

College of Agriculture

College of Agriculture

Overview

College of Agriculture

Come and be part of Purdue Agriculture, one of the world's leading colleges that offers food, agricultural, and natural resources programs. Purdue Agriculture is training the next generation of thinkers-scientists 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.

See www.ag.purdue.edu/oap.

Admissions

<http://www.admissions.purdue.edu/majors/colleges.php?ClgCd=AGR>

Admission to Teacher Education

Teacher Education Program Guidelines 2015-16

Advising

<https://ag.purdue.edu/oap/Pages/major.aspx>

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

<https://ag.purdue.edu/Pages/directory.aspx>

Contact Information

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615 West State Street
West Lafayette, IN 47907-2053
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Phone: 765-494-8470

Baccalaureate

Agricultural Communication, BS

About the Program

Prepare for a profession that serves business and society by promoting awareness of food, agriculture, and science issues among rural and urban audiences. Purdue agricultural communication majors gain skills and experience in public relations, marketing, journalism, and new media through diverse coursework and competitive internships. Through the program's design, students have the advantage of excelling in communication, science, and agricultural courses—a combination future employers value. Though situated within a large university, the agricultural communication program offers a close-knit community in which students receive personal attention from faculty and staff in the College of Agriculture.

Agricultural Communication Website

Summary of Program Requirements

The Summary of Program Requirements for Agricultural Communication (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (111 credits)

Required Major Courses (9 credits)

- YDAE 15200 - Agricultural Communication Seminar
- YDAE 46000 - Agricultural Publishing
- YDAE 48000 - Agricultural Communication Capstone Seminar

Other Departmental /Program Course Requirements (102 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12100 - Introduction To Youth Development And Agricultural Education Academic Programs
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods
- Math/Science Selective - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- AGR 20100 - Communicating Across Culture
- AGECE 21700 - Economics
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - 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
- COM 20400 - Critical Perspectives On Communication
- COM 25000 - Mass Communication And Society

- COM 31800 - Principles Of Persuasion
- COM 25200 - Writing For Mass Media
- COM 31100 - Copy Editing
- Communication or AGCM Selective - Credit Hours: 8.00
- Communication or AGCM 300+ Selective - Credit Hours: 3.00
- AGCM or Science Communication Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 15.00
- Agricultural 30000+ Selective - Credit Hours: 6.00

Electives (9 credits)

- Elective - Credit Hours: 9.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12100 - Introduction To Youth Development And Agricultural Education Academic Programs

- ENGL 10600 - First-Year Composition
- YDAE 15200 - Agricultural Communication Seminar ♦
- Humanities or Social Science Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00

15 Credits

Spring 1st Year

- AGECE 21700 - Economics
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- COM 25000 - Mass Communication And Society
- Agricultural Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00

16 Credits

Fall 2nd Year

- AGR 20100 - Communicating Across Culture
- CHM 11100 - General Chemistry
- COM 20400 - Critical Perspectives On Communication
- MA 15910 - Introduction To Calculus
- UCC Science, Technology, & Society Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CHM 11200 - General Chemistry
- COM 31800 - Principles Of Persuasion
- Agricultural Selective - Credit Hours: 3.00
- Communication or AGCM Selective - Credit Hours: 2.00
- Mathematics or Science Selective - Credit Hours: 3.00

14 Credits

Fall 3rd Year

- COM 25200 - Writing For Mass Media
- STAT 30100 - Elementary Statistical Methods
- Agricultural Selective - Credit Hours: 6.00
- Communication or AGCM Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- YDAE 46000 - Agricultural Publishing
- Agricultural Selective (30000+ Level) - Credit Hours: 3.00
- Communication or AGCM Selective - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- YDAE 48000 - Agricultural Communication Capstone Seminar
- COM 31100 - Copy Editing
- Agricultural Selective - Credit Hours: 3.00
- Communication or AGCM Selective (30000+ level) - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

15 Credits

Spring 4th Year

- AGCM or Science 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

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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

Summary of Program Requirements

The Summary of Program Requirements for Agricultural Education is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

128 credits required for graduation

Departmental/Program Major Courses (128 credits)

Required Major Courses (10 credits)

- YDAE 31800 - Coordination Of Supervised Agricultural Experience Programs
- YDAE 31900 - Planning Agricultural Science And Business Programs
- YDAE 44000 - Methods Of Teaching Agricultural Education
- YDAE 44100 - Field Experience In Agricultural Education Programs

Other Departmental /Program Course Requirements (118 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12100 - Introduction To Youth Development And Agricultural Education Academic Programs
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- AGEC 33000 - Management Methods For Agricultural Business or
- AGEC 33100 - Principles Of Selling In Agricultural Business

- AGRY 37500 - Crop Production Systems
- ANSC 10200 - Introduction To Animal Agriculture (satisfies Science, Technology & Society Selective for core)
- ANSC 22100 - Principles Of Animal Nutrition
- ASM 1XXXXX Welding Transfer Credits - Credit Hours: 3.00
- ASM 20100 - Construction And Maintenance
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods
- AGRY 32000 - Genetics
- AGRY 25500 - Soil Science
- EDCI 20500 - Exploring Teaching As A Career
- EDCI 27000 - Introduction To Educational Technology And Computing
- EDCI 28500 - Multiculturalism And Education
- EDCI 49800 - Supervised Teaching
- EDST 20010 - Educational Policies And Laws
- EDPS 23500 - Learning And Motivation
- EDPS 26500 - The Inclusive Classroom
- EDPS 32700 - Assessment Literacy
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- FNR 10300 - Introduction To Environmental Conservation
- FS 16100 - Science Of Food
- HORT 10100 - Fundamentals Of Horticulture
- HORT 20100 - Plant Propagation
- Humanities or Social Science Selective (300+ level) - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literature for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- AGECE 21700 - Economics (satisfies Human Culture Behavioral/Social Science for core)
- Technical Agriculture Selective - Credit Hours: 15.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

128 semester credits required for Bachelor of Science degree

There are GPA requirements for stage-gates in this degree

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12100 - Introduction To Youth Development And Agricultural Education Academic Programs
- ANSC 10200 - Introduction To Animal Agriculture
- EDCI 27000 - Introduction To Educational Technology And Computing
- HORT 10100 - Fundamentals Of Horticulture
- Biological Science Selective - Credit Hours: 4.00

14 Credits

Spring 1st Year

- AGECE 21700 - Economics
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- ENGL 10600 - First-Year Composition
- FNR 10300 - Introduction To Environmental Conservation
- Biological Science Selective - Credit Hours: 4.00

17 Credits

Fall 2nd Year

- CHM 11100 - General Chemistry ♦
- EDCI 20500 - Exploring Teaching As A Career ♦
- EDCI 28500 - Multiculturalism And Education ♦
- ASM 1XXXXX Welding (transfer credits) - Credit Hours: 3.00
- Calculus Selective - Credit Hours: 3.00
- Technical Agriculture Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- CHM 11200 - General Chemistry
- EDPS 23500 - Learning And Motivation ♦
- EDPS 26500 - The Inclusive Classroom ♦
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- HORT 20100 - Plant Propagation

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

18 Credits

Fall 3rd Year

- AGRY 25500 - Soil Science
- AGRY 32000 - Genetics
- ASM 20100 - Construction And Maintenance
- EDPS 32700 - Assessment Literacy
Credit Hours: 2.00
- EDST 20010 - Educational Policies And Laws
Credit Hours: 1.00
- YDAE 31800 - Coordination Of Supervised Agricultural Experience Programs
- Technical Agriculture Selective - Credit Hours: 3.00

18 Credits

Spring 3rd Year

- AGRY 37500 - Crop Production Systems
- ANSC 22100 - Principles Of Animal Nutrition
- YDAE 31900 - Planning Agricultural Science And Business Programs
- YDAE 44100 - Field Experience In Agricultural Education Programs
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Technical Agriculture Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- FS 16100 - Science Of Food
- STAT 30100 - Elementary Statistical Methods
- YDAE 44000 - Methods Of Teaching Agricultural Education
- Technical Agriculture Selective - Credit Hours: 6.00

15 Credits

Spring 4th Year

- EDCI 49800 - Supervised Teaching

12 Credits

Note

128 semester credits required for Bachelor of Science degree.

2.5 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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Natural Resources and Environmental Science: Air Quality Concentration, BS

About the Program

Understand the interactions of living organisms and their relationships to soils, water, and air. Natural Resources and Environmental Science is an interdisciplinary science-based program with concentration areas in Air Quality, Environmental Policy Analysis and Economics, Land Resources, Water Quality, or a student-derived focus area. NRES graduates work for businesses, industries, non-profits, and governmental agencies. Others continue their education in environmental law, teaching, or working in research.

Concentrations include:

- Air Quality
- Environmental Policy and Analysis
- Land Resources
- Student Initiated
- Water Quality

Natural Resources and Environmental Science (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Natural Resources & Environmental Science- Air Quality (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (107 credits)

Required Major Courses (7 credits)

- NRES 20000 - Introduction To Environmental Careers
- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate
- NRES 25500 - Soil Science ♦
- NRES 29000 - Introduction To Environmental Science

Other Departmental /Program Course Requirements (100 credits)

(See Advising Resources)

- AGECE 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 43100 - Atmospheric Thermodynamics or
- EAPS 42100 - Atmospheric Thermodynamics
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 25700 - Organic Chemistry
- EAPS 32000 - Physics Of Climate
- FNR 21000 - Natural Resource Information Management
- FNR 35700 - Fundamental Remote Sensing
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- POL 22300 - Introduction To Environmental Policy
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)

- Ecology Selective - Credit Hours: 2.00
- Ecology Selective - Credit Hours: 3.00
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 9.00
- Air Quality Selective - Credit Hours: 12.00
- Microeconomics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (13 credits)

- Elective - Credit Hours: 13.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I
- NRES 29000 - Introduction To Environmental Science

14 Credits

Spring 1st Year

- BIOL 11000 - Fundamentals Of Biology I
- CHM 11200 - General Chemistry

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- MA 16020 - Applied Calculus II
- Elective - Credit Hours: 2.00

15 Credits

Fall 2nd Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- CHM 25700 - Organic Chemistry
- NRES 25500 - Soil Science ♦
- STAT 30100 - Elementary Statistical Methods
- Microeconomics Selective - Credit Hours: 3.00

17 Credits

Spring 2nd Year

- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate

- NRES 20000 - Introduction To Environmental Careers
- POL 22300 - Introduction To Environmental Policy
- Ecology Selective - Credit Hours: 2.00

- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGRY 43100 - Atmospheric Thermodynamics or
- EAPS 42100 - Atmospheric Thermodynamics
- FNR 35700 - Fundamental Remote Sensing
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 6.00
- Ecology Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGECE 40600 - Natural Resource And Environmental Economics
- EAPS 32000 - Physics Of Climate
- FNR 21000 - Natural Resource Information Management
- Air Quality Concentration Selective - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- Air Quality concentration selective - Credit Hours: 3.00
- Biochemistry, biology, chemistry, mathematics, physics, or statistics selectives - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- Air Quality Concentration Selectives - Credit Hours: 6.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 5.00

14 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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

About the Program

Understand the interactions of living organisms and their relationships to soils, water, and air. Natural Resources and Environmental Science is an interdisciplinary science-based program with concentration areas in Air Quality, Environmental Policy Analysis and Economics, Land Resources, Water Quality, or a student-derived focus area. NRES graduates work for businesses, industries, non-profits, and governmental agencies. Others continue their education in environmental law, teaching, or working in research.

Concentrations include:

- Air Quality
- Environmental Policy and Analysis
- Land Resources
- Student Initiated
- Water Quality

Natural Resources and Environmental Science (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Natural Resources & Environmental Science- Emerging Environmental Challenges (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

Departmental/Program Major Courses (106 credits)

Required Major Courses (7 credits)

- NRES 20000 - Introduction To Environmental Careers
- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate
- NRES 25500 - Soil Science ♦
- NRES 29000 - Introduction To Environmental Science

Other Departmental /Program Course Requirements (99 credits)

(See Advising Resources)

- 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
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 25700 - Organic Chemistry
- FNR 21000 - Natural Resource Information Management
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- POL 22300 - Introduction To Environmental Policy
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Ecology Selective - Credit Hours: 2.00
- Ecology Selective - Credit Hours: 3.00
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 9.00
- Emerging Environmental Challenges Selective - Credit Hours: 20.00
- Microeconomics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (14 credits)

- Elective - Credit Hours: 14.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I
- NRES 29000 - Introduction To Environmental Science

14 Credits

Spring 1st Year

- BIOL 11000 - Fundamentals Of Biology I
- CHM 11200 - General Chemistry

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- MA 16020 - Applied Calculus II
- Elective - Credit Hours: 2.00

15 Credits

Fall 2nd Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- CHM 25700 - Organic Chemistry
- NRES 25500 - Soil Science ♦
- STAT 30100 - Elementary Statistical Methods
- Microeconomics Selective - Credit Hours: 3.00

17 Credits

Spring 2nd Year

- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate

- NRES 20000 - Introduction To Environmental Careers
- POL 22300 - Introduction To Environmental Policy
- Ecology Selective - Credit Hours: 2.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 6.00
- Emerging Environmental Challenges Selective - Credit Hours: 6.00
- Ecology Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGEC 40600 - Natural Resource And Environmental Economics
- FNR 21000 - Natural Resource Information Management
- Emerging Environmental Challenges Selective - Credit Hours: 6.00
- UCC Humanities Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 3.00
- Emerging Environmental Challenges Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- Emerging Environmental Challenges Selective - Credit Hours: 5.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 6.00

14 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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

About the Program

Understand the interactions of living organisms and their relationships to soils, water, and air. Natural Resources and Environmental Science is an interdisciplinary science-based program with concentration areas in Air Quality, Environmental Policy Analysis and Economics, Land Resources, Water Quality, or a student-derived focus area. NRES graduates work for businesses, industries, non-profits, and governmental agencies. Others continue their education in environmental law, teaching, or working in research.

Concentrations include:

- Air Quality
- Environmental Policy and Analysis
- Land Resources
- Student Initiated
- Water Quality

Natural Resources and Environmental Science (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Natural Resources & Environmental Science- Environmental Policy & Analysis (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (107 credits)

Required Major Courses (7 credits)

- NRES 20000 - Introduction To Environmental Careers
- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate
- NRES 25500 - Soil Science ♦
- NRES 29000 - Introduction To Environmental Science

Other Departmental /Program Course Requirements (100 credits)

(See Advising Resources)

- 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
- BIOL 11000 - Fundamentals Of Biology I

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 25700 - Organic Chemistry
- FNR 21000 - Natural Resource Information Management
- FNR 37500 - Human Dimensions of Natural Resource Management
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- PHIL 29000 - Environmental Ethics
- POL 22300 - Introduction To Environmental Policy
- POL 32700 - Global Green Politics
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Ecology Selective - Credit Hours: 2.00
- Ecology Selective - Credit Hours: 3.00
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 9.00
- Environmental Policy and Analysis Selective - Credit Hours: 12.00
- Microeconomics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (13 credits)

- Elective - Credit Hours: 13.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2

- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I
- NRES 29000 - Introduction To Environmental Science

14 Credits

Spring 1st Year

- BIOL 11000 - Fundamentals Of Biology I
- CHM 11200 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- MA 16020 - Applied Calculus II
- Elective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- CHM 25700 - Organic Chemistry
- NRES 25500 - Soil Science ♦
- STAT 30100 - Elementary Statistical Methods
- Microeconomics Selective - Credit Hours: 3.00

17 Credits

Spring 2nd Year

- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate

- NRES 20000 - Introduction To Environmental Careers
- POL 22300 - Introduction To Environmental Policy
- Ecology Selective - Credit Hours: 2.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- PHIL 29000 - Environmental Ethics
- POL 32700 - Global Green Politics
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 3.00
- Ecology Selective - Credit Hours: 3.00
- UCC Humanities selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGECE 40600 - Natural Resource And Environmental Economics
- FNR 21000 - Natural Resource Information Management
- FNR 37500 - Human Dimensions of Natural Resource Management
- Environmental Policy and Analysis Concentration Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 6.00
- Environmental Policy and Analysis Concentration Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

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

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Natural Resources and Environmental Science: Land Resources Concentration, BS

About the Program

Natural Resources and Environmental Science (multiple concentrations). Understand the interactions of living organisms and their relationships to soils, water, and air. Natural Resources and Environmental Science is an interdisciplinary science-based program with concentration areas in Air Quality, Environmental Policy Analysis and Economics, Land Resources, Water

Quality, or a student-derived focus area. NRES graduates work for businesses, industries, non-profits, and governmental agencies. Others continue their education in environmental law, teaching, or working in research.

Concentrations include:

- Air Quality
- Environmental Policy and Analysis
- Land Resources
- Student Initiated
- Water Quality

Natural Resources and Environmental Science (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Natural Resources & Environmental Science- Land Resources (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (108 credits)

Required Major Courses (7 credits)

- NRES 20000 - Introduction To Environmental Careers
- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate
- NRES 25500 - Soil Science ♦
- NRES 29000 - Introduction To Environmental Science

Other Departmental /Program Course Requirements (101 credits)

(See Advising Resources)

- 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 33700 - Environmental Hydrology
- AGRY 38500 - Environmental Soil Chemistry
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II or

- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 25700 - Organic Chemistry
- FNR 21000 - Natural Resource Information Management
- FNR 37500 - Human Dimensions of Natural Resource Management
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- POL 22300 - Introduction To Environmental Policy
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Ecology Selective - Credit Hours: 2.00
- Ecology Selective - Credit Hours: 3.00
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 9.00
- Land Resources Selective - Credit Hours: 12.00
- Microeconomics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (12 credits)

- Elective - Credit Hours: 12.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I
- NRES 29000 - Introduction To Environmental Science

14 Credits

Spring 1st Year

- BIOL 11000 - Fundamentals Of Biology I
- CHM 11200 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- MA 16020 - Applied Calculus II
- Elective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 25700 - Organic Chemistry
- NRES 25500 - Soil Science ♦
- STAT 30100 - Elementary Statistical Methods
- Microeconomics Selective - Credit Hours: 3.00

17 Credits

Spring 2nd Year

- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate

- NRES 20000 - Introduction To Environmental Careers
- POL 22300 - Introduction To Environmental Policy
- Ecology Selective - Credit Hours: 2.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 6.00
- Ecology Selective - Credit Hours: 3.00
- Land Resources Selective - Credit Hours: 6.00

15 Credits

Spring 3rd Year

- AGECE 40600 - Natural Resource And Environmental Economics
- FNR 21000 - Natural Resource Information Management
- FNR 37500 - Human Dimensions of Natural Resource Management
- UCC Humanities Selective - Credit Hours: 3.00
- Land Resources Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGRY 38500 - Environmental Soil Chemistry
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 3.00
- 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

Spring 4th Year

- AGRY 33700 - Environmental Hydrology
- Land Resources Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Natural Resources and Environmental Science: Water Quality Concentration, BS

About the Program

Understand the interactions of living organisms and their relationships to soils, water, and air. Natural Resources and Environmental Science is an interdisciplinary science-based program with concentration areas in Air Quality, Environmental Policy Analysis and Economics, Land Resources, Water Quality, or a student-derived focus area. NRES graduates work for businesses, industries, non-profits, and governmental agencies. Others continue their education in environmental law, teaching, or working in research.

Concentrations include:

- Air Quality
- Environmental Policy and Analysis
- Land Resources
- Student Initiated
- Water Quality

Natural Resources and Environmental Science (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Natural Resources & Environmental Science- Water Quality (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (120 credits)

Required Major Courses (7 credits)

- NRES 20000 - Introduction To Environmental Careers
- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate
- NRES 25500 - Soil Science ♦
- NRES 29000 - Introduction To Environmental Science

Other Departmental /Program Course Requirements (100 credits)

(See Advising Resources)

- AGECE 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 33700 - Environmental Hydrology
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CE 35500 - Engineering Environmental Sustainability
- CHM 11100 - General Chemistry
- CHM 11200 - General Chemistry
- CHM 25700 - Organic Chemistry
- FNR 20100 - Marine Biology
- FNR 21000 - Natural Resource Information Management
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MA 16020 - Applied Calculus II
- POL 22300 - Introduction To Environmental Policy
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)

- Ecology Selective - Credit Hours: 2.00
- Ecology Selective - Credits Hours: 3.00
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 9.00
- Water Quality Selective - Credit Hours: 12.00
- Microeconomics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (13 credits)

- Elective - Credit Hours: 13.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I
- NRES 29000 - Introduction To Environmental Science

14 Credits

Spring 1st Year

- BIOL 11000 - Fundamentals Of Biology I
- CHM 11200 - General Chemistry

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- MA 16020 - Applied Calculus II
- Elective - Credit Hours: 2.00

15 Credits

Fall 2nd Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- CHM 25700 - Organic Chemistry
- NRES 25500 - Soil Science ♦
- STAT 30100 - Elementary Statistical Methods
- Microeconomics Selective - Credit Hours: 3.00

17 Credits

Spring 2nd Year

- NRES 23000 - Survey Of Meteorology or
- AGRY 33500 - Weather And Climate

- NRES 20000 - Introduction To Environmental Careers
- POL 22300 - Introduction To Environmental Policy
- Ecology Selective - Credit Hours: 2.00

- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- CE 35500 - Engineering Environmental Sustainability
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 6.00
- Ecology Selective - Credit Hours: 3.00
- Water Quality Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGECE 40600 - Natural Resource And Environmental Economics
- AGRY 33700 - Environmental Hydrology
- FNR 21000 - Natural Resource Information Management
- UCC Humanities Selective - Credit Hours: 3.00
- Water Quality Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- FNR 20100 - Marine Biology
- Biochemistry, Biology, Chemistry, Mathematics, Physics, or Statistics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication 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
- Water Quality Concentration Selectives - Credit Hours: 6.00
- Electives - Credit Hours: 5.00

14 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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, 2015 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.

