods
- Genetics or Crop Physiology and Ecology, or Biochemistry Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGRY 46500 - Soil Physical Properties
- AGRY 49800 - Agronomy Senior Seminar
- AGRY 56500 - Soils And Landscapes
- AGRY 45000 - Soil Conservation and Water Management or
- AGRY 58500 - Soils And Land Use
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

13 Credits

Spring 4th Year

- AGRY 33500 - Weather And Climate
- Engineering or Science Selective - Credit Hours: 3.00
- Agricultural Economics, Economics, Management or Technology Leadership & Innovation Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Electives - Credit Hours: 4.00-5.00

16-17 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Minor

Crop Science Minor

Requirements for the Minor (18 credits)

Required Courses (6 credits)

- AGRY 25500 - Soil Science
- AGRY 10500 - Crop Production or
- AGRY 37500 - Crop Production Systems

Selective Courses (12 credits)

- AGRY 10500 - Crop Production *
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate

- AGRY 36500 - Soil Fertility
- AGRY 37500 - Crop Production Systems *
- AGRY 48000 - Plant Genetics
- AGRY 48500 - Precision Crop Management
- AGRY 50500 - Forage Management
- AGRY 51500 - Plant Mineral Nutrition
- AGRY 52000 - Principles And Methods Of Plant Breeding
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- BTNY 35000 - Biotechnology In Agriculture
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- AGRY 52500 - Crop Physiology And Ecology or
- HORT 30100 - Plant Physiology

Notes

- Departmental permission is not required to enroll in this minor.
- Students majoring in the Department of Agronomy cannot obtain a Crop Science minor.
- * If not used above as a required course.

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Soil Science Minor

Requirements for the Minor (18 credits)

Required Courses (6 credits)

- AGRY 25500 - Soil Science
- AGRY 36500 - Soil Fertility

Selective Courses (12 credits)

- AGRY 12500 - Environmental Science And Conservation
- AGRY 33500 - Weather And Climate
- AGRY 33700 - Environmental Hydrology
- AGRY 33800 - Environmental Hydrology Laboratory
- AGRY 34900 - Soil Ecology
- AGRY 35500 - Soil Morphology And Geography
- AGRY 45000 - Soil Conservation and Water Management

- AGRY 46500 - Soil Physical Properties
- AGRY 54000 - Soil Chemistry
- AGRY 54400 - Environmental Organic Chemistry
- AGRY 54500 - Remote Sensing Of Land Resources
- AGRY 55500 - Soil And Plant Analysis
- AGRY 56000 - Soil Physics
- AGRY 56500 - Soils And Landscapes
- AGRY 58000 - Soil Microbiology
- AGRY 58500 - Soils And Land Use

Notes

- Departmental permission is not required to enroll in this minor.
- Students majoring in the Department of Agronomy cannot obtain a Soil Science minor.

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Program Information

Agronomy: Agronomic Business and Marketing Supplemental Information

Agronomy Crops Selective (3 Credits)

- AGRY 10500 - Crop Production
- AGRY 21000 - Fundamentals Of Turfgrass Culture
- AGRY 21100 - Fundamentals Of Turfgrass Culture Laboratory
- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 37500 - Crop Production Systems
- AGRY 48000 - Plant Genetics
- AGRY 50500 - Forage Management
- AGRY 51000 - Turfgrass Science
- AGRY 51100 - Population Genetics
- AGRY 51200 - Integrated Turfgrass Systems
- AGRY 51500 - Plant Mineral Nutrition
- AGRY 52000 - Principles And Methods Of Plant Breeding
- AGRY 52500 - Crop Physiology And Ecology
- AGRY 55000 - Field Crops Breeding Techniques
- ANSC 51100 - Population Genetics

Ecology Selective (3 Credits)

- AGRY 34900 - Soil Ecology
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 28600 - Introduction To Ecology And Evolution
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- BTNY 30200 - Plant Ecology
- EEE 30000 - Environmental And Ecological Systems Modeling
- ENTM 31100 - Insect Ecology
- FNR 20100 - Marine Biology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 35900 - Spatial Ecology And GIS
- SFS 30100 - Agroecology

Additional Mathematics or Science Selective (8 Credits)

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGR 33300 - Data Science For Agriculture
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 11000 - Introduction To Plant Science
- BTNY 26200 - Plant Structure And Tissue Biology
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory

- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 12500 - Environmental Science And Conservation
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 24200 - Data Science
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 35300 - Insecticides And Environment
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 30500 - Conservation Genetics
- FNR 35700 - Fundamental Remote Sensing
- HONR 49900 - Honors Research Project - Human Diseases and Disorders
- HORT 30100 - Plant Physiology
- MA 16020 - Applied Calculus II
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Agronomy: Crop and Soil Management Supplemental Information

Directed Selective (27 Credits)

- AGEC 10500:59999 and/or ECON 20000:59999 (Only 6 credits can be used to Directed Selectives)
- AGRY 10500:59999
- MGMT 20000:59999
- ASM 54000 - Geographic Information System Application
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- COM 20400 - Critical Perspectives On Communication
- COM 25200 - Writing For Mass Media
- COM 25600 - Introduction To Advertising
- COM 45600 - Advertising Writing
- COM 49500 - Special Topics In Public Relations And Rhetorical Advocacy
- EAPS 11100 - Physical Geology
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing
- ENGL 30400 - Advanced Composition
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- FNR 21000 - Natural Resource Information Management
- FNR 35700 - Fundamental Remote Sensing
- FNR 35900 - Spatial Ecology And GIS

Ecology or Plant Ecology Selective (3 Credits)

- AGRY 34900 - Soil Ecology
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 28600 - Introduction To Ecology And Evolution
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- BTNY 30200 - Plant Ecology
- EEE 30000 - Environmental And Ecological Systems Modeling
- ENTM 31100 - Insect Ecology
- FNR 20100 - Marine Biology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 35900 - Spatial Ecology And GIS
- SFS 30100 - Agroecology

Additional Mathematics or Science Selective (8 Credits)

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGR 33300 - Data Science For Agriculture
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics

- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 11000 - Introduction To Plant Science
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- CS 18000 - Problem Solving And Object-Oriented Programming
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 12500 - Environmental Science And Conservation
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 24200 - Data Science
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 35300 - Insecticides And Environment
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America

- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics
- FNR 35700 - Fundamental Remote Sensing
- HONR 49900 - Honors Research Project - Human Diseases and Disorders
- HORT 30100 - Plant Physiology
- MA 16020 - Applied Calculus II
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Agronomy: International Agronomy Supplemental Information

Ecology or Plant Ecology Selective (3 Credits)

- AGRY 34900 - Soil Ecology
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 28600 - Introduction To Ecology And Evolution
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- BTNY 30200 - Plant Ecology
- EEE 30000 - Environmental And Ecological Systems Modeling
- ENTM 31100 - Insect Ecology
- FNR 20100 - Marine Biology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 35900 - Spatial Ecology And GIS
- SFS 30100 - Agroecology

Conversation Language Selective (2 Credits)

- FR 11200 - Elementary French Conversation
- FR 21200 - Intermediate French Conversation

- GER 11200 - Elementary German Conversation
- GER 21200 - Intermediate German Conversation
- ITAL 11100 - Italian Conversation I
- ITAL 11200 - Elementary Italian Conversation
- ITAL 21100 - Italian Conversation III
- ITAL 21200 - Intermediate Italian Conversation
- RUSS 11100 - Conversation Supplement To Russian Level I
- RUSS 11200 - Conversation Supplement To Russian Level II
- RUSS 21100 - Conversation Supplement To Russian Level III
- RUSS 21200 - Conversation Supplement To Russian Level IV
- SPAN 11200 - Elementary Spanish Conversation
- SPAN 21200 - Intermediate Spanish Conversation

AGR or Science Selective (6 Credits)

- FS 20000:59999
- AGEC 45100 - Applied Econometrics
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGRY 36500 - Soil Fertility
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- BTNY 11000 - Introduction To Plant Science
- BTNY 30100 - Introductory Plant Pathology
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory

- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- CS 18000 - Problem Solving And Object-Oriented Programming
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 22100 - Survey Of Atmospheric Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 30500 - Conservation Genetics
- FNR 35700 - Fundamental Remote Sensing
- HONR 49900 - Honors Research Project - Human Diseases and Disorders
- HORT 30100 - Plant Physiology
- MA 16020 - Applied Calculus II
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Additional Mathematics or Science Selective (8 Credits)

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGR 33300 - Data Science For Agriculture
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility

- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BTNY 11000 - Introduction To Plant Science
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BTNY 26200 - Plant Structure And Tissue Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- CS 18000 - Problem Solving And Object-Oriented Programming
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 12500 - Environmental Science And Conservation
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 24200 - Data Science
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 35300 - Insecticides And Environment
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics

- FNR 35700 - Fundamental Remote Sensing
- HONR 49900 - Honors Research Project - Human Diseases and Disorders
- HORT 30100 - Plant Physiology
- MA 16020 - Applied Calculus II
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Foreign Language Selective (9 Credits)

- ARAB 10000:59999
- CHNS 10000:59999
- FLL 10000:59999
- FR 10000:59999
- GER 10000:59999
- GREK 10000:59999
- HEBR 10000:59999
- ITAL 10000:59999
- GREK 10000:59999
- JPNS 10000:59999
- PTGS 10000:59999
- RUSS 10000:59999
- SPAN 10000:59999

Plant Genetics, Plant Breeding & Biotechnology Supplemental Information

Directed Selective (12 Credits)

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business

- AGEC 42400 - Financial Management Of Agricultural Business
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 37500 - Crop Production Systems
- AGRY 48500 - Precision Crop Management
- AGRY 50500 - Forage Management
- AGRY 51800 - Plant Physiology And Biotechnology Research Techniques
- AGRY 55000 - Field Crops Breeding Techniques
- ANSC 51100 - Population Genetics
- BCHM 56100 - General Biochemistry I
- BCHM 56200 - General Biochemistry II
- BIOL 42000 - Eukaryotic Cell Biology
- BIOL 44100 - Biology Senior Seminar In Genetics
- BIOL 54200 - Modular Upper-Division Laboratory Course
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 51700 - Diseases Of Agronomic Crops
- BTNY 52500 - Intermediate Plant Pathology
- BTNY 53500 - Plant Disease Management
- BTNY 55300 - Plant Growth And Development
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- MA 26500 - Linear Algebra

Soil & Water Sciences Supplemental Information

Crop or Plant Science Selective (3 Credits)

- BTNY 21100:59999
- AGRY 10500 - Crop Production
- AGRY 21000 - Fundamentals Of Turfgrass Culture
- AGRY 21100 - Fundamentals Of Turfgrass Culture Laboratory
- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 50500 - Forage Management
- AGRY 51000 - Turfgrass Science
- AGRY 51100 - Population Genetics
- AGRY 51200 - Integrated Turfgrass Systems
- AGRY 51500 - Plant Mineral Nutrition
- AGRY 52000 - Principles And Methods Of Plant Breeding
- AGRY 52500 - Crop Physiology And Ecology
- AGRY 55000 - Field Crops Breeding Techniques
- HORT 20100 - Plant Propagation
- HORT 21700 - Woody Landscape Plants

Ecology Selective (3 Credits)

- AGRY 34900 - Soil Ecology
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 28600 - Introduction To Ecology And Evolution
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- BTNY 30200 - Plant Ecology
- EEE 30000 - Environmental And Ecological Systems Modeling
- ENTM 31100 - Insect Ecology
- FNR 20100 - Marine Biology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 35900 - Spatial Ecology And GIS

Engineering or Science Selective (3 Credits)

- ABE 32500 - Soil And Water Resource Engineering
- ABE 52200 - Ecohydrology
- ABE 52500 - Irrigation Management And Design
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGEC 45100 - Applied Econometrics
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CE 34100 - Hydraulics, Hydrology, And Drainage
- CE 35000 - Introduction To Environmental And Ecological Engineering
- CE 35500 - Engineering Environmental Sustainability
- CE 54200 - Hydrology
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry

- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 22100 - Survey Of Atmospheric Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- HONR 49900 - Honors Research Project -Human Diseases and Disorders
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 25500 - Soil Science
- NRES 28000 - Hazardous Waste Handling
- PHYS 15200 - Mechanics
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 24100 - Electricity And Optics
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Department of Animal Sciences

Overview

The Purdue University Department of Animal Sciences promotes leadership and inspiration to educate students, enabling them to anticipate and effectively respond to challenges facing the global animal industries. The Animal Sciences faculty conducts relevant scientific research and facilitates technology transfer for efficient and sustainable production of high quality animal products, optimizing animal well-being, enhancing the human diet, and advancing sound environmental practices.

The vision of the Department of Animal Sciences is simple. We desire to be the "place to go" for the citizens of Indiana and beyond for knowledge in animal sciences. This includes students, commodity groups, industry partners, government agencies, consumers, and many others. Our shared goals are to:

- provide students with a rigorous and relevant education, preparing them for a lifetime of learning;
- achieve scientific preeminence in selected areas, and develop teams to identify and solve real world problems; and

- meet the needs of our diverse clientele making the best use of emerging technologies.

The Animal Sciences faculty has expertise in the disciplines of growth and development, nutrition, breeding and genetics, physiology, management, and animal well-being and behavior. In addition, scientists in the USDA Livestock Behavior Unit associated with Purdue are adjunct faculty members.

Concentrations include:

- Animal Agribusiness
- Behavior/Well-Being
- Biosciences
- Pre-Veterinary Medicine
- Production
- Products

Prospective Students (website)

Current Students (website)

Faculty (website)

Animal Sciences (website)

Contact Information

Department of Animal Sciences

Creighton Hall of Animal Sciences

270 S. Russell Street

West Lafayette, IN 47907-2041

765-494-4843

Email: ansc4you@purdue.edu

Main Office: 1014 Creighton Hall of Animal Sciences

Baccalaureate

Animal Sciences: Animal Agribusiness Concentration, BS

About the Program

This Department of Animal Sciences option is best suited for those interested in business aspects of the animal industry and gaining knowledge in accounting, sales and marketing, and business management. Graduates are high in demand in sales and service areas of animal health products; feed, production, equipment firms; sales companies; and animal representatives for banks and lending organizations, insurance companies, marketing, advertising, and public relations agencies. You may be well suited for animal agribusiness if you enjoy meeting people, have a good oral communication skills as well as a proficiency in writing. Experience with raising and managing of animals is essential since you will be expected to interact and relate to managers, veterinarians, businessmen, and owners of animal enterprises. An interest in economics, marketing, and business management is important.

Animal Sciences

See ANSC Undergraduate Student Handbook for more information.

Animal Sciences Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (33 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (satisfies Science, Technology & Society for core)
- ANSC 18100 - Orientation To Animal Sciences
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)

ANSC Restricted Selectives (21 credits)

18 credits must be 30000+ level

Animal Genetics Selective - **Credit Hours: 4.00**

- ANSC 31100 - Animal Breeding
- ANSC 51100 - Population Genetics
- ANSC 51400 - Animal Biotechnology
- BIOL 41500 - Introduction To Molecular Biology

Animal Nutrition Selective - **Credit Hours: 3.00**

- ANSC 32400 - Applied Animal Nutrition
- ANSC 52200 - Monogastric Nutrition
- ANSC 52400 - Ruminant Nutrition And Physiology

Animal Physiology Selective - **Credit Hours: 3.00**

- ANSC 33200 - Environmental Physiology Of Domestic Animals
- ANSC 33300 - Physiology Of Reproduction

- ANSC 53500 - Avian Physiology
- ANSC 55500 - Animal Growth And Development
  Animal Production/Management Selective - **Credit Hours: 3.00**
- ANSC 44000 - Horse Management
- ANSC 44100 - Beef Management
- ANSC 44200 - Sheep Management
- ANSC 44300 - Swine Management
- ANSC 44400 - Dairy Management
- ANSC 44500 - Commercial Poultry Management
- ANSC 44600 - Companion Animal Management
  Animal Products Selective - **Credit Hours: 3.00**
- ANSC 30100 - Animal Growth, Development, And Evaluation
- ANSC 35100 - Meat Science
  Animal Sciences Selectives - **Credit Hours: 5.00** (ANSC 10100:59500)

Other Departmental /Program Course Requirements (74 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 33000 - Management Methods For Agricultural Business
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- AGRY 32000 - Genetics
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
  Economics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
  Agricultural Economics, Economics, or Management Selective - **Credit Hours: 12.00**
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 30500: 49800
- ECON 21900:49900
- MGMT 20000:49000
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)

- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Electives (12-13 credits)

- Electives - Credit Hours: 12.00-13.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- ANSC 10200 - Introduction To Animal Agriculture
- BIOL 11000 - Fundamentals Of Biology I ♦

- CHM 11100 - General Chemistry ♦
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- ANSC 18100 - Orientation To Animal Sciences
- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11200 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Oral Communication Selective - Credit Hours: 3.00

17 Credits

Fall 2nd Year

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- ANSC 22100 - Principles Of Animal Nutrition
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- Economics Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGEC 33000 - Management Methods For Agricultural Business
- AGRY 32000 - Genetics
- ANSC 23000 - Physiology Of Domestic Animals
- CHM 25700 - Organic Chemistry

14 Credits

Fall 3rd Year

- STAT 30100 - Elementary Statistical Methods
- Agricultural Economics, Economics, or Management Selective - Credit Hours: 3.00
- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Physiology Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- Agricultural Economics, Economics, or Management Selective - Credit Hours: 3.00
- Animal Genetics Selective - Credit Hours: 4.00
- Animal Products Selective - Credit Hours: 3.00
- Animal Sciences Selective - Credit Hours: 2.00
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)
- Agricultural Economics, Economics, or Management Selective - Credit Hours: 3.00
- Animal Production/Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 5.00

15 Credits

Spring 4th Year

- Animal Sciences Selective - Credit Hours: 3.00
- Agricultural Economics, Economics, or Management Selective - Credit Hours: 3.00
- Electives - Credit Hours: 8.00

14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- ANSC courses must be at 2.0 or higher GPA to earn a BS in Animal Sciences
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)

ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Animal Sciences: Behavior/Well-Being Concentration, BS

About the Program

Students desiring a balance of animal production, behavioral sciences, and well-being are best served by this option in the department of Animal Sciences. Careers available as managers of animal production units (e.g., beef cow-calf or feed lot manager, flock supervisor, swine manager or horse trainer or breeder). Limited career opportunities may be available as an animal trainer, zoo environmental enhancement specialist, companion animal consultant, breed association animal well-being specialist, and pet safety education specialist for a humane society. Students interested in advanced studies can become animal behavior consultants or scientists at universities.

Animal Sciences

See ANSC Undergraduate Student Handbook for more information.

Animal Sciences Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (36 credits)

Required Major Courses (15 credits)

- ANSC 10200 - Introduction To Animal Agriculture (satisfies Science, Technology & Society for core)
- ANSC 18100 - Orientation To Animal Sciences
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- ANSC 40400 - Animal Welfare
- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)

ANSC Restricted Selectives (21 credits)

18 credits must be 30000+ level

Animal Genetics Selective - **Credit Hours: 4.00**

- ANSC 31100 - Animal Breeding
- ANSC 51100 - Population Genetics
- ANSC 51400 - Animal Biotechnology
- BIOL 41500 - Introduction To Molecular Biology

Animal Nutrition Selective - **Credit Hours: 3.00**

- ANSC 32400 - Applied Animal Nutrition
- ANSC 52200 - Monogastric Nutrition
- ANSC 52400 - Ruminant Nutrition And Physiology

Animal Physiology Selective - **Credit Hours: 3.00**

- ANSC 33200 - Environmental Physiology Of Domestic Animals
- ANSC 33300 - Physiology Of Reproduction
- ANSC 53500 - Avian Physiology
- ANSC 55500 - Animal Growth And Development
- BMS 52800 - Avian Physiology

Animal Production/Management Selective - **Credit Hours: 3.00**

- ANSC 44000 - Horse Management
- ANSC 44100 - Beef Management
- ANSC 44200 - Sheep Management
- ANSC 44300 - Swine Management
- ANSC 44400 - Dairy Management
- ANSC 44500 - Commercial Poultry Management
- ANSC 44600 - Companion Animal Management

Animal Products Selective - **Credit Hours: 3.00**

- ANSC 30100 - Animal Growth, Development, And Evaluation
- ANSC 35100 - Meat Science

Animal Sciences Selective - **Credit Hours: 5.00** (ANSC 10100:59500)

Other Departmental /Program Course Requirements (74-75 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 30700 - Biochemistry
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦

- CHM 11500 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11600 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
  Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
- Behavior/Well-being Selective - Credit Hours: 9.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level)- Credit Hours: 3.00

Additional Degree Requirements

Animal Sciences Supplemental Information

Electives (9-10 credits)

- Electives - Credit Hours: 9.00-10.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- ANSC 10200 - Introduction To Animal Agriculture
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11500 - General Chemistry ♦
- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- ANSC 18100 - Orientation To Animal Sciences
- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- Animal Sciences Selective - Credit Hours: 2.00
- Economics Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- ANSC 23000 - Physiology Of Domestic Animals
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- Human Cultures: Humanities Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- ANSC 40400 - Animal Welfare
- BCHM 30700 - Biochemistry
- STAT 30100 - Elementary Statistical Methods
- Animal Physiology Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- Animal Genetics Selective - Credit Hours: 4.00
- Animal Nutrition Selective - Credit Hours: 3.00
- Behavior/Well-being Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15 Credits

Fall 4th Year

- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)
- Animal Production/Management Selective - Credit Hours: 3.00
- Animal Sciences Selective - Credit Hours: 3.00

- Humanities or Social Science Selective - Credit Hours: 3.00
- Behavior/Well-being Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15 Credits

Spring 4th Year

- Behavior/Well-being Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Animal Products Selective - Credit Hours: 3.00
- Electives - Credit Hours: 5.00-6.00

14-15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- 2.0 GPA required for Animal Science Courses
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Animal Sciences: Biosciences Concentration, BS

About the Program

The Department of Animal Sciences offers this specialization that is intended for students seeking careers in research or technical services related to animal nutrition, growth and development, animal genetics, reproduction, animal well-being, and management. Those in this specialization should have a strong interest in and curiosity in discovery and have enjoyed their high school biology, chemistry, mathematics, and physics courses. Students who aspire to careers in research and teaching in colleges and universities or in agribusinesses should enroll in this option. It can also be used as an excellent preparation for professional careers such as human medical doctors, veterinarians, dentists, and employment in the nutrition, genomics, and pharmaceutical industries. Graduates continuing for the M.S. or Ph.D. degrees in animal sciences qualify for numerous research, teaching, or extension positions in industry, government, universities, and colleges.

Animal Sciences

See ANSC Undergraduate Student Handbook for more information.

Animal Sciences Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (33 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (satisfies Science, Technology & Society for core)
- ANSC 18100 - Orientation To Animal Sciences
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)

ANSC Restricted Selectives (21 credits)

18 credits must be 30000+ level

Animal Genetics Selective - **Credit Hours: 4.00**

- ANSC 31100 - Animal Breeding
- ANSC 51100 - Population Genetics
- ANSC 51400 - Animal Biotechnology
- AGRY 51100 - Population Genetics

- BIOL 41500 - Introduction To Molecular Biology
  Animal Nutrition Selective - **Credit Hours: 3.00**
- ANSC 32400 - Applied Animal Nutrition
- ANSC 52200 - Monogastric Nutrition
- ANSC 52400 - Ruminant Nutrition And Physiology
  Animal Physiology Selective - **Credit Hours: 3.00**
- ANSC 33200 - Environmental Physiology Of Domestic Animals
- ANSC 33300 - Physiology Of Reproduction
- ANSC 53500 - Avian Physiology
- ANSC 55500 - Animal Growth And Development
- BMS 52800 - Avian Physiology
  Animal Production/Management Selective - **Credit Hours: 3.00**
- ANSC 44000 - Horse Management
- ANSC 44100 - Beef Management
- ANSC 44200 - Sheep Management
- ANSC 44300 - Swine Management
- ANSC 44400 - Dairy Management
- ANSC 44500 - Commercial Poultry Management
- ANSC 44600 - Companion Animal Management
  Animal Products Selective - **Credit Hours: 3.00**
- ANSC 30100 - Animal Growth, Development, And Evaluation
- ANSC 35100 - Meat Science
  Animal Sciences Selective - Credit Hours: 5.00 (ANSC 10100:59500)

Other Departmental/Program Course Requirements (78-79 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11500 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11600 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
  Economics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics

- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
- Science Selective - Credit Hours: 12.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Animal Sciences Supplemental Information

Electives (8-9 credits)

- Electives - Credit Hours: 8.00-9.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- ANSC 10200 - Introduction To Animal Agriculture
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11500 - General Chemistry ♦
- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- ANSC 18100 - Orientation To Animal Sciences
- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- Animal Sciences Major Selective - Credit Hours: 2.00
- Economics Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- ANSC 23000 - Physiology Of Domestic Animals

- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- Human Cultures: Humanities Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- STAT 30100 - Elementary Statistical Methods
- Animal Physiology Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- Animal Genetics Selective - Credit Hours: 4.00
- Animal Nutrition Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15 Credits

Fall 4th Year

- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)
- Animal Production/Management Selective - Credit Hours: 3.00
- Animal Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15 Credits

Spring 4th Year

- Animal Products Selective - Credit Hours: 3.00
- Science Selectives - Credit Hours: 6.00
- Electives - Credit Hours: 4.00-5.00

13-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Minimum 2.0 GPA required in Animal Science courses
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Animal Sciences: Pre-Veterinary Medicine Concentration, BS

About the Program

The Department of Animal Sciences offers this concentration that is intended for students seeking careers in veterinary medicine, research, or technical services related to animal nutrition, growth and development, animal genetics, reproduction, animal well-being, and management. Those in this concentration should have a strong interest in and curiosity in discovery and have enjoyed their high school biology, chemistry, mathematics, and physics courses. This concentration can be used as excellent preparation for professional careers such as human medical doctors, veterinarians, dentists, and employment in the nutrition, genomics, and pharmaceutical industries.

Animal Sciences Website

See ANSC Undergraduate Student Handbook for more information.

Animal Sciences Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (33 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (satisfies Science, Technology, & Society for core)
- ANSC 18100 - Orientation To Animal Sciences
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)

ANSC Restricted Selectives (21 credits)

18 credits must be 30000 or higher

Animal Genetics Selective - **Credit Hours: 4.00**

- ANSC 31100 - Animal Breeding
- ANSC 51100 - Population Genetics
- ANSC 51400 - Animal Biotechnology
- AGRY 51100 - Population Genetics
- BIOL 41500 - Introduction To Molecular Biology

Animal Nutrition Selective - **Credit Hours: 3.00**

- ANSC 32400 - Applied Animal Nutrition
- ANSC 52200 - Monogastric Nutrition
- ANSC 52400 - Ruminant Nutrition And Physiology

Animal Physiology Selective - **Credit Hours: 3.00**

- ANSC 33200 - Environmental Physiology Of Domestic Animals
- ANSC 33300 - Physiology Of Reproduction
- ANSC 53500 - Avian Physiology
- ANSC 55500 - Animal Growth And Development
- BMS 52800 - Avian Physiology

Animal Production/Management Selective - **Credit Hours: 3.00**

- ANSC 44000 - Horse Management
- ANSC 44100 - Beef Management
- ANSC 44200 - Sheep Management
- ANSC 44300 - Swine Management
- ANSC 44400 - Dairy Management
- ANSC 44500 - Commercial Poultry Management

- ANSC 44600 - Companion Animal Management
  Animal Products Selective - **Credit Hours: 3.00**
- ANSC 35100 - Meat Science
- ANSC 48100 - Contemporary Issues in Animal Sciences
  Animal Sciences Selective - **Credit Hours: 5.00** (ANSC 10100:59500)

Other Departmental /Program Course Requirements (83-84 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 30700 - Biochemistry
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- CHM 11500 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11600 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- VM 10200 - Careers In Veterinary Medicine
- PHYS 22000 - General Physics or
- PHYS 23300 - Physics For Life Sciences I
- PHYS 22100 - General Physics or
- PHYS 23400 - Physics For Life Sciences II
  Written Communication/Information Literacy Selective - **Credit Hours: 3.00-4.00** (satisfies Written Communication for core)
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity
  Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills
  Economics Selective - **Credit Hours: 3.00** (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics

- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
- Human Cultures: Humanities Selectives - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Electives (3-4 credits)

- Electives - Credit Hours: 3.00-4.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- ANSC 10200 - Introduction To Animal Agriculture
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11500 - General Chemistry ♦
- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- ANSC 18100 - Orientation To Animal Sciences
- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- VM 10200 - Careers In Veterinary Medicine
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills

16 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

15-16 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- ANSC 23000 - Physiology Of Domestic Animals
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- Animal Sciences Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- BCHM 30700 - Biochemistry
- STAT 30100 - Elementary Statistical Methods
- PHYS 22000 - General Physics or
- PHYS 23300 - Physics For Life Sciences I
- Animal Physiology Selective - Credit Hours: 3.00
- Human Cultures Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- BIOL 22100 - Introduction To Microbiology
- PHYS 22100 - General Physics or
- PHYS 23400 - Physics For Life Sciences II
- Humanities or Social Science Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00

14 Credits

Fall 4th Year

- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)
- Animal Genetics Selective - Credit Hours: 4.00
- Animal Production/Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 4th Year

- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Products Selective - Credit Hours: 3.00
- Animal Sciences Selective - Credit Hours: 2.00
- Humanities or Social Science Selective (30000+ level): Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level): Credit Hours: 3.00

14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- 2.0 GPA required in Animal Science courses
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Animal Sciences: Production Concentration, BS

About the Program

Opportunities associated with this Department of Animal Sciences option include the leadership and management of any enterprise that deals with the daily production and care of animals. This could include food animal species of beef or dairy cattle, chickens, ducks, fish, sheep, swine, or turkeys or many companion animal species including cats, dogs, horses, and many exotic or zoo animals. This option is the best balance of science, business, and the enterprise management subjects designed to prepare someone to manage live animals. Enterprises might be owned by the graduate's family, the graduate, or any agribusiness company. Graduates of this option often serve as technical support staff for input companies, as field or services representatives in various commodity organizations, livestock sale companies, or procurement officers for meat processing companies. You may be well suited for an animal production management career if you enjoy working with and supervising people, have good oral communication and problem-

solving skills as well as competencies working with animals directly. Experience with the raising and managing of animals is essential since you will be expected to interact and relate to managers, veterinarians, business representatives, and owners of animal enterprises.

Animal Sciences Website

See ANSC Undergraduate Student Handbook for more information.

Animal Sciences Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (33 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (satisfies Science, Technology & Society for core)
- ANSC 18100 - Orientation To Animal Sciences
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)

ANSC Restricted Selectives (21 credits)

18 credits must be 30000+ level

Animal Genetics Selective - **Credit Hours: 4.00**

- ANSC 31100 - Animal Breeding
- ANSC 51100 - Population Genetics
- ANSC 51400 - Animal Biotechnology
- AGRY 51100 - Population Genetics
- BIOL 41500 - Introduction To Molecular Biology

Animal Nutrition Selective - **Credit Hours: 3.00**

- ANSC 32400 - Applied Animal Nutrition
- ANSC 52200 - Monogastric Nutrition
- ANSC 52400 - Ruminant Nutrition And Physiology

Animal Physiology Selective - **Credit Hours: 3.00**

- ANSC 33200 - Environmental Physiology Of Domestic Animals
- ANSC 33300 - Physiology Of Reproduction
- ANSC 53500 - Avian Physiology
- ANSC 55500 - Animal Growth And Development
- BMS 52800 - Avian Physiology

Animal Production/Management Selective - **Credit Hours: 3.00**

- ANSC 44000 - Horse Management
- ANSC 44100 - Beef Management
- ANSC 44200 - Sheep Management

- ANSC 44300 - Swine Management
- ANSC 44400 - Dairy Management
- ANSC 44500 - Commercial Poultry Management
- ANSC 44600 - Companion Animal Management

Animal Products Selective - **Credit Hours: 3.00**

- ANSC 30100 - Animal Growth, Development, And Evaluation
- ANSC 35101 - Meat Science Laboratory

Animal Sciences Selective - **Credit Hours: 5.00** (ANSC 10100:59500)

Other Departmental/Program Course Requirements (74-75 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- AGRY 32000 - Genetics
- BCHM 30700 - Biochemistry
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- BIOL 22100 - Introduction To Microbiology
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods

Financial Management Selective - **Credit Hours: 3.00**

- AGEC 33000 - Management Methods For Agricultural Business
- CSR 34200 - Personal Finance
- MGMT 21200 - Business Accounting
- MGMT 20000 - Introductory Accounting

Economics Selective - **Credit Hours: 3.00** (satisfies Human Culture Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
- Enterprise Management Selective - Credit Hours: 3.00
- Enterprise Management Selective - Credit Hours: 3.00
- Production/Management Selective (Non-ANSC) - Credit Hours: 3.00
- Production/Management Selective (Non-ANSC) - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Animal Sciences Supplemental Information

Electives (12-13 credits)

- Electives - Credit Hours: 12.00-13.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs

- ANSC 10200 - Introduction To Animal Agriculture
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- ANSC 18100 - Orientation To Animal Sciences
- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11200 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

16 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition
- CHM 25700 - Organic Chemistry
- Economics Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 30700 - Biochemistry
- Animal Sciences Selective - Credit Hours: 3.00
- Financial Management Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- BIOL 22100 - Introduction To Microbiology
- STAT 30100 - Elementary Statistical Methods
- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Physiology Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- Animal Genetics Selective - Credit Hours: 4.00
- Animal Products Selective - Credit Hours: 3.00
- Enterprise Management Selective - Credit Hours: 3.00
- Production/Management Selective (Non-ANSC) - Credit Hours: 3.00

13 Credits

Fall 4th Year

- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)
- Animal Production/Management Selective - Credit Hours: 3.00
- Animal Sciences Selective - Credit Hours: 2.00
- Enterprise Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Production/Management Selective (Non-ANSC) - Credit Hours: 3.00
- Electives - Credit Hours: 7.00-8.00

13-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Minimum 2.0 GPA required in Animal Science courses
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)

ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Animal Sciences: Products Concentration, BS

About the Program

This Department of Animal Sciences option is meant to prepare students who are interested in the live animal production of quality animal products combined with the ever-growing further processing industry of safe, healthful food. Opportunities include product-development managers; meat scientists; live-animal procurement managers; and sales positions in milk, egg, or meat processing industries. Many graduates become graders and inspectors at the farm or manufacturing level for milk, meat and eggs; commercial and seedstock animal production evaluators and breeders; or university or industry researchers and product developers. Graduates continuing for the M.S. or Ph.D. degree in growth and development, food science, agricultural economics, or muscle biology qualify for numerous research, teaching, or extension positions in industry, government, universities, and colleges. You should enjoy the challenge of applying basic information to the solution of practical problems as well as the challenges of working in the consumer-driven food industries.

Animal Sciences

See ANSC Undergraduate Student Handbook for more information.

Animal Sciences Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (33 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (satisfies Science, Technology & Society for core)
- ANSC 18100 - Orientation To Animal Sciences
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)

ANSC Restricted Selectives (21 credits)

18 credits must be 30000+ level

Animal Genetics Selective - **Credit Hours: 4.00**

- ANSC 31100 - Animal Breeding
- ANSC 51400 - Animal Biotechnology
- ANSC 51100 - Population Genetics
- AGRY 51100 - Population Genetics
- BIOL 41500 - Introduction To Molecular Biology

Animal Genetics Selective - **Credit Hours: 4.00**

- ANSC 32400 - Applied Animal Nutrition
- ANSC 52200 - Monogastric Nutrition
- ANSC 52400 - Ruminant Nutrition And Physiology

Animal Physiology Selective - **Credit Hours: 3.00**

- ANSC 33200 - Environmental Physiology Of Domestic Animals
- ANSC 33300 - Physiology Of Reproduction
- ANSC 53500 - Avian Physiology
- ANSC 55500 - Animal Growth And Development
- BMS 52800 - Avian Physiology

Animal Production/Management Selective - **Credit Hours: 3.00**

- ANSC 44000 - Horse Management
- ANSC 44100 - Beef Management
- ANSC 44200 - Sheep Management
- ANSC 44300 - Swine Management
- ANSC 44400 - Dairy Management
- ANSC 44500 - Commercial Poultry Management
- ANSC 44600 - Companion Animal Management

Animal Products Selective - **Credit Hours: 3.00**

- ANSC 30100 - Animal Growth, Development, And Evaluation
- ANSC 35100 - Meat Science

Animal Sciences Selective - **Credit Hours: 5.00** (ANSC 10100:59500)

Other Departmental /Program Course Requirements (66-68 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- AGRY 32000 - Genetics
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory

- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- BIOL 22100 - Introduction To Microbiology
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods

Business Management Selective - **Credit Hours: 3.00**

- AGEC 33000 - Management Methods For Agricultural Business
- CSR 34200 - Personal Finance
- MGMT 20000 - Introductory Accounting
- MGMT 21200 - Business Accounting

Food Science Selective - **Credit Hours: 3.00-4.00**

- FS 34100 - Food Processing I
- FS 36200 - Food Microbiology
- FS 45300 - Food Chemistry
- NUTR 45300 - Food Chemistry

Economics Selective - **Credit Hours: 3.00** (satisfies Human Cultures: Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Electives (19-21 credits)

- Elective - Credit Hours: 19.00-21.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00

- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11400 - Introduction to Animal Sciences Academic Programs
- ANSC 10200 - Introduction To Animal Agriculture
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- Written Communication Selective - Credit Hours: 3.00-4.00

14 Credits

Spring 1st Year

- ANSC 18100 - Orientation To Animal Sciences
- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11200 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

16 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition
- CHM 25700 - Organic Chemistry
- AGEC 33000 - Management Methods For Agricultural Business or
- CSR 34200 - Personal Finance or
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- Animal Sciences Selective - Credit Hours: 3.00

14 Credits

Fall 3rd Year

- BIOL 22100 - Introduction To Microbiology
- STAT 30100 - Elementary Statistical Methods
- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Products Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- Animal Genetics Selective - Credit Hours: 4.00
- Animal Physiology Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Electives - Credit Hours: 5.00

15 Credits

Fall 4th Year

- ANSC 48100 - Contemporary Issues in Animal Sciences (Capstone)
- Animal Production/Management Selective - Credit Hours: 3.00
- Food Science Selective - Credit Hours: 3.00-4.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Electives - Credit Hours: 4.00

14-15 Credits

Spring 4th Year

- Animal Sciences Selective - Credit Hours: 2.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 8.00-10.00

13-15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Minimum 2.0 GPA in ANSC courses required to earn degree
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student

must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Minor

Animal Science Minor

Requirements for the Minor (18 credits)

Complete one course in at least two areas.

A. Nutrition

- ANSC 22100 - Principles Of Animal Nutrition

B. Physiology

- ANSC 23000 - Physiology Of Domestic Animals
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology

C. Genetics

- ANSC 31100 - Animal Breeding
- ANSC 51100 - Population Genetics
- ANSC 51400 - Animal Biotechnology
- BIOL 41500 - Introduction To Molecular Biology

D. Products

- ANSC 30100 - Animal Growth, Development, And Evaluation
- ANSC 35100 - Meat Science

E. Electives

- Remainder of 18 credits may be completed from other courses listed above, or from Animal Sciences (ANSC) courses that are numbered 30100 or higher.

- Not more than four total credits from ANSC 37000, ANSC 37100, ANSC 37200, ANSC 47000, ANSC 47100, and ANSC 47200 may be used.
- Only one of the physiology courses listed above may be used to satisfy the minor.

Notes

- Departmental permission is not required to enroll in this minor.
- Students must achieve a minimum 2.00 grade point average in graded ANSC courses to meet minimum requirements for the Animal Sciences academic minor.

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Program Information

Animal Sciences Supplemental Information

Behavior/Well Being Concentration

Behavior/Well Being Selective (9 Credits)

- ANSC 30300 - Animal Behavior
- ANSC 40400 - Animal Welfare
- ANSC 49300 - Special Assignments
- ANSC 49100 - Special Problems
- ANSC 59500 - Special Topics In Animal Sciences
- ANTH 33500 - Primate Behavior
- ANTH 39200 - Selected Topics In Anthropology
- ANTH 53500 - Foundations Of Biological Anthropology
- ANTH 53600 - Primate Ecology
- BIOL 58705 - Animal Communication
- BIOL 59200 - The Evolution Of Behavior
- CPB 48000 - Seminar In Animal Welfare And Human-Animal Interaction
- CPB 59000 - Special Topics In Animal Welfare And Human-Animal Interaction
- PHIL 27000 - Biomedical Ethics
- PHIL 28000 - Ethics And Animals
- PHIL 29000 - Environmental Ethics
- VCS 41800 - Applied Small Animal Behavior
- VCS 80400 - Behavior In Domestic Animals

Biosciences Concentration

Science Selective (12 Credits)

- ANSC 50000:59999
- BCHM 32200:59999
- BIOL 21200:59900
- CHM 32100:49000
- CS 14500:59999
- MA 26100:59800
- PHYS 22000:25200
- PHYS 21800:25200
- PHYS 27200:49900
- STAT 50000:59999
- ANSC 49100 - Special Problems
- BCHM 22100 - Analytical Biochemistry
- CHM 29000 - Selected Topics In Chemistry For Lower-Division Students
- CHM 22400 - Introductory Quantitative Analysis
- CNIT 22700 - Introduction To Bioinformatics
- ENTM 52500 - Medical And Veterinary Entomology
- FS 44200 - Food Processing II
- FS 36200 - Food Microbiology
- FS 34100 - Food Processing I
- HSCI 56000 - Toxicology
- IT 34200 - Introduction To Statistical Quality
- PHIL 42100 - Philosophy Of Science
- PHYS 17200 - Modern Mechanics
- IET 31600 - Statistical Quality Control

Production Concentration

Enterprise Management Selective (6 Credits)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 30500 - Agricultural Prices
- AGEC 31000 - Farm Organization
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 41100 - Farm Management
- AGEC 41200 - Farm Business Management Workshop
- AGEC 42100 - Advanced Commodity Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 42500 - Estate Planning And Property Transfer
- AGEC 42700 - Advanced Agribusiness Marketing

- AGEC 43000 - Agricultural And Food Business Strategy
- AGEC 45500 - Agricultural Law
- MGMT 45500 - Legal Background For Business I

Production/Management Selective (6 Credits)

- AGRY 25500 - Soil Science
- AGRY 36500 - Soil Fertility
- AGRY 37500 - Crop Production Systems
- AGRY 50500 - Forage Management
- ASM 20100 - Construction And Maintenance
- ASM 22200 - Crop Production Equipment
- ASM 24500 - Materials Handling And Processing
- ASM 33300 - Facilities Planning And Management
- ASM 42000 - Electric Power And Controls
- BTNY 30400 - Introductory Weed Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 52500 - Medical And Veterinary Entomology

Department of Biochemistry

Overview

The Department of Biochemistry is a vibrant research community with widespread, multidisciplinary collaborations. We offer both undergraduate and graduate programs with emphasis on research excellence in broad areas of science. The field of biochemistry has historically focused on molecular dissection of biological molecules and cellular pathways. Our current faculty build upon this classical approach, using cutting-edge approaches ranging from genome-wide transcriptional analyses, state-of-the-art mass spectroscopy, and x-ray crystallography in a variety of model systems including bacteria, fungi, plants and fruit flies. These approaches allow our researchers to link real world problems such as energy production and human disease prevention to defects in basic molecular processes, tackling the most pressing issues in society.

Faculty (website)

Department of Biochemistry (website)

Contact Information

Department of Biochemistry
Purdue University

Biochemistry Building
175 South University Street
West Lafayette, IN 47907-2063
Phone: 765-494-1600

Email: biochem-boilers@purdue.edu

The main office for the department is located in Room 120 of the BCHM Building.

Graduate Information

For Graduate Information please see Biochemistry Graduate Program Information.

Baccalaureate

Biochemistry, BS

About the Program

Biochemistry, the chemistry of living things, addresses the basic materials and processes of life itself. Biochemists investigate the chemical nature of such fundamental processes as the regulation of gene expression, the hormonal control of cell proliferation and differentiation. Knowledge of the molecular underpinnings of biological materials allows us to understand life processes and solve basic biological problems.

Students in the Department of Biochemistry, historically situated in the College of Agriculture, enjoy close mentoring by faculty through smaller class sizes and academic advising. Another strength of our program is that we strongly promote hands-on research and critical thinking skills. All students in the department participate in undergraduate research supervised by a faculty member.

There is also an opportunity to complete a five-year dual degree with biological engineering following acceptance into the College of Engineering.

How to apply to Biochemistry in the College of Agriculture

Biochemistry Website

Biochemistry Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (22 credits)

Required Major Courses (22 credits)

- BCHM 10000 - Introduction To Biochemistry
- BCHM 22100 - Analytical Biochemistry
- BCHM 29000 - Experimental Design Seminar
- BCHM 32200 - Analytical Biochemistry II

- BCHM 36100 - Molecules
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar
- BCHM 49800 - Research In Biochemistry (Capstone)

Other Departmental/Program Course Requirements (91-92 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11500 - Introduction To Biochemistry Academic Programs
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- BIOL 23100 - Biology III: Cell Structure And Function ♦
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- CHM 11500 - General Chemistry ♦ (satisfies Science #1 for Core)
- CHM 11600 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry ♦
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry ♦
- CHM 25601 - Organic Chemistry Laboratory
- CHM 37200 - Physical Chemistry
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- STAT 30100 - Elementary Statistical Methods
  Economic Selective - **Credit Hours: 3.00** (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21100 - Contemporary Economic Problems
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics
  Bioinformatics Selective - **Credit Hours: 3.00**
- BCHM 42100 - R For Molecular Biosciences
- BCHM 42200 - Computational Genomics
- BCHM 52100 - Comparative Genomics
- BCHM 61200 - Bioinformatic Analysis of Genome Scale Data
- BIOL 47800 - Introduction to Bioinformatics
- CS 47800 - Introduction to Bioinformatics
- BIOL 56310 - Protein Bioinformatics
- CHM 57900 - Computational Chemistry
- CS 59000 - Topics In Computer Sciences

- HORT 53000 - Introduction To Computing For Biologists

- Science Selective - Credit Hours: 6.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Degree Requirements

Click here for Biochemistry Supplemental Information

Electives (6-7 credits)

- Electives - Credit Hours: 6.00-7.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11500 - Introduction To Biochemistry Academic Programs
- BCHM 10000 - Introduction To Biochemistry
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11500 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Humanities or Social Science Selective - Credit Hours: 3.00

17 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Fall 2nd Year

- BCHM 22100 - Analytical Biochemistry
- BIOL 23100 - Biology III: Cell Structure And Function ♦
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- CHM 25500 - Organic Chemistry ♦
- CHM 25501 - Organic Chemistry Laboratory
- STAT 30100 - Elementary Statistical Methods

15 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 29000 - Experimental Design Seminar

- BCHM 36100 - Molecules
- CHM 25600 - Organic Chemistry ♦
- CHM 25601 - Organic Chemistry Laboratory
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- BCHM 32200 - Analytical Biochemistry II
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 49800 - Research In Biochemistry - Credit Hours: 1.00
- PHYS 22000 - General Physics
- Human Cultures: Humanities Selective - Credit Hours: 3.00

14 Credits

Spring 3rd Year

- BCHM 49800 - Research In Biochemistry - Credit Hours: 1.00
- PHYS 22100 - General Physics
- Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 4.00

15 Credits

Fall 4th Year

- BCHM 49800 - Research In Biochemistry
- Bioinformatics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 4th Year

- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar
- CHM 37200 - Physical Chemistry
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

- Elective - Credit Hours: 2.00-3.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

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Biochemistry: Pre-Med Concentration, BS

About the Program

Biochemistry, the chemistry of living things, addresses the basic materials and processes of life itself. Biochemists investigate the chemical nature of such fundamental processes as the regulation of gene expression, the hormonal

control of cell proliferation and differentiation. Knowledge of the molecular underpinnings of biological materials allows us to understand life processes and solve basic biological problems.

Students in the Department of Biochemistry, historically situated in the College of Agriculture, enjoy close mentoring by faculty through smaller class sizes and academic advising. Another strength of our program is that we strongly promote hands-on research and critical thinking skills. All students in the department participate in undergraduate research supervised by a faculty member.

There is also an opportunity to complete a five-year dual degree with biological engineering following acceptance into the College of Engineering.

How to apply to Biochemistry in the College of Agriculture

Biochemistry Website

Biochemistry Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (22 credits)

Required Major Courses (22 credits)

- BCHM 10000 - Introduction To Biochemistry
- BCHM 22100 - Analytical Biochemistry
- BCHM 29000 - Experimental Design Seminar
- BCHM 32200 - Analytical Biochemistry II
- BCHM 36100 - Molecules
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar
- BCHM 49800 - Research In Biochemistry (Capstone) - Credit Hours: 3.00

Other Departmental/Program Course Requirements (91-94 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11500 - Introduction To Biochemistry Academic Programs
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- BIOL 23100 - Biology III: Cell Structure And Function ♦
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 39600 - Premedical Planning Seminar
- CHM 11500 - General Chemistry ♦ (satisfies Science #1 for core)

- CHM 11600 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry ♦
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry ♦
- CHM 25601 - Organic Chemistry Laboratory
- CHM 37200 - Physical Chemistry
- MA 16010 - Applied Calculus I
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PSY 12000 - Elementary Psychology
- SOC 10000 - Introductory Sociology
- STAT 30100 - Elementary Statistical Methods
- BIOL 30100 - Human Design: Anatomy And Physiology or
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 30200 - Human Design: Anatomy And Physiology or
- BIOL 20400 - Human Anatomy And Physiology

Economic Selective - **Credit Hours: 3.00** (satisfies Human Culture Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 21700 - Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Bioinformatics Selective - **Credit Hours: 3.00**

- BCHM 42100 - R For Molecular Biosciences
- BCHM 42200 - Computational Genomics
- BCHM 52100 - Comparative Genomics
- BCHM 61200 - Bioinformatic Analysis of Genome Scale Data
- BIOL 47800 - Introduction to Bioinformatics
- CS 47800 - Introduction to Bioinformatics
- BIOL 56310 - Protein Bioinformatics
- CHM 57900 - Computational Chemistry
- CS 59000 - Topics In Computer Sciences
- HORT 53000 - Introduction To Computing For Biologists

- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Electives (4-7 credits)

- Electives - Credit Hours: 4.00-7.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
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- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

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- Science #1 (SCI)
- Science #2 (SCI)
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Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11500 - Introduction To Biochemistry Academic Programs
- BCHM 10000 - Introduction To Biochemistry
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11500 - General Chemistry ♦
- MA 16010 - Applied Calculus I

14 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00

17-18 Credits

Fall 2nd Year

- BCHM 22100 - Analytical Biochemistry
- BIOL 23100 - Biology III: Cell Structure And Function ♦
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- CHM 25500 - Organic Chemistry ♦
- CHM 25501 - Organic Chemistry Laboratory
- STAT 30100 - Elementary Statistical Methods

15 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 29000 - Experimental Design Seminar
- BCHM 36100 - Molecules
- CHM 25600 - Organic Chemistry ♦
- CHM 25601 - Organic Chemistry Laboratory
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- BCHM 32200 - Analytical Biochemistry II
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 49800 - Research In Biochemistry - Credit Hours: 1.00
- PHYS 22000 - General Physics
- SOC 10000 - Introductory Sociology

14 Credits

Spring 3rd Year

- BCHM 49800 - Research In Biochemistry - Credit Hours: 1.00

- BIOL 39600 - Premedical Planning Seminar
- PHYS 22100 - General Physics
- PSY 12000 - Elementary Psychology
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 4.00

15 Credits

Fall 4th Year

- BCHM 49800 - Research In Biochemistry - Credit Hours: 1.00
- BIOL 30100 - Human Design: Anatomy And Physiology or
- BIOL 20300 - Human Anatomy And Physiology
- Bioinformatics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

13-14 Credits

Spring 4th Year

- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar
- CHM 37200 - Physical Chemistry
- BIOL 30200 - Human Design: Anatomy And Physiology or
- BIOL 20400 - Human Anatomy And Physiology
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 0.00-3.00

13-17 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

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Biochemistry: Pre-Vet Concentration, BS

About the Program

Biochemistry, the chemistry of living things, addresses the basic materials and processes of life itself. Biochemists investigate the chemical nature of such fundamental processes as the regulation of gene expression, the hormonal control of cell proliferation and differentiation. Knowledge of the molecular underpinnings of biological materials allows us to understand life processes and solve basic biological problems.