New requirements if you were admitted in Fall 2015:

- First semester students will enroll in AGR 29000 H01 - 1 credit.
- Each year a student is designated as a Dean's Scholar, the student is advised to complete three credit hours of honors courses. At graduation each Dean's Scholar will have a minimum of 12 credits of honors courses. Honors courses can be courses or sections of courses approved for honors credit by the College of Agriculture Curriculum and Student Relations Committee, a University Honors (HONR) course, a course with honors designation taught in another College (School) in the University, a 500- or 600-level course, or a regular course or section of a course in which a special honors project is required in addition to the regular course requirements. For a regular course or section of a regular course to receive a temporary designation as an honors course, the student must complete the Honors Contract Course form (For Honors Contract Course Procedure, [click here](#)). S/he will need to obtain the signature of Dr. Fernandez or his designee as the "Honors Unit Director."

- Students must complete at least 15 credits during regular academic year semesters in which they are resident at the West Lafayette campus.
- A Dean's Scholars Profile must be developed by the end of the student's first semester or by the end of the first semester after a student enters the Program. A Dean's Scholars Profile includes:
 - A working plan for meeting the 12 credit hours of honors courses.
 - A creative scholarly work such as a bachelor's thesis, laboratory project, or design project (3-6 credit hours); three credits of which may be used as part of the 12 credits of honors courses.
 - Annual participation in Dean's Scholars events. (Must participate in 8 events in order to receive the Dean's Scholars Designation at graduation. These events will be posted on our website soon.)
 - Participation in the Undergraduate Research Poster Symposium. The 2016 Poster Symposium will be held on April 12, 2016 in the Purdue Memorial Union Ballrooms. Students are also encouraged to present their project at a regional or national meeting and to publish their results, if appropriate.

Requirements if you were admitted for the Fall 2014 semester:

- AGR 10100 H01 for .5 credit
- 12 honors credits of course work by graduation
- Take 15 hours per semester
- Maintain a 3.25 cumulative GPA
- Develop a Dean's Scholars Profile by the end of their first semester
- Participate in a research project or scholarly work
- Participate in at least 8 Dean's Scholars events
- Participate in a poster symposium

Leadership Development Certificate

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 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
 - Increase 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.

Program Requirements

1. Submit a Statement of Intent with a resume to AGAD 121.
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.
5. Earn five points to receive a badge in personal leadership development.
6. Earn five points to receive a badge in interpersonal leadership development.
7. Earn five points to receive a badge in group/organizational leadership development.
8. Earn five points to receive a badge in community leadership development.
9. Write reflection papers on each leadership activity.
10. Write a reflection paper on each badge earned.
11. Develop a portfolio that documents your progress on your goals and how you reached them in each of the four major areas.

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

LDCP focuses on four areas of leadership development:

- Personal
- Group/Organizational
- Interpersonal
- Community

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 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

<https://ag.purdue.edu/oap/ldcp/Pages/Home.aspx>

Minor

International Studies in Agriculture Minor

OAP • Minor • Credits: 15-31

Recommended Plan of Study

Departmental permission is required to enroll in this minor. Please contact Tim Kerr in Room 121 of the Agricultural Administration Building.

To qualify for this minor, students normally will be expected to focus on a specific country or geographical region.

Individuals must demonstrate proficiency in a second language by completing or establishing credit by examination in the fourth course in a language (Language 20200) and by completing a conversation course in the language if offered. Language proficiency may be demonstrated by successfully passing the Foreign Service Institute examination at Level 2 in both reading and speaking.

Students must complete a minimum of 15 semester credits of courses with a principal international focus in the areas of culture (anthropology, art, literature, philosophy, or sociology), political science, history, or economics. A minimum of six credits of this coursework must be focused on the geographic region of choice. A minimum of six credits must be completed outside of the College of Agriculture.

Individuals must participate in a cooperative work, internship, study abroad, or cultural exchange experience of eight weeks or more in the selected geographic region.

Students must submit a summary paper and make an oral presentation documenting the integration of the various learning and experiential activities which were undertaken in the foreign stay.

Students from any College of Agriculture major may earn the International Studies in Agriculture minor. The Office of International Programs in Agriculture will provide special counsel to students regarding program operations, including the identification and coordination of out-of-country experiences.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Natural Resources and Environmental Science Minor

NRES • Minor • Credits: 15

Departmental permission is not required to enroll in this minor. Fifteen (15) credits must be earned.

Recommended Plan of Study

Required Course

- NRES 29000 - Introduction To Environmental Science

Selectives: (12) Credits

One course must be selected from four emphasis areas.

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

- AGECE 40600 - Natural Resource And Environmental Economics
- FNR 36500 - Natural Resources Issues, Policy, And Administration
- POL 32700 - Global Green Politics

Land Resources Emphasis

- ABE 32500 - Soil And Water Resource Engineering
- AGRY 33700 - Environmental Hydrology
- ASM 33600 - Environmental Systems Management
- NRES 38500 - Environmental Soil Chemistry

Sustainability Emphasis

- AD 39700 - Sustainability In The Built Environment
- BCM 41900 - Sustainable Construction
- CE 35500 - Engineering Environmental Sustainability

Water Quality Emphasis

- ABE 32500 - Soil And Water Resource Engineering
- AGRY 33700 - Environmental Hydrology
- ENTM 46000 - Aquatic Entomology - Credit Hours: 3.00

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Sustainable Environments Minor

NRES • Minor • Credits: 15

Departmental permission is not required to enroll in this minor. Fifteen (15) credits must be earned.

Recommended Plan of Study

Required Course

- NRES 29000 - Introduction To Environmental Science

Selectives

Twelve credits from the following courses must be completed.

- AD 39700 - Sustainability In The Built Environment
- AGRY 57500 - Soil and Nutrient Management - Credit Hours: 3.00
- ASM 33600 - Environmental Systems Management
- BCM 41900 - Sustainable Construction
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- CE 35500 - Engineering Environmental Sustainability
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40800 - Natural Resources Planning
- HORT 44200 - Sustainability In The Managed Landscape
- POL 32700 - Global Green Politics

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Pre-Program

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.

Preveterinary Medicine
OAP • Pre-Professional • Credits: 93

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I

16 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II
- CHM 11600 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication
- MA 16020 - Applied Calculus II
- VM 10200 - Careers In Veterinary Medicine

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
- UCC Science, Technology, and 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 - 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
- UCC Humanities Selective - 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
- Economics Selective - Credit Hours: 3.00

14 Credits

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

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. Our engineering degrees are granted by the College of Engineering and our agricultural systems management degree is granted by the College of Agriculture. 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.

Faculty

<https://engineering.purdue.edu/ABE/People/ptFaculty>

Contact Information

Purdue University
Agricultural & Biological Engineering
225 South University Street
West Lafayette, IN 47907-2093
Phone: (765) 494-1162
Fax: (765) 496-1115
engineering.purdue.edu/ABE

Graduate Information

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

Baccalaureate

Agricultural Engineering, BSAGE

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.

Summary of Program Requirements

The Summary of Program Requirements for Agricultural Engineering (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

128 credits required for graduation

Departmental/Program Major Courses (126 or 125 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
- ABE 30500 - Physical Properties Of Biological Materials
- ABE 31400 - Design Of Electronic Systems
- ABE 32500 - Soil And Water Resource Engineering
- ABE 32000 - Solid Modeling, Simulation, And Analysis
- 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
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering

Other Departmental /Program Course Requirements (92 or 91 credits)

(See Advising Resources)

- ENGR 13100 - Transforming Ideas To Innovation I
- ENGR 13200 - Transforming Ideas To Innovation II
- CHM 11500 - General Chemistry (satisfies Science #2 for core)

- CHM 11600 - General Chemistry or
- CS 15900 - Programming Applications For Engineers

- MA 16500 - Analytic Geometry And Calculus I (satisfies Quantitative Reasoning for core)
- MA 16600 - 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
- ME 27000 - Basic Mechanics I
- ME 27400 - Basic Mechanics II
- NUCL 27300 - Mechanics Of Materials

- CE 34000 - Hydraulics and
- CE 34300 - Elementary Hydraulics Laboratory
or
- ME 30900 - Fluid Mechanics

- Engineering Technical Selective - Credits: 3.00
- Engineering Technical Selective - Credits: 3.00
- AGRY 25500 - Soil Science
- Agricultural Selective - Credit Hours: 3.00
- Biological Science Selective (satisfies Science #1 for core) - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy Selective for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- Written and Oral Communication Selective - Credit Hours: 3.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 2.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

Electives (2 or 3 credits)

- Elective - Credit Hours: 2.00 or 3.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- 6 credits International Understanding
- 3 credits Multicultural Awareness
- 3 credits of Humanities or Social Science Selective (30000+ level)
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

128 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- CHM 11500 - General Chemistry
- ENGL 10600 - First-Year Composition
- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- UCC Humanities Selective - Credit Hours: 3.00

17 Credits

Spring 1st Year

- CHM 11600 - General Chemistry or
- CS 15900 - Programming Applications For Engineers *
- COM 11400 - Fundamentals Of Speech Communication
- ENGR 13200 - Transforming Ideas To Innovation II
- MA 16600 - Analytic Geometry And Calculus II

- PHYS 17200 - Modern Mechanics

16 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

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 - 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: 2.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 2.00 or 3.00 *

14 Credits

Requirements

128 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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. While traditional computer programming is not taught, ASM students graduate with more computer application experience than any other students in the Agricultural complex. Agricultural Systems Management students also take a series of courses in communications, business management and biological 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 system. Graduates are prepared to solve a wide variety of business and technical problems in a job field that continues to grow.

- Small class sizes
- Student Competitions, Clubs, Global Experiences
- Individualized advising and attention by faculty
- Practical curriculum for industrial careers
- Great opportunities for scholarships and internships
- Excellent placement record and starting salaries

Agricultural Systems Management Website

Summary of Program Requirements

The Summary of Program Requirements for Agricultural Systems Management (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (119 credits)

Required Major Courses (22 credits)

- ASM 10400 - Introduction To Agricultural Systems
- ASM 10500 - Agricultural Systems Computations And Communication
- 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)

(See Advising Resources)

- ASM Selective - Credit Hours: 3.00
- ASM Selective - Credit Hours: 3.00
- ASM Selective - Credit Hours: 3.00
- ASM 40000+ Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (85 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11100 - Introduction To Agricultural And Biological Engineering Academic Programs
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- AGECE 31000 - Farm Organization or
- AGECE 33000 - Management Methods For Agricultural Business
- AGECE 33100 - Principles Of Selling In Agricultural Business
- AGECE 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- AGECE 35200 - Quantitative Techniques For Firm Decision Making
- AGRY 25500 - Soil Science
- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods
- PHYS 21400 - The Nature Of Physics
- Accounting Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Agricultural Selective - Credit Hours: 3.00
- Marketing Selective - Credit Hours: 3.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - 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 (300+ level) - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (1 credits)

- Elective - Credit Hours: 1.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
-
- COM 11400 - Fundamentals Of Speech Communication or
 - COM 21700 - Science Writing And Presentation
-
- MA 15910 - Introduction To Calculus
 - UCC Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 1st Year

- ASM 10500 - Agricultural Systems Computations And Communication
- CHM 11200 - General Chemistry
- ENGL 10600 - First-Year Composition
- PHYS 21400 - The Nature Of Physics
- Economics Selective - Credit Hours: 3.00

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

- AGECE 35200 - Quantitative Techniques For Firm Decision Making
- AGRY 25500 - Soil Science
- ASM Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- UCC Science, Technology, & Society Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGECE 33100 - Principles Of Selling In Agricultural Business

- Accounting Selective - Credit Hours: 3.00
- ASM Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Marketing Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- AGECE 31000 - Farm Organization or
- AGECE 33000 - Management Methods For Agricultural Business
- ASM 33300 - Facilities Planning And Management
- ASM 35000 - Safety In Agriculture
- Agricultural Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

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

14 Credits

Spring 4th Year

- ASM 49500 - Agricultural Systems Management Capstone Project
- ASM 40000+ Selective - 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

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Biological Engineering: Biological and Food Process Engineering, BSBE

Biological Engineering - multiple concentrations

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. Some areas of focus include:

Bioprocess engineering and bioenergy engineering: This is rapidly becoming a critical forefront research area as advances in genetic engineering lead to new types of crops and new processing methods to create value added products.

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 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.

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. Watch a video and take a look at some senior projects.

Applying

Biological Engineering is a major within the Agricultural and Biological Engineering (ABE) Department. ABE faculty are members of both the College of Agriculture and the College of Engineering, and there are multiple entry paths for students who

are interested in ABE majors. First-time college students may apply to "Agricultural and Biological Engineering (Pre)" in the College of Agriculture or they may select "Engineering" in the College of Engineering, where they would begin in the First-Year Engineering program. The first-year curriculum is the same for each path.

Transfer students who have fulfilled the first-year requirements of this engineering program may apply directly to Biological Engineering in the College of Agriculture. Transfer students who have not met the first-year requirements may apply to Agricultural and Biological Engineering (Pre).

Note: The First-Year Engineering Program is the entry point for all beginning engineering students. They must complete the First-Year Engineering requirements before entering the engineering school of their choice. The mission of this student-oriented service program is to advise, teach and retain outstanding students for Purdue's College of Engineering. This core curriculum includes courses in math, chemistry, physics, computer programming, and communication skills, as well as introductory engineering coursework taught in the new Ideas to Innovation (i2i) Learning Laboratory. The First-Year Engineering Program provides students with a firm foundation and initial understanding of engineering and career options to assist them in identifying which of Purdue's engineering disciplines is the right fit. Our professional academic advisors, faculty and student advisors are dedicated to assisting beginning engineers with the first-year experience.

Biological Engineering - multiple concentrations Website

Summary of Program Requirements

The Summary of Program Requirements for Biological Engineering-Food & Biological Processing Engineering (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

code-BE-BSE
Code-BIEN
Plan Code-FBPE
129 Credits for Graduation

Agricultural Engineering Major Courses (129 credits)

(<https://ag.purdue.edu/oap/Pages/major.aspx>)

Required ABE Courses (45 credits)

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 29000 - Sophomore Seminar
- 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 (84 credits)

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 22100 - Introduction To Microbiology
- CHE 32000 - Statistical Modeling And Quality Enhancement
- CHM 11500 - General Chemistry (satisfies Science #1 for core)
- CHM 11600 - General Chemistry (satisfies Science #2 for core and FYE requirements)
- CHM 25700 - Organic Chemistry
or
- CHM 25500 - Organic Chemistry and
- CHM 25501 - Organic Chemistry Laboratory
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- ENGL 10600 - First-Year Composition (satisfies Written Communication, Information Literacy Selective for core and FYE requirements)
- ENGR 13100 - Transforming Ideas To Innovation I (satisfies FYE requirements)
- ENGR 13200 - Transforming Ideas To Innovation II (satisfies FYE requirements)
- MA 16500 - Analytic Geometry And Calculus I (satisfies Quantitative Reasoning for core and FYE requirements)
- MA 16600 - Analytic Geometry And Calculus II (satisfies FYE requirements)
- MA 26100 - Multivariate Calculus
- NUTR 20500 - Food Science I or
- BCHM 30700 - Biochemistry
- PHYS 17200 - Modern Mechanics (satisfies FYE requirements)
- Biological or Food Science Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- CS 15900 - Programming Applications For Engineers
- MA 26200 - Linear Algebra And Differential Equations
- MA 30300 - Differential Equations and Partial Differential Equations for Engineering and the Sciences

Note

Of the 9 credit hours in International Understanding, 6 credits must meet the College of Agriculture International Understanding and 3 credits must meet the Multicultural Awareness requirements.

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- CHM 11500 - General Chemistry
- ENGL 10600 - First-Year Composition
- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- PHYS 17200 - Modern Mechanics

18 Credits

Spring 1st Year

- CHM 11600 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication
- ENGR 13200 - Transforming Ideas To Innovation II
- MA 16600 - Analytic Geometry And Calculus II
- CS 15900 - Programming Applications For Engineers

16 Credits

Fall 2nd Year

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

18 Credits

Spring 2nd Year

- ABE 20200 - Thermodynamics In Biological Systems II
- CHE 32000 - Statistical Modeling And Quality Enhancement
- IT 22700 - Biotechnology Laboratory II or
- CNIT 22700 - Introduction To Bioinformatics
- MA 26200 - Linear Algebra And Differential Equations ♦
- Economics Selective - Credit Hours: 3.00

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: 3.00

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 31400 - Design Of Electronic Systems
- ABE 45700 - Transport Operations In Food And Biological Engineering I
- Economics Selective - Credit Hours: 3.00

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 - 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

15 Credits

Note

129 semester credits required for Bachelor of Engineering degree.

Students must have a graduation index of 2.0

Degree Requirements

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

Degree Works is knowledge source for specific requirements and completion

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Biological Engineering: Cellular and Biomolecular Engineering Concentration, BSBE

Biological Engineering - multiple concentrations

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. Some areas of focus include:

Bioprocess engineering and bioenergy engineering: This is rapidly becoming a critical forefront research area as advances in genetic engineering lead to new types of crops and new processing methods to create value added products.

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 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.

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. Watch a video and take a look at some senior projects.

Applying

Biological Engineering is a major within the Agricultural and Biological Engineering (ABE) Department. ABE faculty are members of both the College of Agriculture and the College of Engineering, and there are multiple entry paths for students who are interested in ABE majors. First-time college students may apply to "Agricultural and Biological Engineering (Pre)" in the College of Agriculture or they may select "Engineering" in the College of Engineering, where they would begin in the First-Year Engineering program. The first-year curriculum is the same for each path.

Transfer students who have fulfilled the first-year requirements of this engineering program may apply directly to Biological Engineering in the College of Agriculture. Transfer students who have not met the first-year requirements may apply to Agricultural and Biological Engineering (Pre).

Note: The First-Year Engineering Program is the entry point for all beginning engineering students. They must complete the First-Year Engineering requirements before entering the engineering school of their choice. The mission of this student-oriented service program is to advise, teach and retain outstanding students for Purdue's College of Engineering. This core curriculum includes courses in math, chemistry, physics, computer programming, and communication skills, as well as introductory engineering coursework taught in the new Ideas to Innovation (i2i) Learning Laboratory. The First-Year Engineering Program provides students with a firm foundation and initial understanding of engineering and career options to assist them in identifying which of Purdue's engineering disciplines is the right fit. Our professional academic advisors, faculty and student advisors are dedicated to assisting beginning engineers with the first-year experience.

Biological Engineering - multiple concentrations Website

Summary of Program Requirements

The Summary of Program Requirements for Biological Engineering-Cell & Biomolecular Engr (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

Code-BE-BSE
Code-BIEN
Plan Code-CBME
129 Credits for Graduation

Agricultural Engineering Major Courses (129 credits)

(<https://ag.purdue.edu/oap/Pages/major.aspx>)

Required ABE Courses (45 credits)

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 29000 - Sophomore Seminar
- 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 (66 credits)

- BIOL 23000 - Biology Of The Living Cell or
- BIOL 23100 - Biology III: Cell Structure And Function

- CHE 32000 - Statistical Modeling And Quality Enhancement
- CHM 11500 - General Chemistry (satisfies Science #1 for core)
- CHM 11600 - General Chemistry (satisfies Science #2 for core and FYE requirements)

- CHM 25700 - Organic Chemistry
- or

- CHM 25500 - Organic Chemistry and
- CHM 25501 - Organic Chemistry Laboratory

- CNIT 22700 - Introduction To Bioinformatics or
- IT 22700 - Biotechnology Laboratory II

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- ENGL 10600 - First-Year Composition (satisfies Written Communication, Information Literacy Selective for core and FYE requirements)
- ENGR 13100 - Transforming Ideas To Innovation I (satisfies FYE requirements)
- ENGR 13200 - Transforming Ideas To Innovation II (satisfies FYE requirements)
- IT 22600 - Biotechnology Laboratory I
- MA 16500 - Analytic Geometry And Calculus I (satisfies Quantitative Reasoning for core and FYE requirements)
- MA 16600 - Analytic Geometry And Calculus II (satisfies FYE requirements)
- 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 (satisfies FYE requirements)
- Biological Science Selective - Credit Hours: 4.00
- Biological Science or Science Selective - Credit Hours: 3.00
- CS 15900 - Programming Applications For Engineers

Note

Of the 18 credit hours, 9 credits must meet the College of Agriculture International Understanding (6) and Multicultural Awareness (3) requirements.