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Required Major Courses (22 credits)

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- BCHM 29000 - Experimental Design Seminar
- BCHM 32200 - Analytical Biochemistry II
- BCHM 36100 - Molecules
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar
- BCHM 49800 - Research In Biochemistry (Capstone) - Credit Hours: 3.00

Other Departmental /Program Course Requirements (93-95 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11500 - Introduction To Biochemistry Academic Programs
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- ANSC 22100 - Principles Of Animal Nutrition or
- ANSC 23000 - Physiology Of Domestic Animals
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function ♦
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- CHM 11500 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11600 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry ♦
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry ♦
- CHM 25601 - Organic Chemistry Laboratory
- CHM 37200 - Physical Chemistry
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- STAT 30100 - Elementary Statistical Methods
- VM 10200 - Careers In Veterinary Medicine
  Written Communication Selective - **Credit Hours: 3.00-4.00** (satisfies Written Communication and Information Literacy for core)
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity

Oral Communication Selective - **Credit Hours: 3.00** (satisfies Oral Communication for core)

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills

Economics Selective - **Credit Hours: 3.00** (satisfies Human Cultures: Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Bioinformatics Selective - **Credit Hours: 3.00**

- BCHM 42100 - R For Molecular Biosciences
- BCHM 42200 - Computational Genomics
- BCHM 52100 - Comparative Genomics
- BCHM 61200 - Bioinformatic Analysis of Genome Scale Data
- BIOL 47800 - Introduction to Bioinformatics
- CS 47800 - Introduction to Bioinformatics
- BIOL 56310 - Protein Bioinformatics
- CHM 57900 - Computational Chemistry
- CS 59000 - Topics In Computer Sciences
- HORT 53000 - Introduction To Computing For Biologists

- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Electives (3-5 credits)

- Electives - Credit Hours: 3.00-5.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11500 - Introduction To Biochemistry Academic Programs
- BCHM 10000 - Introduction To Biochemistry
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11500 - General Chemistry ♦
- MA 16010 - Applied Calculus I

14 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- VM 10200 - Careers In Veterinary Medicine
- ENGL 10600 - First-Year Composition or
- ENGL 10800 - Accelerated First-Year Composition or
- HONR 19903 - Interdisciplinary Approaches In Writing or
- SCLA 10100 - Transformative Texts, Critical Thinking And Communication I: Antiquity To Modernity
- Elective - Credit Hours: 1.00

16-17 Credits

Fall 2nd Year

- BCHM 22100 - Analytical Biochemistry
- BIOL 23100 - Biology III: Cell Structure And Function ♦
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- CHM 25500 - Organic Chemistry ♦
- CHM 25501 - Organic Chemistry Laboratory
- STAT 30100 - Elementary Statistical Methods

15 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 29000 - Experimental Design Seminar
- BCHM 36100 - Molecules
- CHM 25600 - Organic Chemistry ♦
- CHM 25601 - Organic Chemistry Laboratory
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills

16 Credits

Fall 3rd Year

- BCHM 32200 - Analytical Biochemistry II
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 49800 - Research In Biochemistry - Credit Hours: 1.00
- PHYS 22000 - General Physics
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

16 Credits

Spring 3rd Year

- BCHM 49800 - Research In Biochemistry - Credit Hours: 1.00
- PHYS 22100 - General Physics
- ANSC 22100 - Principles Of Animal Nutrition or
- ANSC 23000 - Physiology Of Domestic Animals
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

14-15 Credits

Fall 4th Year

- BCHM 49800 - Research In Biochemistry - Credit Hours: 1.00
- BIOL 22100 - Introduction To Microbiology

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Bioinformatics Selective - Credit Hours: 3.00

- BIOL 47800 - Introduction to Bioinformatics
- BIOL 56310 - Protein Bioinformatics
- CHM 57900 - Computational Chemistry
- CS 47800 - Introduction to Bioinformatics
- CS 59000 - Topics In Computer Sciences
- Humanities or Social Science Selective - Credit Hours: 3.00

14 Credits

Spring 4th Year

- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar
- CHM 37200 - Physical Chemistry
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 0.00-2.00

13-15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese

GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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Minor

Biochemistry Minor

Requirements for the Minor (18-19 credits)

Required Courses (11-12 credits)

- BCHM 10000 - Introduction To Biochemistry or
- Science, Technology, and Society (STS) - Credit Hours: 3.00
- CHM 25600 - Organic Chemistry or
- CHM 26200 - Organic Chemistry or
- CHM 26605 - Organic Chemistry or
- MCMP 20500 - Organic Chemistry II
- BCHM 36100 - Molecules or
- BCHM 56100 - General Biochemistry I
- BCHM 46200 - Metabolism or
- BCHM 56200 - General Biochemistry II

Selective Courses (7 credits)

- BCHM 29000 - Experimental Design Seminar

- BCHM 32200 - Analytical Biochemistry II
- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar
- BCHM 49800 - Research In Biochemistry
- BCHM 22100 - Analytical Biochemistry or
- CHM 32100 - Analytical Chemistry I
- Other BCHM course (40000-level or higher)

Notes

- Departmental permission is not required for this minor.
- Departmental permission is required to register for the following courses: BCHM 29000, BCHM 36100, BCHM 46200, BCHM 46300, BCHM 46500, BCHM 49000 and BCHM 49800

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Bioinformatics Minor

The goal of the Bioinformatics minor is to increase career opportunities for our graduates and also to meet a critical need of Indiana's stakeholders. Analysis of ongoing trends in scientific publications indicates that bioinformatics is nearly as important as biochemistry as a discipline and has led to a call for inclusion of bioinformatics courses in standard curriculums related to biology (Journal of Microbiology and Biology Education, December 2015, p198-202).

In recognition of the importance and transformative potential of data-driven fields such as bioinformatics, Purdue recently created the Integrative Data Science Initiative to promote data science-enabled research and education.

Requirements for the Minor (16 credits)

Required Courses (13 credits)

- BCHM 42100 - R For Molecular Biosciences
- BCHM 42200 - Computational Genomics
- BCHM 52100 - Comparative Genomics
- CS 17700 - Programming With Multimedia Objects

Bioinformatics Elective - Choose One: (3 credits)

- BCHM 61200 - Bioinformatic Analysis of Genome Scale Data
- BIOL 47800 - Introduction to Bioinformatics
- BIOL 56310 - Protein Bioinformatics

- CHM 57900 - Computational Chemistry
- CS 47800 - Introduction to Bioinformatics
- HORT 53000 - Introduction To Computing For Biologists

Notes

Pre-requisities - There are pre-req courses that need to be taken. For current pre-requisites for courses, click here.

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Program Information

Biochemistry Supplemental Information

Science Selective (6 Credits)

- BCHM 60000:69999
- BIOL 20000:20400, 28600:29400
- CHM 22400:24100, 28600:29400, 42400:47500, 53600:69999
- CS 20000:59999
- EAPS 22000:59900
- MA 25000:59999
- MCMP 20600:59999
- STAT 41600:47900, 51200:59900
- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 20500 - Computations For Engineering Systems
- ABE 21000 - Thermodynamics Principles Of Engineering And Biological Systems
- ABE 30100 - Numerical And Computational Modeling In Biological Engineering
- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 30500 - Physical Properties Of Biological Materials
- ABE 31000 - Thermodynamics Of Food And Biological Systems
- ABE 32000 - Solid Modeling, Simulation, And Analysis
- ABE 32500 - Soil And Water Resource Engineering
- ABE 33000 - Design Of Machine Components
- ABE 33600 - All Terrain Vehicle Design
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- ABE 53100 - Instrumentation And Data Acquisition
- ABE 56000 - Biosensors: Fundamentals and Applications
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils

- AGRY 33700 - Environmental Hydrology
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 34900 - Soil Ecology
- AGRY 43100 - Atmospheric Thermodynamics
- AGRY 43200 - Atmospheric Dynamics I
- AGRY 43300 - Atmospheric Dynamics II
- AGRY 44100 - Synoptic Laboratory I
- AGRY 44200 - Synoptic Laboratory II
- AGRY 44300 - Synoptic Laboratory III
- AGRY 46500 - Soil Physical Properties
- AGRY 48000 - Plant Genetics
- AGRY 51100 - Population Genetics
- AGRY 51500 - Plant Mineral Nutrition
- AGRY 52000 - Principles And Methods Of Plant Breeding
- AGRY 52500 - Crop Physiology And Ecology
- AGRY 53000 - Advanced Plant Genetics
- AGRY 53500 - Boundary Layer Meteorology
- AGRY 53600 - Environmental Biophysics
- AGRY 54400 - Environmental Organic Chemistry
- AGRY 55500 - Soil And Plant Analysis
- AGRY 54000 - Soil Chemistry
- AGRY 56000 - Soil Physics
- AGRY 58000 - Soil Microbiology
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- ANSC 29500 - Special Topics In Animal Sciences
- ANSC 33300 - Physiology Of Reproduction
- ANSC 51100 - Population Genetics
- ANSC 51400 - Animal Biotechnology
- ANSC 52400 - Ruminant Nutrition And Physiology
- ANSC 52200 - Monogastric Nutrition
- ANSC 53500 - Avian Physiology
- ANSC 55500 - Animal Growth And Development
- BCHM 27500 - Honors Course - Lower Division
- BCHM 29801 - Head Start To Introductory Biochemistry Research
- BCHM 49500 - Special Assignments
- BCHM 49800 - Research In Biochemistry
- BCHM 49801 - Head Start To Biochemistry Research
- BCHM 53600 - Biological And Structural Aspects Of Drug Design And Action
- BIOL 22100 - Introduction To Microbiology
- BTNY 20700 - The Microbial World
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30200 - Plant Ecology
- BTNY 35000 - Biotechnology In Agriculture
- BTNY 42000 - Plant Cellular And Developmental Biology
- BTNY 50400 - Advanced Weed Science
- BTNY 50500 - Advanced Biology Of Weeds
- BTNY 55000 - Biology Of Fungi

- BTNY 55200 - Molecular Approaches In Plant Biology
- BTNY 55300 - Plant Growth And Development
- BTNY 55800 - Pathogens Of Plants
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 22820 - Forensic Analysis
- ENTM 31100 - Insect Ecology
- FNR 20100 - Marine Biology
- FNR 22500 - Dendrology
- FNR 30500 - Conservation Genetics
- FNR 33100 - Forest Ecosystems
- FNR 35100 - Aquatic Sampling Techniques
- FNR 35300 - Natural Resources Measurement
- FNR 43400 - Tree Physiology
- FNR 44700 - Vertebrate Population Dynamics
- FNR 45300 - Fish Physiology
- FNR 45500 - Fish Ecology
- FNR 54300 - Conservation Biology I
- FNR 55100 - Advanced Ichthyology
- FS 36200 - Food Microbiology
- FS 36300 - Food Microbiology Laboratory
- FS 43100 - Physical Chemistry For Food And Agriculture
- FS 45300 - Food Chemistry
- FS 46700 - Food Analysis
- FS 46900 - Food Analysis Laboratory
- FS 56500 - Microbial Foodborne Pathogens
- FS 56600 - Microbial Techniques For Food Pathogens
- FS 59100 - Special Topics
- HONR 19900 - Interdisciplinary Honors - Introductory Seminar - Titles: Human Genetics: New Hope, Science & Psuedoscience
- HONR 29900 - Interdisciplinary Honors - Experiential Learning - Titles: Paradigm Shifts for Biology, Physics for Future Presidents
- HONR 39900 - Interdisciplinary Honors - Special Topics Seminar - Probability
- HORT 30100 - Plant Physiology
- HORT 50100 - Scanning Electron Microscopy: Principles
- HORT 50200 - Scanning Electron Microscopy: Application
- HORT 50300 - Transmission Electron Microscopy: Principles
- HORT 50400 - Transmission Electron Microscopy: Application
- HORT 55100 - Plant Responses To The Environment
- HORT 55300 - Plant Growth And Development
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- NRES 38500 - Environmental Soil Chemistry
- NUTR 30300 - Essentials Of Nutrition
- NUTR 31500 - Fundamentals Of Nutrition
- NUTR 43700 - Macronutrient Metabolism In Human Health And Disease
- NUTR 43800 - Micronutrient And Phytochemical Metabolism In Human Health And Disease

- NUTR 45300 - Food Chemistry
- TLI 52100 - Drug Development

Department of Botany and Plant Pathology

Overview

Welcome to the Department of Botany and Plant Pathology at Purdue University.

Research, teaching and extension have been an integral part of the Department of Botany and Plant Pathology since 1887. Today's department includes 31 faculty who are advancing and teaching the disciplines of Plant Biology, Plant Pathology and Weed Science.

Explore our web site and see the opportunities our department offers. Learn how you can do more to protect the environment, apply genetic knowledge to improve plants, manage natural resources, control weeds, or diagnose plant diseases with a degree from Purdue's Botany and Plant Pathology department.

Faculty (website)

Department of Botany and Plant Pathology (website)

Contact Information

Department of Botany and Plant Pathology
Purdue University
Lilly Hall of Life Sciences
915 West State Street
West Lafayette, IN 47907-2054
Phone: 765.494.0352
E-mail: botany@purdue.edu

The main office for the department is located in Room 1-446 of LILY Hall.

Graduate Information

For Graduate Information please see Botany and Plant Pathology Graduate Program Information.

Baccalaureate

Plant Science, BS

About the Program

This major is designed for students who are interested in the biology of plants: how they grow, develop and evolve; the interactions of plants with other organisms and their role in the environment; how to manage plants that are grown for food, fiber and fuel. Our major allows students to develop expertise in these areas, prepare for a career in fields such as biotechnology and environmental management, and move forward to advanced graduate studies.

Plant Science Website

Plant Science Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (28 credits)

Required Major Courses (28 credits)

- BTNY 12000 - Principles Of Plant Biology I
- BTNY 12100 - Principles Of Plant Biology II
- BTNY 20700 - The Microbial World
- BTNY 20800 - Introduction To Plant Science Research
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30200 - Plant Ecology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 42000 - Plant Cellular And Developmental Biology
- BTNY 49700 - Undergraduate Seminar (Capstone)
- BTNY 49800 - Research In Plant Science (Capstone) - Credit Hours: 3.00

Other Departmental/Program Course Requirements (77.5-78.5 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12500 - Introduction To Plant Science
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 30700 - Biochemistry
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- CHM 25701 - Organic Chemistry Laboratory ♦
- HORT 30100 - Plant Physiology ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- PHYS 21400 - The Nature Of Physics
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core) or
- STAT 50300 - Statistical Methods For Biology ♦
  Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Focus Selective - Credit Hours: 15.00
- Focus Selective (30000+ level) - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Science, Technology, & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology, & Society for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Plant Science Supplemental Information

Electives (13.5-14.5 credits)

- Elective - Credit Hours: 13.50-14.50

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)

- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12500 - Introduction To Plant Science
- BTNY 12000 - Principles Of Plant Biology I
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00-4.00

14.5-15.5 Credits

Spring 1st Year

- BTNY 12100 - Principles Of Plant Biology II
- BTNY 20700 - The Microbial World
- CHM 11200 - General Chemistry ♦
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- BTNY 20800 - Introduction To Plant Science Research
- BTNY 26200 - Plant Structure And Tissue Biology
- CHM 25700 - Organic Chemistry ♦
- CHM 25701 - Organic Chemistry Laboratory ♦
- Focus Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BTNY 30200 - Plant Ecology
- PHYS 21400 - The Nature Of Physics
- Science, Technology, & Society Selective - Credit Hours: 3.00
- Focus Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- BCHM 30700 - Biochemistry
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 49700 - Undergraduate Seminar (Capstone)
  Economics Selective - Credit Hours: 3.00
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Focus Selective - Credit Hours: 3.00

13 Credits

Spring 3rd Year

- BTNY 42000 - Plant Cellular And Developmental Biology
- HORT 30100 - Plant Physiology ♦
- STAT 30100 - Elementary Statistical Methods ♦ or
- STAT 50300 - Statistical Methods For Biology ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- BTNY 49800 - Research In Plant Science (Capstone) - Credit Hours: 3.00
- Focus Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 6.00

15 Credits

Spring 4th Year

- Focus Selective - Credit Hours: 3.00
- Focus Selective (30000-level+) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 1.50-2.50

13.5-14.5 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

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Minor

Plant Biology Minor

Requirements for the Minor (15 credits)

Required Courses (4 credits)

- BTNY 11000 - Introduction To Plant Science

Selective Courses (11 credits)

- BTNY 20700 - The Microbial World
- BTNY 28500 - Plants And Civilization
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30200 - Plant Ecology
- BTNY 30400 - Introductory Weed Science
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 42000 - Plant Cellular And Developmental Biology
- BTNY 49800 - Research In Plant Science *
- BTNY 55000 - Biology Of Fungi
- HORT 30100 - Plant Physiology

Notes

- Departmental permission is not required to enroll in this minor.
- *A maximum of three credits of BTNY 49800 or comparable research in the plant sciences may be applied to the minor.
- Students in the Plant Science major cannot minor in Plant Biology.

Disclaimer

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Plant Pathology Minor

Requirements for the Minor (15 credits)

Required Courses (9 credits)

- BTNY 30100 - Introductory Plant Pathology
- BTNY 52500 - Intermediate Plant Pathology

- BTNY 53500 - Plant Disease Management

Selective Courses (6 credits)

- BTNY 20700 - The Microbial World
- BTNY 49800 - Research In Plant Science *
- BTNY 51700 - Diseases Of Agronomic Crops
- BTNY 55000 - Biology Of Fungi

Notes

- Departmental permission is not required to enroll in this minor.
- * A maximum of three credits of BTNY 49800 or comparable research in the plant sciences may be applied to the minor.

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The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Weed Science Minor

Requirements for the Minor (15 credits)

A. Required Courses (6 credits)

- BTNY 30400 - Introductory Weed Science
- BTNY 50400 - Advanced Weed Science or
- BTNY 50500 - Advanced Biology Of Weeds

B. Selectives (9 credits)

- BTNY 30200 - Plant Ecology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- BTNY 49800 - Research In Plant Science *
- HORT 30100 - Plant Physiology

Notes

- Department permission is not required to enroll in this minor.
- *A maximum of three credits of BTNY 49800 or comparable research in the plant sciences may be applied to the minor.

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Program Information

Plant Science Supplemental Information

Focus Selective (18 Credits)

At least 3 Credits have to be at 30000+ level

- ABE 32500 - Soil And Water Resource Engineering
- AGEC 25000 - Economic Geography Of World Food And Resources
- AGEC 34000 - International Economic Development
- AGEC 41000 - Agricultural Policy
- AGRY 10500 - Crop Production
- AGRY 12000 - Water And Food Security
- AGRY 25500 - Soil Science
- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 33500 - Weather And Climate
- AGRY 34900 - Soil Ecology
- AGRY 35000 - Global Awareness
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 45000 - Soil Conservation and Water Management
- AGRY 48000 - Plant Genetics
- AGRY 51100 - Population Genetics
- AGRY 52000 - Principles And Methods Of Plant Breeding
- AGRY 52500 - Crop Physiology And Ecology
- AGRY 53000 - Advanced Plant Genetics
- AGRY 53600 - Environmental Biophysics
- AGRY 54400 - Environmental Organic Chemistry
- AGRY 54500 - Remote Sensing Of Land Resources
- AGRY 58000 - Soil Microbiology
- AGRY 58200 - Environmental Fate Of Pesticides
- AGRY 58500 - Soils And Land Use
- BCHM 22100 - Analytical Biochemistry
- BCHM 56100 - General Biochemistry I
- BCHM 56200 - General Biochemistry II
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 41500 - Introduction To Molecular Biology
- BIOL 41600 - Viruses And Viral Disease

- BIOL 43800 - General Microbiology
- BIOL 48100 - Eukaryotic Genetics
- BIOL 51700 - Molecular Biology: Proteins
- BIOL 58000 - Evolution
- BIOL 59500 - Special Assignments
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- BTNY 35000 - Biotechnology In Agriculture
- BTNY 39000 - Selected Topics In Plant Science
- BTNY 42000 - Plant Cellular And Developmental Biology
- BTNY 50400 - Advanced Weed Science
- BTNY 50500 - Advanced Biology Of Weeds
- BTNY 52500 - Intermediate Plant Pathology
- BTNY 53500 - Plant Disease Management
- BTNY 55000 - Biology Of Fungi
- BTNY 55200 - Molecular Approaches In Plant Biology
- BTNY 55300 - Plant Growth And Development
- EAPS 10000 - Planet Earth
- EAPS 11100 - Physical Geology
- EAPS 42000 - Global Change Modeling
- ENGL 23400 - Ecological Literature
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 31100 - Insect Ecology
- FNR 20100 - Marine Biology
- FNR 21000 - Natural Resource Information Management
- FNR 22500 - Dendrology
- FNR 23000 - The World's Forests And Society
- FNR 30500 - Conservation Genetics
- FNR 33100 - Forest Ecosystems
- FNR 33300 - Fire Effects In Forest Environments
- FNR 34100 - Wildlife Habitat Management
- FNR 35300 - Natural Resources Measurement
- FNR 35700 - Fundamental Remote Sensing
- FNR 40600 - Natural Resource And Environmental Economics
- FNR 43400 - Tree Physiology
- FNR 48800 - Global Environmental Issues
- FNR 55800 - Remote Sensing Analysis And Applications
- HORT 20100 - Plant Propagation
- HORT 55100 - Plant Responses To The Environment
- NRES 28000 - Hazardous Waste Handling
- POL 22300 - Introduction To Environmental Policy
- POL 30000 - Introduction To Political Analysis
- POL 32300 - Comparative Environmental Policy
- POL 32700 - Global Green Politics
- POL 42300 - International Environmental Policy
- POL 52300 - Environmental Politics And Public Policy
- SFS 30100 - Agroecology

- STAT 50300 - Statistical Methods For Biology
- STAT 51100 - Statistical Methods

Department of Entomology

Overview

Vision

To be a leader recognized worldwide for the solutions and discoveries generated through the application of science focused on arthropod and nematode biology.

Mission

To improve the quality of life for the state, nation and the world by advancing scientific knowledge through the development and application of arthropod/ nematode science.

Core Values

- Strive to be pace setting in everything we do
- Encourage the highest standards of ethics and citizenship
- Operate in an open, objective, and inclusive environment
- A community of scholars committed to excellence and teamwork
- Promote the synergism that comes from interdisciplinary interactions
- Value our human capital
- Embrace and promote increased diversity
- Adopt emerging information and other technologies as tools - not final solutions
- Resolve to actively disseminate our knowledge to people of all ages

Faculty (website)

Department of Entomology (website)

Contact Information

Department of Entomology
Purdue University - Smith Hall
901 West State Street
West Lafayette, IN 47907
Phone: (765) 494-4554
Email: bugs@purdue.edu

The main office for the department is located in Room 127 of SMTH Hall.

Graduate Information

For Graduate Information please see Entomology Graduate Program Information.

Baccalaureate

Insect Biology, BS

About the Program

Insect Biology Majors study insects and related organisms. The program emphasizes "hands on learning" with opportunities for faculty mentored undergraduate research, field and laboratory experiences and study abroad options. Insect biologists apply knowledge and modern technology to address grand challenges including protection of human and animal health, food, and property, and natural environments. Insect biologists work as scientists, educators, technicians, consultants, and specialists in urban, agricultural, and natural environments to prevent the spread of disease, feed the world, promote biodiversity, protect the environment, solve crimes, strengthen biosecurity, and teach science. Careers are as diverse as the insects we study.

Entomology Website

Insect Biology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (43 credits)

Required Major Courses (43 credits)

- ENTM 10100 - Insect Biology And Societal Grand Challenges
- ENTM 10200 - The Practice Of Science
- ENTM 20100 - Scientific And Technical Communication
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31100 - Insect Ecology
- ENTM 31200 - Insect Chemical Ecology
- ENTM 33500 - Introduction To Insect Identification
- ENTM 35300 - Insecticides And Environment
- ENTM 39300 - Insect Biology Practicum - must take 2 times
- ENTM 40100 - Addressing Grand Challenges Through Insect Biology
- ENTM 41000 - Applied Insect Biology
- ENTM 49310 - Insect Biology Capstone Experience - must take 2 times

- ENTM 49390 - Insect Biology Capstone Forum
- ENTM 41001 - Insects Of Urban Landscapes or
- ENTM 41002 - Insects Of Agricultural Crops

Other Departmental /Program Course Requirements (58-61 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11700 - Introduction To Entomology Academic Programs
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- BTNY 35000 - Biotechnology In Agriculture
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- PHYS 21400 - The Nature Of Physics
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)

Calculus Selective - Credit Hours: 3.00-5.00 (satisfies Quantitative Reasoning for core)

- MA 16010 - Applied Calculus I or
- MA 16020 - Applied Calculus II or
- MA 16100 - Plane Analytic Geometry And Calculus I or
- MA 16500 - Analytic Geometry And Calculus I

Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

- Directed Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology, & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)

Additional Requirements

Click here for Insect Biology Supplemental Information

Electives (16-19 credits)

- Electives - Credit Hours: 16.00-19.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11700 - Introduction To Entomology Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- ENTM 10100 - Insect Biology And Societal Grand Challenges
- ENTM 10200 - The Practice Of Science

Calculus Selective - Credit Hours: 3.00-5.00

- MA 16010 - Applied Calculus I or
- MA 16020 - Applied Calculus II or
- MA 16100 - Plane Analytic Geometry And Calculus I or
- MA 16500 - Analytic Geometry And Calculus I

14-16 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11200 - General Chemistry ♦
- ENTM 21000 - Introduction To Insect Behavior
- Written Communication Selective - Credit Hours: 3.00-4.00

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

16-17 Credits

Fall 2nd Year

- ENTM 20100 - Scientific And Technical Communication
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- PHYS 21400 - The Nature Of Physics
- STAT 30100 - Elementary Statistical Methods ♦
- Human Cultures: Humanities Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- ENTM 31100 - Insect Ecology
- ENTM 25300 - Insect Physiology And Biochemistry
- Humanites or Social Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- ENTM 30100 - Experimentation And Analysis
- ENTM 33500 - Introduction To Insect Identification
- ENTM 39300 - Insect Biology Practicum
- Science, Technology, & Society Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- BTNY 35000 - Biotechnology In Agriculture
- ENTM 31200 - Insect Chemical Ecology
- ENTM 35300 - Insecticides And Environment
- ENTM 39300 - Insect Biology Practicum
- Directed Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- ENTM 41000 - Applied Insect Biology
- ENTM 49310 - Insect Biology Capstone Experience
- ENTM 41001 - Insects Of Urban Landscapes or
- ENTM 41002 - Insects Of Agricultural Crops
- Electives - Credit Hours: 7.00-10.00

12-15 Credits

Spring 4th Year

- ENTM 40100 - Addressing Grand Challenges Through Insect Biology
- ENTM 49310 - Insect Biology Capstone Experience
- ENTM 49390 - Insect Biology Capstone Forum
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)

ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Insect Biology: Forensic Entomology, BS

About the Program

Students desiring to focus exclusively on forensic entomology are best served by this option in the department of Entomology. The forensic entomology area of concentration provides the coursework necessary for American Board of Forensic Entomology technician certification and is designed to meet the standards of the Forensic Science Education Programs Accreditation Commission for forensic science. As such, this program is intended for those interested in being crime scene investigators anticipating they will work with entomological material, as well as post-graduate programs in Entomology of Biology focusing on forensics.