General Electives (18 credits)

- Written/Oral Communication Selective - Credit Hours: 3.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

College of Agriculture and University Level Requirements

College of Agriculture and Univeristy Level Requirements

2.0 GPA required for Bachelor of Science degree

32 Upper division credits taken from Purdue

6 credits International Understanding

3 credits Multicultural Awareness

3 credits Humanities or Social Science Selective 30000+ level

9 credits of Humanities and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- CHM 11500 - General Chemistry
- ENGL 10600 - First-Year Composition
- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- PHYS 17200 - Modern Mechanics

18 Credits

Spring 1st Year

- CHM 11600 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication
- MA 16600 - Analytic Geometry And Calculus II
- CS 15900 - Programming Applications For Engineers
- ENGR 13200 - Transforming Ideas To Innovation II

16 Credits

Fall 2nd Year

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 29000 - Sophomore Seminar

- BIOL 23000 - Biology Of The Living Cell or
- BIOL 23100 - Biology III: Cell Structure And Function

- CHM 25700 - Organic Chemistry
or
- CHM 25500 - Organic Chemistry and
- CHM 25501 - Organic Chemistry Laboratory
- IT 22600 - Biotechnology Laboratory I
- MA 26100 - Multivariate Calculus

18 Credits

Spring 2nd Year

- ABE 20200 - Thermodynamics In Biological Systems II
- CHE 32000 - Statistical Modeling And Quality Enhancement
- CNIT 22700 - Introduction To Bioinformatics or
- IT 22700 - Biotechnology Laboratory II
- MA 26200 - Linear Algebra And Differential Equations
- Economics Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- ABE 30300 - Applications Of Physical Chemistry To Biological Processes
- ABE 37000 - Biological/Microbial Kinetics And Reaction Engineering
- MA 30300 - Differential Equations and Partial Differential Equations for Engineering and the Sciences
- ABE 30700 - Momentum Transfer In Food And Biological Systems
- Biological Science Selective - Credit Hours: 3.00

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
- Written or Oral Communication Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - 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
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00

15 Credits

Note

129 semester credits required for Bachelor of Engineering degree.

Students must have a graduation index of 2.0

Degree Requirements

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

Degree Works is knowledge source for specific requirements and completion

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Biological Engineering: Pharmaceutical Process Engineering, BSBE

Biological Engineering - multiple concentrations

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. Some areas of focus include:

Bioprocess engineering and bioenergy engineering: This is rapidly becoming a critical forefront research area as advances in genetic engineering lead to new types of crops and new processing methods to create value added products.

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 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.

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. Watch a video and take a look at some senior projects.

Biological Engineering - multiple concentrations Website

Summary of Program Requirements

The Summary of Program Requirements for Biological Engineering-Pharmaceutical Process Engineering (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

129 Credits for Graduation

Departmental/Program Major Courses (129 credits)

(<https://ag.purdue.edu/oap/Pages/major.aspx>)

Required Major Courses (45 credits)

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 20200 - Thermodynamics In Biological Systems II
- ABE 29000 - Sophomore Seminar
- 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 (66 credits)

(See Advising Resources)

- 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)

 - CHM 25700 - Organic Chemistry or
 - CHM 25500 - Organic Chemistry and
 - CHM 25501 - Organic Chemistry Laboratory

 - MA 16500 - Analytic Geometry And Calculus I (satisfies Quantitative Reasoning for core)
 - 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 - Programming Applications For Engineers
 - CHE 32000 - Statistical Modeling And Quality Enhancement
 - BIOL 11000 - Fundamentals Of Biology I
 - BIOL 22100 - Introduction To Microbiology
 - BCHM 30700 - Biochemistry
 - IPPH 56200 - Introduction To Pharmaceutical Manufacturing Processes
 - ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy Selective for core)
 - COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- General Electives (18 credits)**
- Written or Oral Communications Selective - Credit Hours: 3.00
 - Economics Selective - Credit Hours: 3.00 (satisfies Human Culture Behavioral/Social Science for core)
 - UCC 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

Note:

Of the 18 credit hours, 9 credits must meet the College of Agriculture International Understanding (6) and Multicultural Awareness (3) requirements.

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science Selective
- Science Selective
- Science, Technology & Society Selective
- Written Communication
- Oral Communication
- Quantitative Reasoning

Program Requirements

Fall 1st Year

- CHM 11500 - General Chemistry
- ENGL 10600 - First-Year Composition
- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- PHYS 17200 - Modern Mechanics

18 Credits

Spring 1st Year

- CHM 11600 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication
- CS 15900 - Programming Applications For Engineers
- MA 16600 - Analytic Geometry And Calculus II
- ENGR 13200 - Transforming Ideas To Innovation II

16 Credits

Fall 2nd Year

- ABE 20100 - Thermodynamics In Biological Systems I
- ABE 29000 - Sophomore Seminar
- BIOL 11000 - Fundamentals Of Biology I

- CHM 25700 - Organic Chemistry or
- CHM 25500 - Organic Chemistry
and
- CHM 25501 - Organic Chemistry Laboratory

- MA 26100 - Multivariate Calculus

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

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
- Written or Oral Communication Selective - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00

16 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

Requirements

129 semester credits required for Bachelor of Science degree.

Students must have a graduation index of 2.0

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

Degree Works is knowledge source for specific requirements and completion

Environmental and Natural Resources Engineering, BSAGE

About the Program

In Environmental and Natural Resources Engineering, students 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. Basic engineering principles, as well as some of the newest technological approaches, are applied to solve challenges related to soil and plant environments, surface and ground water quality, air quality, animal environments, and food safety. Graduates work in exciting careers in federal, state, and local government, engineering consulting firms, and industry, or pursue graduate study opportunities.

Watch a video and then take a look at some senior projects.

128 credits required for graduation

Applying

Environmental and Natural Resources Engineering is a major within the Agricultural and Biological Engineering (ABE) Department. ABE faculty are members of both the College of Agriculture and the College of Engineering, and there are multiple entry paths for students who are interested in ABE majors.

First-time college students may apply to "Agricultural and Biological Engineering (Pre)" in the College of Agriculture or they may select "Engineering" in the College of Engineering, where they would begin in the First-Year Engineering program. The first-year curriculum is the same for each path.

Transfer students who have fulfilled the first-year requirements of this engineering program may apply directly to Environmental and Natural Resources Engineering in the College of Agriculture. Transfer students who have not met the first-year requirements may apply to Agricultural and Biological Engineering (Pre).

Note: The First-Year Engineering Program is the entry point for all beginning engineering students. They must complete the First-Year Engineering requirements before entering the engineering school of their choice. The mission of this student-oriented service program is to advise, teach and retain outstanding students for Purdue's College of Engineering. This core curriculum includes courses in math, chemistry, physics, computer programming, and communication skills, as well as introductory engineering coursework taught in the new Ideas to Innovation (i2i) Learning Laboratory. The First-Year Engineering Program provides students with a firm foundation and initial understanding of engineering and career options to assist them in identifying which of Purdue's engineering disciplines is the right fit. Our professional academic advisors, faculty and student advisors are dedicated to assisting beginning engineers with the first-year experience.

Environmental and Natural Resources Engineering Website

Summary of Program Requirements

The Summary of Program Requirements for Environmental & Natural Resources Engineering (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

Departmental/Program Major Courses (126 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
- 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
- ABE 49000 - Professional Practice In Agricultural And Biological Engineering

Other Departmental /Program Course Requirements (98 credits)

(See Advising Resources)

- CHM 11500 - General Chemistry (satisfies Science #1 for core)
- CHM 11600 - General Chemistry (satisfies Science #2 for core)
- MA 16500 - Analytic Geometry And Calculus I (satisfies Quantitative Reasoning for core)
- MA 16600 - 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
- ENGR 13100 - Transforming Ideas To Innovation I
- ENGR 13200 - Transforming Ideas To Innovation II

- CE 34000 - Hydraulics and
- CE 34300 - Elementary Hydraulics Laboratory
or
- ME 30900 - Fluid Mechanics

- ME 27000 - Basic Mechanics I
- ME 27400 - Basic Mechanics II
- NUCL 27300 - Mechanics Of Materials
- Engineering Technical Selective - Credit Hours: 3.00
- Engineering Technical Selective - Credit Hours: 3.00
- ENRE Technical Selective - Credit Hours: 3.00
- ENRE Technical Selective - Credit Hours: 3.00
- AGRY 25500 - Soil Science
- Agricultural Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- ENGL 10600 - First-Year Composition (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core)
- Written and Oral Communication Selective - Credit Hours: 3.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 2.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

Electives (2 credits)

- Elective - Credit Hours: 2.00

University Core Requirements

- Human Cultures Humanities

- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree.
- 32 Upper division credits taken from Purdue
- 6 credits International Understanding
- 3 credits Multicultural Awareness
- 3 credits of Hum or Social Sciences 30000+ level
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

128 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- CHM 11500 - General Chemistry
- ENGL 10600 - First-Year Composition
- ENGR 13100 - Transforming Ideas To Innovation I
- MA 16500 - Analytic Geometry And Calculus I
- UCC Approved Humanities Selective - Credit Hours: 3.00

17 Credits

Spring 1st Year

- CHM 11600 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication
- ENGR 13200 - Transforming Ideas To Innovation II
- MA 16600 - Analytic Geometry And Calculus II
- PHYS 17200 - Modern Mechanics

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

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

- 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
- ENRE Technical Selective - Credit Hours: 3.00
- Biological Science Selective - Credit Hours: 4.00
- Agricultural 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
- ENRE Technical Selective - Credit Hours: 3.00
- Engineering Technical Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - 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: 2.00
- Humanities or Social Selective (30000+) - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

13 Credits

Note

128 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Minor

Agricultural Systems Management Minor

ABE • Minor • Credits: 18

Departmental permission is not required to enroll in this minor. Eighteen (18) credits must be earned.

Recommended Plan of Study

Required Courses

- ASM 10400 - Introduction To Agricultural Systems
- ASM 10500 - Agricultural Systems Computations And Communication

Selective List

Selectives: Twelve credits from the following courses must be completed. Only three credits may be from courses other than Agricultural Systems Management (ASM). At least six credits must be 300+ level courses.

- AGECE 31000 - Farm Organization
- AGECE 33000 - Management Methods For Agricultural Business
- AGRY 37500 - Crop Production Systems
- ASM 20100 - Construction And Maintenance
- ASM 21100 - Technical Graphic Communications
- ASM 21500 - Surveying
- ASM 22200 - Crop Production Equipment
- ASM 24500 - Materials Handling And Processing
- ASM 33300 - Facilities Planning And Management
- ASM 33600 - Environmental Systems Management
- ASM 34500 - Power Units And Power Trains
- ASM 42000 - Electric Power And Controls
- 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

Department of Agricultural Economics

Overview

Agricultural Economics originally applied the principles of economics to the production of crops and livestock. It was a branch of economics that specifically dealt with land usage and maximizing the crop profit while maintaining a sustainable balance between productivity and the environment. However, throughout the 20th century the discipline has expanded with the times and the current scope has become much broader.

Agricultural economics now includes a variety of applied areas - often being referred to as 'applied economics' - and research and education are conducted on a wide array of issues from development, trade, macroeconomic policy implications, production, and consumption to environmental and resource issues.

Since 1920, the Department of Agricultural Economics at Purdue University has been working to acquire and transmit new economic knowledge to the citizens of Indiana, the nation, and the world. Starting as the Department of Farm Management, in the early 1940s we chose a name more descriptive of our evolving mission - the Department of Agricultural Economics. In 1965, the Krannert Building was built and Agricultural Economics moved in. Over the past 50 years, technology and research have advanced and evolved while carrying on a strong tradition of excellent teaching, research and outreach.

Department of Agricultural Economics Website

Faculty

https://ag.purdue.edu/agecon/Pages/directory_faculty.aspx

Contact Information

The Department of Agricultural Economics is located at:
403 West State Street, Krannert Building
West Lafayette, IN 47907

To get in touch with us:

Phone: (765) 494-4191

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Undergraduate Program Information:

LeeAnn Williams

(765) 494-4201

Graduate Information

For Graduate Information please see Agricultural Economics Graduate Program Information.

Baccalaureate

Agribusiness: Agribusiness Management Concentration, BS

About the Program

Increasing opportunities exist for agricultural graduates to enter managerial positions in business. These businesses may be large or small and may be organized as proprietorships, partnerships, corporations, or cooperatives. They include meat, dairy, and poultry processing industries, grain handling, feed manufacturing, and seed and fertilizer firms; transportation and storage concerns; and wholesale and retail food businesses. Although this Department of Agricultural Economics curriculum gives special emphasis to agriculturally related businesses, its requirements are broad enough to allow adequate preparation for nonagricultural businesses. This option also has enough flexibility to permit you to prepare for an international career in agricultural business and can serve as a foundation for graduate school.

Concentrations include:

- Agribusiness Management
- Agrifinance
- Agrimarketing
- Commodity Marketing
- Food Marketing

Agribusiness (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Agribusiness-Agribusiness Management (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (103 credits)

Required Major Courses (27 credits)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness or
- AGEC 20400 - Introduction To Resource Economics And Environmental Policy
- 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 43000 - Agricultural And Food Business Strategy

Major Selectives - Select 1 of the following courses (3 credits)

(See Advising Resources)

- AGEC Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (73 credits)

(See Advising Resources)

- 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 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)

- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting

- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)

- AGECE 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I

- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Human Relations Management Selective - Credit Hours: 3.00
- Industrial Technology Selective - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (17 credits)

- Elective - Credit Hours: 17.00

University Core Requirements

- Human Cultures Humanities

- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

See Also:

https://ag.purdue.edu/oap/Pages/core_requirements.aspx

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGECE 20200 - Spreadsheet Use In Agricultural Business
- AGECE 20300 - Introductory Microeconomics For Food And Agribusiness ♦ or
- AGECE 20400 - Introduction To Resource Economics And Environmental Policy
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- ENGL 10600 - First-Year Composition
- MA 15910 - Introduction To Calculus ♦ or
- MA 16010 - Applied Calculus I ♦
- Biological Sciences Selective - Credit Hours: 4.00

16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- Biological Sciences Selective - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00
- UCC 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 20010 - Business Accounting
- Human Relations Management 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- AGEC 42400 - Financial Management Of Agricultural Business
- Industrial Technology Selective - Credit Hours: 3.00

- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGECE 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I

- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Math/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

- Agricultural Economics Selective - 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

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

12 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Agribusiness: Agricultural Finance Concentration, BS

About the Program

Increasing opportunities exist for agricultural graduates to enter managerial positions in business. These businesses may be large or small and may be organized as proprietorships, partnerships, corporations, or cooperatives. They include meat, dairy, and poultry processing industries, grain handling, feed manufacturing, and seed and fertilizer firms; transportation and storage concerns; and wholesale and retail food businesses. Although this Department of Agricultural Economics curriculum gives special emphasis to agriculturally related businesses, its requirements are broad enough to allow adequate preparation for nonagricultural businesses. This option also has enough flexibility to permit you to prepare for an international career in agricultural business and can serve as a foundation for graduate school.

Concentrations include:

- Agribusiness Management
- Agrifinance
- Agrimarketing
- Commodity Marketing
- Food Marketing

Agribusiness (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Agribusiness-Agricultural Finance is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (103 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- AGEC 42400 - Financial Management Of Agricultural Business

- AGEC 42500 - Estate Planning And Property Transfer or
- AGEC 45600 - Federal Income Tax Law

- AGEC 43000 - Agricultural And Food Business Strategy
- AGEC 52400 - Agricultural Finance

Major Selectives - Select 1 of the following courses (3 credits)

(See Advising Resources)

- AGEC Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (67 credits)

(See Advising Resources)

- 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 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)

- MGMT 20000 - Introductory Accounting
- MGMT 20100 - Management Accounting I
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)

- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I

- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00

- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (17 credits)

- Elective - Credit Hours: 17.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition

- MA 15910 - Introduction To Calculus ♦ or
- MA 16010 - Applied Calculus I ♦

- Biological Sciences Selective - Credit Hours: 4.00

16 Credits

Spring 1st Year

- AGEC 21700 - Economics

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- Biological Sciences Selective - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00
- UCC 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
- 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- AGEC 42400 - Financial Management Of Agricultural Business
- MGMT 20100 - Management Accounting I
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- Agricultural Economics Selective - Credit Hours: 3.00

- AGEC 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I

- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Math/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 - Credit Hours: 3.00
- Electives - Credit Hours: 5.00

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 Hour: 3.00

12 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Agribusiness: Agricultural Marketing Concentration, BS

About the Program

Increasing opportunities exist for agricultural graduates to enter managerial positions in business. These businesses may be large or small and may be organized as proprietorships, partnerships, corporations, or cooperatives. They include meat, dairy, and poultry processing industries, grain handling, feed manufacturing, and seed and fertilizer firms; transportation and storage concerns; and wholesale and retail food businesses. Although this Department of Agricultural Economics curriculum gives special emphasis to agriculturally related businesses, its requirements are broad enough to allow adequate preparation for nonagricultural businesses. This option also has enough flexibility to permit you to prepare for an international career in agricultural business and can serve as a foundation for graduate school.

Concentrations include:

- Agribusiness Management
- Agrifinance
- Agrimarketing
- Commodity Marketing
- Food Marketing

Agribusiness (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Agribusiness-Agribusiness Management (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (103 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 42700 - Advanced Agribusiness Marketing
- AGEC 42900 - Agribusiness Marketing Workshop

Major Selectives (6 credits)

(See Advising Resources)

- AGEC Selective - Credit Hours: 3.00
- AGEC Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (65 credits)

(See Advising Resources)

- 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 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core) or

- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 1.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (17 credits)

- Elective - Credit Hours: 17.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGECE 20200 - Spreadsheet Use In Agricultural Business
- AGECE 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
- ENGL 10600 - First-Year Composition

- MA 15910 - Introduction To Calculus ♦ or
- MA 16010 - Applied Calculus I ♦

- Biological Sciences Selective - Credit Hours: 4.00

16 Credits

Spring 1st Year

- AGECE 21700 - Economics

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- Biological Sciences Selective - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00
- UCC Science, Technology, & Society Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGECE 22000 - Economics Of Agricultural Markets
- AGECE 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 20010 - 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- AGEC 42400 - Financial Management Of Agricultural Business
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- Agricultural economics Selective - Credit Hours: 3.00
- Food and agribusiness management Selective - Credit Hours: 4.00
- Math/Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours 3.00

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

- AGECE 42900 - Agribusiness Marketing Workshop
- Agricultural Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00
- Electives - Credit Hours: 5.00

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Agribusiness: Commodity Marketing Concentration, BS

About the Program

Increasing opportunities exist for agricultural graduates to enter managerial positions in business. These businesses may be large or small and may be organized as proprietorships, partnerships, corporations, or cooperatives. They include meat, dairy, and poultry processing industries, grain handling, feed manufacturing, and seed and fertilizer firms; transportation and storage concerns; and wholesale and retail food businesses. Although this Department of Agricultural Economics curriculum gives special emphasis to agriculturally related businesses, its requirements are broad enough to allow adequate preparation for nonagricultural businesses. This option also has enough flexibility to permit you to prepare for an international career in agricultural business and can serve as a foundation for graduate school.

Concentrations include:

- Agribusiness Management
- Agrifinance

- Agrimarketing
- Commodity Marketing
- Food Marketing

Agribusiness (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Agribusiness-Commodity Marketing (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (103 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- AGEC 42100 - Advanced Commodity Marketing
- AGEC 42400 - Financial Management Of Agricultural Business
- AGEC 43000 - Agricultural And Food Business Strategy

- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting

Major Selectives (3 credits)

(See Advising Resources)

- AGEC Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (64 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- AGRY 30500 - Seed Analysis And Grain Grading or
- ANSC 35100 - Meat Science
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Mathematics or Science Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 4.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (17 credits)

- Elective - Credit Hours: 17.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1

- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGECE 20200 - Spreadsheet Use In Agricultural Business
- AGECE 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
- ENGL 10600 - First-Year Composition
- MA 15910 - Introduction To Calculus ♦ or
- MA 16010 - Applied Calculus I ♦
- Biological Sciences Selective - Credit Hours: 4.00

16 Credits

Spring 1st Year

- AGECE 21700 - Economics
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- Biological Sciences Selective - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00

- UCC 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 20010 - 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 32100 - Principles Of Commodity Marketing
- AGEC 32700 - Principles Of Food And Agribusiness Marketing

- AGEC 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- AGEC 42400 - Financial Management Of Agricultural Business
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGEC 42100 - Advanced Commodity Marketing
- Food and Agribusiness Management Selective - Credit Hours: 4.00
- Math/Science Selective - Credit Hours: 3.00

- AGRY 30500 - Seed Analysis And Grain Grading or
- ANSC 35100 - Meat Science
- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGECE 30500 - Agricultural Prices
- Agricultural 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

- AGECE 43000 - Agricultural And Food Business Strategy
- Economics Selective - Credit Hours: 3.00
- Electives - Credit Hours: 6.00

12 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Agribusiness: Food Marketing Concentration, BS

About the Program

Increasing opportunities exist for agricultural graduates to enter managerial positions in business. These businesses may be large or small and may be organized as proprietorships, partnerships, corporations, or cooperatives. They include meat, dairy, and poultry processing industries, grain handling, feed manufacturing, and seed and fertilizer firms; transportation and storage concerns; and wholesale and retail food businesses. Although this Department of Agricultural Economics curriculum gives special emphasis to agriculturally related businesses, its requirements are broad enough to allow adequate preparation for nonagricultural businesses. This option also has enough flexibility to permit you to prepare for an international career in agricultural business and can serve as a foundation for graduate school.

Concentrations include:

- Agribusiness Management
- Agrifinance
- Agrimarketing
- Commodity Marketing
- Food Marketing

Agribusiness (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Agribusiness-Food Marketing (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (102 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 33100 - Principles Of Selling In Agricultural Business
- AGEC 33300 - Food Distribution - A Retailing Perspective

- AGECE 35200 - Quantitative Techniques For Firm Decision Making or
- AGECE 45100 - Applied Econometrics
- AGECE 42400 - Financial Management Of Agricultural Business

Other Departmental /Program Course Requirements (72 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- FN 30300 Essentials of Nutrition - Credit Hours: 3.00 or
- FN 315000 Fundamentals of Nutrition - Credit Hours: 3.00
- FS 16100 - Science Of Food
- FS 24500 - Food Packaging
- FS 34000 - Introduction To Food Law And Regulations
- FS 44300 - Food Product Design (Capstone)
- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting
- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core) ♦ or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core) ♦
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Mathematics or Science Selective - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (18 credits)

- Elective - Credit Hours: 18.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition

- MA 15910 - Introduction To Calculus ♦
- MA 16010 - Applied Calculus I ♦

- Biological Sciences Selective - Credit Hours: 4.00

16 Credits

Spring 1st Year

- AGEC 21700 - Economics
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- Biological Sciences Selective - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00
- UCC 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
- 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 20010 - 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- AGECE 42400 - Financial Management Of Agricultural Business
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- FN 30300 Essentials of Nutrition - Credit Hours: 3.00 or
- FN 31500 Fundamentals of Nutrition - Credit Hours: 3.00
- AGECE 33300 - Food Distribution - A Retailing Perspective
- FS 34000 - Introduction To Food Law And Regulations
- Math/Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 6.00

16 Credits

Fall 4th Year

- Economics Selective - Credit Hours: 3.00
- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Spring 4th Year

- FS 44300 - Food Product Design (Capstone)
- Humanities or Social Science Selective (30000+level) - Credit Hours: 3.00
- Electives - Credit Hours: 6.00

12 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Agricultural Economics: Applied Agricultural Economics Concentration, BS

About the Program

Agricultural economics graduates apply economic and business principles for banks, farm credit institutions, feed companies, farm equipment and fertilizer manufacturers, and food processing firms. Within agricultural economics, students can choose majors such as agricultural finance, agribusiness management, farm management, food industry marketing and management, quantitative agricultural economics, and sales and marketing. Concentrations include:

- Applied Agricultural Economics
- Commodity Marketing
- Quantitative Analysis

[Agricultural Economics \(multiple concentrations\) Website](#)

Summary of Program Requirements

The Summary of Program Requirements for Agricultural Economics-Applied Agricultural Economics (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (96 credits)

Required Major Courses (32 credits)

Required AGECE courses (14 credits)

- AGECE 20200 - Spreadsheet Use In Agricultural Business
- AGECE 20300 - Introductory Microeconomics For Food And Agribusiness
- AGECE 21700 - Economics
- AGECE 22000 - Economics Of Agricultural Markets
- AGECE 29800 - Sophomore Seminar

- AGECE 35200 - Quantitative Techniques For Firm Decision Making or
- AGECE 45100 - Applied Econometrics

Major Selectives* - Select 6 of the following courses (18 credits)

(See Advising Resources)

- AGECE Selective - Credit Hours: 3.00
- AGECE Selective - Credit Hours: 3.00
- AGECE Selective - Credit Hours: 3.00
- AGECE Selective - Credit Hours: 3.00
- AGECE Selective - Credit Hours: 3.00
- AGECE Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (64 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)

- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)

- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Mathematics or Science Selective - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00

- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting

- Economics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (24 credits)

- Elective - Credit Hours: 24.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGE 20200 - Spreadsheet Use In Agricultural Business

- AGECE 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
- ENGL 10600 - First-Year Composition

- MA 15910 - Introduction To Calculus ♦ or
- MA 16010 - Applied Calculus I ♦

- Biological Sciences Selective - Credit Hours: 4.00

16 Credits

Spring 1st Year

- AGECE 21700 - Economics

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- Biological Sciences Selective - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGECE 22000 - Economics Of Agricultural Markets
- AGECE 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 20010 - Business Accounting

- Agricultural economics selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- UCC Science, Technology, & Society Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGECE 35200 - Quantitative Techniques For Firm Decision Making or
- AGECE 45100 - Applied Econometrics

- Agricultural Economics Selective - 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

- Math/Science Selection - Credit Hours: 3.00
- Agricultural Economics Selectives - Credit Hours: 6.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- Agricultural Economics Selective - 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 - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Electives - Credit Hours: 6.00

12 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Agricultural Economics: Commodity Marketing Concentration, BS

About the Program

Agricultural economics graduates apply economic and business principles for banks, farm credit institutions, feed companies, farm equipment and fertilizer manufacturers, and food processing firms. Within agricultural economics, students can choose majors such as agricultural finance, agribusiness management, farm management, food industry marketing and management, quantitative agricultural economics, and sales and marketing. Concentrations include:

- Applied Agricultural Economics
- Commodity Marketing
- Quantitative Analysis

Agricultural Economics (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Agricultural Economics-Commodity Marketing (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (96 credits)

Required AGEC courses (27 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

- AGEC 30500 - Agricultural Prices
- AGEC 32100 - Principles Of Commodity Marketing
- AGEC 42100 - Advanced Commodity Marketing

- AGEC 41100 - Farm Management or
- AGEC 43000 - Agricultural And Food Business Strategy

Major Selectives* - Select 1 of the following courses (3 credits)

(See Advising Resources)

- AGEC Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (66 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)

- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)

- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Mathematics or Science Selective - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00

- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting

- AGRY 30500 - Seed Analysis And Grain Grading or
- ANSC 35100 - Meat Science

- Food and Agribusiness Management Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00

- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (24 credits)

- Elective - Credit Hours: 24.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGECE 20200 - Spreadsheet Use In Agricultural Business
 - AGECE 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
 - ENGL 10600 - First-Year Composition
-
- MA 15910 - Introduction To Calculus ♦ or
 - MA 16010 - Applied Calculus I ♦
-
- Biological Sciences Selective - Credit Hours: 4.00

16 Credits

Spring 1st Year

- AGECE 21700 - Economics
-
- COM 11400 - Fundamentals Of Speech Communication or
 - COM 21700 - Science Writing And Presentation
-
- Biological Sciences Selective - Credit Hours: 4.00
 - UCC Humanities Selective - Credit Hours: 3.00
 - UCC Science, Technology, & Society Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGECE 22000 - Economics Of Agricultural Markets
- AGECE 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 20010 - Business Accounting
-
- Agricultural Economics Selective - 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

- Math/Science Selection - Credit Hours: 3.00
- AGEC 42100 - Advanced Commodity Marketing

- AGRY 30500 - Seed Analysis And Grain Grading or
- ANSC 35100 - Meat Science

- Written or oral communication selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

14 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

16 Credits

Spring 4th Year

- Economics Selective - Credit Hours: 3.00
- Electives - Credit Hours: 9.00

12 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Agricultural Economics: Quantitative Analysis Concentration, BS

About the Program

Agricultural economics graduates apply economic and business principles for banks, farm credit institutions, feed companies, farm equipment and fertilizer manufacturers, and food processing firms. Within agricultural economics, students can choose majors such as agricultural finance, agribusiness management, farm management, food industry marketing and management, quantitative agricultural economics, and sales and marketing.

Concentrations include:

- Applied Agricultural Economics
- Commodity Marketing
- Quantitative Analysis

[Agricultural Economics \(multiple concentrations\) Website](#)

Summary of Program Requirements

The Summary of Program Requirements for Agricultural Economics-Quantitative Analysis (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (96 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
- AGEC 51600 - Mathematical Tools For Agricultural And Applied Economics

Other Departmental /Program Course Requirements (70 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- 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)
- MA 16020 - Applied Calculus II
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00

- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting

- ECON 34000 - Intermediate Microeconomic Theory
- Economics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (24 credits)

- Elective - Credit Hours: 24.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGECE 20200 - Spreadsheet Use In Agricultural Business
- AGECE 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
- ENGL 10600 - First-Year Composition

- MA 16010 - Applied Calculus I
- Biological Sciences Selective - Credit Hours: 4.00

16 Credits

Spring 1st Year

- AGECE 21700 - Economics
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- MA 16020 - Applied Calculus II
- Biological Sciences Selective - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGECE 22000 - Economics Of Agricultural Markets
- AGECE 29800 - Sophomore Seminar
- CHM 11100 - General Chemistry
- STAT 30100 - Elementary Statistical Methods
- UCC Science, Technology, & Society Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGECE 45100 - Applied Econometrics
- CHM 11200 - General Chemistry
- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting
- Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGECE 35200 - Quantitative Techniques For Firm Decision Making
- AGECE 37500 - The Process Of Economic Research

- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 6.00

16 Credits

Spring 3rd Year

- AGEC 49900 - Thesis
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

14 Credits

Fall 4th Year

- AGEC 49900 - Thesis
- 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: 4.00

15 Credits

Spring 4th Year

- AGEC 49900 - Thesis
- Economics Selective - Credit Hours: 3.00
- Electives - Credit Hours: 8.00

12 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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.

Farm Management Website

Summary of Program Requirements

The Summary of Program Requirements for Farm Management (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (104 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- AGEC 41100 - Farm Management

- AGEC 42400 - Financial Management Of Agricultural Business

Other Departmental /Program Course Requirements (76 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours 4.00
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)

- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core) ♦ or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core) ♦

- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Mathematics or Science Selective - Credit Hours: 3.00

- AGEC 31100 - Accounting For Farm Business Planning or
- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting

- Farm Management Business Selective - Credit Hours: 3.00
- Farm Management Business Selective - Credit Hours: 3.00
- Farm Management Business 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
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (16 credits)

- Elective - Credit Hours: 16.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 15910 - Introduction To Calculus ♦ or
- MA 16010 - Applied Calculus I ♦

15 Credits

Spring 1st Year

- AGEC 21700 - Economics
- COM 11400 - Fundamentals Of Speech Communication or

- COM 21700 - Science Writing And Presentation
- CHM 11200 - General Chemistry
- UCC Humanities Selective - Credit Hours: 3.00
- UCC Science, Technology, & Society Selective - Credit Hours: 3.00

15 Credits

Fall 2nd Year

- AGECE 22000 - Economics Of Agricultural Markets
- AGECE 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: 3.00

17 Credits

Spring 2nd Year

- AGECE 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

- AGECE 31100 - Accounting For Farm Business Planning or
- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting
- AGECE 32100 - Principles Of Commodity Marketing
- AGECE 35200 - Quantitative Techniques For Firm Decision Making or
- AGECE 45100 - Applied Econometrics
- Written or Oral Communication Selective - 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
- Math/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

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Sales and Marketing, BS

About the Program

Not only does sales and marketing emphasize sales, marketing, and management, it allows students to develop an area of specialization to prepare them for entry into an agriculturerelated industry of their choice. A wide spectrum of farm supply industries, service firms, agricultural marketing organizations, and food manufacturing companies are marketing-oriented and depend extensively on agricultural graduates who are well-trained in marketing tools and concepts. This program provides the basis for entry into agri-marketing, leading to a professional career in agri-sales or marketing management.

Sales and Marketing Website

Summary of Program Requirements

The Summary of Program Requirements for Sales & Marketing (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (101 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics

- 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

Other Departmental /Program Course Requirements (64 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11200 - Introduction To Agricultural Economics Academic Programs
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)

- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core) ♦ or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core) ♦

- MGMT 20000 - Introductory Accounting or
- MGMT 20010 - Business Accounting

- MGMT 45500 - Legal Background For Business I
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Communication Marketing Selective - Credit Hours: 3.00
- Mathematics or Science Selective - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communications Selective - Credit Hours: 3.00
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (19 credits)

- Elective - Credit Hours: 19.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition

- MA 15910 - Introduction To Calculus ♦ or
- MA 16010 - Applied Calculus I ♦

- Biological Sciences Selective - Credit Hours: 4.00

16 Credits

Spring 1st Year

- AGEC 21700 - Economics

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- Biological Sciences Selective - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00
- UCC 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
- 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 20010 - 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 35200 - Quantitative Techniques For Firm Decision Making or
- AGEC 45100 - Applied Econometrics
- AGEC 42400 - Financial Management Of Agricultural Business
- Written or Oral Communication Selective - 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
- Math/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

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Minor

Farm Management Minor

AGEC • Minor • Credits: 18

Departmental permission is not required to enroll in this minor.

See note below.*

Recommended Plan of Study

Required Courses

- AGEC 31000 - Farm Organization
- AGEC 31100 - Accounting For Farm Business Planning or
- MGMT 20000 - Introductory Accounting
- AGEC 41100 - Farm Management

Selective List

Eight credits must be earned from the following list of courses.

- AGEC 22000 - Economics Of Agricultural Markets
- AGEC 32100 - Principles Of Commodity Marketing
- 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 45500 - Agricultural Law or
- MGMT 45500 - Legal Background For Business I
- AGEC 45600 - Federal Income Tax Law
- AGEC 52400 - Agricultural Finance
- OLS 25200 - Human Relations In Organizations or
- OLS 27400 - Applied Leadership

Additional Information

*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.

Food and Agribusiness Management Minor

AGEC • Minor • Credits: 18

Departmental permission is not required to enroll in this minor. See note below.*

Recommended Plan of Study

Required Courses

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

- AGEC 33000 - Management Methods For Agricultural Business
- MGMT 20000 - Introductory Accounting or
- AGEC 31100 - Accounting For Farm Business Planning

Selectives

Nine credits from the following courses must be completed. At least six credits must be in Agricultural Economics (AGEC) courses.

- AGEC 22000 - Economics Of Agricultural Markets
- 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 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
- 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 48100 - Ethics And Compliance In Financial Counseling And Planning
- CSR 48400 - Consumer Investment And Savings Decisions

- CSR 48500 - Case Studies In Financial Planning
- CSR 48600 - Retirement Planning And Employee Benefits
- HORT 43500 - Principles Of Marketing And Management For Horticultural Businesses

Additional Information

*Any Management (MGMT) or Organizational Leadership and Supervision (OLS) course at the 20000 level or above may be used. Only one course from OLS 25200 and OLS 27400 may be used

Department of Agronomy

Overview

The Purdue University 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

<https://ag.purdue.edu/agry/directory/Pages/default.aspx>

Contact Information

Department of Agronomy

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915 W. State Street
Purdue University
West Lafayette, IN 47907-2054
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Fax: 765-496-2926
Information for Undergraduate Programs: agronomy@purdue.edu
<http://ag.purdue.edu/agry>

Graduate Information

For Graduate Information please see [Agronomy Graduate Program Information](#).

Baccalaureate

Agronomy: Agronomic Business and Marketing Concentration, BS

About the Program

Agronomy includes three areas of concentration:

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.

Agronomic 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.

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 (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Agronomy- Agronomic Business Marketing (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (114 credits)

Required Major Courses (11 credits)

- AGRY 25500 - Soil Science
- AGRY 39800 - Agronomy Seminar
- AGRY 36500 - Soil Fertility
- AGRY 32000 - Genetics
- AGRY 49800 - Agronomy Senior Seminar

Other Departmental /Program Course Requirements (103 credits)

(See Agronomy Advising Resources)

- AGECE 20300 - Introductory Microeconomics For Food And Agribusiness Economics Selective (satisfies Human Culture Behavioral/Social Science for core)

- AGECE 32700 - Principles Of Food And Agribusiness Marketing * or
- MGMT 32300 - Principles Of Marketing *

- AGECE 33100 - Principles Of Selling In Agricultural Business
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- BIOL 11000 - Fundamentals Of Biology I

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- CHM 11100 - General Chemistry (satisfies Science Selective for core)
- CHM 11200 - General Chemistry (satisfies Science Selective for core)
- CHM 25700 - Organic Chemistry
- ENGL 42000 - Business Writing
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory

- STAT 30100 - Elementary Statistical Methods
- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning Selective for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)

- Agronomy Crops Selective - Credit Hours: 3.00
- Agronomy Selective (Science, Technology, & Society) - Credit Hours: 3.00
- Agronomy Selective - Credit Hours: 3.00
- Ecology Selective - Credit Hours: 3.00
- Agricultural Economics Selective - Credit Hour: 6.00
- Agricultural Economics or Management Selective - Credit Hours: 3.00
- Agricultural Economics, Consumer Science and Retailing, Horticulture, or OLS Selective - Credit Hours: 6.00
- Additional Math or Science Selective - Credit Hours: 8.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (6 credits)

- Elective - Credit Hours: 6.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- CHM 11100 - General Chemistry

- MA 15910 - Introduction To Calculus or
- MA 16010 - Applied Calculus I

- Agronomy Crops Selective - Credit Hours: 3.00

14 Credits

Spring 1st Year

- AGECE 20300 - Introductory Microeconomics For Food And Agribusiness

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry
- ENGL 10600 - First-Year Composition
- Agronomy Selective - Credit Hours: 3.00

17 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science ♦
- AGRY 39800 - Agronomy Seminar
- BTNY 30100 - Introductory Plant Pathology
- CHM 25700 - Organic Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

14 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- STAT 30100 - Elementary Statistical Methods
- Agricultural Economics Selective - Credit Hours: 3.00
- Agronomy Selective (Science, Technology, and Society) - Credit Hours: 3.00
- Ecology Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- Additional Math or Science Selectives - Credit Hours: 4.00
- Agricultural Economics or Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGECE 33100 - Principles Of Selling In Agricultural Business

- AGRY 32000 - Genetics
- BTNY 30400 - Introductory Weed Science
- Additional Math or Science Selectives - Credit Hours: 4.00
- Written or Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- AGRY 49800 - Agronomy Senior Seminar
- Agricultural Economics Selective - Credit Hours: 3.00
- UCC 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

- AGECE 32700 - Principles Of Food And Agribusiness Marketing or
- MGMT 32300 - Principles Of Marketing
- ENGL 42000 - Business Writing
- Agricultural Economics, Consumer Science and Retailing, Horticulture, or OLS Selective - Credit Hours: 6.00
- Electives - Credit Hours: 3.00

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Agronomy: Crop and Soil Management Concentration, BS

About the Program

Agronomy includes three areas of concentration:

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.

Agronomic 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.

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 (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Agronomy- Crop & Soil Management (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (108 credits)

Required Major Courses (14 credits)

- AGRY 10500 - Crop Production
- AGRY 25500 - Soil Science
- AGRY 39800 - Agronomy Seminar
- AGRY 32000 - Genetics
- AGRY 36500 - Soil Fertility

- AGRY 49800 - Agronomy Senior Seminar

Other Departmental /Program Course Requirements (94 credits)

(See Agronomy Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry (satisfies Science Selective for core)
- CHM 11200 - General Chemistry (satisfies Science Selective for core)
- CHM 25700 - Organic Chemistry
- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning Selective for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy Selective for core)
- Agronomy Selective (Science, Technology, & Society) - Credit Hours: 3.00
- Agronomy Selective - Credit Hours: 3.00
- Ecology or Plant Ecology Selective - Credit Hours: 3.00
- Directed Selective - Credit Hours: 27.00
- Math or Science Selectives - Credit Hours: 8.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (12 credits)

- Elective - Credit Hours: 12.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy

- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- CHM 11100 - General Chemistry
- MA 15910 - Introduction To Calculus or
- MA 16010 - Applied Calculus I

14 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry
- ENGL 10600 - First-Year Composition
- Economics Selective - Credit Hours: 3.00

14 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science ♦
- AGRY 39800 - Agronomy Seminar
- CHM 25700 - Organic Chemistry

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- Directed Selective - Credit Hours: 3.00

14 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- STAT 30100 - Elementary Statistical Methods
- Agronomy Selective (Science, Technology, and Society) - Credit Hours: 3.00
- Ecology or Plant Ecology Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - 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: 3.00

16 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
- UCC 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: 6.00

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Agronomy: International Agronomy Concentration, BS

About the Program

Agronomy includes three areas of concentration:

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.

Agronomic 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.

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 (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Agronomy- International Agronomy (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (111 credits)

Required Major Courses (21 credits)

- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 25500 - Soil Science
- AGRY 39800 - Agronomy Seminar
- AGRY 36500 - Soil Fertility
- AGRY 33500 - Weather And Climate
- AGRY 32000 - Genetics
- AGRY 35000 - Global Awareness
- AGRY 49800 - Agronomy Senior Seminar
- AGRY 59800 - Special Problems

Other Departmental /Program Course Requirements (90 credits)

(See Agronomy Advising Resources)

- AGECE 34000 - International Economic Development
- AGECE 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
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry (satisfies Science Selective for core)
- CHM 11200 - General Chemistry (satisfies Science Selective for core)
- CHM 25700 - Organic Chemistry
- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning Selective for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy Selective for core)
- Ecology Selective - Credit Hours: 3.00
- AGR International Development Selective - Credit Hours: 3.00
- Macroeconomics Selective - Credit Hours: 3.00
- Conversation Language Selective - Credit Hours: 2.00
- Directed Selective - Credit Hours: 6.00
- AGR or SCI Selective - Credit Hours: 6.00
- Additional Math or Science Selective - Credit Hours: 8.00
- Microeconomics (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Foreign Language Selective - Credit Hours: 9.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (9 credits)

- Elective - Credit Hours: 9.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- CHM 11100 - General Chemistry

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- MA 15910 - Introduction To Calculus or
- MA 16010 - Applied Calculus I

14 Credits

Spring 1st Year

- AGRY 28500 - World Crop Adaptation And Distribution

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- CHM 11200 - General Chemistry
- ENGL 10600 - First-Year Composition
- Microeconomics Selective - Credit Hours: 3.00

17 Credits

Fall 2nd Year

- Macroeconomics Selective - Credit Hours: 3.00
- AGRY 25500 - Soil Science ♦
- AGRY 39800 - Agronomy Seminar
- CHM 25700 - Organic Chemistry
- Foreign Language Selective - Credit Hours: 3.00

14 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- AGRY 33500 - Weather And Climate
- STAT 30100 - Elementary Statistical Methods
- Ecology or Plant Ecology Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGECE 45000 - International Agricultural Trade
- Directed Selective - Credit Hours: 3.00
- Foreign Language Selective - Credit Hours: 3.00
- Math or Science Selectives - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGECE 34000 - International Economic Development
- AGRY 32000 - Genetics
- AGRY 35000 - Global Awareness
- Conversation Language Selective - Credit Hours: 2.00
- 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
- AGRY 59800 - Special Problems
- AGR International Development Selective - 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
- AGR or SCI Selective - Credit Hours: 6.00
- Electives - Credit Hours: 6.00

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

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.