Entomology Website

Insect Biology Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (52 credits)

Required Major Courses (52 credits)

- ENTM 10100 - Insect Biology And Societal Grand Challenges
- ENTM 10200 - The Practice Of Science

- ENTM 20100 - Scientific And Technical Communication
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 22810 - Forensic Investigation
- ENTM 22820 - Forensic Analysis
- ENTM 22830 - Forensic Testimony And Ethics
- ENTM 22840 - Forensic Entomology Principles
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31100 - Insect Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 32820 - Medico-Legal Entomology
- ENTM 33500 - Introduction To Insect Identification
- ENTM 39300 - Insect Biology Practicum - Must be taken 2 times
- ENTM 40100 - Addressing Grand Challenges Through Insect Biology
- ENTM 42820 - Carrion Ecology
- ENTM 49390 - Insect Biology Capstone Forum

Other Departmental/Program Course Requirements (67-70 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11700 - Introduction To Entomology Academic Programs
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11500 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11600 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)

Calculus Selective - Credit Hours: 3.00-5.00 (satisfies Quantitative Reasoning for core)

- MA 16010 - Applied Calculus I or
- MA 16020 - Applied Calculus II or
- MA 16100 - Plane Analytic Geometry And Calculus I or
- MA 16500 - Analytic Geometry And Calculus I

Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)

- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 3.00 (satisfies Science, Technology, & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)

Electives (0-1 credit)

- Electives - Credit Hours: 0.00-1.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11700 - Introduction To Entomology Academic Programs

- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11500 - General Chemistry ♦
- ENTM 10100 - Insect Biology And Societal Grand Challenges
- ENTM 10200 - The Practice Of Science

Calculus Selective - Credit Hours: 3.00-5.00

- MA 16010 - Applied Calculus I or
- MA 16020 - Applied Calculus II or
- MA 16100 - Plane Analytic Geometry And Calculus I or
- MA 16500 - Analytic Geometry And Calculus I

15-17 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11600 - General Chemistry ♦
- ENTM 21000 - Introduction To Insect Behavior
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00

17-18 Credits

Fall 2nd Year

- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 22810 - Forensic Investigation
- PHYS 22000 - General Physics

15 Credits

Spring 2nd Year

- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- ENTM 22820 - Forensic Analysis
- PHYS 22100 - General Physics
- STAT 30100 - Elementary Statistical Methods ♦

15 Credits

Fall 3rd Year

- ENTM 20100 - Scientific And Technical Communication
- ENTM 22830 - Forensic Testimony And Ethics

- ENTM 22840 - Forensic Entomology Principles
- ENTM 30100 - Experimentation And Analysis
- ENTM 33500 - Introduction To Insect Identification
- ENTM 39300 - Insect Biology Practicum

16 Credits

Spring 3rd Year

- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 31100 - Insect Ecology
- ENTM 32820 - Medico-Legal Entomology
- ENTM 39300 - Insect Biology Practicum
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Fall 4th Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- ENTM 42820 - Carrion Ecology
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 0.00-1.00

Economics Selective - Credit Hours: 3.00

- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

13-14 Credits

Spring 4th Year

- ENTM 32810 - Practical Molecular Biology
- ENTM 40100 - Addressing Grand Challenges Through Insect Biology
- ENTM 49390 - Insect Biology Capstone Forum
- Humanities or Social Science Selective - Credit Hours: 6.00
- Science, Technology and Society Selective - Credit Hours: 3.00

14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

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Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Minor

Forensic Sciences Minor

Requirements for the Minor (20 credits)

Required Courses (11 credits)

- ENTM 22810 - Forensic Investigation
- ENTM 22820 - Forensic Analysis
- ENTM 22830 - Forensic Testimony And Ethics

Selective Courses (9 credits)

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 34900 - Soil Ecology
- AGRY 35500 - Soil Morphology And Geography
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 58000 - Soil Microbiology
- ANTH 31000 - Mortuary Practices Across Cultures
- ANTH 33600 - Human Variation
- ANTH 40500 - Ethnographic Methods
- ANTH 42500 - Archaeological Method And Theory
- ANTH 42800 - Field Methods In Archaeology
- ANTH 43600 - Human Evolution
- ANTH 53400 - Human Osteology
- ANTH 53500 - Foundations Of Biological Anthropology
- ANTH 58900 - Archaeology And Materials Science
- ANTH 59200 - Selected Topics In Anthropology
- BCHM 22100 - Analytical Biochemistry
- BCHM 32200 - Analytical Biochemistry II
- BCHM 56200 - General Biochemistry II
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 41500 - Introduction To Molecular Biology
- BIOL 43800 - General Microbiology
- BIOL 43900 - Laboratory In General Microbiology
- BIOL 44400 - Human Genetics
- BIOL 47800 - Introduction to Bioinformatics
- BIOL 53300 - Medical Microbiology
- BIOL 58000 - Evolution
- CNIT 42000 - Basic Cyber Forensics
- CNIT 45500 - Network Security
- CNIT 45600 - Wireless Security And Management
- CNIT 51100 - Foundations In Homeland Security Studies
- CNIT 51200 - Managing Resources And Applications For Homeland Security
- CNIT 55700 - Advanced Research Topics In Cyber Forensics
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 22840 - Forensic Entomology Principles
- ENTM 22841 - Forensic Entomology Principles Lab
- ENTM 32810 - Practical Molecular Biology
- ENTM 33500 - Introduction To Insect Identification
- ENTM 52500 - Medical And Veterinary Entomology
- FNR 22500 - Dendrology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 32820 - Medico-Legal Entomology

- ENTM 42820 - Carrion Ecology
- FNR 21000 - Natural Resource Information Management
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics
- FNR 34100 - Wildlife Habitat Management
- FNR 34800 - Wildlife Investigational Techniques
- HSCI 33300 - Introduction To Immunology
- HSCI 56000 - Toxicology
- MGMT 53200 - Forensic Accounting And Fraud Examination
- POL 42500 - Environmental Law And Politics
- POL 42800 - The Politics Of Regulation
- PSY 33500 - Stereotyping And Prejudice
- PSY 35000 - Abnormal Psychology
- PSY 42800 - Drugs And Behavior
- PSY 44300 - Aggression And Violence
- SOC 32400 - Criminology
- SOC 32700 - Crime, Deviance And Mass Media
- SOC 32800 - Criminal Justice
- SOC 35600 - Hate And Violence
- SOC 41900 - Sociology Of Law
- SOC 42600 - Social Deviance And Control
- SOC 45400 - Family Violence
- AGRY 25500 - Soil Science or
- AGRY 27000 - Forest Soils
- BCHM 30700 - Biochemistry or
- CHM 33300 - Principles Of Biochemistry or
- CHM 33900 - Biochemistry: A Molecular Approach
- BCHM 30900 - Biochemistry Laboratory or
- CHM 33901 - Biochemistry Laboratory
- BCHM 56100 - General Biochemistry I or
- CHM 53300 - Introductory Biochemistry
- BIOL 20300 - Human Anatomy And Physiology or
- BIOL 30100 - Human Design: Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology or
- BIOL 30200 - Human Design: Anatomy And Physiology
- CHM 32100 - Analytical Chemistry I or
- CHM 22400 - Introductory Quantitative Analysis or
- CHM 32300 - Analytical Chemistry I Honors
- CHM 25500 - Organic Chemistry or
- CHM 25700 - Organic Chemistry or
- CHM 26505 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory or
- CHM 25701 - Organic Chemistry Laboratory or
- CHM 26500 - Organic Chemistry Laboratory or
- CHM 26700 - Organic Chemistry Laboratory Honors
- PHYS 21800 - General Physics or
- PHYS 17200 - Modern Mechanics or
- PHYS 22000 - General Physics or
- PHYS 23300 - Physics For Life Sciences I
- PHYS 21900 - General Physics II or

- PHYS 22100 - General Physics or
- PHYS 23400 - Physics For Life Sciences II

Notes

- Departmental permission is not required to enroll in this minor.

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Insect Biology Minor

Requirements for the Minor (15 credits)

Required Courses (3 credits)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory

Selective Courses (12 credits)

- ENTM 10500 - Insects: Friend And Foe
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 22840 - Forensic Entomology Principles
- ENTM 22841 - Forensic Entomology Principles Lab
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 31100 - Insect Ecology
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 32820 - Medico-Legal Entomology
- ENTM 33500 - Introduction To Insect Identification
- ENTM 35300 - Insecticides And Environment
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- ENTM 41002 - Insects Of Agricultural Crops
- ENTM 42820 - Carrion Ecology
- ENTM 52500 - Medical And Veterinary Entomology

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Program Information

Insect Biology Supplemental Information

Directed Science Selective (3 credits)

- AGRY 48000 - Plant Genetics
- AGRY 51100 - Population Genetics
- AGRY 52000 - Principles And Methods Of Plant Breeding
- ANSC 51100 - Population Genetics
- ANSC 51400 - Animal Biotechnology
- BCHM 22100 - Analytical Biochemistry
- BCHM 36100 - Molecules
- BIOL 22100 - Introduction To Microbiology
- BIOL 48100 - Eukaryotic Genetics
- BTNY 42000 - Plant Cellular And Developmental Biology
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- ENTM 32810 - Practical Molecular Biology
- PHYS 22100 - General Physics

Department of Food Science

Overview

The Department of Food Science at Purdue University is committed to impacting the world food system and quality of life by educating and training undergraduate and graduate students for careers in industry, government, and academia. Our mission is to expand and transfer knowledge for continuous improvement of the safety, quality, value, and security of the world's food supply through basic research and outreach programs.

Our faculty, staff, and students are located on Purdue University's main campus in the **Philip E. Nelson Hall of Food Science, 745 Agriculture Mall Drive, West Lafayette, Indiana 47907**. This building provides excellent research laboratories, as well as specialized facilities such as the sensory evaluation laboratory, pilot scale-manufacturing plant, student product development and innovation laboratory, and enology library for us to engage with the food and beverage industry and government partners.

Faculty (website)

Department of Food Science (website)

Contact Information

Department of Food Science

Purdue University

Nelson Hall of Food Science
745 Agriculture Mall Drive
West Lafayette, IN 47907
Phone: (765) 494-2766

Email: foodsci@purdue.edu

The main office for the department is located in Room 2211 of the NLSN Building.

Current and Prospective Undergraduate Students (website)

Graduate Information

For Graduate Information please see Food Sciences Graduate Program Information.

Baccalaureate

Food Science, BS

About the Program

The field of Food Science applies science, such as microbiology and biochemistry, to discover ways to improve the taste, nutrition, and value of the food supply. A food scientist possesses the skills necessary to convert raw food products into safe, attractive foods and beverages. Graduates apply scientific knowledge and economic principles to food production, storage, distribution, product development, quality control, inspection, and sales, or they pursue graduate studies in food processing, microbiology, or chemistry.

Food Science Website

Food Science Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (34 credits)

Required Major Courses (34 credits)

- FS 16100 - Science Of Food
- FS 24500 - Food Packaging
- FS 29800 - Sophomore Seminar
- FS 34000 - Introduction To Food Law And Regulations
- FS 34100 - Food Processing I
- FS 34200 - Food Processing I Laboratory
- FS 36100 - Food Plant Sanitation
- FS 36200 - Food Microbiology
- FS 36300 - Food Microbiology Laboratory
- FS 43500 - Sensory Science
- FS 44200 - Food Processing II
- FS 44300 - Food Product Design (Capstone)
- FS 44400 - Statistical Process Control
- FS 44700 - Food Processing II Laboratory
- FS 45300 - Food Chemistry
- FS 45400 - Food Chemistry Laboratory
- FS 46700 - Food Analysis
- FS 46900 - Food Analysis Laboratory
- FS 48200 - Food Science Senior Seminar
- FS 53000 - Food Ingredient Technology

Other Departmental /Program Course Requirements (73-74 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11800 - Introduction To Food Science Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 11100 - Fundamentals Of Biology II ♦
- BIOL 22100 - Introduction To Microbiology ♦
- CHM 11500 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11600 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- CHM 25701 - Organic Chemistry Laboratory
- BCHM 30700 - Biochemistry ♦
- BCHM 30900 - Biochemistry Laboratory
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- NUTR 31500 - Fundamentals Of Nutrition
- PHYS 22000 - General Physics ♦
- STAT 30100 - Elementary Statistical Methods ♦ (satisfies Information Literacy for core)

Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Professional Communications Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)

- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ Level) - Credit Hours: 3.00

Additional Requirements

Click here for Food Science Supplemental Information

Electives (12-13 credits)

- Electives - Credit Hours: 12.00-13.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11800 - Introduction To Food Science Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11500 - General Chemistry ♦
- FS 16100 - Science Of Food
- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II ♦
- CHM 11600 - General Chemistry ♦
- MA 16020 - Applied Calculus II
- Written Communication Selective - Credit Hours: 3.00-4.00
- Elective - Credit Hours: 1.00

15-16 Credits

Fall 2nd Year

- BIOL 22100 - Introduction To Microbiology ♦
- CHM 25700 - Organic Chemistry ♦
- CHM 25701 - Organic Chemistry Laboratory
- FS 29800 - Sophomore Seminar
- STAT 30100 - Elementary Statistical Methods ♦
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- BCHM 30700 - Biochemistry ♦
- BCHM 30900 - Biochemistry Laboratory
- FS 24500 - Food Packaging
- PHYS 22000 - General Physics ♦
- Elective - Credit Hours: 3.00

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 21700 - Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

15 Credits

Fall 3rd Year

- FS 34100 - Food Processing I
- FS 34200 - Food Processing I Laboratory
- FS 36100 - Food Plant Sanitation
- FS 36200 - Food Microbiology
- FS 36300 - Food Microbiology Laboratory
- NUTR 31500 - Fundamentals Of Nutrition
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

17 Credits

Spring 3rd Year

- FS 45300 - Food Chemistry
- FS 45400 - Food Chemistry Laboratory
- FS 46700 - Food Analysis
- FS 46900 - Food Analysis Laboratory
- Written or Oral Communication Selective (20000+ Level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- FS 44200 - Food Processing II
- FS 44400 - Statistical Process Control
- FS 44700 - Food Processing II Laboratory
- FS 48200 - Food Science Senior Seminar
- FS 53000 - Food Ingredient Technology
- Professional Communication Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00

12 Credits

Spring 4th Year

- FS 34000 - Introduction To Food Law And Regulations
- FS 43500 - Sensory Science
- FS 44300 - Food Product Design (Capstone)
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective (30000+) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

14-15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Minimum GPA of 2.50 in FS core classes and NUTR 31500 is required for graduation
- Students must meet a minimum GPA ≥ 2.50 in math and science courses to enroll in upper division FS courses.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

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Minor

Fermentation Sciences Minor

About this Program:

Enable students enrolled in the program to develop specific science-based knowledge, skills and expertise in the fermentation sciences area to broaden their employment and/or entrepreneurial opportunities.

Currently, there is enormous interest in the use of microorganisms at an industrial level in fields such as the pharmaceutical, chemical, and food industries. Even though fermentations have been used since ancient times as methods for food preservation, the industrial potential for sustainable production of many types of bio-based materials (ranging from foods and beverages, to biofuels, bioplastics, biopharmaceuticals, and fine chemicals) is only beginning to be explored.

Requirements for the Minor (18 credits)

Required Courses (3 credits)

- FS 16300 - Introduction To Fermentation Sciences

Minor Selectives - Choose Two (6 credits)

- BCHM 30700 - Biochemistry or
- BCHM 46200 - Metabolism or
- BCHM 56100 - General Biochemistry I or
- MCMP 20800 - Biochemistry For Pharmaceutical Sciences
  AND
- BIOL 22100 - Introduction To Microbiology or
- BIOL 43800 - General Microbiology

Additional Courses: (9 credits)

- ABE 30400 - Bioprocess Engineering Laboratory
- ABE 58000 - Process Engineering Of Renewable Resources
- ABE 59100 - Special Topics - *Title: Principles of Systems and Synthetic Biology (3 credits)*
- FS 47000 - Wine Appreciation
- FS 49100 - Special Assignments In Food Science - *Titles: Dairy Products (1 credit); Anaerobic Microbial Physiology (3 credits); Crucial Metabolic Pathways in Food Fermentation (1 credit)*
- FS 50600 - Commercial Grape And Wine Production
- FS 56400 - Commercial Food And Beverage Fermentations
- FS 59100 - Special Topics - *Title: Commercial Food and Beverage Fermentations Lab (1 credit)*
- GER 28000 - German Special Topics - *Title: Beer & Brewing in Germany (3 credits)*
- HORT 50600 - Commercial Grape And Wine Production

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Food Science Minor

Requirements for the Minor (18 credits)

Required Courses (11 credits)

- FS 16100 - Science Of Food
- FS 34100 - Food Processing I
- FS 36200 - Food Microbiology
- FS 45300 - Food Chemistry

Selective Courses (7 credits)

- ANSC 35100 - Meat Science
- ANSC 35101 - Meat Science Laboratory
- NUTR 31500 - Fundamentals Of Nutrition
- FS 10000-59999* - All Food Sciences courses - Credit Hours: 3.00

Notes

- Department permission is not required to enroll in this minor.
- * Maximum of 3 credits of independent study (FS 29100 or FS 49100).

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Pet Food Processing Minor

Requirements for the Minor (21 credits)

Required Courses (21 credits)

- ANSC 10600 - Biology Companion Animal *
- ANSC 32400 - Applied Animal Nutrition
- ANSC 44600 - Companion Animal Management
- FS 16100 - Science Of Food
- FS 34100 - Food Processing I
- FS 34200 - Food Processing I Laboratory
- FS 36200 - Food Microbiology
- FS 44200 - Food Processing II
- FS 44700 - Food Processing II Laboratory

Notes

- Department permission is not required to enroll in this minor.
- * (3) ANSC 10200 (Introduction to Animal Agriculture) can be substituted for ANSC 10600, but ANSC 10600 is preferred for this minor.

Disclaimer

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Program Information

Food Science Supplemental Information

Professional Communications Selective (3 Credits)

- COM 21000 - Debating Public Issues
- COM 22400 - Communicating In The Global Workplace
- COM 25200 - Writing For Mass Media
- COM 31400 - Advanced Presentational Speaking
- COM 31500 - Speech Communication Of Technical Information
- COM 32000 - Small Group Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 37400 - Social Interaction Skills: Assessment And Development
- COM 41500 - Discussion Of Technical Problems
- ENGL 30400 - Advanced Composition
- ENGL 41900 - Multimedia Writing
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing
- ENGL 43300 - Writing Proposals And Grants
- NUTR 42400 - Communication Techniques In Foods And Nutrition

Department of Forestry and Natural Resources

Overview

Welcome to the Department of Forestry and Natural Resources (FNR)! As one of the nation's elite programs in ecology and evolutionary biology, it is our mission to develop and disseminate knowledge associated with the protection, management, and sustainable use of terrestrial and aquatic ecosystems. FNR is training the next generation of professionals in the natural resource sciences, which includes aquatic science, forestry and wildlife.

Faculty (website)

Department of Forestry and Natural Resources (FNR) (website)

Contact Information

The Department of Forestry and Natural Resources

Purdue University

Pfendler Hall
715 West State Street
West Lafayette IN 47907-2061

Phone: 765-494-3591

Email: joinfnr@purdue.edu

The main office for the department is located in Room 125 in PFEN Hall.

Current Undergraduate Students (website)

Future Undergraduate Students (website)

Graduate Information

For Graduate Information please see Forestry and Natural Resources Graduate Program Information.

Baccalaureate

Aquatic Sciences: Fisheries Concentration, BS

About the Program

The Fisheries concentration will provide students with applied training relevant to fisheries science and management fields. This concentration builds on traditional fisheries programs by offering course in Fish Population Dynamics and Practical Fisheries Management. The Fisheries concentration is developed such that when a student completes the major/concentration she/he would have completed all coursework necessary to qualify as a Certified Fisheries Professional through the American Fisheries Society.

Forestry and Natural Resources

Aquatic Sciences Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (66-67 credits)

Required Major Courses (60-61 credits)

- FNR 12500 - Environmental Science And Conservation
- FNR 20100 - Marine Biology
- FNR 21000 - Natural Resource Information Management ♦
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 27000 - Landscape-Level Planning
- FNR 30500 - Conservation Genetics
- FNR 35100 - Aquatic Sampling Techniques
- FNR 37010 - Natural Resources Practicum
- FNR 37100 - Fisheries And Aquatic Sciences Practicum
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 38400 - Statistics For Natural Resources
- FNR 38500 - Fish Biology And Ecology
- FNR 40100 - Limnology
- FNR 45200 - Aquaculture
- FNR 45600 - Fish And Marine Population Dynamics
- FNR 45700 - Practical Fisheries Management
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 23000 - The World's Forests And Society or
- FNR 48800 - Global Environmental Issues
- FNR 52700 - Ecotoxicology or
- FNR 52800 - Wildlife And Environmental Forensics or
- FNR 52900 - Disease Ecology

Major Selectives (6 credits)

- AGRY 33700 - Environmental Hydrology
- FNR 37800 - Marine Biology Practicum
- FNR 45300 - Fish Physiology
- FNR 45800 - Advanced Marine Biology
- FNR 54300 - Conservation Biology I
- SFS 31100 - Aquaponics

Other Departmental/Program Course Requirements (50-51 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦
- AGRY 25500 - Soil Science or
- AGRY 27000 - Forest Soils

Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Sciences for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics

Ethics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)

- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics
- FNR Physical Science Selective - Credit Hours: 3.00 (AGRY 10000:59999; ASTR 10000:59999; CHEM 10000:59999; EAPS 10000:59999; PHYS 10000:59999)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Electives (2-4 credits)

- Electives - Credit Hours: 2.00-4.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- FNR 12500 - Environmental Science And Conservation
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11200 - General Chemistry ♦
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-4.00

15-17 Credits

Fall 2nd Year

- FNR 20100 - Marine Biology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles
- STAT 30100 - Elementary Statistical Methods ♦
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- BIOL 28600 - Introduction To Ecology And Evolution ♦
- FNR 21000 - Natural Resource Information Management ♦
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 35100 - Aquatic Sampling Techniques
- AGRY 25500 - Soil Science or
- AGRY 27000 - Forest Soils

15 Credits

Summer Session

- FNR 37010 - Natural Resources Practicum
- FNR 37100 - Fisheries And Aquatic Sciences Practicum

6 Credits

Fall 3rd Year

- FNR 45600 - Fish And Marine Population Dynamics
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 23000 - The World's Forests And Society or
- FNR 48800 - Global Environmental Issues
- Humanities or Social Science Selective - Credit Hours: 3.00

12 Credits

Spring 3rd Year

- FNR 30500 - Conservation Genetics
- FNR 38400 - Statistics For Natural Resources
- FNR 38500 - Fish Biology And Ecology
- FNR 40100 - Limnology

13 Credits

Fall 4th Year

- FNR 27000 - Landscape-Level Planning
- FNR 45700 - Practical Fisheries Management
- Aquatics Sciences Major Selective - Credit Hours: 3.00
- Aquatics Sciences Major Selective - Credit Hours: 3.00
- Phyical Science Elective - Credit Hours: 3.00

12 Credits

Spring 4th Year

- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 45200 - Aquaculture
- FNR 52700 - Ecotoxicology or
- FNR 52800 - Wildlife And Environmental Forensics or
- FNR 52900 - Disease Ecology

- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics
- Humanities or Social Science Selective - Credit Hours: 3.00

14-15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Aquatic Sciences: Marine and Freshwater Biology Concentration, BS

About the Program

The Marine and Freshwater Biology concentration provides education and training opportunities for students broadly interested in aquatic sciences. Marine-science-focused courses are included in this concentration in response to interest shown by a large number of Purdue students enrolled in classes such as FNR 20100 Marine Biology. These courses include a Marine Biology Practicum experience along the Gulf Coast, an Advanced Marine Biology course and a physical sciences requirement (for example, oceanography). This concentration provides students with rigorous training in the marine sciences and places Purdue among the leaders in marine science education in the Midwest. The AQSC major also offers a new course in Limnology - a critical knowledge area for marine and freshwater biologists.

Forestry and Natural Resources

Aquatic Sciences Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (64-65 credits)

Required Major Courses (61-62 credits)

- FNR 12500 - Environmental Science And Conservation (satisfies Science, Technology and Society for core)
- FNR 20100 - Marine Biology
- FNR 21000 - Natural Resource Information Management ♦
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 27000 - Landscape-Level Planning
- FNR 30500 - Conservation Genetics
- FNR 35100 - Aquatic Sampling Techniques
- FNR 37010 - Natural Resources Practicum
- FNR 37100 - Fisheries And Aquatic Sciences Practicum
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 37800 - Marine Biology Practicum
- FNR 38400 - Statistics For Natural Resources
- FNR 38500 - Fish Biology And Ecology
- FNR 40100 - Limnology
- FNR 45600 - Fish And Marine Population Dynamics
- FNR 45800 - Advanced Marine Biology
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 23000 - The World's Forests And Society or
- FNR 48800 - Global Environmental Issues
- FNR 52700 - Ecotoxicology or
- FNR 52800 - Wildlife And Environmental Forensics or
- FNR 52900 - Disease Ecology

Major Selectives (3 credits)

- AGRY 33700 - Environmental Hydrology
- FNR 45200 - Aquaculture
- FNR 45300 - Fish Physiology
- FNR 45700 - Practical Fisheries Management
- FNR 54300 - Conservation Biology I
- SFS 31100 - Aquaponics

Other Departmental /Program Course Requirements (50 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 28600 - Introduction To Ecology And Evolution ♦
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦
- AGRY 25500 - Soil Science or
- AGRY 27000 - Forest Soils

  Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Sciences for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics

  Ethics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics

  Physical Science Selective - Credit Hours: 3.00-4.00
- AGRY 33700 - Environmental Hydrology or
- CHM 25500 - Organic Chemistry or
- EAPS 10400 - Oceanography or
- PHYS 22000 - General Physics
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Electives (4-6 credits)

- Electives - Credit Hours: 4.00-6.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- FNR 12500 - Environmental Science And Conservation
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11200 - General Chemistry ♦
- Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-3.00

15-16 Credits

Fall 2nd Year

- FNR 20100 - Marine Biology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles
- STAT 30100 - Elementary Statistical Methods ♦
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- BIOL 28600 - Introduction To Ecology And Evolution ♦
- FNR 21000 - Natural Resource Information Management ♦
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 35100 - Aquatic Sampling Techniques
- AGRY 25500 - Soil Science or
- AGRY 27000 - Forest Soils

15 Credits

Summer Session

- FNR 37010 - Natural Resources Practicum
- FNR 37100 - Fisheries And Aquatic Sciences Practicum

6 Credits

Fall 3rd Year

- FNR 37800 - Marine Biology Practicum
- FNR 45600 - Fish And Marine Population Dynamics
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 23000 - The World's Forests And Society or
- FNR 48800 - Global Environmental Issues

13 Credits

Spring 3rd Year

- FNR 30500 - Conservation Genetics
- FNR 38400 - Statistics For Natural Resources
- FNR 38500 - Fish Biology And Ecology
- FNR 40100 - Limnology

13 Credits

Fall 4th Year

- FNR 27000 - Landscape-Level Planning
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics
- AGRY 33700 - Environmental Hydrology or
- CHM 25500 - Organic Chemistry or
- EAPS 10400 - Oceanography or
- PHYS 22000 - General Physics
- Aquatics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

13-14 Credits

Spring 4th Year

- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 45800 - Advanced Marine Biology
- FNR 52700 - Ecotoxicology or
- FNR 52800 - Wildlife And Environmental Forensics or
- FNR 52900 - Disease Ecology
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

13-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese

GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

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In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Forestry, BSFOR

About the Program

Learn to apply biological, ecological, economic and social knowledge as you develop and implement sustainable forest management plans. Studies emphasize understanding how forest ecosystems function, the role of natural and human disturbance, and ecosystem resilience. The Forestry major was recently revised to allow students to specialize in one of four concentrations: forest management, forest science, urban forestry, and sustainable biomaterials (the latter is a technology-based degree for making products out of wood). This major prepares the student for careers with public agencies such as state divisions of forestry or the U.S. Forest Service (forest management concentration), private industry and consulting firms (urban forestry, sustainable biomaterials) and graduate school (forest science). The major is accredited by the Society of American Foresters.

Forestry Website

Forestry Major Change (CODO) Requirements

Degree Requirements

124 Credits Required

Departmental/Program Major Courses (65 credits)

Required Major Courses (62 credits)

- FNR 12500 - Environmental Science And Conservation
- FNR 21000 - Natural Resource Information Management ♦
- FNR 22500 - Dendrology
- FNR 23000 - The World's Forests And Society
- FNR 27000 - Landscape-Level Planning
- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 33100 - Forest Ecosystems
- FNR 33900 - Principles Of Silviculture
- FNR 35300 - Natural Resources Measurement
- FNR 35500 - Quantitative Methods For Resource Management
- FNR 35700 - Fundamental Remote Sensing
- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37200 - Forestry Practicum
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- FNR 40910 - Forest Resources Management
- FNR 43400 - Tree Physiology
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics or
- FNR 31110 - Identification And Basic Properties Of Wood

  OR
- FNR 35910 - Spatial Ecology and
- FNR 35950 - Spatial Ecology Laboratory
- FNR 38400 - Statistics For Natural Resources or
- ENTM 30100 - Experimentation And Analysis

Forest Health Selective (3 credits)

- BTNY 30100 - Introductory Plant Pathology
- ENTM 10500 - Insects: Friend And Foe
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- FNR 33300 - Fire Effects In Forest Environments

Other Departmental /Program Course Requirements (50-51 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- AGRY 27000 - Forest Soils
- BIOL 11000 - Fundamentals Of Biology I ♦
- BTNY 11000 - Introduction To Plant Science ♦

- BIOL 28600 - Introduction To Ecology And Evolution ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦

  Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Sciences for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics

  Ethics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Electives (8-9 credits)

- Electives - Credit Hours: 8.00-9.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11200 - General Chemistry ♦
- FNR 12500 - Environmental Science And Conservation
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- FNR 22500 - Dendrology
- FNR 23000 - The World's Forests And Society
- STAT 30100 - Elementary Statistical Methods ♦
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds

13 Credits

Spring 2nd Year

- AGRY 27000 - Forest Soils
- BIOL 28600 - Introduction To Ecology And Evolution ♦

- FNR 21000 - Natural Resource Information Management ♦
- FNR 35300 - Natural Resources Measurement
- Humanities or Social Science Selective - Credit Hours: 3.00

14 Credits

Summer Session

- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37200 - Forestry Practicum

6 Credits

Fall 3rd Year

- FNR 33100 - Forest Ecosystems
- FNR 35700 - Fundamental Remote Sensing
- FNR 43400 - Tree Physiology
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- Forest Health Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- FNR 35500 - Quantitative Methods For Resource Management
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- FNR 38400 - Statistics For Natural Resources or
- ENTM 30100 - Experimentation And Analysis
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- FNR 27000 - Landscape-Level Planning
- FNR 33900 - Principles Of Silviculture
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics
- Humanities or Social Science Selective - Credit Hours: 3.00
- Electives - Credit Hours: 5.00-6.00

16 Credits

Spring 4th Year

- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 40910 - Forest Resources Management
- FNR 30500 - Conservation Genetics or
- FNR 31110 - Identification And Basic Properties Of Wood
  OR
- FNR 35910 - Spatial Ecology and
- FNR 35950 - Spatial Ecology Laboratory
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Forestry: Forest Management Concentration, BSFOR

About the Program

Learn to apply biological, ecological, economic and social knowledge as you develop and implement sustainable forest management plans. Studies emphasize understanding how forest ecosystems function, the role of natural and human disturbance, and ecosystem resilience. The Forestry major was recently revised to allow students to specialize in one of four concentrations: forest management, forest science, urban forestry, and sustainable biomaterials (the latter is a technology-based degree for making products out of wood). This major prepares the student for careers with public agencies such as state divisions of forestry or the U.S. Forest Service (forest management concentration), private industry and consulting firms (urban forestry, sustainable biomaterials) and graduate school (forest science). The major is accredited by the Society of American Foresters.

Forestry Website

Forestry Major Change (CODO) Requirements

Degree Requirements

124 Credits Required

Departmental/Program Major Courses (68 credits)

Required Major Courses (62 credits)

- FNR 12500 - Environmental Science And Conservation
- FNR 21000 - Natural Resource Information Management ♦
- FNR 22500 - Dendrology
- FNR 23000 - The World's Forests And Society
- FNR 27000 - Landscape-Level Planning
- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 33100 - Forest Ecosystems
- FNR 33900 - Principles Of Silviculture
- FNR 35300 - Natural Resources Measurement
- FNR 35500 - Quantitative Methods For Resource Management
- FNR 35700 - Fundamental Remote Sensing
- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37200 - Forestry Practicum
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- FNR 40910 - Forest Resources Management
- FNR 43300 - Grand Challenges In Forest Management
- FNR 43400 - Tree Physiology
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles or

- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 38400 - Statistics For Natural Resources or
- ENTM 30100 - Experimentation And Analysis

Concentration Selectives (6 credits)

- Forestry Selective - Credit Hours: 3.00
- Forest Health Selective - Credit Hours: 3.00

Additional Requirements

Click here for Forestry Supplemental Information

Other Departmental/Program Course Requirements (48 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- AGRY 27000 - Forest Soils
- BIOL 11000 - Fundamentals Of Biology I ♦
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦

  Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Sciences for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics

  Ethics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics

- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing

- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)

Electives (7-8 credits)

- Electives - Credit Hours: 7.00-8.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I ♦
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11200 - General Chemistry ♦

- FNR 12500 - Environmental Science And Conservation
- Written Communication Selective - Credit Hours: 3.00-4.00
- Elective - Credit Hours: 3.00

16-17 Credits

Fall 2nd Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- FNR 22500 - Dendrology
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGRY 27000 - Forest Soils
- FNR 21000 - Natural Resource Information Management ♦
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles or
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- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 35300 - Natural Resources Measurement
- Elective - Credit Hours: 1.00-2.00

14-15 Credits

Summer Session

- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37200 - Forestry Practicum

6 Credits

Fall 3rd Year

- FNR 23000 - The World's Forests And Society
- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 33100 - Forest Ecosystems
- FNR 35700 - Fundamental Remote Sensing
- FNR 43400 - Tree Physiology

15 Credits

Spring 3rd Year

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- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- FNR 38400 - Statistics For Natural Resources or
- ENTM 30100 - Experimentation And Analysis
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- FNR 27000 - Landscape-Level Planning
- FNR 33900 - Principles Of Silviculture
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics
- Forest Health Selective - Credit Hours: 3.00
- Forestry Selective - Credit Hours: 3.00

16 Credits

Spring 4th Year

- FNR 40910 - Forest Resources Management
- FNR 43300 - Grand Challenges In Forest Management
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Note

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World Language Courses

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ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
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About the Program

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Forestry Website

Forestry Major Change (CODO) Requirements

Degree Requirements

124 Credits Required

Departmental/Program Major Courses (70 credits)

Required Major Courses (58 credits)

- FNR 12500 - Environmental Science And Conservation
- FNR 21000 - Natural Resource Information Management ♦
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 22500 - Dendrology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 33100 - Forest Ecosystems
- FNR 33900 - Principles Of Silviculture
- FNR 35300 - Natural Resources Measurement
- FNR 35500 - Quantitative Methods For Resource Management
- FNR 35700 - Fundamental Remote Sensing
- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37200 - Forestry Practicum
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 38400 - Statistics For Natural Resources or
- ENTM 30100 - Experimentation And Analysis
- FNR 40700 - Forest Economics
- FNR 40910 - Forest Resources Management
- FNR 43400 - Tree Physiology
- FNR 49900 - Thesis - Credit Hours: 4.00

Major Selectives (12 credits)

- Forest Health Selective - Credit Hours: 3.00
- Forest Science Concentration Selective - Credit Hours: 9.00

Additional Requirements

Click here for Forestry Supplemental Information

Other Departmental/Program Course Requirements (48-49 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- AGRY 27000 - Forest Soils
- BIOL 11000 - Fundamentals Of Biology I ♦
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
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- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)

Electives (5-6 credits)

- Elective - Credit Hours: 6.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11200 - General Chemistry ♦
- FNR 12500 - Environmental Science And Conservation
- Written Communication Selective - Credit Hours: 3.00-4.00
- Elective - Credit Hours: 3.00

16-17 Credits

Fall 2nd Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 22500 - Dendrology
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGRY 27000 - Forest Soils
- FNR 21000 - Natural Resource Information Management ♦
- FNR 35300 - Natural Resources Measurement
- Humanities or Social Science Selective - Credit Hours: 3.00
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25150 - Ecology And Systematics Of Mammals And Birds

15 Credits

Summer Session

- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37200 - Forestry Practicum

6 Credits

Fall 3rd Year

- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 33100 - Forest Ecosystems
- FNR 35700 - Fundamental Remote Sensing
- FNR 43400 - Tree Physiology
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics

15 Credits

Spring 3rd Year

- FNR 35500 - Quantitative Methods For Resource Management
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- FNR 49900 - Thesis - Credit Hours: 1.00
- FNR 38400 - Statistics For Natural Resources or
- ENTM 30100 - Experimentation And Analysis
- Forest Science Concentration Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- FNR 33900 - Principles Of Silviculture
- FNR 49900 - Thesis - Credit Hours: 1.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Forest Science Concentration Selective - Credit Hours: 3.00

13 Credits

Spring 4th Year

- FNR 40910 - Forest Resources Management
- FNR 49900 - Thesis - Credit Hours: 2.00

- Forest Health Selective - Credit Hours: 3.00
- Forest Science Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-3.00

13-14 Credits

Note

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Forestry: Sustainable Biomaterials Concentration, BSFOR

About the Program

Learn to apply biological, ecological, economic and social knowledge as you develop and implement sustainable forest management plans. Studies emphasize understanding how forest ecosystems function, the role of natural and human disturbance, and ecosystem resilience. The Forestry major was recently revised to allow students to specialize in one of four concentrations: forest management, forest science, urban forestry, and sustainable biomaterials (the latter is a technology-based degree for making products out of wood). This major prepares the student for careers with public agencies such as state divisions of forestry or the U.S. Forest Service (forest management concentration), private industry and consulting firms (urban forestry, sustainable biomaterials) and graduate school (forest science). The major is accredited by the Society of American Foresters.

Forestry Website

Forestry Major Change (CODO) Requirements

Degree Requirements

124 Credits Required

Departmental/Program Major Courses (60 credits)

Required Major Courses (48 credits)

- FNR 12500 - Environmental Science And Conservation
- FNR 21000 - Natural Resource Information Management ♦
- FNR 22310 - Introduction To Environmental Policy
- FNR 22500 - Dendrology
- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 31110 - Identification And Basic Properties Of Wood
- FNR 33100 - Forest Ecosystems
- FNR 33900 - Principles Of Silviculture
- FNR 35300 - Natural Resources Measurement
- FNR 35700 - Fundamental Remote Sensing
- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37200 - Forestry Practicum
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- FNR 43400 - Tree Physiology
- FNR 48410 - Sustainable Wood Products, Furniture Design And Manufacturing

Sustainable Biomaterials Concentration Selectives (12 Credits)

- Sustainable Biomaterials Concentration Selectives- Credit Hours: 12.00

Additional Requirements

Click here for Forestry Supplemental Information

Other Departmental/Program Course Requirements (57-58 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- AGRY 27000 - Forest Soils
- BIOL 11000 - Fundamentals Of Biology I ♦
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- IET 23500 - Introduction To Lean And Sustainable Systems
- IET 31600 - Statistical Quality Control
- IET 33400 - Economic Analysis For Technology Systems
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics

- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing

- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)

Electives (6-7 credits)

- Elective - Credit Hours: 6.00-7.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)

- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11200 - General Chemistry ♦
- FNR 12500 - Environmental Science And Conservation
- Written Communication Selective - Credit Hours: 3.00-4.00
- Elective - Credit Hours: 3.00

16-17 Credits

Fall 2nd Year

- FNR 22310 - Introduction To Environmental Policy
- FNR 22500 - Dendrology
- STAT 30100 - Elementary Statistical Methods
- Humanities or Social Science Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics

15 Credits

Spring 2nd Year

- AGRY 27000 - Forest Soils
- FNR 21000 - Natural Resource Information Management ♦
- FNR 35300 - Natural Resources Measurement
- Humanities or Social Science Selective - Credit Hours: 3.00
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics

15 Credits

Summer Session

- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37200 - Forestry Practicum

6 Credits

Fall 3rd Year

- FNR 33100 - Forest Ecosystems
- FNR 35700 - Fundamental Remote Sensing
- FNR 43400 - Tree Physiology
- Sustainable Biomaterials Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-3.00

15 Credits

Spring 3rd Year

- FNR 31110 - Identification And Basic Properties Of Wood
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- IET 23500 - Introduction To Lean And Sustainable Systems
- Sustainable Biomaterials Concentration Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 33900 - Principles Of Silviculture

- FNR 48410 - Sustainable Wood Products, Furniture Design And Manufacturing (Capstone)
- Sustainable Biomaterials Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 1.00

13 Credits

Spring 4th Year

- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing

- IET 31600 - Statistical Quality Control
- IET 33400 - Economic Analysis For Technology Systems
- Sustainable Biomaterials Concentration Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Forestry: Urban Forestry, BSFOR

About the Program

Learn to apply biological, ecological, economic and social knowledge as you develop and implement sustainable forest management plans. Studies emphasize understanding how forest ecosystems function, the role of natural and human disturbance, and ecosystem resilience. The Forestry major was recently revised to allow students to specialize in one of four concentrations: forest management, forest science, urban forestry, and sustainable biomaterials (the latter is a technology-based degree for making products out of wood). This major prepares the student for careers with public agencies such as state divisions of forestry or the U.S. Forest Service (forest management concentration), private industry and consulting firms (urban forestry, sustainable biomaterials) and graduate school (forest science). The major is accredited by the Society of American Foresters.

Forestry Website

Forestry Major Change (CODO) Requirements

Degree Requirements

124 Credits Required

Departmental/Program Major Courses (75 credits)

Required Major Courses (69 credits)

- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 12500 - Environmental Science And Conservation ♦
- FNR 21000 - Natural Resource Information Management
- FNR 22500 - Dendrology
- FNR 23000 - The World's Forests And Society
- FNR 27000 - Landscape-Level Planning
- FNR 33100 - Forest Ecosystems
- FNR 33900 - Principles Of Silviculture
- FNR 35300 - Natural Resources Measurement
- FNR 35500 - Quantitative Methods For Resource Management
- FNR 35700 - Fundamental Remote Sensing
- FNR 35910 - Spatial Ecology
- FNR 35950 - Spatial Ecology Laboratory
- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum

- FNR 37200 - Forestry Practicum
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- FNR 40910 - Forest Resources Management
- FNR 43400 - Tree Physiology
- FNR 44400 - Arboricultural Practices
- FNR 44500 - Urban Forest Issues
- FNR 58600 - Urban Ecology
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds

Urban Forestry Concentration Selectives (6 credits)

- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- BTNY 30100 - Introductory Plant Pathology
- ENTM 40100 - Addressing Grand Challenges Through Insect Biology
- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 31110 - Identification And Basic Properties Of Wood
- HORT 21700 - Woody Landscape Plants
- HORT 30100 - Plant Physiology
- HORT 31700 - Landscape Contracting And Management
- LA 32500 - Planting Design II
- LA 32600 - Landscape Architectural Design IV
- OLS 25200 - Human Relations In Organizations

Other Departmental/Program Course Requirements (45 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- AGRY 27000 - Forest Soils
- BIOL 11000 - Fundamentals Of Biology I ♦
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- Humanities or Social Science Selective - Credit Hours: 3.00

- Humanities or Social Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)

Electives (3-4 credits)

- Electives - Credit Hours: 3.00-4.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦

- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11200 - General Chemistry ♦
- FNR 12500 - Environmental Science And Conservation
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- FNR 22500 - Dendrology
- FNR 23000 - The World's Forests And Society
- STAT 30100 - Elementary Statistical Methods ♦
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles or
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds

13 Credits

Spring 2nd Year

- AGRY 27000 - Forest Soils
- FNR 21000 - Natural Resource Information Management ♦
- FNR 35300 - Natural Resources Measurement
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Summer Session

- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37200 - Forestry Practicum

6 Credits

Fall 3rd Year

- FNR 33100 - Forest Ecosystems
- FNR 35700 - Fundamental Remote Sensing
- FNR 43400 - Tree Physiology
- FNR 44400 - Arboricultural Practices
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy

16 Credits

Spring 3rd Year

- FNR 35500 - Quantitative Methods For Resource Management
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- FNR 44500 - Urban Forest Issues
- Urban Forest Concentration Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 27000 - Landscape-Level Planning
- FNR 33900 - Principles Of Silviculture
- FNR 35910 - Spatial Ecology
- FNR 35950 - Spatial Ecology Laboratory
- FNR 58600 - Urban Ecology
- Elective - Credit Hours: 2.00

15 Credits

Spring 4th Year

- FNR 40910 - Forest Resources Management
- ENGL 42000 - Business Writing or
- ENGL 42100 - Technical Writing
- Humanities or Social Science Selective - Credit Hours: 3.00
- Urban Forest Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 1.00-2.00

13-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

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Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Wildlife, BS

About the Program

Learn to apply biological, ecological, economic and social knowledge as you develop and implement sustainable forest management plans. Studies emphasize understanding how forest ecosystems function, the role of natural and human disturbance, and ecosystem resilience. The Forestry major was recently revised to allow students to specialize in one of four concentrations: forest management, forest science, urban forestry, and sustainable biomaterials (the latter is a technology-based degree for making products out of wood). This major prepares the student for careers with public agencies such as state divisions of forestry or the U.S. Forest Service (forest management concentration), private industry and consulting firms (urban forestry, sustainable biomaterials) and graduate school (forest science). The major is accredited by the Society of American Foresters.

You are preparing for work in public organizations (state/federal fish and wildlife), not-for-profit organizations (The Nature Conservancy, Ducks Unlimited), private consulting firms, or for graduate studies (MS, PhD, DVM). This degree meets the educational standards of The Wildlife Society to become a Certified Wildlife Biologist.

Wildlife Website

Wildlife Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (112-113 credits)

Required Major Courses (54 credits)

- FNR 12500 - Environmental Science And Conservation
- FNR 21000 - Natural Resource Information Management ♦
- FNR 22500 - Dendrology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 27000 - Landscape-Level Planning
- FNR 30500 - Conservation Genetics
- FNR 33100 - Forest Ecosystems
- FNR 34100 - Wildlife Habitat Management
- FNR 34800 - Wildlife Investigational Techniques
- FNR 35910 - Spatial Ecology
- FNR 35950 - Spatial Ecology Laboratory
- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37300 - Wildlife Practicum
- FNR 37500 - Human Dimensions of Natural Resource Management (30000+ level CoA Humanities)
- FNR 38400 - Statistics For Natural Resources
- FNR 44700 - Vertebrate Population Dynamics
- FNR 46500 - History And Role Of Hunting In North American Wildlife Conservation
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 52700 - Ecotoxicology or
- FNR 52800 - Wildlife And Environmental Forensics or
- FNR 52900 - Disease Ecology

Major Selectives (8 credits)

- Botany Selective - Credit Hours: 2.00
- Wildlife Selective - Credit Hours: 6.00

Other Departmental /Program Course Requirements (50 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- AGRY 27000 - Forest Soils
- BIOL 11000 - Fundamentals Of Biology I ♦
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods ♦

    Ethics Selective - Credit Hours: 3.00 (satisfies Human Cultures Humanities for core)
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics

    Microeconomics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core) or
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Electives (8 credits)

- Electives - Credit Hours: 8.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)

- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Additional Requirements

Click here for Wildlife Supplemental Information

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- CHM 11100 - General Chemistry ♦
- MA 16010 - Applied Calculus I
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11200 - General Chemistry ♦
- FNR 12500 - Environmental Science And Conservation
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- ECON 25100 - Microeconomics
- Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- FNR 22500 - Dendrology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles

- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles
- STAT 30100 - Elementary Statistical Methods ♦
- Humanities or Social Science Selective - Credit Hours: 3.00

13 Credits

Spring 2nd Year

- AGRY 27000 - Forest Soils
- BIOL 28600 - Introduction To Ecology And Evolution
- FNR 21000 - Natural Resource Information Management ♦
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds
- FNR 34800 - Wildlife Investigational Techniques

15 Credits

Summer Session

- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37300 - Wildlife Practicum

6 Credits

Fall 3rd Year

- FNR 33100 - Forest Ecosystems
- FNR 34100 - Wildlife Habitat Management
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 38400 - Statistics For Natural Resources
- Botany Selective - Credit Hours: 2.00
- Wildlife Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

14 Credits

Fall 4th Year

- FNR 27000 - Landscape-Level Planning
- FNR 35910 - Spatial Ecology
- FNR 35950 - Spatial Ecology Laboratory
- FNR 44700 - Vertebrate Population Dynamics
- FNR 46500 - History And Role Of Hunting In North American Wildlife Conservation
- FNR 52700 - Ecotoxicology or
- FNR 52800 - Wildlife And Environmental Forensics or
- FNR 52900 - Disease Ecology
- Elective - Credit Hours: 2.00-4.00

13-16 Credits

Spring 4th Year

- FNR 30500 - Conservation Genetics
- PHIL 11100 - Introduction To Ethics or
- PHIL 28000 - Ethics And Animals or
- PHIL 29000 - Environmental Ethics
- Humanities or Social Science Selective - Credit Hours: 3.00
- Wildlife Selective - Credit Hours: 3.00

12 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Minor

Aquatic Sciences Minor

About the Minor

Marine and freshwater aquatic ecosystems cover over three-fourths of the world's surface and provide significant food and recreation resources for people throughout the world.

This minor is for students who want to increase their knowledge of the physical and biological components of aquatic ecosystems, with a focus on vertebrates found in oceans, rivers, streams and lakes. Students can choose among selective courses to focus their minor on practical fisheries management or broader understanding of marine or freshwater ecology.

Requirements for the Minor (16 credits)

Required Courses (7 credits)

- FNR 20100 - Marine Biology
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles

Focus Courses - Choose One Area (6 credits)

Fisheries and Aquaculture Focus (6 credits)

- FNR 31300 - Aquaponics
- FNR 38500 - Fish Biology And Ecology
- FNR 45200 - Aquaculture
- FNR 45300 - Fish Physiology
- FNR 45600 - Fish And Marine Population Dynamics
- FNR 45700 - Practical Fisheries Management

Marine and Freshwater Biology Focus (6 credits)

- EAPS 10400 - Oceanography
- FNR 37800 - Marine Biology Practicum
- FNR 40100 - Limnology
- FNR 45800 - Advanced Marine Biology

Selective (3 credits)

- AGRY 33700 - Environmental Hydrology
- EAPS 20000 - Water World: Processes And Challenges In Global Hydrology
- ENTM 24200 - Data Science
- ENTM 30100 - Experimentation And Analysis
- FNR 35100 - Aquatic Sampling Techniques
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 52800 - Wildlife And Environmental Forensics
- FNR 52900 - Disease Ecology

Notes

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Forest Ecosystems Minor

Requirements for the Minor (18 credits)

Required Courses (12 credits)

- FNR 22500 - Dendrology
- FNR 33100 - Forest Ecosystems
- FNR 33900 - Principles Of Silviculture
- FNR 35300 - Natural Resources Measurement

Selective Courses (6 credits)

- AGRY 27000 - Forest Soils
- BIOL 28600 - Introduction To Ecology And Evolution
- FNR 21000 - Natural Resource Information Management
- FNR 23000 - The World's Forests And Society
- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 33300 - Fire Effects In Forest Environments
- FNR 35700 - Fundamental Remote Sensing

- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- FNR 43400 - Tree Physiology
- FNR 53600 - Ecology Of Disturbance
- FNR 53601 - Ecology Of Disturbance Practicum

Notes

- Departmental permission is not required to enroll in this minor.
- Other FNR 49800 or FNR 59800 courses, with FNR approval may be used.
- For students in FNR majors, courses required in the student's major cannot be used to meet the 6 credits of selectives for this minor.

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Furniture Design Minor

Requirements for the Minor (18 credits)

Required Courses (18 credits)

- AD 53500 - Furniture Design
- FNR 31110 - Identification And Basic Properties Of Wood
- FNR 41800 - Properties Of Wood Related To Manufacturing
- FNR 41910 - Furniture Product Development And Strength Design
- FNR 42500 - Secondary Wood Products Manufacturing
- FNR 48410 - Sustainable Wood Products, Furniture Design And Manufacturing

Note

- Departmental permission is not required to enroll in this minor.

Disclaimer

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Urban Forestry Minor

Requirements for the Minor (16 credits)

A. Required Courses (7 credits)

- FNR 44400 - Arboricultural Practices
- FNR 44500 - Urban Forest Issues

B. Selective Courses (9 credits)

- AGRY 25500 - Soil Science
- FNR 21000 - Natural Resource Information Management
- FNR 22310 - Introduction To Environmental Policy
- FNR 22500 - Dendrology
- FNR 33900 - Principles Of Silviculture
- FNR 35700 - Fundamental Remote Sensing
- FNR 35900 - Spatial Ecology And GIS
- FNR 35910 - Spatial Ecology
- FNR 35950 - Spatial Ecology Laboratory
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 43400 - Tree Physiology
- HORT 21700 - Woody Landscape Plants
- HORT 30100 - Plant Physiology
- HORT 31700 - Landscape Contracting And Management

Notes

- Departmental permission is not required to enroll in this minor.
- Other FNR 49800 or 59800 courses, with FNR approval may be used.
- For students in other FNR majors, courses required in the student's major cannot be used to meet the eight credits of selectives for this minor.

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Wildlife Science Minor

Requirements for the Minor (17 credits)

Required Courses (11 credits)

- FNR 24000 - Wildlife In America
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds

Selective Courses (6 credits)

- BIOL 28600 - Introduction To Ecology And Evolution
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- BIOL 58000 - Evolution
- FNR 30500 - Conservation Genetics
- FNR 33300 - Fire Effects In Forest Environments
- FNR 35900 - Spatial Ecology And GIS
- FNR 44700 - Vertebrate Population Dynamics
- FNR 46500 - History And Role Of Hunting In North American Wildlife Conservation
- FNR 52700 - Ecotoxicology
- FNR 52800 - Wildlife And Environmental Forensics
- FNR 52900 - Disease Ecology
- FNR 53600 - Ecology Of Disturbance
- FNR 54300 - Conservation Biology I
- FNR 56700 - Advanced Mammalogy
- FNR 57100 - Advanced Ornithology
- FNR 59800 - Topical Problems In Forestry And Natural Resources - Advanced Herpetology

Notes

- Departmental permission is not required to enroll in this minor.
- Other FNR 49800 or FNR 59800 courses, with FNR approval may be used.
- For students in FNR majors, courses required in the student's major cannot be used to meet the 6 credits of selectives for this minor.

Disclaimer

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Wood Products Manufacturing Technology Minor

Requirements for the Minor (15 credits)

Required Courses (9 credits)

- FNR 30110 - Sustainable Wood Products Manufacturing
- FNR 31110 - Identification And Basic Properties Of Wood
- FNR 48410 - Sustainable Wood Products, Furniture Design And Manufacturing

Selective Courses (6 credits)

- AD 49000 - Special Problems In Art And Design
- AD 53500 - Furniture Design
- CGT 11000 - Technical Graphics Communications

- MET 14300 - Materials And Processes I
- MET 24500 - Manufacturing Systems
- IET 23500 - Introduction To Lean And Sustainable Systems
- IET 43530 - Operations Planning And Management
- IET 43540 - Facilities Planning And Material Handling

Note

- Departmental permission is not required to enroll in this minor.