Applied Meteorology and Climatology Website

Summary of Program Requirements

The Summary of Program Requirements for Applied Meteorology and Climatology is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (113 credits)

Required Major Courses (32 credits)

- AGRY 28500 - World Crop Adaptation And Distribution (satisfies Science, Technology and 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
- AGRY 53500 - Boundary Layer Meteorology
- AGRY 53600 - Environmental Biophysics
- AGRY 54500 - Remote Sensing Of Land Resources

Other Departmental /Program Course Requirements (81 credits)

(See Agronomy Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry (satisfies Science Selective for core)
- CHM 11200 - General Chemistry (satisfies Science Selective for core)
- CS 15800 - C Programming
- EAPS 13700 - Freshman Seminar In Earth And Atmospheric Sciences
- EAPS 43400 - Weather Analysis And Forecasting
- EAPS 53200 - Atmospheric Physics I
- EAPS 53500 - Atmospheric Observations And Measurements
- MA 16100 - Plane Analytic Geometry And Calculus I (satisfies Quantitative Reasoning Selective 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 Selective for core)
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (7 credits)

- Elective - Credit Hours: 7.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- CHM 11100 - General Chemistry
- MA 16100 - Plane Analytic Geometry And Calculus I

13 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- CHM 11200 - General Chemistry
- EAPS 13700 - Freshman Seminar In Earth And Atmospheric Sciences
- ENGL 10600 - First-Year Composition
- MA 16200 - Plane Analytic Geometry And Calculus II

17 Credits

Fall 2nd Year

- AGRY 39800 - Agronomy Seminar

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- CS 15800 - C Programming
- MA 26100 - Multivariate Calculus ♦
- PHYS 17200 - Modern Mechanics

15 Credits

Spring 2nd Year

- AGRY 33500 - Weather And Climate
- MA 26200 - Linear Algebra And Differential Equations
- PHYS 24100 - Electricity And Optics
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGRY 43100 - Atmospheric Thermodynamics
- AGRY 44100 - Synoptic Laboratory I
- STAT 30100 - Elementary Statistical Methods
- UCC Humanities selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Written or Oral Communication selective - Credit Hours: 3.00

16 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: 4.00

14 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
- EAPS 53500 - Atmospheric Observations And Measurements

14 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

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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.

Crop Science Website

Summary of Program Requirements

The Summary of Program Requirements for Crop Science (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (111-113 credits)

Required Major Courses (18 credits)

- AGRY 10500 - Crop Production
- AGRY 25500 - Soil Science ♦
- AGRY 39800 - Agronomy Seminar
- AGRY 36500 - Soil Fertility
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 49800 - Agronomy Senior Seminar

Other Departmental /Program Course Requirements (93-95 credits)

(See Agronomy Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs

- AGRY 51500 - Plant Mineral Nutrition or
- BTNY 31600 - Plant Anatomy

- AGRY 52500 - Crop Physiology And Ecology or
- HORT 30100 - Plant Physiology

- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 11000 - Fundamentals Of Biology I

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- CHM 11100 - General Chemistry (satisfies Science Selective for core)
- CHM 11200 - General Chemistry (satisfies Science Selective 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 Selective for core)
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy Selective for core)
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Agronomy Selective (Science, Technology, & Society) - 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
- Agronomy Selective - Credit Hours: 6.00
- Business Selective - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (7 to 9 credits)

- Elective - Credit Hours: 7 to 9

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree

- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- CHM 11100 - General Chemistry
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I

18 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry
- MA 16020 - Applied Calculus II
- Agronomy Selective - Credit Hours: 3.00
- Economics Selective - 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
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- Elective - Credit Hours: 3.00 *

15 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- STAT 30100 - Elementary Statistical Methods
- Agronomy Selective - Credit Hours: 3.00
- Agronomy Selective (Science, Technology, and Society) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00 *

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 - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00

13 Credits

Fall 4th Year

- AGRY 49800 - Agronomy Senior Seminar
- AGRY 51500 - Plant Mineral Nutrition or
- BTNY 31600 - Plant Anatomy *
- 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

- AGRY 52500 - Crop Physiology And Ecology or
- HORT 30100 - Plant Physiology *

- BTNY 30400 - Introductory Weed Science
- Agricultural Economics, Economics, Management or Organizational Leadership and Supervision Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

12 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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

Summary of Program Requirements

The Summary of Program Requirements for Plant Genetics, Breeding & Biotechnology (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credit required for graduation

Departmental/Program Major Courses (108 to 114 credits)

Required Major Courses (18 credits)

- AGRY 25500 - Soil Science
- AGRY 28500 - World Crop Adaptation And Distribution
- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 39800 - Agronomy Seminar
- AGRY 48000 - Plant Genetics
- AGRY 49800 - Agronomy Senior Seminar
- AGRY 52000 - Principles And Methods Of Plant Breeding

Other Departmental /Program Course Requirements (90 to 96 credits)

(See Agronomy Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- AGR 29000 - Special Topics In Agriculture

- AGRY 52500 - Crop Physiology And Ecology or
- HORT 30100 - Plant Physiology

- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BIOL 11000 - Fundamentals Of Biology I

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- 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

- CHM 11500 - General Chemistry (satisfies Science Selective for core)
- CHM 11600 - General Chemistry (satisfies Science Selective for core)
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory

- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core) or
- MA 16100 - Plane Analytic Geometry And Calculus I (satisfies Quantitative Reasoning Selective for core)

- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy Selective for core)

- MA 16020 - Applied Calculus II or
- MA 16200 - Plane Analytic Geometry And Calculus II

- PHYS 17200 - Modern Mechanics or
- PHYS 22000 - General Physics

- PHYS 22100 - General Physics or
- PHYS 24100 - Electricity And Optics

- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- Directed Selective - Credit Hours: 9.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (6 to 12 credits)

- Elective (credits required depend on Math, Physics, & Physiology course choices) - Credit Hours: 6.00 to 12.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication

- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs
- AGR 29000 - Special Topics In Agriculture
- BIOL 11000 - Fundamentals Of Biology I
- CHM 11500 - General Chemistry
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I or
- MA 16100 - Plane Analytic Geometry And Calculus I *

17 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11600 - General Chemistry
- MA 16020 - Applied Calculus II or
- MA 16200 - Plane Analytic Geometry And Calculus 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

- Economics Selective - Credit Hours: 3.00
- Directed Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGRY 28500 - World Crop Adaptation And Distribution
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- PHYS 22100 - General Physics or
- PHYS 24100 - Electricity And Optics *

14 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

- UCC Humanities Selective - Credit Hours: 3.00

13 Credits

Spring 3rd Year

- BIOL 22100 - Introduction To Microbiology

- Directed Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 6.00
- Written or Oral Communication Selective - 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
- BIOL 41500 - Introduction To Molecular Biology or
- BTNY 35000 - Biotechnology In Agriculture
- STAT 30100 - Elementary Statistical Methods
- Elective * - Credit Hours: 3.00

16 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 (30000+ level) - Credit Hours: 3.00
- Electives - Credit Hours: 6.00 *

15 Credits

Requirements

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Soil and Water Sciences, BS

About the Program

The Soil and Hydrologic 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

Summary of Program Requirements

The Summary of Program Requirements for Soil & Water Sciences (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (109 to 110 credits)

Required Major Courses (29 to 30 credits)

- AGRY 25500 - Soil Science
- AGRY 29000 - Introduction To Environmental Science
- AGRY 33500 - Weather And Climate
- AGRY 33700 - Environmental Hydrology
- AGRY 36500 - Soil Fertility

- AGRY 38500 - Environmental Soil Chemistry or
- AGRY 34900 - Soil Ecology

- AGRY 39800 - Agronomy Seminar

- AGRY 45000 - Soil Conservation and Water Management or
- AGRY 58500 - Soils And Land Use

- AGRY 46500 - Soil Physical Properties
- AGRY 49800 - Agronomy Senior Seminar
- AGRY 56500 - Soils And Landscapes

Other Departmental /Program Course Requirements (80 credits)

(See Agronomy Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11300 - Introduction To Agronomy Academic Programs

- AGRY 32000 - Genetics or
- AGRY 52500 - Crop Physiology And Ecology or
- BCHM 30700 - Biochemistry

- BIOL 11000 - Fundamentals Of Biology I

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science

- CHM 11100 - General Chemistry (satisfies Science Selective for core)
- CHM 11200 - General Chemistry (satisfies Science Selective for core)
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- EAPS 11100 - Physical Geology
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
- MA 16020 - Applied Calculus II
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy Selective for core)
- Crop or Plant Science Selective - Credit Hours: 3.00
- Ecology Selective - Credit Hours: 3.00
- Engineering or Science Selective - Credit Hours: 3.00
- Agricultural Economics, Economics, Management or Organizational Leadership and Supervision Selective - Credit Hours: 3.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (10 or 11 credits)

- Elective - Credit Hours: 10.00 - 11.00

University Core Requirements

- Human Cultures Humanities

- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- CHM 11100 - General Chemistry
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- BIOL 11100 - Fundamentals Of Biology II or
- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry
- MA 16020 - Applied Calculus II
- Economics Selective - Credit Hours: 3.00

13 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science ♦
- AGRY 29000 - Introduction To Environmental Science
- 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
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- PHYS 22000 - General Physics
- Ecology Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- AGRY 38500 - Environmental Soil Chemistry or
- AGRY 34900 - Soil Ecology *
- EAPS 11100 - Physical Geology
- PHYS 22100 - General Physics
- UCC Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00 *

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 - Credit Hours: 3.00

15 Credits

Fall 4th Year

- AGRY 45000 - Soil Conservation and Water Management or
- AGRY 58500 - Soils And Land Use

- AGRY 46500 - Soil Physical Properties
- AGRY 49800 - Agronomy Senior Seminar
- AGRY 56500 - Soils And Landscapes
- 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 Organizational Leadership and Supervision Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Electives - Credit Hours: 5.00 *

17 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Turf Science and Management, BS

About the Program

A turfgrass manager oversees and implements management programs for the production, maintenance, and performance of a variety of turfgrass areas like golf courses, lawns, athletic fields, parks, and sod farms. Maintaining a high-quality, manicured turf that is subjected to intense use requires skill and experience. The Turf Science curriculum is centered on basic scientific principles, technical agronomic information, business/management coursework, written/oral communication and problem solving skills to prepare students to handle a wide array of potential career paths.

Turf Science and Management Website

Summary of Program Requirements

The Summary of Program Requirements for Turf Management & Science (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (114-115 credits)

Required Major Courses (18 credits)

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11100 - Survey Of Turfgrass Culture
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21100 - Fundamentals of Turfgrass Culture Laboratory
- HORT 30100 - Plant Physiology
- HORT 51000 - Turf Science
- HORT 51200 - Integrated Turfgrass Systems

Other Departmental /Program Course Requirements (96 credits)

(See Advising Resources)

- MGMT 20010 - Business Accounting
- 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

- BTNY 44300 - Arthropods And Diseases Of Turfgrass or
- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants

- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory

- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning Selective for core) or
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning Selective for core)

- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Physics Selective - Credit Hours: 3.00
- Business/Management Selectives - Credit Hours: 12.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - 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
- Plant Advanced Phys/Nutrition Selective - Credit Hour: 1.00
- Turf Science Selectives - Credit hours: 10.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (6 credits)

- Elective - Credit Hours: 6.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication

- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- HORT 11100 - Survey Of Turfgrass Culture
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry
- ENGL 10600 - First-Year Composition
- MA 15910 - Introduction To Calculus or
- MA 16010 - Applied Calculus I

16 Credits

Spring 1st Year

- CHM 11200 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- HORT 10100 - Fundamentals Of Horticulture

15 Credits

Fall 2nd Year

- MGMT 20010 - Business Accounting or Introductory Accounting for non-management majors
- AGRY 25500 - Soil Science ♦
- CHM 25700 - Organic Chemistry
- STAT 30100 - Elementary Statistical Methods
- Written or Oral Communication Selective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGRY 36500 - Soil Fertility
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21100 - Fundamentals of Turfgrass Culture Laboratory
- Business/Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science
- HORT 30100 - Plant Physiology
- HORT 51000 - Turf Science
- Business/Management Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- BTNY 44300 - Arthropods And Diseases Of Turfgrass or
- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants
- Business Management Selective - Credit Hours: 3.00
- Physics Selective - Credit Hours: 3.00
- Turf Management Selective - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- HORT 51200 - Integrated Turfgrass Systems
- Advanced Phys/Nutrition Selective - Credit Hours: 1.00
- Business/Management Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 Credits

Spring 4th Year

- Turf Management Selective - Credit Hours: 3.00
- Turf Management Selective - Credit Hours: 3.00
- Turf Management Selective - Credit Hours: 1.00
- UCC Science, Technology & Society Selective - Credit Hours: 3.00
- Electives - Credit Hours: 6.00

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Minor

Crop Science Minor

AGRY • Minor • Credits: 18

Departmental permission is not required to enroll in this minor.

Students majoring in the Department of Agronomy cannot obtain a Crop Science minor.

Recommended Plan of Study

Required Courses

- AGRY 10500 - Crop Production or
- AGRY 37500 - Crop Production Systems

- AGRY 25500 - Soil Science

Selective List

Twelve (12) credits from the following courses must be completed.

- AGRY 10500 - Crop Production or
- AGRY 37500 - Crop Production Systems

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- AGRY 36500 - Soil Fertility
- AGRY 48000 - Plant Genetics
- AGRY 50500 - Forage Management
- AGRY 51500 - Plant Mineral Nutrition
- AGRY 52000 - Principles And Methods Of Plant Breeding

- AGRY 52500 - Crop Physiology And Ecology or
- HORT 30100 - Plant Physiology

- BTNY 30100 - Introductory Plant Pathology
- BTNY 30400 - Introductory Weed Science

- BTNY 35000 - Biotechnology In Agriculture or
- HORT 35000 - Biotechnology in Agriculture - Credit Hours: 3.00

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Soil Science Minor

AGRY • Minor • Credits: 18

Departmental permission is not required to enroll in this minor.

Students majoring in the Department of Agronomy cannot obtain a Crop Science minor.

Recommended Plan of Study

Required Courses

- AGRY 25500 - Soil Science
- AGRY 36500 - Soil Fertility

Selective List

Twelve (12) credits from the following courses must be completed.

- AGRY 29000 - Introduction To Environmental Science
- 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 38500 - Environmental Soil Chemistry
- 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 57500 (Soil and Nutrient Management)
- AGRY 58000 - Soil Microbiology
- AGRY 58200 - Environmental Fate Of Pesticides
- AGRY 58500 - Soils And Land Use

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Department of Animal Sciences

Overview

The Purdue University Department of Animal Sciences provides leadership and inspiration to educate individuals to anticipate and effectively respond to challenges facing the global animal industries. Animal Sciences facilitates scientific research and technology transfer for efficient and sustainable production of high quality animal products with optimal animal well-being, enhancement of the human diet, and advancement of sound environmental practices.

The vision of the Department of Animal Sciences is very simple. We desire to be the "place to go" for the citizens of Indiana and beyond for knowledge in animal sciences. This includes students, traditional commodity groups, government, consumers, and many others. Our shared or common goals are:

- to provide students with a rigorous and relevant education thus prepared for a lifetime of learning;
- to achieve scientific preeminence in selected areas, and be able to develop teams to find and solve real problems in a real world; and
- to meet the needs of clientele making the best use of emerging technologies.

The faculty have expertise in the disciplines of growth and development, nutrition, breeding and genetics, physiology, management, and animal well-being and behavior. In addition, USDA personnel in the area of animal behavior are adjunct faculty members.

Faculty

<https://ag.purdue.edu/ansc/Pages/directory.aspx>

Contact Information

Department of Animal Sciences

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Baccalaureate

Animal Sciences: Animal Agribusiness Concentration, BS

About the Program

Animal sciences offers a sound education in science and prepares students for scientific careers in animal agriculture. Biotechnological industries seek animal science graduates, frequently offering unprecedented opportunities. In addition, students are prepared for graduate study in specialized fields of animal genetics, nutrition, physiology, food science, or management. Students interested in continuing to a professional school, such as dentistry, medicine, or veterinary medicine, find this program to provide excellent preparation.

Concentrations include:

- Animal Agribusiness
- Behavior/Wellbeing
- Biosciences
- Prevetterinary Medicine
- Production
- Products

Animal Sciences (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Animal Sciences-Animal Agribusiness (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (107-108 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (UCC STS Selective)
- 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

ANSC Restricted Selectives (21 credits, 18 credits have to be 30000 or higher)

(see ANSC Undergraduate Student Handbook)

- Animal Genetics Selective - Credit Hours: 3.00 - 4.00
- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Physiology Selective - Credit Hours: 2.00 - 3.00
- Animal Production/Management selective - Credit Hours: 3.00
- Animal Products Selective - Credit Hours: 2.00 - 4.00
- Animal Sciences Selectives - Credit Hours: 4.00 - 8.00

Other Departmental /Program Course Requirements (74-75 credits)

(see ANSC Undergraduate Student Handbook)

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness (satisfies Human Culture Behavioral/Social Science for core)

- AGEC 31100 - Accounting For Farm Business Planning or
- MGMT 20000 - Introductory Accounting

- 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)
- MA 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core)

- PHYS 21400 - The Nature Of Physics or
- CHM 25700 - Organic Chemistry

- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Agricultural Economics, Economics, or Management Selective - Credit Hours: 12.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

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

Electives (12-13 credits)

- Elective - Credit Hours: 12.00 - 13.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy

- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition

15 Credits

Spring 1st Year

- AGECE 20300 - Introductory Microeconomics For Food And Agribusiness
- ANSC 18100 - Orientation To Animal Sciences
- BIOL 11100 - Fundamentals Of Biology II
- CHM 11200 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- MA 15910 - Introduction To Calculus

17 Credits

Fall 2nd Year

- AGEC 20200 - Spreadsheet Use In Agricultural Business
- AGEC 21700 - Economics

- AGEC 31100 - Accounting For Farm Business Planning or
- MGMT 20000 - Introductory Accounting

- ANSC 22100 - Principles Of Animal Nutrition ♦
- UCC Humanities Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - 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
- 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: 7.00

14 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Animal Sciences: Behavior/Well-Being Concentration, BS

About the Program

Animal sciences offers a sound education in science and prepares students for scientific careers in animal agriculture. Biotechnological industries seek animal science graduates, frequently offering unprecedented opportunities. In addition, students are prepared for graduate study in specialized fields of animal genetics, nutrition, physiology, food science, or management. Students interested in continuing to a professional school, such as dentistry, medicine, or veterinary medicine, find this program to provide excellent preparation.

Concentrations include:

- Animal Agribusiness
- Behavior/Wellbeing
- Biosciences
- Preveterinary Medicine
- Production
- Products

Animal Sciences (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Animal Sciences-Behavior Well-being (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (108 credits)

Required Major Courses (15 credits)

- ANSC 10200 - Introduction To Animal Agriculture (UCC STS Selective)
- 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

ANSC Restricted Selectives (21 credits, 18 credits have to be 30000 or higher)

(see ANSC Undergraduate Student Handbook)

- Animal Genetics Selective - Credit Hours: 3.00 - 4.00
- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Physiology Selective - Credit Hours: 2.00 - 3.00
- Animal Production/Management selective - Credit Hours: 3.00
- Animal Products Selective - Credit Hours: 2.00 - 4.00

- Animal Sciences Selectives - Credit Hours: 4.00 - 8.00

Other Departmental /Program Course Requirements (75 credits)

(see ANSC Undergraduate Student Handbook)

- 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)
- Behavior/Well-being Selective - Credit Hours: 9.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (9 credits)

- Elective - Credit Hours: 9.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2

- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16020 - Applied Calculus II

16 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition ♦

- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- Animal Sciences Selective - Credit Hours: 2.00
- Economics 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
- UCC 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 - 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
- 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

14 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Animal Sciences: Biosciences Concentration, BS

About the Program

Animal sciences offers a sound education in science and prepares students for scientific careers in animal agriculture. Biotechnological industries seek animal science graduates, frequently offering unprecedented opportunities. In addition, students are prepared for graduate study in specialized fields of animal genetics, nutrition, physiology, food science, or management.

Students interested in continuing to a professional school, such as dentistry, medicine, or veterinary medicine, find this program to provide excellent preparation.