Disclaimer

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Program Information

Forestry Supplemental Information

Forest Health Selectives

- BTNY 30100 - Introductory Plant Pathology
- BTNY 52500 - Intermediate Plant Pathology
- BTNY 53500 - Plant Disease Management
- BTNY 55800 - Pathogens Of Plants
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 33300 - Fire Effects In Forest Environments

Forestry Selectives for Forest Management Concentration

- FNR 30500 - Conservation Genetics
- FNR 31110 - Identification And Basic Properties Of Wood
- FNR 35900 - Spatial Ecology And GIS
- FNR 44400 - Arboricultural Practices
- FNR 53500 - Forest Regeneration
- FNR 53600 - Ecology Of Disturbance
- FNR 53601 - Ecology Of Disturbance Practicum

Forest Science Concentration Selectives

Biometrics and Statistics

- BIOL 58210 - Ecological Statistics
- STAT 50300 - Statistical Methods For Biology
- STAT 51200 - Applied Regression Analysis
- STAT 51400 - Design Of Experiments

Forest Ecology and Silviculture

- AGRY 34900 - Soil Ecology
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- BIOL 59100 - Field Ecology
- FNR 33300 - Fire Effects In Forest Environments
- FNR 53500 - Forest Regeneration
- FNR 53600 - Ecology Of Disturbance
- FNR 53601 - Ecology Of Disturbance Practicum
- FNR 54300 - Conservation Biology I

Forest Geospatial Analytics

- AT 20900 - Civilian Unmanned Aerial Systems
- ASM 21600 - Introduction To Surveying
- FNR 35900 - Spatial Ecology And GIS
- CE 40300 - Principles Of Photogrammetry And Remote Sensing

Plant Biology Selectives

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 48000 - Plant Genetics
- AGRY 52000 - Principles And Methods Of Plant Breeding
- AGRY 52500 - Crop Physiology And Ecology
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 39500 - Special Assignments
- BIOL 41500 - Introduction To Molecular Biology
- BIOL 47800 - Introduction to Bioinformatics
- BTNY 30200 - Plant Ecology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- BTNY 42000 - Plant Cellular And Developmental Biology
- BTNY 55200 - Molecular Approaches In Plant Biology
- CHM 25500 - Organic Chemistry
- CHM 53300 - Introductory Biochemistry
- FNR 30500 - Conservation Genetics

Sustainable Biomaterials Concentration Selectives (12 Credits)

- AD 49000 - Special Problems In Art And Design
- AD 53500 - Furniture Design
- AGEC 31000 - Farm Organization

- AGEC 31100 - Accounting For Farm Business Planning
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 33100 - Principles Of Selling In Agricultural Business
- CGT 11000 - Technical Graphics Communications
- CSR 30900 - Leadership Strategies
- CSR 33200 - Cross-Cultural Marketing And International Retailing
- ENTR 31000 - Marketing And Management For New Ventures
- FNR 23000 - The World's Forests And Society
- FNR 35500 - Quantitative Methods For Resource Management
- FNR 40910 - Forest Resources Management
- IET 43530 - Operations Planning And Management
- IET 43540 - Facilities Planning And Material Handling
- MET 14300 - Materials And Processes I
- MET 24500 - Manufacturing Systems
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership

Forestry: Forest Management Concentration Supplemental Information

Forestry Selectives

- FNR 30500 - Conservation Genetics
- FNR 31110 - Identification And Basic Properties Of Wood
- FNR 35900 - Spatial Ecology And GIS
- FNR 44400 - Arboricultural Practices
- FNR 53500 - Forest Regeneration
- FNR 53600 - Ecology Of Disturbance
- FNR 53601 - Ecology Of Disturbance Practicum

Forest Health Selectives

- BTNY 30100 - Introductory Plant Pathology
- BTNY 52500 - Intermediate Plant Pathology
- BTNY 53500 - Plant Disease Management
- BTNY 55800 - Pathogens Of Plants
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 33300 - Fire Effects In Forest Environments

Sustainable Biomaterials Supplemental Information

Sustainability Selectives (6 Credits)

- BCM 41900 - Sustainable Construction

- EEE 30000 - Environmental And Ecological Systems Modeling
- EEE 43000 - Industrial Ecology And Life Cycle Analysis
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40600 - Natural Resource And Environmental Economics
- FNR 46000 - International Natural Resources Summer Program
- FNR 47000 - Fundamentals Of Planning
- FNR 48800 - Global Environmental Issues
- FNR 49800 - Special Assignments - Global Sustainability Issues
- FNR 57200 - Community Involvement In Natural Resource Management
- POL 32700 - Global Green Politics
- POL 42900 - Contemporary Political Problems

Humanities or Social Science Selective (6 Credits)

- AAS 10000:59999
- AD 10000:59999
- AMST 10000:59999
- ARAB 10100:59999
- ASAM 10000:59999
- ASL 10000:59999
- BAND 10000:59999
- CHNS 10100:59999
- CLCS 10000:59999
- CMPL 10000:59999
- DANC 10000:59999
- ECON 10000:59999
- FLL 10100:59999
- FR 10100:59999
- FVS 10000:59999
- GER 10100:59999
- GREK 10100:59999
- HEBR 10100:59999
- HIST 10000:59999
- IDIS 10000:59999
- ITAL 10100:59999
- JPNS 10100:59999
- JWST 10000:59999
- LALS 10000:59999
- LATN 10100:59999
- LC 10000:59999
- LING 10100:59999
- MARS 10000:59999
- MUS 10000:59999
- PHIL 10000:59999
- PTGS 10100:59999
- POL 10000:59999
- PSY 10000:59999
- REL 10000:59999
- RUSS 10100:59999
- SOC 10000:59999

- SPAN 10100:59999
- THTR 10000:59999
- WGSS 10000:59999
- AGEC 25000 - Economic Geography Of World Food And Resources
- AGEC 30500 - Agricultural Prices
- AGEC 34000 - International Economic Development
- AGEC 40600 - Natural Resource And Environmental Economics
- AGEC 41500 - Community And Resource Development
- AGEC 45000 - International Agricultural Trade
- AGEC 49800 - Special Problems - Afghanistan Dev. Challenges
- AGRY 39900 - Individual Study - Afghanistan Dev. Challenges
- ASEC 33100 - The Role Of Horses In Human History, Culture And Society
- ASEC 35500 - Controversial Science And Media In The Public Sphere
- EDST 20000 - History And Philosophy Of Education
- EDPS 23500 - Learning And Motivation
- EDPS 26500 - The Inclusive Classroom
- ENGL 22700 - Elements Of Linguistics
- ENGL 23000 - Great Narrative Works
- ENGL 23100 - Introduction To Literature
- ENGL 23200 - Thematic Studies In Literature
- ENGL 23500 - Introduction To Drama
- ENGL 23700 - Introduction To Poetry
- ENGL 23800 - Introduction To Fiction
- ENGL 24000 - British Literature Before 1789
- ENGL 24100 - British Literature After 1789
- ENGL 25000 - Great American Books
- ENGL 25700 - Literature Of Black America
- ENGL 26400 - The Bible As Literature
- ENGL 26600 - World Literature: From The Beginnings To 1700 A.D.
- ENGL 26700 - World Literature: From 1700 A.D. To The Present
- ENGL 27600 - Shakespeare On Film
- ENGL 27900 - The American Short Story In Print And Film
- ENGL 33100 - Medieval English Literature
- ENGL 33300 - Renaissance English Literature
- ENGL 33500 - Restoration And Eighteenth-Century English Literature
- ENGL 33700 - Nineteenth-Century English Literature
- ENGL 35000 - American Literature Before 1865
- ENGL 35100 - American Literature After 1865
- ENGL 36000 - Gender And Literature
- ENGL 37300 - Science Fiction And Fantasy
- ENGL 37700 - Modern And Contemporary Poetry
- ENGL 37900 - The Short Story
- ENGL 38100 - The British Novel
- ENGL 38200 - The American Novel
- ENGL 38600 - History Of Film To 1950
- ENGL 38700 - History Of Film Since 1950
- ENGL 39600 - Studies In Literature And Language
- ENGL 41100 - Studies In Major Authors
- ENGL 41200 - Studies In Genre
- ENGL 41300 - Studies In Literature And History
- ENGL 41400 - Studies In Literature And Culture

- ENGL 44100 - Chaucer's Canterbury Tales
- ENGL 44200 - Shakespeare
- ENGL 44400 - Milton
- ENGL 46200 - The Bible As Literature: The Old Testament
- ENGL 46300 - The Bible As Literature: The New Testament
- ENGL 49200 - Literature In The Secondary Schools
- FNR 37500 - Human Dimensions of Natural Resource Management
- HDFS 28000 - Diversity In Individual And Family Life
- HONR 19900 - Interdisciplinary Honors - Introductory Seminar - Science And Pseudoscience
- HONR 29900 - Interdisciplinary Honors - Experiential Learning - Insects in Lit, Art, and Music
- HORT 30600 - History Of Horticulture

Humanities or Social Science Selective (30000+ Level - 3 Credits)

- AAS 30000:59999
- AD 30000:59999
- AMST 30000:59999
- ANTH 30000: 59999:
- ARAB 30000:59999
- ASAM 30000:59999
- ASL 30000:59999
- BAND 30000:59999
- CHNS 30000:59999
- CLCS 30000:59999
- CMPL 30000:59999
- DANC 30000:59999
- ECON 39900:59999
- FLL 30000:59999
- FR 30000:59999
- FVS 30000:59999
- GER 30000:59999
- GREK 30000:59999
- HEBR 30000:59999
- HIST 30000:59999
- IDIS 30000:59999
- ITAL 30000:59999
- JPNS 30000:59999
- JWST 30000:59999
- LALS 30000:59999
- LC 30000:59999
- LING 30000:59999
- MARS 30000:59999
- MUS 30000:59999
- PHIL 30000:59999
- POL 30000:59999
- PSY 30000:59999
- PTGS 30000:59999
- REL 30000:59999
- RUSS 30000:59999
- SOC 30000:59999

- SPAN 30000:59999
- THTR 30000:59999
- WGSS 30000:59999
- AGEC 30500 - Agricultural Prices
- AGEC 34000 - International Economic Development
- AGEC 40600 - Natural Resource And Environmental Economics
- AGEC 41500 - Community And Resource Development
- AGEC 45000 - International Agricultural Trade
- AGEC 49800 - Special Problems - Afghanistan Dev. Challenges
- AGRY 39900 - Individual Study - Afghanistan Dev. Challenges
- ASEC 33100 - The Role Of Horses In Human History, Culture And Society
- ASEC 35500 - Controversial Science And Media In The Public Sphere
- ENGL 33100 - Medieval English Literature
- ENGL 33300 - Renaissance English Literature
- ENGL 33500 - Restoration And Eighteenth-Century English Literature
- ENGL 33700 - Nineteenth-Century English Literature
- ENGL 35000 - American Literature Before 1865
- ENGL 35100 - American Literature After 1865
- ENGL 36000 - Gender And Literature
- ENGL 37300 - Science Fiction And Fantasy
- ENGL 37700 - Modern And Contemporary Poetry
- ENGL 37900 - The Short Story
- ENGL 38100 - The British Novel
- ENGL 38200 - The American Novel
- ENGL 38600 - History Of Film To 1950
- ENGL 38700 - History Of Film Since 1950
- ENGL 39600 - Studies In Literature And Language
- ENGL 41100 - Studies In Major Authors
- ENGL 41200 - Studies In Genre
- ENGL 41300 - Studies In Literature And History
- ENGL 41400 - Studies In Literature And Culture
- ENGL 44100 - Chaucer's Canterbury Tales
- ENGL 44200 - Shakespeare
- ENGL 44400 - Milton
- ENGL 46200 - The Bible As Literature: The Old Testament
- ENGL 46300 - The Bible As Literature: The New Testament
- ENGL 49200 - Literature In The Secondary Schools
- FNR 37500 - Human Dimensions of Natural Resource Management
- HORT 30600 - History Of Horticulture
- HORT 45000 - In The English Landscape:Integrating History, Horticulture, and Landscape Architecture

Wildlife Supplemental Information

Botany Selective (2 Credits)

- BTNY 30100 - Introductory Plant Pathology
- BTNY 30200 - Plant Ecology
- BTNY 30400 - Introductory Weed Science
- BTNY 30500 - Plant Evolution And Taxonomy

- FNR 43400 - Tree Physiology
- FNR 53600 - Ecology Of Disturbance
- HORT 20100 - Plant Propagation
- HORT 21810 - Flowers For Color

Wildlife Selective (6 Credits)

- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 30300 - Animal Behavior
- ANSC 40400 - Animal Welfare
- ANTH 23500 - The Great Apes
- ANTH 33500 - Primate Behavior
- BTNY 30200 - Plant Ecology
- CHM 25500 - Organic Chemistry
- CHM 25600 - Organic Chemistry
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 31100 - Insect Ecology
- ENTM 33500 - Introduction To Insect Identification
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 33300 - Fire Effects In Forest Environments
- FNR 33900 - Principles Of Silviculture
- FNR 35100 - Aquatic Sampling Techniques
- FNR 35300 - Natural Resources Measurement
- FNR 35700 - Fundamental Remote Sensing
- FNR 37800 - Marine Biology Practicum
- FNR 38500 - Fish Biology And Ecology
- FNR 40100 - Limnology
- FNR 43200 - Human-Wildlife Conflicts
- FNR 43400 - Tree Physiology
- FNR 45200 - Aquaculture
- FNR 45300 - Fish Physiology
- FNR 45800 - Advanced Marine Biology
- FNR 46000 - International Natural Resources Summer Program
- FNR 52800 - Wildlife And Environmental Forensics
- FNR 52900 - Disease Ecology
- FNR 53600 - Ecology Of Disturbance
- FNR 53601 - Ecology Of Disturbance Practicum
- FNR 54300 - Conservation Biology I
- FNR 56700 - Advanced Mammalogy
- FNR 57100 - Advanced Ornithology
- FNR 58600 - Urban Ecology

Department of Horticulture and Landscape Architecture

Overview

Welcome to the Department of Horticulture and Landscape Architecture at Purdue University. The mission of the Department of Horticulture and Landscape Architecture is both education and discovery. Our faculty is committed to teaching and counseling students, and enjoys a worldwide reputation for excellence in research related to horticultural crops.

Our goal is to provide the student with the necessary technical information to be immediately successful in today's horticulture. Beyond that, we strive to provide students with the analytical skills necessary to interpret new information as the world of horticulture continues to change. In addition, our curricula are designed to provide you with communication skills, analytical skills and sensitivity to cultural diversity necessary for success in an increasingly global economy.

Upon graduation, you will leave Purdue with a wealth of knowledge and the skills for continued life-long learning. This commitment to quality education by our faculty makes the Department of Horticulture and Landscape Architecture at Purdue University one of the first places potential employers turn for employees.

Faculty (website)

Department of Horticulture & Landscape Architecture (website)

Contact Information

Department of Horticulture & Landscape Architecture

Purdue University

Horticulture Building
625 Agriculture Mall Dr.
West Lafayette, IN 47907
Phone: (765) 494-1300
Email:hlacareers@purdue.edu

The main office for the department is located in room 207 of the HORT Building.

Future Undergraduate Students (website)

Graduate Information

For Graduate Information please see Horticulture and Landscape Architecture Graduate Program Information.

Baccalaureate

Horticulture: Horticultural Production and Marketing Concentration, BS

About the Program

Horticultural production and marketing prepares students in the commercial production of horticultural crops and business management of horticultural enterprises. Graduates may manage greenhouses or nurseries, floral or plant shops, garden centers, orchards, vegetable farms, and farm markets. They may be involved with development, distribution, or sales of equipment, chemicals, or plant materials.

Horticulture Website

Horticulture Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (36 credits)

Required Major Courses (24 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- HORT 30100 - Plant Physiology
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- HORT 42700 - Horticulture Capstone
- HORT 43500 - Developing An Agricultural Startup
- HORT 51300 - Nutrition Of Horticulture Crops
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables

Horticultural Production and Marketing Concentration (12 credits)

- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (72 credits)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- AGRY 25500 - Soil Science ♦
- AGRY 32000 - Genetics

- BTNY 11000 - Introduction To Plant Science ♦
- BTNY 30100 - Introductory Plant Pathology ♦
- BTNY 30400 - Introductory Weed Science
- BTNY 35000 - Biotechnology In Agriculture
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core)
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- SFS 21000 - Small Farm Experience I or
- SFS 21100 - Small Farm Experience II

Statistics Selective - Credit Hours: 3.00

- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core) or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis

Entomology Selective - Credit Hours: 3.00 (more than one of the below to equal 3 credits)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- ENTM 41002 - Insects Of Agricultural Crops
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Humanities for core)
- Science, Technology and Society Selective - Credit Hours: 1.00 (satisfies Science, Technology and Society for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Horticulture Supplemental Information

Electives (8 credits)

- Elective - Credit Hours: 8.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦
- HORT 10100 - Fundamentals Of Horticulture
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry ♦
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- MA 15800 - Precalculus- Functions And Trigonometry
- SFS 21000 - Small Farm Experience I or
- SFS 21100 - Small Farm Experience II
- Written Communication Selective - Credit Hours: 3.00-4.00

16-17 Credits

Fall 2nd Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGRY 25500 - Soil Science ♦
- CHM 25700 - Organic Chemistry ♦
- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis
- Science, Technology, & Society Selective - Credit Hours: 1.00
- Elective - Credit Hour: 1.00

15 Credits

Spring 2nd Year

- BTNY 30100 - Introductory Plant Pathology ♦
- HORT 30100 - Plant Physiology
- MGMT 20000 - Introductory Accounting or
- MGMT 21200 - Business Accounting
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGRY 32000 - Genetics
- BTNY 30400 - Introductory Weed Science
- HORT 31800 - Field Production Of Horticultural Crops

Entomology Selective - Credit Hours: 3.00 (more than one of the below to equal 3 credits)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- ENTM 41002 - Insects Of Agricultural Crops

15 Credits

Spring 3rd Year

- AGEC 33000 - Management Methods For Agricultural Business
- BTNY 35000 - Biotechnology In Agriculture
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- HORT 43500 - Developing An Agricultural Startup
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 4th Year

- HORT 42700 - Horticulture Capstone
- HORT 51300 - Nutrition Of Horticulture Crops
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Electives - Credit Hours: 3.00-4.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- **Consultation with an advisor may result in an altered plan customized for an individual student.**

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should

know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Horticulture: Landscape Contracting and Management Concentration, BS

About the Program

Students selecting landscape contracting and management are prepared to direct in "hands-on" fashion, the technical side of landscape construction and plant installation. Graduates of this program often operate a landscape contracting business, a design/build company or a landscape management firm, or they may work as a grounds manager.

Horticulture Website

Horticulture Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (48 credits)

Required Major Courses (48 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21700 - Woody Landscape Plants
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- HORT 30100 - Plant Physiology
- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- HORT 42700 - Horticulture Capstone
- HORT 43500 - Developing An Agricultural Startup
- LA 10110 - Survey Of Landscape Architecture
- LA 11600 - Graphic Communication In Design I
- LA 16100 - Land And Society

- LA 21600 - Landscape Architectural Design I
- LA 24600 - Site Systems I

Other Departmental/Program Course Requirements (70 credits)

- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- AGRY 25500 - Soil Science ♦
- AGRY 32000 - Genetics
- ASM 21600 - Introduction To Surveying ♦
- BTNY 11000 - Introduction To Plant Science ♦
- BTNY 30100 - Introductory Plant Pathology ♦
- BTNY 30400 - Introductory Weed Science
- CHM 11100 - General Chemistry (satisfies Science #1 for core) ♦
- CHM 11200 - General Chemistry (satisfies Science #2 for core) ♦
- CHM 25700 - Organic Chemistry ♦
- SPAN 10100 - Spanish Level I (satisfies Human Cultures: Humanities for core)
- SPAN 10200 - Spanish Level II (satisfies Human Cultures: Behavioral/Social Sciences for core)
- MA 15800 - Precalculus- Functions And Trigonometry

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

Statistics Selective - Credit Hours: 3.00

- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis

Entomology Selective - Credit Hours: 3.00 (choose from below to equal 3 credits)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- Supervision/Personnel Selective - Credit Hours - 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Horticulture Supplemental Information

Electives (1-2 credits)

- Elective - Credit Hours: 1.00-2.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦
- HORT 10100 - Fundamentals Of Horticulture
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry ♦
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- MA 15800 - Precalculus- Functions And Trigonometry
- SPAN 10100 - Spanish Level I
- Written Communication Selective - Credit Hours: 3.00-4.00

16-17 Credits

Fall 2nd Year

- CHM 25700 - Organic Chemistry ♦
- HORT 21700 - Woody Landscape Plants
- LA 10110 - Survey Of Landscape Architecture
- LA 11600 - Graphic Communication In Design I
- LA 16100 - Land And Society
- SPAN 10200 - Spanish Level II

17 Credits

Spring 2nd Year

- AGRY 25500 - Soil Science ♦
- ASM 21600 - Introduction To Surveying ♦
- HORT 30100 - Plant Physiology
- LA 21600 - Landscape Architectural Design I
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

14 Credits

Fall 3rd Year

- AGEC 33000 - Management Methods For Agricultural Business
- BTNY 30100 - Introductory Plant Pathology ♦
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- LA 24600 - Site Systems I

16 Credits

Spring 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGRY 32000 - Genetics
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis

Entomology Selective (Choose from below for 3 credits)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes

15 Credits

Fall 4th Year

- BTNY 30400 - Introductory Weed Science
- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 43500 - Developing An Agricultural Startup
- Humanities or Social Science - Credit Hours: 3.00

16 Credits

Spring 4th Year

- HORT 42700 - Horticulture Capstone
- Humanities or Social Science (30000+ level) Selective - Credit Hours: 3.00
- Supervision/Personnel Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 1.00-2.00

11-12 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- **Consultation with an advisor may result in an altered plan customized for an individual student.**

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Horticulture: Landscape Design Concentration, BS

About the Program

Graduates in Landscape Design will be ready to create planting plans and construction site plans for landscape and garden development. They will be able to work with clients to determine requirements and oversee installation of new landscapes, especially at the small commercial/institutional and residential scales.

Horticulture Website

Horticulture Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (51 credits)

Required Major Courses (51 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- HORT 21700 - Woody Landscape Plants
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- HORT 30100 - Plant Physiology
- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- HORT 42700 - Horticulture Capstone
- HORT 43500 - Developing An Agricultural Startup
- LA 10110 - Survey Of Landscape Architecture
- LA 11600 - Graphic Communication In Design I
- LA 16100 - Land And Society
- LA 21600 - Landscape Architectural Design I
- LA 22700 - Planting Design I
- LA 24600 - Site Systems I
- LA 32500 - Planting Design II

Other Departmental/Program Course Requirements (66 credits)

- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- AGRY 25500 - Soil Science ♦
- AGRY 32000 - Genetics
- BTNY 11000 - Introduction To Plant Science ♦
- BTNY 30100 - Introductory Plant Pathology ♦
- CHM 11100 - General Chemistry ♦ (satisfied Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfied Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core)

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 21700 - Economics
- ECON 21000 - Principles Of Economics
- ECON 25100 - Microeconomics
- ECON 25200 - Macroeconomics

Entomology Selective - Credit Hours: 3.00 (more than one of the below to equal 3 credits)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- ENTM 41002 - Insects Of Agricultural Crops

Statistics Selective - Credit Hours: 3.00

- STAT 30100 - Elementary Statistical Methods
- STAT 50300 - Statistical Methods For Biology

- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis
- Supervision/Personnel Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Horticulture Supplemental Information

Electives (2-3 credits)

- Electives - Credit Hours: 2.00-3.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦
- HORT 10100 - Fundamentals Of Horticulture
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry ♦
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- MA 15800 - Precalculus- Functions And Trigonometry
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00

16-17 Credits

Fall 2nd Year

- CHM 25700 - Organic Chemistry ♦
- HORT 21700 - Woody Landscape Plants
- LA 11600 - Graphic Communication In Design I
- LA 16100 - Land And Society
- LA 10110 - Survey Of Landscape Architecture

14 Credits

Spring 2nd Year

- AGRY 25500 - Soil Science ♦
- HORT 30100 - Plant Physiology
- LA 21600 - Landscape Architectural Design I
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Humanities or Social Sciences Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGEC 33000 - Management Methods For Agricultural Business
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- LA 24600 - Site Systems I
- ENTM 20600 - General Entomology or
- ENTM 20700 - General Entomology Laboratory or
- ENTM 41000 - Applied Insect Biology or
- ENTM 41001 - Insects Of Urban Landscapes or
- ENTM 41002 - Insects Of Agricultural Crops
- Humanities or Social Sciences Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGRY 32000 - Genetics
- BTNY 30100 - Introductory Plant Pathology ♦
- LA 22700 - Planting Design I
- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis

15 Credits

Fall 4th Year

- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 43500 - Developing An Agricultural Startup
- LA 32500 - Planting Design II
- Written or Oral Communication (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 4th Year

- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- HORT 42700 - Horticulture Capstone
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Supervision/Personnel Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-3.00

12-13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- **Consultation with an advisor may result in an altered plan customized for an individual student.**

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

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Horticulture: Landscape Enterprise Management Concentration, BS

About the Program

In addition to their science-based landscape horticultural skills, students selecting landscape enterprise management are prepared to become account managers in client relations, business managers, as well as supervisors for landscape installation projects and landscape management.

Horticulture Website

Horticulture Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (35 credits)

Required Major Courses (35 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- HORT 21700 - Woody Landscape Plants
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- HORT 30100 - Plant Physiology
- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- HORT 42700 - Horticulture Capstone
- HORT 43500 - Developing An Agricultural Startup
- LA 10110 - Survey Of Landscape Architecture
- LA 16100 - Land And Society (satisfies Science, Technology & Society Selective for core)

Other Departmental/Program Course Requirements (78-79 credits)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- AGRY 25500 - Soil Science ♦
- AGRY 32000 - Genetics
- BTNY 11000 - Introduction To Plant Science ♦
- BTNY 30100 - Introductory Plant Pathology ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- MGMT 21200 - Business Accounting
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core)

Entomology Selective - Credit Hours: 3.00 (use a combination of the below)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 40100 - Addressing Grand Challenges Through Insect Biology

- ENTM 41001 - Insects Of Urban Landscapes
- ENTM 41002 - Insects Of Agricultural Crops

Statistics Selective - Credit Hours: 3.00 (satisfies Information Literacy for core)

- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis
- Business/Supervision/Personnel Selective - Credit Hours: 3.00
- Business/Supervision/Personnel Selective - Credit Hours: 3.00
- Business/Supervision/Personnel Selective - Credit Hours: 3.00
- Business/Supervision/Personnel Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Horticulture Supplemental Information

Electives (6-7 credits)

- Elective - Credit Hours: 6.00-7.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)

- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BTNY 11000 - Introduction To Plant Science ♦
- CHM 11100 - General Chemistry ♦
- HORT 10100 - Fundamentals Of Horticulture
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry ♦
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- MA 15800 - Precalculus- Functions And Trigonometry
- Written Communication Selective - Credit Hours: 3.00-4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16-17 Credits

Fall 2nd Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- CHM 25700 - Organic Chemistry ♦
- HORT 21700 - Woody Landscape Plants
- LA 10110 - Survey Of Landscape Architecture
- LA 16100 - Land And Society

16 Credits

Spring 2nd Year

- AGEC 33000 - Management Methods For Agricultural Business
- AGRY 25500 - Soil Science ♦

- HORT 30100 - Plant Physiology
- Business/Supervision/Personnel Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- BTNY 30100 - Introductory Plant Pathology ♦
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants

Entomology Selective - Credit Hours: 3.00 (use a combination of the below)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 40100 - Addressing Grand Challenges Through Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- ENTM 41002 - Insects Of Agricultural Crops
- Business/Supervision/Personnel Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- MGMT 21200 - Business Accounting
- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 43500 - Developing An Agricultural Startup
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-4.00

16-17 Credits

Spring 4th Year

- HORT 42700 - Horticulture Capstone
- Business/Supervision/Personnel Selective - Credit Hours: 3.00
- Business/Supervision/Personnel Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

13 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- **Consultation with an advisor may result in an altered plan customized for an individual student.**

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Horticulture: Plant Science Concentration, BS

About the Program

Plant Science includes training to improve plants through genetic manipulation and to investigate new methods of propagation, growth, handling, and marketing of horticultural crops. Horticultural scientists work at colleges and universities, state and federal experiment stations, and public or private laboratories and foundations. This curriculum prepares students for scientifically oriented careers such as technicians in plant breeding, propagation, and research industries. It is an excellent preparatory program for students planning to pursue post-graduate study toward a Masters or PhD degree.