Concentrations include:

- Animal Agribusiness
- Behavior/Wellbeing
- Biosciences
- Preveterinary Medicine
- Production
- Products

Animal Sciences (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Animal Sciences-Biosciences (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (112 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (UCC STS Selective)
- 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

ANSC Restricted Selectives (24 credits)

(see ANSC Undergraduate Student Handbook)

- Animal Genetics Selective - Credit Hours: 3.00 - 4.00
- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Physiology Selective - Credit Hours: 2.00 - 3.00
- Animal Production/Management selective - Credit Hours: 3.00
- Animal Products Selective - Credit Hours: 2.00 - 4.00
- Animal Sciences Selectives - Credit Hours: 4.00 - 8.00

Other Departmental /Program Course Requirements (76 credits)

(see ANSC Undergraduate Student Handbook)

- 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)
- Science Selective - Credit hours: 9.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (8 credits)

- Elective - Credit Hours: 8.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication

- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16020 - Applied Calculus II

16 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition ♦
- CHM 25500 - Organic Chemistry
- CHM 25501 - Organic Chemistry Laboratory

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- Animal Sciences Selective - Credit Hours: 2.00
- Economics 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
- UCC 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
- Animal Production/Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

- Animal Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

15 Credits

Spring 4th Year

- Animal Products Selective - Credit Hours: 3.00
- Animal Science Selectives - Credit Hours: 3.00
- Science Selectives - Credit Hours: 3.00
- Electives - Credit Hours: 4.00

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Animal Sciences: Pre-Veterinary Medicine Concentration, BS

About the Program

Animal sciences offers a sound education in science and prepares students for scientific careers in animal agriculture. Biotechnological industries seek animal science graduates, frequently offering unprecedented opportunities. In addition, students are prepared for graduate study in specialized fields of animal genetics, nutrition, physiology, food science, or management. Students interested in continuing to a professional school, such as dentistry, medicine, or veterinary medicine, find this program to provide excellent preparation.

Concentrations include:

- Animal Agribusiness
- Behavior/Wellbeing
- Biosciences
- Preveterinary Medicine
- Production
- Products

Animal Sciences (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Animal Sciences-Pre-Veterinary Medicine is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (117 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (UCC STS Selective)
- 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

ANSC Restricted Selectives (21 credits)

(see ANSC Undergraduate Student Handbook)

- Animal Genetics Selective - Credit Hours: 3.00 - 4.00
- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Physiology Selective - Credit Hours: 2.00 - 3.00
- Animal Production/Management selective - Credit Hours: 3.00
- Animal Products Selective - Credit Hours: 2.00 - 4.00
- Animal Sciences Selectives - Credit Hours: 4.00 - 8.00

Other Departmental /Program Course Requirements (84 credits)

(see ANSC Undergraduate Student Handbook)

- 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

- PHYS 22000 - General Physics or
- PHYS 23300 - Physics For Life Sciences I

- PHYS 22100 - General Physics or
- PHYS 23400 - Physics For Life Sciences II

- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- VM 10200 - Careers In Veterinary Medicine
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (3 credits)

- Elective: Credit Hours: 3.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- MA 16020 - Applied Calculus II
- VM 10200 - Careers In Veterinary Medicine

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

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
- PHYS 22000 - General Physics or
- PHYS 23300 - Physics For Life Sciences I
- STAT 30100 - Elementary Statistical Methods
- Animal Physiology Selective - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- PHYS 22100 - General Physics or
- PHYS 23400 - Physics For Life Sciences II

- BIOL 22100 - Introduction To Microbiology
- 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
- 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

14 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 - Credit Hours: 3.00

14 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Animal Sciences: Production Concentration, BS

About the Program

Animal sciences offers a sound education in science and prepares students for scientific careers in animal agriculture. Biotechnological industries seek animal science graduates, frequently offering unprecedented opportunities. In addition, students are prepared for graduate study in specialized fields of animal genetics, nutrition, physiology, food science, or management. Students interested in continuing to a professional school, such as dentistry, medicine, or veterinary medicine, find this program to provide excellent preparation.

Concentrations include:

- Animal Agribusiness
- Behavior/Wellbeing
- Biosciences
- Preveterinary Medicine
- Production
- Products

Animal Sciences (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Animal Sciences-Production (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (108 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (UCC STS Selective)
- 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

ANSC Restricted Selectives (21 credits)

(see ANSC Undergraduate Student Handbook)

- Animal Genetics Selective - Credit Hours: 3.00 - 4.00
- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Physiology Selective - Credit Hours: 2.00 - 3.00
- Animal Production/Management selective - Credit Hours: 3.00
- Animal Products Selective - Credit Hours: 2.00 - 4.00
- Animal Sciences Selectives - Credit Hours: 4.00 - 8.00

Other Departmental /Program Course Requirements (75 credits)

(see ANSC Undergraduate Student Handbook)

- 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 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Financial Management Selective - Credit Hours: 3.00
- 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
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (12 credits)

- Elective - Credit Hours: 12.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition

15 Credits

Spring 1st Year

- ANSC 18100 - Orientation To Animal Sciences
- BIOL 11100 - Fundamentals Of Biology II
- CHM 11200 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- MA 15910 - Introduction To Calculus

14 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition ♦
- CHM 25700 - Organic Chemistry
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - 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
- Elective - Credit Hours: 2.00

15 Credits

Fall 4th Year

- ANSC 48100 - Contemporary Issues in Animal Sciences
- 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

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Animal Sciences: Products Concentration, BS

About the Program

Animal sciences offers a sound education in science and prepares students for scientific careers in animal agriculture. Biotechnological industries seek animal science graduates, frequently offering unprecedented opportunities. In addition, students are prepared for graduate study in specialized fields of animal genetics, nutrition, physiology, food science, or management. Students interested in continuing to a professional school, such as dentistry, medicine, or veterinary medicine, find this program to provide excellent preparation.

Concentrations include:

- Animal Agribusiness
- Behavior/Wellbeing
- Biosciences
- Preveterinary Medicine
- Production
- Products

Animal Sciences (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Animal Sciences-Products (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (100-101 credits)

Required Major Courses (12 credits)

- ANSC 10200 - Introduction To Animal Agriculture (UCC STS Selective)
- 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

ANSC Restricted Selectives (21 credits)

(see ANSC Undergraduate Student Handbook)

- Animal Genetics Selective - Credit Hours: 3.00 - 4.00
- Animal Nutrition Selective - Credit Hours: 3.00
- Animal Physiology Selective - Credit Hours: 2.00 - 3.00
- Animal Production/Management selective - Credit Hours: 3.00
- Animal Products Selective - Credit Hours: 2.00 - 4.00
- Animal Sciences Selectives - Credit Hours: 4.00 - 8.00

Other Departmental /Program Course Requirements (67-68 credits)

(see ANSC Undergraduate Student Handbook)

- 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 22100 - Introduction To Microbiology
- 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 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core)
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Business Management Selective - Credit Hours: 3.00
- Food Science Selective - Credit Hours: 3.00 - 4.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (19-20 credits)

- Elective - Credit Hours: 19.00 - 20.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition

15 Credits

Spring 1st Year

- ANSC 18100 - Orientation To Animal Sciences
- BIOL 11100 - Fundamentals Of Biology II
- CHM 11200 - General Chemistry

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- MA 15910 - Introduction To Calculus

14 Credits

Fall 2nd Year

- ANSC 22100 - Principles Of Animal Nutrition ♦
- CHM 25700 - Organic Chemistry
- Business Management Selective - Credit Hours: 3.00

- Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - 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
- UCC 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
- 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: 5.00

15-16 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: 9.00 - 10.00

14-15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Minor

Animal Science Minor

ANSC • Minor • Credits: 18*

Departmental permission is not required to enroll in this minor. Eighteen (18) credits must be earned. One course must be completed in at least two of the following areas.

Recommended Plan of Study

Nutrition

- ANSC 22100 - Principles Of Animal Nutrition

Physiology

- ANSC 23000 - Physiology Of Domestic Animals

- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology

Genetics

- ANSC 31100 - Animal Breeding
- ANSC 51100 - Population Genetics
- ANSC 51400 - Animal Biotechnology
- BIOL 41500 - Introduction To Molecular Biology

Products

- ANSC 20100 - Functional Anatomy And Animal Performance
- ANSC 30100 - Animal Growth, Development, And Evaluation
- ANSC 35100 - Meat Science

Additional Information

The remainder of the eighteen 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.

*Effective in the 2009 Fall Semester, it is required that students who matriculate in 2009 or thereafter achieve a minimum 2.00 grade point average in graded ANSC courses to meet minimum requirements for the Animal Sciences academic minor.

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

<https://ag.purdue.edu/biochem/Pages/directory.aspx>

Contact Information

Department of Biochemistry

Purdue University
175 South University Street
West Lafayette, IN 47907-2063
Phone: 765-494-1600
Fax: 765-494-7897

Email: biochem-boilers@purdue.edu

Website: ag.purdue.edu/biochem

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](#)

Summary of Program Requirements

The Summary of Program Requirements for Biochemistry (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

Departmental/Program Major Courses (114 credits)

Required Major Courses (25 credits)

- BCHM 10000 - Introduction To Biochemistry
- BCHM 22100 - Analytical Biochemistry
- BCHM 29000 - Experimental Design Seminar
- BCHM 36100 - Molecules
- BCHM 32200 - Analytical Biochemistry II
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 46300 - Macromolecular Machines
- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49800 - Research In Biochemistry
- BCHM 49000 - Undergraduate Seminar

Other Departmental /Program Course Requirements (89 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11500 - Introduction To Biochemistry Academic Programs

- AGRY 32000 - Genetics or
- BIOL 24100 - Biology IV: Genetics And Molecular Biology

- AGRY 32100 - Genetics Laboratory or
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology

- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior or
- BIOL 11000 - Fundamentals Of Biology I

- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms or
- 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
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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 - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Science Selective - Credit Hours: 5.00 - 9.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (6 credits)

- Elective - Credit Hours: 6.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness

- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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 12100 - Biology I: Diversity, Ecology, And Behavior or
- BIOL 11000 - Fundamentals Of Biology I *

- CHM 11500 - General Chemistry
- MA 16010 - Applied Calculus I
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Spring 1st Year

- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms or
- BIOL 11100 - Fundamentals Of Biology II *

- CHM 11600 - General Chemistry
- ENGL 10600 - First-Year Composition
- MA 16020 - Applied Calculus II

14 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 or

- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- AGRY 32100 - Genetics Laboratory or
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology *
- 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

16 Credits

Fall 3rd Year

- BCHM 32200 - Analytical Biochemistry II
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 49800 - Research In Biochemistry
- PHYS 22000 - General Physics
- UCC Humanities Selective - Credit Hours: 3.00

14 Credits

Spring 3rd Year

- BCHM 49800 - Research In Biochemistry
- PHYS 22100 - General Physics
- Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

14 Credits

Fall 4th Year

- BCHM 46300 - Macromolecular Machines
- BCHM 49800 - Research In Biochemistry
- Economics Selective - Credit Hours: 3.00
- Science Selective - Credit Hours: 3.00 *
- Written or Oral Communication Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Spring 4th Year

- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar
- CHM 37200 - Physical Chemistry
- Science Selective - Credit Hours: 3.00 *
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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

Summary of Program Requirements

The Summary of Program Requirements for Biochemistry-Pre-Med is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (114-117 credits)

Required Major Courses (25 credits)

- BCHM 10000 - Introduction To Biochemistry
- BCHM 22100 - Analytical Biochemistry
- BCHM 29000 - Experimental Design Seminar
- BCHM 36100 - Molecules
- BCHM 32200 - Analytical Biochemistry II
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 46300 - Macromolecular Machines
- BCHM 49800 - Research In Biochemistry
- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar

Other Departmental /Program Course Requirements (89-92 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11500 - Introduction To Biochemistry Academic Programs

- AGRY 32000 - Genetics or
- BIOL 24100 - Biology IV: Genetics And Molecular Biology

- AGRY 32100 - Genetics Laboratory or
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology

- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior and

- BIOL 13500 - First year Biology Laboratory or
- BIOL 11000 - Fundamentals Of Biology I

- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms or
- 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 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

- 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
- Science Selective - Credit Hours: 0.00 - 1.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (3-6 credits)

- Elective - Credit Hours: 3.00 - 6.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree.

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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 12100 - Biology I: Diversity, Ecology, And Behavior and
- BIOL 13500 - First year Biology Laboratory or
- BIOL 11000 - Fundamentals Of Biology I
- CHM 11500 - General Chemistry
- MA 16010 - Applied Calculus I

14 Credits

Spring 1st Year

- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms or
- BIOL 11100 - Fundamentals Of Biology II *
- CHM 11600 - General Chemistry
- ENGL 10600 - First-Year Composition

- MA 16020 - Applied Calculus II

14 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 or
- BIOL 24100 - Biology IV: Genetics And Molecular Biology

- AGRY 32100 - Genetics Laboratory or
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology *

- 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

16 Credits

Fall 3rd Year

- BCHM 32200 - Analytical Biochemistry II
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 49800 - Research In Biochemistry
- PHYS 22000 - General Physics
- SOC 10000 - Introductory Sociology

14 Credits

Spring 3rd Year

- BCHM 49800 - Research In Biochemistry
- BIOL 39600 - Premedical Planning Seminar
- Science Selective - Credit Hour: 1.00 *
- PHYS 22100 - General Physics
- PSY 12000 - Elementary Psychology
- Elective - Credit Hours: 3.00 *
- UCC Humanities Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- BCHM 46300 - Macromolecular Machines
- BCHM 49800 - Research In Biochemistry
- BIOL 30100 - Human Design: Anatomy And Physiology or
- BIOL 20300 - Human Anatomy And Physiology *
- Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

16 Credits

Spring 4th Year

- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49000 - Undergraduate Seminar
- BIOL 30200 - Human Design: Anatomy And Physiology or
- BIOL 20400 - Human Anatomy And Physiology *
- CHM 37200 - Physical Chemistry
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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.

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

Summary of Program Requirements

The Summary of Program Requirements for Biochemistry-Pre-Vet (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (115-117 credits)

Required Major Courses (25 credits)

- BCHM 10000 - Introduction To Biochemistry
- BCHM 22100 - Analytical Biochemistry
- BCHM 29000 - Experimental Design Seminar
- BCHM 36100 - Molecules
- BCHM 32200 - Analytical Biochemistry II
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 46300 - Macromolecular Machines
- BCHM 46500 - Biochemistry Of Life Processes
- BCHM 49800 - Research In Biochemistry
- BCHM 49000 - Undergraduate Seminar

Other Departmental /Program Course Requirements (90-92 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11500 - Introduction To Biochemistry Academic Programs
- AGRY 32000 - Genetics or
- BIOL 24100 - Biology IV: Genetics And Molecular Biology
- AGRY 32100 - Genetics Laboratory or
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology
- ANSC 22100 - Principles Of Animal Nutrition
- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior and
- BIOL 13500 - First year Biology Laboratory or
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms or
- 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
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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 - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (3-5 credits)

- Elective - Credit Hours: 3.00 - 5.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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 12100 - Biology I: Diversity, Ecology, And Behavior and
- BIOL 13500 - First year Biology Laboratory or
- BIOL 11000 - Fundamentals Of Biology I

- CHM 11500 - General Chemistry
- MA 16010 - Applied Calculus I

14 Credits

Spring 1st Year

- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms * or
- BIOL 11100 - Fundamentals Of Biology II *

- CHM 11600 - General Chemistry
- ENGL 10600 - First-Year Composition
- MA 16020 - Applied Calculus II

14 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 or
- BIOL 24100 - Biology IV: Genetics And Molecular Biology

- AGRY 32100 - Genetics Laboratory * or
- BIOL 24200 - Laboratory In Biology IV: Genetics And Molecular Biology *

- 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

16 Credits

Fall 3rd Year

- BCHM 32200 - Analytical Biochemistry II
- BCHM 39000 - Professional Development Seminar
- BCHM 46200 - Metabolism
- BCHM 49800 - Research In Biochemistry
- PHYS 22000 - General Physics
- UCC Humanities Selective - Credit Hours: 3.00

14 Credits

Spring 3rd Year

- ANSC 22100 - Principles Of Animal Nutrition
- BCHM 49800 - Research In Biochemistry
- PHYS 22100 - General Physics
- VM 10200 - Careers In Veterinary Medicine
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00 *

15 Credits

Fall 4th Year

- BCHM 46300 - Macromolecular Machines
- BCHM 49800 - Research In Biochemistry
- BIOL 22100 - Introduction To Microbiology
- Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

17 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: 2.00 *

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Minor

Biochemistry Minor

BCHM • Minor • Credits: 18-19

Recommended Plan of Study

Required Courses

- BCHM 10000 - Introduction To Biochemistry or (another approved Science, Technology & Society course may be substituted)
- 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

Seven credits must be completed from the following courses.

- BIOL 22100 - Introduction To Microbiology or
- CHM 32100 - Analytical Chemistry I

- BCHM 29000 - Experimental Design Seminar *
- BCHM 32200 - Analytical Biochemistry II
- BCHM 46300 - Macromolecular Machines *
- BCHM 46500 - Biochemistry Of Life Processes *
- BCHM 49000 - Undergraduate Seminar *
- BCHM 49800 - Research In Biochemistry *

Additional Information

*Departmental permission is required for enrollment in these courses and space may be limited.

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 23 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

<https://ag.purdue.edu/btny/Pages/directorygroup.aspx>

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: 765.494.4614
Fax: 765.494.0363
E-mail: botany@purdue.edu

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. Concentration areas allow plant science 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.

Concentrations include:

- Plant Cell and Molecular Biology
- Plant Ecology and Environment
- Plant Health Management

Plant Science (Multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Plant Science is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (99 credits)

Required Major Courses (21 credits)

- BTNY 11000 - Introduction To Plant Science
- BTNY 20700 - The Microbial World
- BTNY 30200 - Plant Ecology
- BTNY 30500 - Fundamentals Of Plant Classification
- BTNY 31600 - Plant Anatomy
- BTNY 49700 - Undergraduate Seminar
- BTNY 49800 - Research In Plant Science

Other Departmental /Program Course Requirements (78 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11600 - Introduction To Botany And Plant Pathology Academic Programs
- 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 15910 - Introduction To Calculus (satisfies Quantitative Reasoning for core)
- PHYS 21400 - The Nature Of Physics
- STAT 30100 - Elementary Statistical Methods
- Focus Selective - Credit Hours: 18.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selective - Credit Hours: 3.00

Electives (21 credits)

Elective - Credit Hours: 21.00

University Core Requirements

- Human Cultures Humanities

- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11600 - Introduction To Botany And Plant Pathology Academic Programs
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- MA 15910 - Introduction To Calculus

14 Credits

Spring 1st Year

- BTNY 20700 - The Microbial World
- CHM 11200 - General Chemistry
- ENGL 10600 - First-Year Composition
- Economics Selective - Credit Hours: 3.00

- Elective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- BTNY 30500 - Fundamentals Of Plant Classification ♦
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- Focus Selective - Credit Hours: 3.00
- UCC Humanities selective - Credit Hours: 3.00

14 Credits

Spring 2nd Year

- BCHM 30700 - Biochemistry
- BTNY 30200 - Plant Ecology
- PHYS 21400 - The Nature Of Physics
- UCC Science, Technology, & Society Selective - Credit Hours: 3.00
- Focus Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- BTNY 31600 - Plant Anatomy
- HORT 30100 - Plant Physiology
- Focus Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

17 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- STAT 30100 - Elementary Statistical Methods
- Focus Selective - Credit Hours: 3.00
- 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
- 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

- BTNY 49700 - Undergraduate Seminar
- Focus Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Electives - Credit Hours: 6.00

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Minor

Plant Biology Minor

BTNY • Minor • Credits: 15

Departmental permission is not required to enroll in this minor

Recommended Plan of Study

Required Course

- BTNY 11000 - Introduction To Plant Science

Selective List

Eleven additional credits must be completed from the following courses, including at least nine credits at 30000 level or above.

- BIOL 59500 - Special Assignments
- BTNY 21100 - Plants And The Environment
- BTNY 30100 - Introductory Plant Pathology
- BTNY 30200 - Plant Ecology
- BTNY 30400 - Introductory Weed Science
- BTNY 30500 - Fundamentals Of Plant Classification
- BTNY 31600 - Plant Anatomy
- BTNY 49800 - Research In Plant Science *
- BTNY 55000 - Biology Of Fungi
- BTNY 55300 - Plant Growth And Development
- BTNY 55500 - Aquatic Botany
- HORT 30100 - Plant Physiology

Additional Information

*A maximum of three credits of BTNY 49800 or comparable research in the plant sciences may be applied to the minor.

Plant Pathology Minor

BTNY • Minor • Credits: 19

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

- BTNY 11000 - Introduction To Plant Science
- BTNY 30100 - Introductory Plant Pathology
- BTNY 52500 - Intermediate Plant Pathology
- BTNY 53500 - Plant Disease Management

Selective List

Six additional credits from the following courses must be completed.

- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants
- BTNY 49800 - Research In Plant Science *
- BTNY 51500 - Diseases of Fruit Crops - Credit Hours: 1.00
- BTNY 51600 - Diseases of Vegetable Crops - Credit Hours: 1.00
- BTNY 51700 - Diseases Of Agronomic Crops
- BTNY 55000 - Biology Of Fungi

Additional Information

* A maximum of three credits of BTNY 49800 or comparable research in the plant sciences may be applied to the minor.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Weed Science Minor

BTNY • Minor • Credits: 15

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

- BTNY 11000 - Introduction To Plant Science
- BTNY 30400 - Introductory Weed Science

- BTNY 50400 - Advanced Weed Science or
- BTNY 50500 - Advanced Biology Of Weeds

Selectives

Five (5) credits from the following courses must be completed.

- BTNY 20400 - Crop and Weed Identification
- BTNY 21100 - Plants And The Environment
- BTNY 30200 - Plant Ecology
- BTNY 30500 - Fundamentals Of Plant Classification
- BTNY 31600 - Plant Anatomy
- BTNY 35000 - Biotechnology In Agriculture
- BTNY 49800 - Research In Plant Science *
- BTNY 55500 - Aquatic Botany
- BTNY 55600 - Aquatic Plant Management

- HORT 30100 - Plant Physiology

Additional Information

*A maximum of three credits of BTNY 49800 or comparable research in the plant sciences may be applied to the minor.