Horticulture Website

Horticulture Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (38 credits)

Required Major Courses (23 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 12100 - Medicine In The Garden (satisfies Science, Technology and Society for core)
- HORT 20100 - Plant Propagation
- HORT 30100 - Plant Physiology
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- HORT 42700 - Horticulture Capstone
- HORT 49100 - Special Assignments In Horticulture - must take for 3.00 credits
- HORT 51300 - Nutrition Of Horticulture Crops
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables

Plant Science Concentration (15 credits)

- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00

Other Departmental/Program Course Requirements (71-73 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- AGRY 25500 - Soil Science ♦
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BCHM 30700 - Biochemistry ♦
- BTNY 11000 - Introduction To Plant Science
- BTNY 26200 - Plant Structure And Tissue Biology ♦

- BTNY 30100 - Introductory Plant Pathology ♦
- BTNY 30200 - Plant Ecology ♦
- BTNY 30500 - Plant Evolution And Taxonomy ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- CHM 25701 - Organic Chemistry Laboratory ♦
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

Physics Selective - Credit Hours: 3.00-4.00

- PHYS 17200 - Modern Mechanics or
- PHYS 21400 - The Nature Of Physics or
- PHYS 22000 - General Physics or
- PHYS 22100 - General Physics

Statistics Selective - Credit Hours: 3.00

- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Horticulture Supplemental Information

Electives (9-11 credits)

- Elective - Credit Hours: 9.00-11.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00

- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry ♦
- HORT 12100 - Medicine In The Garden
- MA 16010 - Applied Calculus I
- Oral Communication Selective - Credit Hours: 3.00

15 Credits

Spring 1st Year

- CHM 11200 - General Chemistry ♦
- HORT 10100 - Fundamentals Of Horticulture

  Economics Selective - Credit Hours: 3.00
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Elective - Credit Hours: 3.00

- Written Communication Selective - Credit Hours: 3.00-4.00

15-16 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science ♦
- BTNY 26200 - Plant Structure And Tissue Biology ♦
- CHM 25700 - Organic Chemistry ♦
- CHM 25701 - Organic Chemistry Laboratory ♦
- Human Cultures: Humanities Selective - Credit Hours: 3.00

14 Credits

Spring 2nd Year

- BCHM 30700 - Biochemistry ♦
- BTNY 30200 - Plant Ecology ♦
- HORT 20100 - Plant Propagation
- HORT 30100 - Plant Physiology
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- BTNY 30100 - Introductory Plant Pathology ♦
- BTNY 30500 - Plant Evolution And Taxonomy ♦
- HORT 31800 - Field Production Of Horticultural Crops
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- HORT 31900 - Controlled Environment Production Of Horticultural Crops

Physics Selective - Credit Hours: 3.00-4.00

- PHYS 17200 - Modern Mechanics or
- PHYS 21400 - The Nature Of Physics or
- PHYS 22000 - General Physics or
- PHYS 22100 - General Physics

Statistics Selective - Credit Hours: 3.00

- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or

- STAT 51200 - Applied Regression Analysis
- Plant Science Concentration Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00

15-16 Credits

Fall 4th Year

- HORT 49100 - Special Assignments In Horticulture - must take for 3.00 credits
- Plant Science Concentration Selective - Credit Hours: 3.00
- Plant Science Concentration Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level)- Credit Hours: 3.00

15 Credits

Spring 4th Year

- HORT 42700 - Horticulture Capstone
- HORT 51300 - Nutrition Of Horticulture Crops
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables
- Plant Science Concentration Selective - Credit Hours: 3.00
- Plant Science Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00-5.00

12-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- **Consultation with an advisor may result in an altered plan customized for an individual student.**

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Horticulture: Public Horticulture Concentration, BS

About the Program

Public horticulture is a professional program leading to employment in botanical gardens and arboretums and other horticultural establishments serving the public. Graduates work as curators of plant collections, educators, plant propagators, illustrators, and writers. Practical training through internships in public gardens is stressed.

Horticulture Website

Horticulture Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (43 credits)

Required Major Courses (37 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- HORT 21700 - Woody Landscape Plants
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- HORT 30100 - Plant Physiology
- HORT 30600 - History Of Horticulture
- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops

- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- HORT 42700 - Horticulture Capstone
- LA 10110 - Survey Of Landscape Architecture
- LA 16100 - Land And Society
- LA 16600 - History And Theory Of Landscape Architecture

Concentration Selectives (6 credits)

- Concentration Selectives - Credit Hours: 6.00

Other Departmental /Program Course Requirements (69-70 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- AGRY 25500 - Soil Science ♦
- AGRY 32000 - Genetics
- BCHM 30700 - Biochemistry ♦
- BTNY 11000 - Introduction To Plant Science
- BTNY 30100 - Introductory Plant Pathology ♦
- BTNY 30200 - Plant Ecology ♦
- BTNY 30500 - Plant Evolution And Taxonomy ♦
- CHM 11100 - General Chemistry ♦ (satisfies Science #1 for core)
- CHM 11200 - General Chemistry ♦ (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core)

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

Entomology Selective - Credit Hours: 3.00 (choose more than one of the below courses to equal 3 credits)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- ENTM 41002 - Insects Of Agricultural Crops

Statistics Selective - Credit Hours: 3.00 (satisfies Information Literacy for core)

- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis
- Communications Selective - Credit Hours: 3.00
- Supervision/Personnel Selective - Credit Hours: 3.00
- Human Cultures Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00 (satisfies Written Communication for core)

- Written or Oral Communication Selective (20000+ level)- Credit Hours: 3.00

Additional Requirements

Horticulture Supplemental Information

Electives (7-8 credits)

- Elective - Credit Hours: 7.00-8.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BTNY 11000 - Introduction To Plant Science

- CHM 11100 - General Chemistry ♦
- HORT 10100 - Fundamentals Of Horticulture
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry ♦
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation
- MA 15800 - Precalculus- Functions And Trigonometry
- Written Communication Selective - Credit Hours: 3.00-4.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16-17 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science ♦
- CHM 25700 - Organic Chemistry ♦
- HORT 21700 - Woody Landscape Plants
- LA 10110 - Survey Of Landscape Architecture
- LA 16100 - Land And Society
- Elective - Credit Hours: 1.00

15 Credits

Spring 2nd Year

- BCHM 30700 - Biochemistry ♦
- BTNY 30100 - Introductory Plant Pathology ♦
- HORT 30100 - Plant Physiology
- LA 16600 - History And Theory Of Landscape Architecture
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

16 Credits

Fall 3rd Year

- AGRY 32000 - Genetics
- BTNY 30500 - Plant Evolution And Taxonomy ♦

- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- STAT 30100 - Elementary Statistical Methods or
- STAT 50300 - Statistical Methods For Biology or
- STAT 51100 - Statistical Methods or
- STAT 51200 - Applied Regression Analysis

Entomology Selective - Credit Hours: 3.00 (choose from the courses below to equal 3 credits)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- ENTM 41002 - Insects Of Agricultural Crops

15 Credits

Spring 3rd Year

- BTNY 30200 - Plant Ecology ♦
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- Concentration Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- HORT 30600 - History Of Horticulture
- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

14 Credits

Spring 4th Year

- HORT 42700 - Horticulture Capstone
- Communication Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Supervision/Personnel Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Elective - Credit Hours: 1.00-2.00

14-15 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- **Consultation with an advisor may result in an altered plan customized for an individual student.**

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

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Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Landscape Architecture, BSLA

About the Program

Landscape architecture allows students to develop abilities in problem solving, analytical thinking, and communication. Three fundamental tracks run through the curriculum - design, technical, and plant materials. First-year students enter the pre-landscape architecture program and learn basic art, graphic communication, and design skills. Based on performance in their first year, qualified students are admitted into the professional landscape architecture program. In their second year, increasingly challenging projects allow students to apply their knowledge. Third-year students complete larger-scale projects and focus on more diverse and technically difficult concepts. Between the third and fourth years, students complete a co-op program wherein students are placed in professional offices nationwide for a minimum of forty weeks. Fourth year students focus on "real-client" projects in urban and regional design.

Landscape Architecture Website

Horticulture Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (60 credits)

Required Major Courses (60 credits)

- LA 10110 - Survey Of Landscape Architecture
- LA 11600 - Graphic Communication In Design I
- LA 11700 - Graphic Communication In Design II
- LA 16100 - Land And Society (satisfies Science, Technology, & Society for core)
- LA 16600 - History And Theory Of Landscape Architecture
- LA 21600 - Landscape Architectural Design I
- LA 22600 - Landscape Architectural Design II
- LA 22700 - Planting Design I
- LA 24600 - Site Systems I
- LA 30900 - Co-Op Preparation
- LA 31600 - Landscape Architectural Design III
- LA 32500 - Planting Design II
- LA 32600 - Landscape Architectural Design IV
- LA 34600 - Site Systems II
- LA 35600 - Site Systems III
- LA 39000 - Professional Cooperative Programs In Landscape Architecture
- LA 41600 - Landscape Architectural Design V
- LA 42600 - Capstone Course In Landscape Architecture
- LA 47600 - Professional Practice Of Landscape Architecture
- LA 48200 - Contemporary Issues In Landscape Architecture
- LA 50100 - Research Methods For Design Applications
- Landscape Architecture Selectives - Credit Hours: 2.00

Other Departmental/Program Course Requirements (53-54 credits)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- ASM 21600 - Introduction To Surveying
- BIOL 11000 - Fundamentals Of Biology I ♦
- HORT 21700 - Woody Landscape Plants
- HORT 31700 - Landscape Contracting And Management
- MA 15800 - Precalculus- Functions And Trigonometry (satsifies Quantitative Reasoning Selective for core)
- AGRY 12500 - Environmental Science And Conservation ♦ or
- EAPS 12500 - Environmental Science And Conservation ♦ or
- FNR 12500 - Environmental Science And Conservation ♦ or
- NRES 12500 - Environmental Science And Conservation ♦
- BIOL 11100 - Fundamentals Of Biology II ♦ or

- BTNY 11000 - Introduction To Plant Science ♦
  Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication and Information Literacy for core)
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦
  Oral Communication Selectives - Credit Hours: 3.00 (satisfies Oral Communication for core)
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
  Economics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Art & Design Selective - Credit Hours: 3.00
- Art & Design Selective - Credit Hours: 3.00
- Mathematics or Sciences Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communications Selection (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Landscape Architecture Supplemental Information

Electives (6-7 credits)

- Electives - Credit Hours: 6.00-7.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)

- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year (Pre-Program)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- LA 10110 - Survey Of Landscape Architecture
- LA 11600 - Graphic Communication In Design I
- LA 16100 - Land And Society
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦

14-15 Credits

Spring 1st Year (Pre-Program)

- LA 21600 - Landscape Architectural Design I
- MA 15800 - Precalculus- Functions And Trigonometry
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 11000 - Introduction To Plant Science ♦
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
- Art and Design Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- HORT 21700 - Woody Landscape Plants
- LA 11700 - Graphic Communication In Design II

- LA 24600 - Site Systems I
- AGRY 12500 - Environmental Science And Conservation ♦ or
- EAPS 12500 - Environmental Science And Conservation ♦ or
- FNR 12500 - Environmental Science And Conservation ♦ or
- NRES 12500 - Environmental Science And Conservation ♦
- Elective - Credit Hours: 1.00

15 Credits

Spring 2nd Year

- ASM 21600 - Introduction To Surveying
- LA 16600 - History And Theory Of Landscape Architecture
- LA 22600 - Landscape Architectural Design II
- LA 22700 - Planting Design I
- LA 34600 - Site Systems II
- Landscape Architecture Selective - Credit Hours: 1.00

15 Credits

Fall 3rd Year

- HORT 31700 - Landscape Contracting And Management
- LA 30900 - Co-Op Preparation
- LA 31600 - Landscape Architectural Design III
- LA 32500 - Planting Design II
- Art & Design Selective - Credit Hours: 3.00

14 Credits

Spring 3rd Year

- LA 32600 - Landscape Architectural Design IV
- LA 35600 - Site Systems III

Economics Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Landscape Architecture Selective - Credit Hours: 1.00
- Elective - Credit Hours: 4.00

16 Credits

Fall & Spring 4th Year

- LA 39000 - Professional Cooperative Programs In Landscape Architecture

Fall 5th Year

- LA 41600 - Landscape Architectural Design V
- LA 47600 - Professional Practice Of Landscape Architecture
- LA 50100 - Research Methods For Design Applications
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communications Selection (20000+ level) - Credit Hours: 3.00
- Mathematics or Sciences Selective - Credit Hours: 3.00

16 Credits

Spring 5th Year

- LA 42600 - Capstone Course In Landscape Architecture
- LA 48200 - Contemporary Issues In Landscape Architecture
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 1.00-2.00

13-14 Credits

Notes

2.0 GPA required for Bachelor of Science degree.

** Students in Landscape Architecture fulfill the foundational mathematics requirement by (1) completing MA 15800 or higher or (2) completing STAT 30100. Enrolling in STAT 30100 requires either successfully completing MA 15300 and MA 15400 or taking the advanced credit examination for MA 15300 and MA 15400 to establish competency. Three (3) credits of MA 15300 or MA 15400 may be used as an unrestricted elective in the College of Agriculture Undergraduate plans of study, but may not be used as Mathematics and Sciences selective.

Consultation with an advisor may result in an altered plan customized for an individual student.

Change of Option from Pre-landscape Architecture to the Professional Landscape Architecture Program

Pre-landscape architecture students, who wish to continue into the landscape architecture professional program, or transfer students from other institutions, must qualify by meeting the following criteria, or through further assessment as described below:

1. Overall GPA - The student must be in good academic standing. A minimum overall GPA of 2.5 across all Purdue and transferred credit coursework is necessary for acceptance into the landscape architecture professional program.

2. Grade point average of 3.0 or higher in all landscape architecture prefixed courses taken (LA Index).

3. Completion of LA 10600; or 11600 and 21600; or approved equivalent, and a minimum of 24 credit hours of Purdue accepted college level coursework are the minimum necessary for acceptance into the landscape architecture professional program.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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Sustainable Food and Farming Systems, BS

About the Program

Learn how to design and manage a small farm enterprise. Study the principles of sustainable agriculture including non-chemical pest and soil management. Investigate organic, local, and urban agriculture systems and study the resilience of the American food system. Gain hands-on experience at the new Purdue University student farm. This is a comprehensive, science-based degree program that will prepare you to manage low-input farming enterprises and for a career in many other agricultural and environmental professional fields.

Sustainable Food and Farming Systems Website

Sustainable Food and Farming Systems Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (13 credits)

Required Major Courses (13 credits)

- SFS 21000 - Small Farm Experience I ♦
- SFS 21100 - Small Farm Experience II ♦
- SFS 30100 - Agroecology
- SFS 30200 - Principles Of Sustainability
- SFS 35100 - SFS Capstone Project

Other Departmental /Program Course Requirements (99-102 credits)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- AGRY 32000 - Genetics
- ANSC 10200 - Introduction To Animal Agriculture
- BIOL 11000 - Fundamentals Of Biology I
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods
- AGRY 10500 - Crop Production or
- HORT 10100 - Fundamentals Of Horticulture
- AGRY 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦
- BTNY 20700 - The Microbial World or
- BIOL 22100 - Introduction To Microbiology

  Animal Science Selective - Credit Hours: 3.00
- ANSC 24500 - Applied Animal Management or
- ANSC 35100 - Meat Science or
- ANSC 39300 - Animal Industry Travel Course or
- ANSC 49500 - Special Topics In Animal Sciences - Romania Study Abroad

  Pest Management Selectives - Credit Hours: 6.00
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- BTNY 51700 - Diseases Of Agronomic Crops
- BTNY 53500 - Plant Disease Management

  Physiology or Production Selective - Credit Hours: 3.00-4.00
- ANSC 23000 - Physiology Of Domestic Animals or
- HORT 30100 - Plant Physiology or
- HORT 31800 - Field Production Of Horticultural Crops or
- HORT 31900 - Controlled Environment Production Of Horticultural Crops

  Soil Science Selective - Credit Hours: 3.00
- AGRY 34900 - Soil Ecology or

- AGRY 36500 - Soil Fertility or
- AGRY 45000 - Soil Conservation and Water Management or
- AGRY 56500 - Soils And Landscapes or
- AGRY 58000 - Soil Microbiology

Systems Modules Selectives - Credit Hours: 6.00

- SFS 31100 - Aquaponics
- SFS 31200 - Urban Agriculture
- SFS 31300 - Farm To Fork
- SFS 31400 - Comparative Livestock Production Systems
- SFS 31500 - Principles Of Permaculture
- SFS 31600 - Decisions Through Systems Analysis

Economics Selective - Credit Hours: 3.00

- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics
- Agronomy/Horticulture Selective - Credit Hours: 3.00
- Business Management Selective - Credit Hours: 3.00
- Ecology/Environment Selective - Credit Hours: 6.00
- Food Science Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Sustainable Food & Farming Systems Supplemental Information

Electives (5-8 credits)

- Elective - Credit Hours: 5.00-8.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BIOL 11000 - Fundamentals Of Biology I
- CHM 11100 - General Chemistry
- MA 15800 - Precalculus- Functions And Trigonometry
- Oral Communication Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry
- SFS 21000 - Small Farm Experience I ♦
- AGRY 10500 - Crop Production or
- HORT 10100 - Fundamentals Of Horticulture
- Written Communication Selective - Credit Hours: 3.00-4.00

16-17 Credits

Fall 2nd Year

- ANSC 10200 - Introduction To Animal Agriculture
- SFS 21100 - Small Farm Experience II ♦
- SFS 30100 - Agroecology

- Agronomy/Horticulture Selective - Credit Hours: 3.00
- Systems Modules Selective - Credit Hours: 3.00 (choose from courses listed in Other Departmental list)

15 Credits

Spring 2nd Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- SFS 30200 - Principles Of Sustainability
- AGRY 25500 - Soil Science ♦ or
- AGRY 27000 - Forest Soils ♦
- BTNY 20700 - The Microbial World or
- BIOL 22100 - Introduction To Microbiology
- Systems Modules Selective - Credit Hours: 3.00 (choose from courses listed in Other Departmental list not taken in previous semester)

15-16 Credits

Fall 3rd Year

Pest Management Selective - Credit Hours: 3.00

- BTNY 30100 - Introductory Plant Pathology or
- BTNY 30400 - Introductory Weed Science or
- BTNY 51700 - Diseases Of Agronomic Crops or
- BTNY 53500 - Plant Disease Management

Physiology or Production Selective - Credit Hours: 3.00-4.00

- ANSC 23000 - Physiology Of Domestic Animals or
- HORT 30100 - Plant Physiology or
- HORT 31800 - Field Production Of Horticultural Crops or
- HORT 31900 - Controlled Environment Production Of Horticultural Crops

Soil Science Selective - Credit Hours: 3.00

- AGRY 34900 - Soil Ecology or
- AGRY 36500 - Soil Fertility or
- AGRY 45000 - Soil Conservation and Water Management or
- AGRY 56500 - Soils And Landscapes or
- AGRY 58000 - Soil Microbiology
- Human Cultures: Humanities Selective - Credit Hours: 3.00
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

15-16 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- STAT 30100 - Elementary Statistical Methods
- Pest Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

Animal Science Selective - Credit Hours: 3.00

- ANSC 23000 - Physiology Of Domestic Animals
- ANSC 24500 - Applied Animal Management
- ANSC 35100 - Meat Science
- ANSC 39300 - Animal Industry Travel Course
- ANSC 49500 - Special Topics In Animal Sciences - Romania Study Abroad

15 Credits

Fall 4th Year

- SFS 35100 - SFS Capstone Project
- Business Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

Economics Selective - Credit Hours: 3.00

- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

13 Credits

Spring 4th Year

- Ecology/Environment Selectives - Credit Hours: 6.00
- Food Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00-5.00

14-17 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese

GER-German	GREK-Greek (ancient)	HEBR-Hebrew (Biblical)
ITAL-Italian	JPNS-Japanese	KOR-Korean
PTGS-Portuguese	RUSS-Russian	SPAN-Spanish

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

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The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Turf Management and Science, BS

About the Program

This major is for students interested in a career as a professional turf manager. A turf manager oversees and implements cultural management programs for the maintenance, production, conditioning and performance of a wide variety of turf areas like lawns, athletic fields, golf courses, parks, and sod farms. Managing a visually pleasing and manicured turf that is subject to intense use requires a foundation of technical expertise, the ability to make precise management decisions and a wealth of practical experience. The Turf Science and Management curriculum is based in scientific principles, while also providing the technical information, business/management, written/oral communication, and problem solving coursework and skills to promote managerial success. This Bachelor of Science degree broadly prepares students to handle a wide array of potential career paths in the Turf Industry.

Turf Management and Science Website

Turf Management and Science Major Change (CODO) Requirements

Degree Requirements

120 Credits Required

Departmental/Program Major Courses (19 credits)

Required Major Courses (19 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11000 - Opportunities In Horticulture
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21100 - Fundamentals of Turfgrass Culture Laboratory
- HORT 30100 - Plant Physiology
- AGRY 51000 - Turfgrass Science
- AGRY 51200 - Integrated Turfgrass Systems
- AGRY 51400 - Environmental Stress Management For Turfgrass or
- HORT 51300 - Nutrition Of Horticulture Crops

Other Departmental/Program Course Requirements (94-95 credits)

- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- AGRY 25500 - Soil Science ♦
- AGRY 36500 - Soil Fertility ♦
- BTNY 11000 - Introduction To Plant Science
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- MA 15800 - Precalculus- Functions And Trigonometry (satisfies Quantitative Reasoning Selective for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)

- MGMT 21200 - Business Accounting or
- MGMT 20000 - Introductory Accounting

Physics Selective - Credit Hours: 3.00

- PHYS 21400 - The Nature Of Physics or
- PHYS 22000 - General Physics

Economics Selective - Credit Hours: 3.00 (satisfies Human Cultures: Behavioral/Social Science for core)

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy or
- AGEC 21700 - Economics or
- ECON 21000 - Principles Of Economics or
- ECON 25100 - Microeconomics or
- ECON 25200 - Macroeconomics

- Business/Management Selectives - Credit Hours: 9.00
- Turf Science Selectives - Credit hours: 12.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- Humanities or Social Science Selective - Credit Hours: 3.00

- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science, Technology, & Society Selective - Credit Hours: 1.00 (satisfies Science, Technology & Society for core)
- Oral Communication Selective - Credit Hours: 3.00 (satisfies Oral Communication for core)
- Written Communication Selective - Credit Hours: 3.00-4.00 (satisfies Written Communication for core)
- Written or Oral Communications Selective (20000+ level) - Credit Hours: 3.00

Additional Requirements

Click here for Turf Management and Science Supplemental Information

Electives (6-7 credits)

- Elective - Credit Hours: 6.00-7.00

College of Agriculture & University Level Requirements

- 2.00 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- International Understanding Selective - Credit Hours: 9.00
- Multicultural Awareness Selective - Credit Hours: 3.00
- College of Agriculture Humanities or Social Science Selectives (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selectives (Choose from outside the College of Agriculture) - Credit Hours: 9.00
- Written or Oral Communication Selectives (20000+ level) - Credit Hours: 3.0

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website**.**

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Prerequisite Information:

For current pre-requisites for courses, click here.

Program Requirements

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry
- MA 15800 - Precalculus- Functions And Trigonometry
- Written Communication Selective - Credit Hours: 3.00-4.00

14-15 Credits

Spring 1st Year

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11000 - Opportunities In Horticulture
- CHM 11200 - General Chemistry
- Oral Communication Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Human Cultures: Humanities Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science ♦
- CHM 25700 - Organic Chemistry ♦
- STAT 30100 - Elementary Statistical Methods
- MGMT 21200 - Business Accounting or
- MGMT 20000 - Introductory Accounting
- Written or Oral Communication Selective (20000+ level) - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility ♦
- BTNY 30100 - Introductory Plant Pathology
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21100 - Fundamentals of Turfgrass Culture Laboratory
- HORT 30100 - Plant Physiology

14 Credits

Fall 3rd Year

- AGEC 33000 - Management Methods For Agricultural Business
- AGRY 51000 - Turfgrass Science

- BTNY 30400 - Introductory Weed Science
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes
- Humanities or Social Sciences Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- Physics Selective - Credit Hours: 3.00
- Turf Management Selective - Credit Hours: 3.00
- Turf Management Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGRY 51200 - Integrated Turfgrass Systems
- AGRY 51400 - Environmental Stress Management For Turfgrass or
- HORT 51300 - Nutrition Of Horticulture Crops
- Business/Management Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Turf Management Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 4th Year

- Business/Management Selective - Credit Hours: 3.00
- Business/Management Selective - Credit Hours: 3.00
- Turf Management Selective - Credit Hours: 3.00
- Science, Technology & Society Selective - Credit Hours: 1.00
- Electives - Credit Hours: 3.00-4.00

13-14 Credits

Notes

- 2.0 GPA required for Bachelor of Science degree.
- Consultation with an advisor may result in an altered plan customized for an individual student.

World Language Courses

World Language proficiency requirements vary by program. The following list is inclusive of all world languages PWL offers for credit; for acceptable languages and proficiency levels, see your advisor.

ASL-American Sign Language	ARAB-Arabic	CHNS-Chinese
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Critical Course

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Certificate

Landscape Management and Turf Management Certificate

Requirements for the Certificate (23 credits)

Required Courses (23 credits)

- AGRY 25500 - Soil Science
- CHM 11100 - General Chemistry
- HORT 10100 - Fundamentals Of Horticulture
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21100 - Fundamentals of Turfgrass Culture Laboratory
- HORT 21700 - Woody Landscape Plants
- HORT 31700 - Landscape Contracting And Management
- AGRY 51000 - Turfgrass Science

Notes

Required Certification in Pesticide Application: Complete certification requirement for an Indiana "For-Hire Pesticide Applicator License" in either category 3a Ornamental Pest Management, or 3b Turf Management. *(Information available from the Office of the Indiana State Chemist - Pesticide Section)*

REQUIRED PROFESSIONAL EXPERIENCE*:* Complete a minimum of 320 hours of work experience in turf and/or landscape horticulture.

Prerequisite Information

For current pre-requisites for courses, click here.

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Minor

Horticulture Minor

Requirements for the Minor (16 credits)

Required Courses (7 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11000 - Opportunities In Horticulture
- HORT 20100 - Plant Propagation

Selective Courses (9 credits)

- HORT 21700 - Woody Landscape Plants
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- HORT 22200 - DynaSCAPE Applications In Horticulture
- HORT 22400 - Photoshop Applications In Horticulture
- HORT 29100 - Selected Topics In Horticulture
- HORT 30100 - Plant Physiology
- HORT 30600 - History Of Horticulture
- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- HORT 37000 - Professional Floral Design
- HORT 40300 - Tropical Horticulture
- HORT 42700 - Horticulture Capstone
- HORT 43500 - Developing An Agricultural Startup
- HORT 45000 - In The English Landscape:Integrating History, Horticulture, and Landscape Architecture

- HORT 49100 - Special Assignments In Horticulture
- HORT 50600 - Commercial Grape And Wine Production
- HORT 51300 - Nutrition Of Horticulture Crops
- HORT 52500 - The Plant Microbiome
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables
- HORT 55300 - Plant Growth And Development
- HORT 59000 - Special Studies In Horticulture
- SFS 21000 - Small Farm Experience I
- SFS 21100 - Small Farm Experience II

Note

- Departmental permission is not required to enroll in this minor.

Disclaimer

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The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Landscape and Turf Minor

Requirements for the Minor (13 Credits)

Required Courses (10 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21100 - Fundamentals of Turfgrass Culture Laboratory
- LA 10110 - Survey Of Landscape Architecture
- LA 16100 - Land And Society

Selective Course (3 credits)

- HORT 21700 - Woody Landscape Plants
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants

Notes

- Departmental permission is not required to enroll in this minor.
- Students in the followoing major/concentrations **cannot** obtain a Landscape and Turf Minor:
- Horticulture Landscape Enterprise Management
- Horticulture Landscape Contracting Management
- Horticulture Landsape Design
- Turf Management and Science

Disclaimer

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The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Landscape Management Minor

Requirements for the Minor (12-13 credits)

Required Courses (9-10 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 31700 - Landscape Contracting And Management
- HORT 21700 - Woody Landscape Plants or
- HORT 21810 - Flowers For Color or
- HORT 21820 - Hardy Herbaceous Landscape Plants

Selective Course (3 credits)

- HORT 20100 - Plant Propagation
- HORT 21700 - Woody Landscape Plants *
- HORT 21810 - Flowers For Color *
- HORT 21820 - Hardy Herbaceous Landscape Plants *
- ENTM 41000 - Applied Insect Biology and
- ENTM 41001 - Insects Of Urban Landscapes

Notes

- Departmental permission is not required to enroll in this minor.
- *HORT 21700, HORT 21810, and HORT 21820 can only be used as a selective, if not used as the Plant Materials course above.
- Students in the following majors/concentrations **cannot** obtain a Landscape Management Minor:
- Horticulture/Landscape Enterprise Management
- Horticulture/Landscape Contracting Management
- Horticulture/Landscape Design
- Horticulture/Landscape Horticulture and Design

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Sustainable Food and Farming Systems Minor

Requirements for the Minor (18 Credits)

Selectives (3 Credits)

- AGEC 21700 - Economics
- AGEC 25000 - Economic Geography Of World Food And Resources
- AGEC 31000 - Farm Organization
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGRY 37500 - Crop Production Systems
- ASM 10400 - Introduction To Agricultural Systems
- ASM 20100 - Construction And Maintenance
- BTNY 11000 - Introduction To Plant Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 31100 - Insect Ecology

- FNR 21000 - Natural Resource Information Management or
- NRES 21000 - Natural Resource Information Management

- FS 16100 - Science Of Food
- HORT 31800 - Field Production Of Horticultural Crops
- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- MGMT 21200 - Business Accounting
- POL 22300 - Introduction To Environmental Policy

Systems Modules (3 Credits)

Select one course from the following:

- SFS 31100 - Aquaponics
- SFS 31200 - Urban Agriculture
- SFS 31300 - Farm To Fork
- SFS 31400 - Comparative Livestock Production Systems
- SFS 31500 - Principles Of Permaculture
- SFS 31600 - Decisions Through Systems Analysis

Required Courses (12 Credits)

- AGRY 10500 - Crop Production or
- HORT 10100 - Fundamentals Of Horticulture

- SFS 21000 - Small Farm Experience I
- SFS 21100 - Small Farm Experience II
- SFS 30100 - Agroecology

Turf Management Minor

Requirements for the Minor (13 credits)

Required Courses (10 Credits)

- AGRY 25500 - Soil Science
- AGRY 51000 - Turfgrass Science
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21100 - Fundamentals of Turfgrass Culture Laboratory

Selective Course - Choose One (3 Credits)

- AGRY 36500 - Soil Fertility
- AGRY 51200 - Integrated Turfgrass Systems
- AGRY 51400 - Environmental Stress Management For Turfgrass
- ENTM 41000 - Applied Insect Biology
- ENTM 41001 - Insects Of Urban Landscapes

Notes

- Departmental permission is not required to enroll in this minor.
- Students in the Turf Management and Science majors cannot obtain a Turf Management Minor.

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Pre-Program

Pre-Landscape Architecture

See the program Landscape Architecture, BSLA for information.

Pre-Landscape Architecture Major Change (CODO) Requirements

Fall 1st Semester

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- BIOL 11000 - Fundamentals Of Biology I ♦
- LA 10110 - Survey Of Landscape Architecture
- LA 11600 - Graphic Communication In Design I

- LA 16100 - Land And Society
- ENGL 10600 - First-Year Composition ♦ or
- ENGL 10800 - Accelerated First-Year Composition ♦

14-15 Credits

Spring 2nd Semester

- LA 21600 - Landscape Architectural Design I
- MA 15800 - Precalculus- Functions And Trigonometry
- BIOL 11100 - Fundamentals Of Biology II ♦ or
- BTNY 11000 - Introduction To Plant Science ♦
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation or
- EDPS 31500 - Collaborative Leadership: Interpersonal Skills or
- SCLA 10200 - Transformative Texts, Critical Thinking And Communication II: Modern World
- Art and Design Selective - Credit Hours: 3.00

16 Credits

Notes

Change of Options from Pre-landscape Architecture to the Professional Landscape Architecture Program

Pre-landscape architecture students, who wish to continue into the landscape architecture professional program, or transfer students from other institutions, must qualify by meeting the following criteria, or through further assessment as described below:

1. Overall GPA - The student must be in good academic standing. A minimum overall GPA of 2.5 across all Purdue and transferred credit coursework is necessary for acceptance into the landscape architecture professional program.

2. Grade point average of 3.0 or higher in all landscape architecture prefixed courses taken (LA Index).

3. Completion of LA 10600; or 11600 and 21600; or approved equivalent, and a minimum of 24 credit hours of Purdue accepted college level coursework are the minimum necessary for acceptance into the landscape architecture professional program.

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Program Information

Horticulture Supplemental Information

Horticulture Selectives

Supervision/Personnel Selective (3 credits)

- HTM 31200 - Human Resources Management For The Service Industries
- OLS 25200 - Human Relations In Organizations
- OLS 27400 - Applied Leadership
- OLS 28400 - Leadership Principles
- OLS 38600 - Leadership For Organizational Change And Innovation
- OLS 38800 - Leadership Through Teams
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership
- TLI 25400 - Leading Change In Technology Organizations
- TLI 21300 - Project Management
- TLI 25300 - Principles Of Technology Strategy

Horticulture Concentration Selectives

Production & Marketing Concentration Selectives (12 credits)

- AGEC 21700 - Economics
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 42100 - Advanced Commodity Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 42500 - Estate Planning And Property Transfer
- AGEC 42700 - Advanced Agribusiness Marketing
- AGEC 42900 - Agribusiness Marketing Workshop
- AGEC 43000 - Agricultural And Food Business Strategy
- AGEC 43100 - Advanced Agri-Sales And Marketing
- AGEC 45100 - Applied Econometrics
- AGEC 45500 - Agricultural Law
- AGEC 45600 - Federal Income Tax Law
- AGEC 49600 - Selected Topics In Agribusiness Management
- AGEC 50600 - Agricultural Marketing And Price Analysis
- AGEC 52400 - Agricultural Finance
- AGEC 52500 - Environmental Policy Analysis
- AGEC 52600 - International Food And Agribusiness Marketing Strategy
- AGEC 53000 - Strategic Agribusiness Management
- AGEC 53300 - Supply Chain Management For Food And Agribusiness
- ASM 35000 - Safety In Agriculture
- ASM 42000 - Electric Power And Controls
- AGRY 21000 - Fundamentals Of Turfgrass Culture
- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 34900 - Soil Ecology
- AGRY 35500 - Soil Morphology And Geography

- AGRY 36500 - Soil Fertility
- AGRY 37500 - Crop Production Systems
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 45000 - Soil Conservation and Water Management
- AGRY 46500 - Soil Physical Properties
- AGRY 48000 - Plant Genetics
- AGRY 51000 - Turfgrass Science
- AGRY 51200 - Integrated Turfgrass Systems
- AGRY 51500 - Plant Mineral Nutrition
- AGRY 52500 - Crop Physiology And Ecology
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 39000 - Selected Topics In Plant Science
- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 22400 - Communicating In The Global Workplace
- COM 25000 - Mass Communication And Society
- CSR 28200 - Customer Relations Management
- COM 25300 - Introduction To Public Relations
- COM 25600 - Introduction To Advertising
- COM 30300 - Intercultural Communication
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 32800 - Diversity At Work: A Rhetorical Approach
- COM 37400 - Social Interaction Skills: Assessment And Development
- COM 37600 - Communication And Gender
- CSR 30900 - Leadership Strategies
- CSR 33100 - Consumer Behavior
- CSR 34200 - Personal Finance
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing
- ENTR 20000 - Introduction To Entrepreneurship And Innovation
- ENTR 31000 - Marketing And Management For New Ventures
- ENTR 47000 - Women And Leadership
- ENTM 33500 - Introduction To Insect Identification
- FNR 22310 - Introduction To Environmental Policy
- FNR 22500 - Dendrology
- FNR 44500 - Urban Forest Issues
- FNR 44400 - Arboricultural Practices
- FS 47000 - Wine Appreciation
- FS 50600 - Commercial Grape And Wine Production
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- HORT 50600 - Commercial Grape And Wine Production
- HTM 31200 - Human Resources Management For The Service Industries
- MGMT 20000 - Introductory Accounting
- MGMT 21200 - Business Accounting
- MGMT 20100 - Management Accounting I
- MGMT 32300 - Principles Of Marketing
- NRES 23000 - Survey Of Meteorology

- OLS 25200 - Human Relations In Organizations
- OLS 27400 - Applied Leadership
- OLS 28400 - Leadership Principles
- OLS 38600 - Leadership For Organizational Change And Innovation
- OLS 38800 - Leadership Through Teams
- PSY 27200 - Introduction To Industrial-Organizational Psychology
- SFS 21000 - Small Farm Experience I
- SFS 21100 - Small Farm Experience II
- SFS 30100 - Agroecology
- SFS 30200 - Principles Of Sustainability
- SFS 31100 - Aquaponics
- SFS 31200 - Urban Agriculture
- SFS 31300 - Farm To Fork
- SFS 31400 - Comparative Livestock Production Systems
- SFS 31500 - Principles Of Permaculture
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership
- TLI 25400 - Leading Change In Technology Organizations

Landscape Enterprise Management Concentration Selectives: Business/Supervision/Personnel Selective (12 credits)

- AGEC 21700 - Economics
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 42500 - Estate Planning And Property Transfer
- AGEC 42700 - Advanced Agribusiness Marketing
- AGEC 42900 - Agribusiness Marketing Workshop
- AGEC 43000 - Agricultural And Food Business Strategy
- AGEC 43100 - Advanced Agri-Sales And Marketing
- AGEC 45100 - Applied Econometrics
- AGEC 45500 - Agricultural Law
- AGEC 45600 - Federal Income Tax Law
- AGEC 49600 - Selected Topics In Agribusiness Management
- AGEC 50600 - Agricultural Marketing And Price Analysis
- AGEC 52400 - Agricultural Finance
- AGEC 52500 - Environmental Policy Analysis
- AGEC 52600 - International Food And Agribusiness Marketing Strategy
- AGEC 53000 - Strategic Agribusiness Management
- AGEC 53300 - Supply Chain Management For Food And Agribusiness
- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 22400 - Communicating In The Global Workplace
- COM 25000 - Mass Communication And Society
- COM 25300 - Introduction To Public Relations
- COM 25600 - Introduction To Advertising
- COM 30300 - Intercultural Communication
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication

- COM 32400 - Introduction To Organizational Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 32800 - Diversity At Work: A Rhetorical Approach
- COM 37400 - Social Interaction Skills: Assessment And Development
- COM 37600 - Communication And Gender
- ENGL 20400 - Special Topics In Writing
- ENGL 30400 - Advanced Composition
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing
- ENTR 20000 - Introduction To Entrepreneurship And Innovation
- ENTR 31000 - Marketing And Management For New Ventures
- ENTR 47000 - Women And Leadership
- HTM 31200 - Human Resources Management For The Service Industries
- MGMT 20100 - Management Accounting I
- MGMT 32300 - Principles Of Marketing
- OLS 25200 - Human Relations In Organizations
- OLS 27400 - Applied Leadership
- OLS 28400 - Leadership Principles
- OLS 38600 - Leadership For Organizational Change And Innovation
- OLS 38800 - Leadership Through Teams
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership
- TLI 25400 - Leading Change In Technology Organizations

Plant Science Concentration Selectives (15 credits)

- AGRY 34900 - Soil Ecology
- AGRY 36500 - Soil Fertility
- AGRY 48000 - Plant Genetics
- AGRY 51500 - Plant Mineral Nutrition
- AGRY 52000 - Principles And Methods Of Plant Breeding
- BCHM 46200 - Metabolism
- BCHM 56100 - General Biochemistry I
- BCHM 56200 - General Biochemistry II
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 41500 - Introduction To Molecular Biology
- BTNY 20700 - The Microbial World
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- BTNY 35000 - Biotechnology In Agriculture
- BTNY 42000 - Plant Cellular And Developmental Biology
- BTNY 55000 - Biology Of Fungi
- BTNY 55200 - Molecular Approaches In Plant Biology
- BTNY 55300 - Plant Growth And Development
- HORT 21700 - Woody Landscape Plants
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- HORT 55300 - Plant Growth And Development

Public Horticulture Concentration: Communication Selective (3 credits)

- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 22400 - Communicating In The Global Workplace
- COM 25000 - Mass Communication And Society
- COM 25300 - Introduction To Public Relations
- COM 25600 - Introduction To Advertising
- COM 30300 - Intercultural Communication
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 32800 - Diversity At Work: A Rhetorical Approach
- COM 37400 - Social Interaction Skills: Assessment And Development
- COM 37600 - Communication And Gender
- ENGL 23400 - Ecological Literature
- ENGL 30400 - Advanced Composition
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing

Public Horticulture Concentration Selective (6 credits)

- AGEC 21700 - Economics
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- AGEC 31100 - Accounting For Farm Business Planning
- AGEC 33000 - Management Methods For Agricultural Business
- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 45500 - Agricultural Law
- AGEC 45600 - Federal Income Tax Law
- AGEC 49600 - Selected Topics In Agribusiness Management
- AGEC 52500 - Environmental Policy Analysis
- AGRY 21000 - Fundamentals Of Turfgrass Culture
- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 34900 - Soil Ecology
- AGRY 35500 - Soil Morphology And Geography
- AGRY 36500 - Soil Fertility
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 45000 - Soil Conservation and Water Management
- AGRY 46500 - Soil Physical Properties
- AGRY 48000 - Plant Genetics
- AGRY 51000 - Turfgrass Science
- AGRY 51200 - Integrated Turfgrass Systems
- AGRY 51500 - Plant Mineral Nutrition
- ASEC 54000 - Program Development In Agricultural And Extension Education
- ASEC 56500 - Principles Of Adult Education
- ASM 20100 - Construction And Maintenance
- ASM 35000 - Safety In Agriculture

- ASM 42000 - Electric Power And Controls
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30400 - Introductory Weed Science
- BTNY 35000 - Biotechnology In Agriculture
- COM 21200 - Approaches To The Study Of Interpersonal Communication
- COM 22400 - Communicating In The Global Workplace
- COM 25000 - Mass Communication And Society
- COM 25300 - Introduction To Public Relations
- COM 25600 - Introduction To Advertising
- COM 30300 - Intercultural Communication
- COM 31800 - Principles Of Persuasion
- COM 32000 - Small Group Communication
- COM 32400 - Introduction To Organizational Communication
- COM 32500 - Interviewing: Principles And Practice
- COM 32800 - Diversity At Work: A Rhetorical Approach
- COM 37400 - Social Interaction Skills: Assessment And Development
- COM 37600 - Communication And Gender
- CSR 28200 - Customer Relations Management
- CSR 30900 - Leadership Strategies
- CSR 33100 - Consumer Behavior
- EDCI 20500 - Exploring Teaching As A Career
- EDCI 27000 - Introduction To Educational Technology And Computing
- EDCI 28500 - Multiculturalism And Education
- ENGL 23400 - Ecological Literature
- ENGL 30400 - Advanced Composition
- ENGL 42000 - Business Writing
- ENGL 42100 - Technical Writing
- ENTM 33500 - Introduction To Insect Identification
- ENTR 20000 - Introduction To Entrepreneurship And Innovation
- ENTR 31000 - Marketing And Management For New Ventures
- ENTR 47000 - Women And Leadership
- HORT 40300 - Tropical Horticulture
- HORT 43500 - Developing An Agricultural Startup
- HTM 31200 - Human Resources Management For The Service Industries
- MGMT 20000 - Introductory Accounting
- MGMT 20100 - Management Accounting I
- MGMT 21200 - Business Accounting
- MGMT 32300 - Principles Of Marketing
- PSY 24000 - Introduction To Social Psychology
- PSY 27200 - Introduction To Industrial-Organizational Psychology
- SPAN 10100 - Spanish Level I
- SPAN 10200 - Spanish Level II
- SPAN 20100 - Spanish Level III
- SPAN 20200 - Spanish Level IV
- SPAN 30100 - Spanish Level V
- SPAN 30200 - Spanish Level VI

Landscape Architecture Supplemental Information

Art & Design Selective (6 credits)

- AD 10500 - Design I
- AD 10600 - Design II
- AD 11300 - Basic Drawing
- AD 11400 - Drawing II
- AD 11700 - Black And White Photography
- AD 11900 - Introduction To Digital Color Imaging
- AD 12500 - Introduction To Interior Design
- AD 20000 - Beginning Painting
- AD 21300 - Life Drawing I
- AD 22000 - Computers In Art
- AD 22600 - History Of Art To 1400
- AD 22700 - History Of Art Since 1400
- AD 23300 - Electronic Media Studio
- AD 24200 - Ceramics I
- AD 25500 - Art Appreciation
- AD 26200 - Jewelry And Metalwork I
- AD 26500 - Relief Printmaking
- AD 26600 - Silkscreen Printmaking
- AD 26700 - Digital Media I: Photography And Digital Imaging
- AD 27000 - Constructed Textiles
- AD 27100 - Dyed Textiles
- AD 30400 - Video Art
- AD 31400 - Experimental Drawing
- AD 33300 - Photo Silk Screen
- AD 34200 - Ceramics II
- AD 36200 - Jewelry And Metalwork
- AD 36500 - Intermediate Painting
- AD 36800 - Etching And Intaglio Printmaking
- AD 36900 - Lithographic Printmaking
- AD 37000 - Woven Textiles
- AD 44200 - Ceramics III
- AD 45400 - Modern Architecture
- AD 46200 - Metalsmithing
- AD 46800 - Printmaking III

Mathematics or Science Selective (6 credits)

- AGEC 35200 - Quantitative Techniques For Firm Decision Making
- AGEC 45100 - Applied Econometrics
- AGRY 25500 - Soil Science
- AGRY 27000 - Forest Soils
- AGR 29000 - Special Topics In Agriculture
- AGR 33300 - Data Science For Agriculture - Intro to Environmental Science
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 38500 - Environmental Soil Chemistry

- AGRY 46500 - Soil Physical Properties
- ANSC 22100 - Principles Of Animal Nutrition
- ANSC 23000 - Physiology Of Domestic Animals
- BCHM 10000 - Introduction To Biochemistry
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 22100 - Introduction To Microbiology
- BIOL 23100 - Biology III: Cell Structure And Function
- BIOL 23200 - Laboratory In Biology III: Cell Structure And Function
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- BIOL 28600 - Introduction To Ecology And Evolution
- BTNY 11000 - Introduction To Plant Science
- BTNY 26200 - Plant Structure And Tissue Biology
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30500 - Plant Evolution And Taxonomy
- BTNY 35000 - Biotechnology In Agriculture
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- CHM 25600 - Organic Chemistry
- CHM 25601 - Organic Chemistry Laboratory
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- CHM 26100 - Organic Chemistry
- CHM 26200 - Organic Chemistry
- CHM 26300 - Organic Chemistry Laboratory
- CHM 26400 - Organic Chemistry Laboratory
- CS 18000 - Problem Solving And Object-Oriented Programming
- EAPS 11100 - Physical Geology
- EAPS 11200 - Earth Through Time
- EAPS 12500 - Environmental Science And Conservation
- EAPS 22100 - Survey Of Atmospheric Science
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 24200 - Data Science
- ENTM 25300 - Insect Physiology And Biochemistry
- ENTM 30100 - Experimentation And Analysis
- ENTM 31200 - Insect Chemical Ecology
- ENTM 32810 - Practical Molecular Biology
- ENTM 35300 - Insecticides And Environment
- ENTM 41001 - Insects Of Urban Landscapes
- FNR 20100 - Marine Biology
- FNR 23000 - The World's Forests And Society
- FNR 24000 - Wildlife In America
- FNR 24150 - Ecology And Systematics Of Fishes, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 30500 - Conservation Genetics
- FNR 35700 - Fundamental Remote Sensing
- HONR 49900 - Honors Research Project - Human Diseases and Disorders

- HORT 30100 - Plant Physiology
- MA 16200 - Plane Analytic Geometry And Calculus II
- MA 16600 - Analytic Geometry And Calculus II
- MA 26100 - Multivariate Calculus
- MA 26500 - Linear Algebra
- NRES 23000 - Survey Of Meteorology
- NRES 25500 - Soil Science
- PHYS 17200 - Modern Mechanics
- PHYS 21400 - The Nature Of Physics
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- PHYS 23300 - Physics For Life Sciences I
- PHYS 23400 - Physics For Life Sciences II
- PHYS 24100 - Electricity And Optics
- STAT 50200 - Experimental Statistics II
- STAT 51100 - Statistical Methods
- STAT 51200 - Applied Regression Analysis

Sustainable Food & Farming Systems Supplemental Information

Agronomy/Horticulture Selective (3 Credits)

- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 37500 - Crop Production Systems
- AGRY 51500 - Plant Mineral Nutrition
- AGRY 52500 - Crop Physiology And Ecology
- ASM 10400 - Introduction To Agricultural Systems
- ASM 10500 - Computing Technology With Applications
- ASM 20100 - Construction And Maintenance
- ASM 21600 - Introduction To Surveying
- ASM 22200 - Crop Production Equipment
- ASM 24500 - Materials Handling And Processing
- BTNY 11000 - Introduction To Plant Science
- HORT 20100 - Plant Propagation
- HORT 30100 - Plant Physiology
- HORT 40300 - Tropical Horticulture
- HORT 50600 - Commercial Grape And Wine Production
- HORT 51300 - Nutrition Of Horticulture Crops
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables

Business Management Selective (3 Credits)

- AGEC 31000 - Farm Organization
- AGEC 31100 - Accounting For Farm Business Planning
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33000 - Management Methods For Agricultural Business

- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGEC 41100 - Farm Management
- AGEC 43000 - Agricultural And Food Business Strategy
- MGMT 20000 - Introductory Accounting
- MGMT 21200 - Business Accounting

Ecology/Environment Selective (6 Credits)

- AGRY 33500 - Weather And Climate
- AGRY 33700 - Environmental Hydrology
- AGRY 33800 - Environmental Hydrology Laboratory
- BTNY 30200 - Plant Ecology
- EAPS 32000 - Physics Of Climate
- ENTM 31100 - Insect Ecology
- FNR 21000 - Natural Resource Information Management
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 54300 - Conservation Biology I
- POL 22300 - Introduction To Environmental Policy

Food Science Selective (3 Credits)

- FS 16100 - Science Of Food
- FS 24500 - Food Packaging
- FS 34000 - Introduction To Food Law And Regulations
- FS 34100 - Food Processing I
- FS 34200 - Food Processing I Laboratory
- FS 36100 - Food Plant Sanitation
- FS 36200 - Food Microbiology
- FS 36300 - Food Microbiology Laboratory
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables
- NUTR 31500 - Fundamentals Of Nutrition

Turf Management and Science Supplemental Information

Business/Management Selective (9 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 32700 - Principles Of Food And Agribusiness Marketing
- AGEC 33300 - Food Distribution - A Retailing Perspective
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 42500 - Estate Planning And Property Transfer
- AGEC 42900 - Agribusiness Marketing Workshop
- AGEC 43000 - Agricultural And Food Business Strategy
- AGEC 43100 - Advanced Agri-Sales And Marketing
- AGEC 45100 - Applied Econometrics
- AGEC 45500 - Agricultural Law
- AGEC 45600 - Federal Income Tax Law

- AGEC 49600 - Selected Topics In Agribusiness Management
- AGEC 50600 - Agricultural Marketing And Price Analysis
- AGEC 52400 - Agricultural Finance
- AGEC 52500 - Environmental Policy Analysis
- AGEC 53000 - Strategic Agribusiness Management
- AGEC 53300 - Supply Chain Management For Food And Agribusiness
- CSR 20900 - Introduction To Retail Management
- CSR 28200 - Customer Relations Management
- CSR 30900 - Leadership Strategies
- CSR 31500 - Relationship Selling
- CSR 33100 - Consumer Behavior
- CSR 33200 - Cross-Cultural Marketing And International Retailing
- CSR 34200 - Personal Finance
- CSR 38600 - Risk Management
- CSR 40100 - Buying Of Merchandise
- CSR 40400 - Strategic Issues For Sales And Retailing
- CSR 40600 - E-Retailing
- CSR 41500 - Sales Force Management
- CSR 48400 - Consumer Investment And Savings Decisions
- CSR 48500 - Case Studies In Financial Planning
- CSR 48600 - Retirement Planning And Employee Benefits
- CSR 48100 - Ethics And Compliance In Financial Counseling And Planning
- ENTR 20000 - Introduction To Entrepreneurship And Innovation
- ENTR 31000 - Marketing And Management For New Ventures
- TLI 11200 - Foundations Of Organizational Leadership
- TLI 15200 - Business Principles For Organizational Leadership
- TLI 21300 - Project Management
- TLI 25300 - Principles Of Technology Strategy
- TLI 25400 - Leading Change In Technology Organizations
- OLS 27400 - Applied Leadership
- OLS 28400 - Leadership Principles
- OLS 38600 - Leadership For Organizational Change And Innovation
- OLS 38800 - Leadership Through Teams

Turf Management Selective (9 credits)

- AGRY 34900 - Soil Ecology
- AGRY 33500 - Weather And Climate
- AGRY 33700 - Environmental Hydrology
- AGRY 33800 - Environmental Hydrology Laboratory
- AGRY 38500 - Environmental Soil Chemistry
- AGRY 46500 - Soil Physical Properties
- ASM 20100 - Construction And Maintenance
- ASM 21600 - Introduction To Surveying
- HORT 20100 - Plant Propagation
- HORT 21700 - Woody Landscape Plants
- HORT 21810 - Flowers For Color
- HORT 21820 - Hardy Herbaceous Landscape Plants
- HORT 31700 - Landscape Contracting And Management
- HORT 31800 - Field Production Of Horticultural Crops

- HORT 31900 - Controlled Environment Production Of Horticultural Crops
- NRES 23000 - Survey Of Meteorology