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

<https://ag.purdue.edu/entm/Pages/FacultyDirectory.aspx>

Contact Information

The Department of Entomology is located at:

Smith Hall
901 West State Street
West Lafayette, IN 47907
Phone: (765) 494-4554
Fax: (765) 494-0535
Email: bugs@purdue.edu

<http://ag.purdue.edu/entm>

Graduate Information

For Graduate Information please see Entomology Graduate Program Information.

Baccalaureate

Entomology, BS

About the Program

Entomology is the science of insects and related organisms. Entomologists protect human and animal health, food, and property, and natural environments by better understanding the biology and ecology of insects. Entomologists 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 and interests in entomology are as diverse as the insects they work on.

Watch the Experience Forensic Science video.

[Entomology Website](#)

Summary of Program Requirements

The Summary of Program Requirements for Entomology (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (106 credits)

Required Major Courses (18 credits)

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 33500 - Introduction To Insect Identification
- ENTM 31100 - Insect Ecology
- ENTM 49200 - Capstone Experience Entomology I
- ENTM 49300 - Capstone Experience In Entomology II
- ENTM 55100 - Insect Physiology And Biochemistry

Major Selectives (6 credits)

(See Advising Resources)

- ENTM Selective - Credit Hours: 3.00
- ENTM Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (82 credits)

(See Advising Resources)

- 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
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry

- FNR 10300 - Introduction To Environmental Conservation or
- NRES 29000 - Introduction To Environmental Science

- PHYS 21400 - The Nature Of Physics
- STAT 30100 - Elementary Statistical Methods
- Biological Science Selective - Credit Hours: 4.00
- Biological Science Selective - Credit Hours: 4.00
- Calculus Selective (satisfies Quantitative Reasoning for core) - Credit Hours: 3.00
- Philosophy, Logic or Critical Thinking Selective - Credit Hours: 3.00
- Insect Pest Management Selective - Credit Hours: 3.00
- Interdisciplinary Science Selectives - Credit Hours: 12.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (14 credits)

- Electives - Credit Hours: 14.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

Fall 1st Year

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11700 - Introduction To Entomology Academic Programs
- CHM 11100 - General Chemistry

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- Interdisciplinary Science Selective - Credit Hours: 3.00
- Calculus Selective - Credit Hours: 3.00 ♦

16 Credits

Spring 1st Year

- CHM 11200 - General Chemistry
- ENGL 10600 - First-Year Composition
- ENTM 21000 - Introduction To Insect Behavior
- Biological Science Selective - Credit Hours: 4.00

14 Credits

Fall 2nd Year

- ENTM 33500 - Introduction To Insect Identification
- Biological Sciences Selective - Credit Hours: 4.00
- Entomology Selective - Credit Hours: 4.00
- UCC Humanities Selective - Credit Hours: 3.00

14 Credits

Spring 2nd Year

- CHM 25700 - Organic Chemistry
- ENTM 31100 - Insect Ecology
- PHYS 21400 - The Nature Of Physics
- Economics Selective - Credit Hours: 3.00
- FNR 10300 - Introduction To Environmental Conservation or
- NRES 29000 - Introduction To Environmental Science

16 Credits

Fall 3rd Year

- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- ENTM 49200 - Capstone Experience Entomology I
- STAT 30100 - Elementary Statistical Methods
- Insect Pest Management Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

14 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- Interdisciplinary Science Selective - Credit Hours: 3.00
- ENTM 55100 - Insect Physiology And Biochemistry
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- Entomology Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Interdisciplinary Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- ENTM 49300 - Capstone Experience In Entomology II
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Interdisciplinary Science Selective - Credit Hours: 3.00
- Philosophy, Logic or Critical Thinking Selective - Credit Hours: 3.00
- Electives - Credit Hours: 5.00

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Minor

Entomology Minor

ENTM • Minor • Credits: 16

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

Credits must be earned in each of the following areas.

Overview of Entomology

Minimum of three credits.

- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory

Insect Taxonomy

Minimum of four credits.

- ENTM 33500 - Introduction To Insect Identification

Insect Biology

Minimum of three credits.

- ENTM 21000 - Introduction To Insect Behavior
- ENTM 31100 - Insect Ecology
- ENTM 46000 - Aquatic Entomology - Credit Hours: 3.00
- ENTM 55100 - Insect Physiology And Biochemistry

Insect Management

Minimum of three credits.

- ENTM 44100 - Forest Entomology
- ENTM 44300 - Arthropods And Diseases Of Turfgrass
- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants
- ENTM 51000 - Insect Pest Management
- ENTM 52100 - Urban And Industrial Insect Management
- ENTM 52500 - Medical And Veterinary Entomology

Selective Courses

In addition to the above courses, credits from the following courses can be applied to the total 16 credits required for a minor.

- ENTM 10500 - Insects: Friend And Foe
- ENTM 35100 - Bee Biology And Bee Keeping

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Forensic Sciences Minor

ENTM • Minor • Credits: 20

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

- ENTM 22810 - Forensic Investigation
- ENTM 22820 - Forensic Analysis
- ENTM 22830 - Forensic Testimony And Ethics

Selective Courses

Nine credits must be completed from the following courses.

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- AGRY 33500 - Weather And Climate
- ANTH 30500 - Ethnographic Methods
- ANTH 31000 - Mortuary Practices Across Cultures
- ANTH 33600 - Human Variation
- ANTH 42500 - Anthropological Archaeology
- 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 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- BCHM 32200 - Analytical Biochemistry II
- BCHM 56100 - General Biochemistry I
- BCHM 56200 - General Biochemistry II
- BIOL 20300 - Human Anatomy And Physiology
- BIOL 20400 - Human Anatomy And Physiology
- 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 30100 - Human Design: Anatomy And Physiology
- BIOL 30200 - Human Design: Anatomy And Physiology
- 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 49500 - Special Assignments
- BIOL 58000 - Evolution
- BIOL 53300 - Medical Microbiology
- 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
- CHM 22400 - Introductory Quantitative Analysis
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- ENTM 21000 - Introduction To Insect Behavior
- ENTM 33500 - Introduction To Insect Identification
- ENTM 33900 - Professional Experience Programs in Entomology - Credit Hours: 3.00
- ENTM 50600 - Advanced Insect Taxonomy
- ENTM 51000 - Insect Pest Management
- ENTM 52100 - Urban And Industrial Insect Management
- ENTM 52500 - Medical And Veterinary Entomology
- ENTM 52600 - Urban And Industrial Vertebrate Management
- ENTM 55100 - Insect Physiology And Biochemistry
- FNR 24100 - Ecology And Systematics Of Fishes And Mammals
- FNR 24200 - Laboratory In Ecology And Systematics Of Fishes And Mammals
- FNR 25100 - Ecology And Systematics Of Amphibians, Reptiles, And Birds
- FNR 25200 - Laboratory In Ecology And Systematics Of Amphibians, Reptiles, And Birds
- FNR 30500 - Conservation Genetics
- FNR 31100 - Wood Structure, Identification and Properties - Credit Hours: 3.00
- FNR 34100 - Wildlife Habitat Management
- HSCI 33200 - Introduction To Hematology
- HSCI 33300 - Introduction To Immunology
- HSCI 56000 - Toxicology
- PHYS 17200 - Modern Mechanics
- PHYS 21800 - General Physics
- PHYS 21900 - General Physics II
- PHYS 22000 - General Physics
- PHYS 22100 - General Physics
- POL 42500 - Environmental Law And Politics
- POL 42800 - The Politics Of Regulation
- PSY 33500 - Stereotyping And Prejudice
- PSY 42800 - Drugs And Behavior
- PSY 44300 - Aggression And Violence

- PSY 35000 - Abnormal Psychology
- PSY 53500 - Psychology Of Death And Dying
- 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

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

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

<https://ag.purdue.edu/foodsci/Pages/directory.aspx>

Contact Information

Department of Food Science

Philip E. Nelson Hall of Food Science
745 Agriculture Mall Drive
West Lafayette, IN 47907
(765) 494-8256
foodsci@purdue.edu

<http://ag.purdue.edu/foodsci>

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

Summary of Program Requirements

The Summary of Program Requirements for Food Science (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (110-111 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 44700 - Food Processing II Laboratory
- FS 44400 - Statistical Process Control
- 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
- FS 44300 - Food Product Design (Capstone)

Other Departmental /Program Course Requirements (77-78 credits)

(See Advising Resources)

- 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
- CHM 11600 - General Chemistry
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory
- BCHM 30700 - Biochemistry
- BCHM 30900 - Biochemistry Laboratory
- MA 16010 - Applied Calculus I
- MA 16020 - Applied Calculus II
- NUTR 31500 - Fundamentals Of Nutrition
- PHYS 22000 - General Physics
- STAT 30100 - Elementary Statistical Methods
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- UCC STS Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 2.00 or 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
- Professional Communications Selective - Credit Hours: 3.00

- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (9-10 credits)

- Elective - Credit Hours: 9.00 - 10.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy

- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

Requirements

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

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16020 - Applied Calculus II

15 Credits

Fall 2nd Year

- BIOL 22100 - Introduction To Microbiology ♦
- CHM 25700 - Organic Chemistry
- CHM 25701 - Organic Chemistry Laboratory

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- FS 29800 - Sophomore Seminar
- STAT 30100 - Elementary Statistical Methods ♦

16 Credits

Spring 2nd Year

- BCHM 30700 - Biochemistry ♦
- BCHM 30900 - Biochemistry Laboratory
- FS 24500 - Food Packaging
- PHYS 22000 - General Physics ♦
- Economics Elective - Credit Hours: 3.00
- UCC Science, Technology, and Society Selective - Credit Hours: 2.00 or 3.00 *

14 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
- UCC Humanities Elective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00 *

15 Credits

Spring 3rd Year

- FS 45300 - Food Chemistry
- FS 45400 - Food Chemistry Laboratory
- FS 46700 - Food Analysis
- FS 46900 - Food Analysis Laboratory
- FS 53000 - Food Ingredient Technology
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00 *

16 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
- NUTR 31500 - Fundamentals Of Nutrition
- Professional Communication Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00

14 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
- Electives - Credit Hours: 4.00 *

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

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

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Minor

Food Science Minor

FS • Minor • Credits: 18

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

Food Science Foundations

Eleven credits required.

- FS 16100 - Science Of Food
- FS 34100 - Food Processing I
- FS 36200 - Food Microbiology
- FS 45300 - Food Chemistry

Additional Food Science Courses

Seven credits required.

- ANSC 35100 - Meat Science
- ANSC 35101 - Meat Science Laboratory
- FN 31500 - Fundamentals of Nutrition - Credit Hours: 3.00 *
- FS 24500 - Food Packaging
- FS 33500 - Food Sensory Science - Credit Hours: 1.00
- FS 34000 - Introduction To Food Law And Regulations
- FS 34200 - Food Processing I Laboratory
- FS 36100 - Food Plant Sanitation
- FS 36300 - Food Microbiology Laboratory
- FS 36800 - Dairy Products
- FS 36900 - Dairy Products Laboratory
- FS 44200 - Food Processing II
- FS 44300 - Food Product Design (Capstone)
- FS 44400 - Statistical Process Control
- FS 44600 - Food Process Automation
- FS 44700 - Food Processing II Laboratory
- FS 45400 - Food Chemistry Laboratory
- FS 45500 - Cereal Chemistry And Processing
- FS 46700 - Food Analysis
- FS 46900 - Food Analysis Laboratory
- FS 47600 - Functional Foods - Credit Hours: 3.00
- FS 54100 - Postharvest Technology Of Fruits And Vegetables
- FS 56400 - Commercial Food And Beverage Fermentations

Additional Information

* ANSC 22100 (Principles of Animal Nutrition) may be substituted for FN 31500 (Fundamentals of Nutrition), but FN 31500 is preferred.

One must have a 2.5 or higher grade point average in mathematics and science courses to enroll in 30000-59999 Food Science (FS) courses.

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Pet Food Processing Minor

ANSC, FS • Minor • Credits: 21

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

- 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 44200 - Food Processing II
- FS 44700 - Food Processing II Laboratory
- FS 36200 - Food Microbiology

Additional Information

* (3) ANSC 10200 (Introduction to Animal Agriculture) can be substituted for ANSC 10600, but ANSC 10600 is preferred for this minor.

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 fisheries and aquatic sciences, forestry, wildlife and sustainable biomaterials: process and product design.

Faculty

<https://ag.purdue.edu/fnr/Pages/directory.aspx>

Contact Information

Pfendler Hall
Forestry and Natural Resources
715 West State Street
West Lafayette IN 47907-2061
Fax: 765-494-3590
joinfnr@purdue.edu

ag.purdue.edu/fnr

Graduate Information

For Graduate Information please see Forestry and Natural Resources Graduate Program Information.

Baccalaureate

Fisheries and Aquatic Sciences, BS

About the Program

Prepare for a career in fisheries research and management, lake and stream management, aquaculture, and interdisciplinary studies of environmental problems. Studies emphasize understanding ecosystems function, natural and human disturbance, and ecosystem resilience. You are preparing for work in public organizations (state/federal fish and wildlife), not-for-profit organizations (Nature Conservancy), private consulting firms, or for graduate studies (MS, PhD, DVM). This degree meets the educational requirements for the American Fisheries Society's Professional Certification.

Fisheries and Aquatic Sciences Website

Summary of Program Requirements

The Summary of Program Requirements for Fisheries & Aquatic Sciences (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (110 credits)

Required Major Courses (53 credits)

- FNR 10300 - Introduction To Environmental Conservation (satisfies Science, Technology & Society Selective for core)
- FNR 20100 - Marine Biology
- FNR 21000 - Natural Resource Information Management
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 23000 - The World's Forests And Society
- FNR 24150 - Ecology And Systematics Of Fish, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fish, Amphibians And Reptiles
- 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 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 40800 - Natural Resources Planning
- FNR 45200 - Aquaculture

- FNR 45300 - Fish Physiology or
- FNR 45500 - Fish Ecology

- FNR 45400 - Fisheries Science And Management
- FNR 47000 - Fundamentals Of Planning

- FNR 52600 - Aquatic Animal Health or
- FNR 52700 - Ecotoxicology

Major Selectives (6 credits)

(See Advising Resources)

- FNR Physical science selective - Credit Hours: 3.00
- FNR Physical science selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (51 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 11900 - Introduction To Forestry And Natural Resources Academic Programs

- AGRY 25500 - Soil Science or
- 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)

- MA 16020 - Applied Calculus II
- STAT 30100 - Elementary Statistical Methods
- FNR Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Ethics Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (10 credits)

- Elective - Credit Hours: 10.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- FNR 10300 - Introduction To Environmental Conservation
- MA 16020 - Applied Calculus II

16 Credits

Fall 2nd Year

- FNR 20100 - Marine Biology
- FNR 24150 - Ecology And Systematics Of Fish, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fish, Amphibians And Reptiles
- STAT 30100 - Elementary Statistical Methods
- FNR Economics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

16 Credits

Spring 2nd Year

- AGRY 25500 - Soil Science or
- 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 35100 - Aquatic Sampling Techniques ♦

15 Credits

Summer Session

- FNR 37100 - Fisheries And Aquatic Sciences Practicum
- FNR 37010 - Natural Resources Practicum

6 Credits

Fall 3rd Year

- FNR 23000 - The World's Forests And Society
- FNR 45400 - Fisheries Science And Management
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- Humanities or Social Science Selective - Credit Hours: 3.00

12 Credits

Spring 3rd Year

- FNR 30500 - Conservation Genetics
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 45500 - Fish Ecology or
- FNR 45300 - Fish Physiology
- Physical Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- FNR 47000 - Fundamentals Of Planning
- FNR 52600 - Aquatic Animal Health or
- FNR 52700 - Ecotoxicology
- Ethics Selective - Credit Hours: 3.00
- Physical Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

12 Credits

Spring 4th Year

- FNR 40800 - Natural Resources Planning
- FNR 45200 - Aquaculture
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 4.00

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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.

Critical Course

The ♦ course is considered critical. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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 ecosystems function, natural and human disturbance, and ecosystem resilience. This prepares you for careers with public agencies such as state divisions of forestry, U.S. Forest Service or private industries and consulting firms. This program is accredited by the Society of American Foresters.

Forestry Website

Summary of Program Requirements

The Summary of Program Requirements for Forestry (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

124 credits required for graduation

Departmental/Program Major Courses (116 credits)

Required Major Courses (52 credits)

- FNR 10300 - Introduction To Environmental Conservation
- FNR 21000 - Natural Resource Information Management
- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- FNR 22500 - Dendrology ♦
- FNR 23000 - The World's Forests And Society
- FNR 30110 - Sustainable Forest 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 40900 - Timber Management
- FNR 43400 - Tree Physiology
- FNR 47000 - Fundamentals Of Planning

Major Selectives (10 credits)

(See Advising Resources)

- Ecology & Systematics Selective - Credit Hours: 3.00
- Forestry Selective - Credit Hours: 3.00
- Forest Health Selective - Credit Hours: 3.00
- Laboratory in Ecology & Systematics Selective - Credit Hours: 1.00

Other Departmental /Program Course Requirements (54 credits)

(See Advising Resources)

- 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)
- MA 16020 - Applied Calculus II
- STAT 30100 - Elementary Statistical Methods

- FNR Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Ethics Selective (satisfies Human Cultures Humanities for core) - 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 - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (8 credits)

- Elective - Credit Hours: 8.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

124 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- FNR 10300 - Introduction To Environmental Conservation
- MA 16020 - Applied Calculus II

16 Credits

Fall 2nd Year

- FNR 22500 - Dendrology ♦
- FNR 23000 - The World's Forests And Society
- STAT 30100 - Elementary Statistical Methods
- Ecology & Systematics Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00

15 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 ♦
- Laboratory in Ecology & Systematics selective - Credit Hour: 1.00
- Written or Oral Communication 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 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- Forest Health Selective - Credit Hours: 3.00
- FNR 33100 - Forest Ecosystems
- FNR 35700 - Fundamental Remote Sensing
- FNR 43400 - Tree Physiology

12 Credits

Spring 3rd Year

- FNR 35500 - Quantitative Methods For Resource Management
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40700 - Forest Economics
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- FNR 33900 - Principles Of Silviculture
- FNR 47000 - Fundamentals Of Planning
- Ethics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 Credits

Spring 4th Year

- FNR 30110 - Sustainable Forest Products Manufacturing
- FNR 40910 - Forest Resources Management
 - Forestry Selective - Credit Hours: 3.00
 - Humanities or Social Science Selective - Credit Hours: 3.00
 - Elective - Credit Hours: 2.00

14 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Expired Course

Any course without a link to its description is one that has been expired. However, this course could fulfill the degree requirement historically.

Sustainable Biomaterials, BS

About the Program

Students learn the basics of sustainability of biomaterials, product design, processing and conservation. Studies focus on sustainable materials resource evaluation, product strength design, lean manufacturing, end of life options, cradle to grave, cradle to cradle, zero impact theories, and use of life cycle assessment techniques. You will gain experience with complex natural resources utilization issues on a local and global scale. You are prepared for management positions in manufacturing industries, particularly the wood products manufacturing and the hardwood cabinet and furniture industries.

Sustainable Biomaterials - Process and Product Design Website

Summary of Program Requirements

The Summary of Program Requirements for Sustainable Biomaterials - Process and Product Design is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (107 credits)

Required Major Courses (29 credits)

- FNR 10300 - Introduction To Environmental Conservation UCC STS Selective (satisfies Science, Technology & Society Selective for core)
- FNR 22310 - Introduction To Environmental Policy
- FNR 23000 - The World's Forests And Society
- FNR 30110 - Sustainable Forest Products Manufacturing
- FNR 30200 - Global Sustainability Issues
- FNR 41800 - Properties Of Wood Related To Manufacturing
- FNR 31100 - Wood Structure, Identification and Properties
- FNR 41900 - Furniture & Cabinet Design & Manufacture
- FNR 42500 - Secondary Wood Products Manufacturing
- FNR 48410 - Sustainable Furniture Design For CNC Manufacturing

Other Departmental /Program Course Requirements (83 credits)

(See Advising Resources)

- 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
- BTNY 11000 - Introduction To Plant Science
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- CGT 11000 - Technical Graphics Communications
- EEE 35000 - Introduction To Environmental And Ecological Engineering
- IT 21400 - Introduction To Lean Manufacturing
- IT 34200 - Introduction To Statistical Quality
- IT 44200 - Production Planning
- IT 45000 - Production Cost Analysis
- IT 48300 - Facility Design For Lean Manufacturing
- MA 16010 - Applied Calculus I (satisfies Quantitative Reasoning for core)
- MET 14300 - Materials And Processes I
- MET 24500 - Manufacturing Systems
- STAT 30100 - Elementary Statistical Methods
- Physics Selective - Credit Hours: 4.00
- Sustainability Selectives - Credit Hours: 6.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Ethics Selective (satisfies Human Cultures Humanities for core) - 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- ENGL 42100 - Technical Writing

Electives (8 credits)

- Elective - Credit Hours: 8.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- FNR 10300 - Introduction To Environmental Conservation
- Ethics Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy
- MET 14300 - Materials And Processes I
- STAT 30100 - Elementary Statistical Methods
- Economics Selective - Credit Hours: 3.00
- Sustainability Selectives - Credit Hours: 3.00

12 Credits

Spring 2nd Year

- CGT 11000 - Technical Graphics Communications
- FNR 30110 - Sustainable Forest Products Manufacturing ♦
- IT 21400 - Introduction To Lean Manufacturing
- Physics Selective - Credit Hours: 4.00
- Elective - Credit Hours: 3.00

16 Credits

Fall 3rd Year

- FNR 23000 - The World's Forests And Society
- FNR 41800 - Properties Of Wood Related To Manufacturing
- ENGL 42100 - Technical Writing
- IT 34200 - Introduction To Statistical Quality
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- EEE 35000 - Introduction To Environmental And Ecological Engineering
- FNR 31100 - Wood Structure, Identification & Properties
- MET 24500 - Manufacturing Systems
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00

15 Credits

Fall 4th Year

- FNR 42500 - Secondary Wood Products Manufacturing
- FNR 48410 - Sustainable Furniture Design For CNC Manufacturing
- IT 44200 - Production Planning
- IT 45000 - Production Cost Analysis
- Elective - Credit Hours: 3.00

15 Credits

Spring 4th Year

- IT 48300 - Facility Design For Lean Manufacturing
- Sustainability Selectives - Credit Hours: 3.00
- Elective - Credit Hours: 2.00
- FNR 30200 - Global Sustainability Issues
- FNR 41900 - Furniture & Cabinet Design & Manufacture

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Wildlife, BS

About the Program

Learn about wildlife research, management, and education, as well as application of biological, ecological, economic, and social knowledge to wildlife management issues. Studies emphasis understanding ecosystems function, natural and human disturbance, and ecosystem resilience. You are preparing for work in public organizations (state/federal fish and wildlife), not-for-profit organizations (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

Summary of Program Requirements

The Summary of Program Requirements for Wildlife (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (110 credits)

Required Major Courses (49 credits)

- FNR 10300 - Introduction To Environmental 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 Fish, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fish, Amphibians And Reptiles
- 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 33100 - Forest Ecosystems
- FNR 34100 - Wildlife Habitat Management
- FNR 34800 - Wildlife Investigational Techniques ♦
- FNR 37010 - Natural Resources Practicum
- FNR 37050 - Forest Habitats And Communities Practicum
- FNR 37300 - Wildlife Practicum
- FNR 37500 - Human Dimensions of Natural Resource Management
- FNR 40800 - Natural Resources Planning
- FNR 44700 - Vertebrate Population Dynamics
- FNR 47000 - Fundamentals Of Planning

Major Selectives (10 credits)

(See Advising Resources)

- BTNY Selective - Credit Hours: 2.00
- Wildlife Disease Selective - Credit Hours: 2.00
- Wildlife Selective - Credit Hours: 6.00

Other Departmental /Program Course Requirements (51 credits)

(See Advising Resources)

- 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)
- MA 16020 - Applied Calculus II
- STAT 30100 - Elementary Statistical Methods
- FNR Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- Ethics Selective (satisfies Human Cultures Humanities for core) - 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 Sciences Selective - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (10 credits)

- Elective - Credit Hours: 10.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- FNR 10300 - Introduction To Environmental Conservation
- MA 16020 - Applied Calculus II

16 Credits

Fall 2nd Year

- FNR 22500 - Dendrology
- FNR 24150 - Ecology And Systematics Of Fish, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fish, Amphibians And Reptiles
- STAT 30100 - Elementary Statistical Methods
- Economics Selective - Credit Hours: 3.00

13 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 34800 - Wildlife Investigational Techniques ♦
- 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 37300 - Wildlife Practicum

6 Credits

Fall 3rd Year

- FNR 22310 - Introduction To Environmental Policy or
- POL 22300 - Introduction To Environmental Policy

- FNR 33100 - Forest Ecosystems
- FNR 34100 - Wildlife Habitat Management
- Humanities or Social Science Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Spring 3rd Year

- FNR 37500 - Human Dimensions of Natural Resource Management
- Botany Selective - Credit Hours: 2.00
- Wildlife Selective - Credit Hours: 3.00
- Elective - Credit Hours: 6.00

14 Credits

Fall 4th Year

- FNR 44700 - Vertebrate Population Dynamics
- FNR 47000 - Fundamentals Of Planning

- Ethics Selective - Credit Hours: 3.00
- Wildlife Disease Selective - Credit Hours: 2.00
- Elective - Credit Hours: 3.00

13 Credits

Spring 4th Year

- FNR 30500 - Conservation Genetics
- FNR 40800 - Natural Resources Planning
- Humanities or Social Science Selective - Credit Hours: 3.00
- Wildlife Selective - Credit Hours: 3.00
- Elective - Credit Hour: 1.00

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Minor

Fisheries and Aquatic Sciences Minor

FNR • Minor • Credits: 16

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

- FNR 20100 - Marine Biology
- FNR 24150 - Ecology And Systematics Of Fish, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fish, Amphibians And Reptiles

Selectives

Nine (9) credits from the following courses must be completed.

- FNR 45200 - Aquaculture
- FNR 45300 - Fish Physiology
- FNR 45400 - Fisheries Science And Management
- FNR 45500 - Fish Ecology
- FNR 52600 - Aquatic Animal Health
- FNR 52700 - Ecotoxicology
- FNR 55100 - Advanced Ichthyology
- FNR 55200 - Advanced Freshwater Ecology

Additional Information

Other FNR 49800 or FNR 59800 courses, with FNR approval. *For students in other FNR majors, courses required in the student's major cannot be used to meet the 9 credits of selectives for this minor.

Forest Ecosystems Minor

Credit Hours: 18

Departmental permission is not required to enroll in this minor.

Required Courses

- FNR 22500 - Dendrology
- FNR 33100 - Forest Ecosystems
- FNR 33900 - Principles Of Silviculture
- FNR 35300 - Natural Resources Measurement

Selectives

Six credits must be completed from the following courses.

- 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 Forest 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 44100 - Forest Entomology
- FNR 53600 - Ecology Of Disturbance
- FNR 53601 - Ecology Of Disturbance Practicum

Additional Information

Other FNR 49800 or FNR 59800 courses can be used with FNR approval. For students in other FNR majors, courses required in the students major cannot be used to meet selective requirements.

Furniture Design Minor

FNR • Minor • Credits: 18

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

- AD 53500 - Furniture Design
- FNR 31100 - Wood Structure, Identification, and Properties
- FNR 41800 - Properties Of Wood Related To Manufacturing
- FNR 41900 - Furniture and Cabinet Design and Manufacture
- FNR 42500 - Secondary Wood Products Manufacturing
- FNR 48400 - Design for Computer Numerical Controlled Manufacturing

Urban Forestry Minor

FNR • Minor • Credits: 15

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

- FNR 44400 - Arboricultural Practices
- FNR 44500 - Urban Forest Issues

Selectives

Eight additional credits from the following courses must be completed.

- AGRY 25500 - Soil Science

- BTNY 44600 - Integrated Plant Health Management For Ornamental Plants
- ENTM 10500 - Insects: Friend And Foe
- 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 37500 - Human Dimensions of Natural Resource Management
- FNR 43400 - Tree Physiology
- FNR 44100 - Forest Entomology
- 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

Additional Information

*For students in other FNR majors, courses required in the student's major cannot be used to meet the 6 credits electives.

Wildlife Science Minor

FNR • Minor • Credits: 17

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

- FNR 24000 - Wildlife In America
- FNR 24150 - Ecology And Systematics Of Fish, Amphibians And Reptiles
- FNR 24250 - Laboratory In Ecology And Systematics Of Fish, Amphibians And Reptiles
- FNR 25150 - Ecology And Systematics Of Mammals And Birds
- FNR 25250 - Laboratory In Ecology And Systematics Of Mammals And Birds

Selectives

Six credits must be completed from the following courses.

- BIOL 28600 - Introduction To Ecology And Evolution
- BIOL 48300 - Great Issues: Environmental And Conservation Biology
- BIOL 58000 - Evolution
- BIOL 58500 - Ecology
- FNR 30500 - Conservation Genetics
- FNR 35900 - Spatial Ecology And GIS
- FNR 44700 - Vertebrate Population Dynamics

- FNR 52600 - Aquatic Animal Health
- FNR 52700 - Ecotoxicology
- 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

Additional Information

Other FNR 49800 or FNR 59800 courses, with FNR approval. *For students in other FNR majors, courses required in the student's major cannot be used to meet the 9 credits of selectives for this minor.

Wood Products Manufacturing Technology Minor

FNR • Minor • Credits: 18

Departmental permission is not required to enroll in this minor.

Recommended Plan of Study

Required Courses

- FNR 30100 - Wood Products And Processing
- FNR 31100 - Wood Structure, Identification, And Properties
- FNR 41800 - Properties Of Wood Related To Manufacturing
- FNR 42500 - Secondary Wood Products Manufacturing
- IT 10400 - Industrial Organization
- IT 11400 - Problem-Solving In Manufacturing

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 involves 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 successful in the horticultural field. In addition, we strive to provide students with the analytical skills necessary to interpret new information as the world of horticulture continues to change. The curricula within the Department of Horticulture 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 information 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

<https://ag.purdue.edu/hla/Pages/directory.aspx>

Contact Information

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<http://ag.purdue.edu/hla/Hort>

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

This broad major can prepare students for the business of horticulture with concentrations in Horticultural Production and Marketing or Landscape Horticulture and Design, or it can be focused on education and communication through Public Horticulture, or it can lead to a research and development career via the Plant Science concentration. Horticulture Science applies knowledge from many disciplines, including biology, chemistry, ecology, engineering, communications, business, and education to solve real world problems related to the production, marketing and management of landscape plants, flowers, fruits and vegetables.

[Horticulture Science \(multiple concentrations\) Website](#)

Summary of Program Requirements

The Summary of Program Requirements for Horticulture- Horticultural Production & Marketing (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

Departmental/Program Major Courses (113 credits)

Required Major Courses (18 credits)

- HORT 10100 - Fundamentals Of Horticulture ♦
- HORT 11000 - Survey Of Horticulture
- HORT 20100 - Plant Propagation ♦
- HORT 30100 - Plant Physiology
- HORT 43500 - Principles Of Marketing And Management For Horticultural Businesses
- HORT 44500 - Strategic Analysis Of Horticultural Production And Marketing
- HORT 51300 - Nutrition Of Horticulture Crops
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables

Major Selectives (6 credits)

(See Advising Resources)

- Horticultural Production Selective - Credit Hours: 3.00
- Horticultural Production Selective - Credit Hours: 3.00

Other Departmental /Program Course Requirements (89 credits)

(See Advising Resources)

- 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
- BCHM 30700 - Biochemistry ♦
- 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 ♦
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- Calculus Selective (satisfies Quantitative Reasoning for core) - Credit Hours: 3.00
- STAT 30100 - Elementary Statistical Methods (satisfies Information Literacy for core)
- Accounting Selective - Credit Hours: 3.00
- Business Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness (satisfies Human Culture Behavioral/Social Science for core)
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- UCC Science, Technology, & Society Selective (satisfies Science, Technology & Society Seclective for core) - Credit Hours: 1.00
- 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (7 credits)

- Elective - Credit Hours: 7.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- HORT 10100 - Fundamentals Of Horticulture ♦

15 Credits

Spring 1st Year

- CHM 11200 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- HORT 11000 - Survey Of Horticulture
- HORT 20100 - Plant Propagation ♦
- Calculus Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- AGRY 25500 - Soil Science
- CHM 25700 - Organic Chemistry ♦
- Statistics Selective - Credit Hours: 3.00
- UCC Science, Technology, & Society Selective - Credit Hour: 1.00
- Elective - Credit Hour: 1.00

15 Credits

Spring 2nd Year

- BCHM 30700 - Biochemistry ♦
- BTNY 30100 - Introductory Plant Pathology
- ENTM 20600 - General Entomology
- ENTM 20700 - General Entomology Laboratory
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- AGEC 33000 - Management Methods For Agricultural Business
- BTNY 30400 - Introductory Weed Science
- HORT 30100 - Plant Physiology
- Accounting Selective - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGRY 32000 - Genetics
- BTNY 35000 - Biotechnology In Agriculture
- Horticultural Production Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- HORT 43500 - Principles Of Marketing And Management For Horticultural Businesses
- Business Selective - Credit Hours: 3.00
- Horticultural Production Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00

13 Credits

Spring 4th Year

- HORT 44500 - Strategic Analysis Of Horticultural Production And Marketing
- HORT 51300 - Nutrition Of Horticulture Crops
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables
- Concentration Selective - Credit Hours: 6.00
- Electives - Credit Hours: 6.00

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Horticulture: Landscape Contracting and Management

About the Program

Students selecting landscape contracting and management, are prepared to direct and conduct in "hands-on" fashion, the technical side of landscape construction and plant installation. Graduates of this program often operate a landscape design/build or construction and/or maintenance firm, work as a grounds manager.

Horticulture Science (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Horticulture -Landscape Contracting & Mgmt (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (115 credits)

Required Major Courses (42 Credits)

- HORT 10100 - Fundamentals Of Horticulture ♦
- HORT 11000 - Survey Of Horticulture
- HORT 20100 - Plant Propagation ♦
- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21700 - Woody Landscape Plants

- HORT 21800 - Herbaceous Landscape Plants
- HORT 22300 - AutoCAD Applications In Horticulture
- HORT 30100 - Plant Physiology
- HORT 31500 - Landscape Design
- HORT 31600 - Landscape Construction
- HORT 31700 - Landscape Contracting And Management
- HORT 42000 - Ornamental Plant Production
- HORT 42600 - Landscape Contracting And Management Capstone Experience
- HORT 43500 - Principles Of Marketing And Management For Horticultural Businesses
- LA 10100 - Survey Of Landscape Architecture

Other Departmental /Program Course Requirements (74 credits)

(See Advising Resources)

- 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 ♦
- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants
- SPAN 10100 - Spanish Level I (UCC Humanities Selective (satisfies Human Cultures Humanities for core)
- SPAN 10200 - Spanish Level II (Humanities or Social Science Selective)
- Calculus Selective (satisfies Quantitative Reasoning for core)
- Statistics Selective (satisfies Information Literacy for core)
- Economics Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours - 1.00

- HORT 22200 - DynaSCAPE Applications In Horticulture or
- HORT 22400 - Photoshop Applications In Horticulture

- UCC Science, Technology & Society Selective (satisfies Science, Technology& Society Selective for core) - Credit Hour: 1.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Supervision/Personnel Selective - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (4 credits)

Elective - Credit Hours: 4.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- HORT 10100 - Fundamentals Of Horticulture ♦

14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry
- ENGL 10600 - First-Year Composition
- HORT 11000 - Survey Of Horticulture
- HORT 20100 - Plant Propagation ♦
- SPAN 10100 - Spanish Level I
- Calculus Selective - Credit Hours: 3.00

17 Credits

Fall 2nd Year

- CHM 25700 - Organic Chemistry ♦
- HORT 21700 - Woody Landscape Plants
- LA 10100 - Survey Of Landscape Architecture
- SPAN 10200 - Spanish Level II

14 Credits

Spring 2nd Year

- AGE 33000 - Management Methods For Agricultural Business
- AGRY 25500 - Soil Science ♦
- ASM 21600 - Introduction To Surveying
- BTNY 30100 - Introductory Plant Pathology
- HORT 22300 - AutoCAD Applications In Horticulture

- HORT 22200 - DynaSCAPE Applications In Horticulture or
- HORT 22400 - Photoshop Applications In Horticulture

- Economics Selective - Credit Hours: 3.00

15 Credits

Fall 3rd Year

- HORT 21000 - Fundamentals Of Turfgrass Culture
- HORT 21800 - Herbaceous Landscape Plants
- HORT 30100 - Plant Physiology
- HORT 31500 - Landscape Design
- Elective - Credit Hours: 2.00

15 Credits

Spring 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- AGRY 32000 - Genetics
- HORT 31600 - Landscape Construction
- Statistics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants
- HORT 31700 - Landscape Contracting And Management
- HORT 42000 - Ornamental Plant Production
- HORT 43500 - Principles Of Marketing And Management For Horticultural Businesses
- BTNY 30400 - Introductory Weed Science

16 Credits

Spring 4th Year

- HORT 42600 - Landscape Contracting And Management Capstone Experience
- Concentration Selective - Credit Hours: 1.00
- Humanities or Social Sciences Selective - Credits Hours: 3.00
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Supervision/Personnel Selective - Credit Hours: 3.00
- UCC Science, Technology & Society Selective - Credit Hours: 1.00
- Elective - Credit Hours: 2.00

14 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Horticulture: Landscape Enterprise Management Concentration, BS

About the Program

This broad major can prepare students for the business of horticulture with concentrations in Horticultural Production and Marketing or Landscape Horticulture and Design, or it can be focused on education and communication through Public Horticulture, or it can lead to a research and development career via the Plant Science concentration. Horticulture Science applies knowledge from many disciplines, including biology, chemistry, ecology, engineering, communications, business, and education to solve real world problems related to the production, marketing and management of landscape plants, flowers, fruits and vegetables.

Horticulture Science (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Horticulture Science- Landscape Enterprise Management is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (115 credits)

Required Major Courses (38 credits)

- HORT 10100 - Fundamentals Of Horticulture ♦
- HORT 11000 - Survey Of Horticulture
- HORT 20100 - Plant Propagation ♦
- HORT 21700 - Woody Landscape Plants
- HORT 21800 - Herbaceous Landscape Plants
- HORT 30100 - Plant Physiology
- HORT 31500 - Landscape Design
- HORT 31600 - Landscape Construction
- HORT 31700 - Landscape Contracting And Management
- HORT 42000 - Ornamental Plant Production
- HORT 43500 - Principles Of Marketing And Management For Horticultural Businesses
- HORT 44500 - Strategic Analysis Of Horticultural Production And Marketing
- LA 10100 - Survey Of Landscape Architecture

Other Departmental /Program Course Requirements (77 credits)

(See Advising Resources)

- 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
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants
- Calculus Selective (satisfies Quantitative Reasoning for core) - Credit Hours: 3.00
- MGMT 20010 - Business Accounting
- Statistics Selective (satisfies Information Literacy for core)
- Business/Supervision/Personnel Selective - Credit Hours: 3.00
- Business/Supervision/Personnel Selective - Credit Hours: 3.00
- UCC Science, Technology, & Society Selective (satisfies Science, Technology & Society Selective for core) - Credit Hour: 1.00
- 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
- Business Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core)- Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)

- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)

- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (5 credits)

- Elective - Credit Hours: 5.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication

- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- HORT 10100 - Fundamentals Of Horticulture ♦

14 Credits

Spring 1st Year

- CHM 11200 - General Chemistry
- ENGL 10600 - First-Year Composition
- HORT 11000 - Survey Of Horticulture
- HORT 20100 - Plant Propagation ♦
- UCC Humanities Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

16 Credits

Fall 2nd Year

- CHM 25700 - Organic Chemistry ♦

- HORT 21700 - Woody Landscape Plants
- LA 10100 - Survey Of Landscape Architecture
- AGEC 20300 - Introductory Microeconomics For Food And Agribusiness
- UCC Science, Technology & Society Selective - Credit Hours: 1.00

15 Credits

Spring 2nd Year

- AGEC 33000 - Management Methods For Agricultural Business
- AGRY 25500 - Soil Science ♦
- Calculus Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- BTNY 30100 - Introductory Plant Pathology

15 Credits

Fall 3rd Year

- AGEC 33100 - Principles Of Selling In Agricultural Business
- HORT 21800 - Herbaceous Landscape Plants
- HORT 30100 - Plant Physiology
- HORT 31500 - Landscape Design
- Business/Supervision/Personnel Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- MGMT 20010 - Business Accounting
- HORT 31600 - Landscape Construction
- Statistics Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

15 Credits

Fall 4th Year

- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants
- HORT 31700 - Landscape Contracting And Management
- HORT 42000 - Ornamental Plant Production
- HORT 43500 - Principles Of Marketing And Management For Horticultural Businesses
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00

16 Credits

Spring 4th Year

- HORT 44500 - Strategic Analysis Of Horticultural Production And Marketing
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Business Supervision/Personnel Selective - Credit Hours: 3.00
- Business Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Horticulture: Plant Science Concentration, BS

About the Program

This broad major can prepare students for the business of horticulture with concentrations in Horticultural Production and Marketing or Landscape Horticulture and Design, or it can be focused on education and communication through Public Horticulture, or it can lead to a research and development career via the Plant Science concentration. Horticulture Science applies knowledge from many disciplines, including biology, chemistry, ecology, engineering, communications, business, and education to solve real world problems related to the production, marketing and management of landscape plants, flowers, fruits and vegetables.

Horticulture Science (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Horticulture -Plant Science (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete

- Concentration Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- UCC Science, Technology, & Society Selective (satisfies Science, Technology & Society Seclective for core) - Credit Hour: 1.00
- 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (6 credits)

- Elective - Credit Hours: 6.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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 11500 - General Chemistry ♦

- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation

- MA 16010 - Applied Calculus I

15 Credits

Spring 1st Year

- CHM 11600 - General Chemistry ♦
- ENGL 10600 - First-Year Composition
- HORT 10100 - Fundamentals Of Horticulture
- MA 16020 - Applied Calculus II
- Elective - Credit Hour: 1.00

15 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science
- BTNY 31600 - Plant Anatomy
- CHM 25700 - Organic Chemistry ♦
- CHM 25701 - Organic Chemistry Laboratory
- UCC Humanities Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- BCHM 30700 - Biochemistry ♦
- BCHM 30900 - Biochemistry Laboratory
- BTNY 30200 - Plant Ecology
- HORT 20100 - Plant Propagation
- Physics Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 2.00

15 Credits

Fall 3rd Year

- BTNY 30500 - Fundamentals Of Plant Classification
- HORT 30100 - Plant Physiology
- Concentration Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- AGRY 32100 - Genetics Laboratory
- STAT 50300 - Statistical Methods For Biology
- Concentration Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Written or Oral Communication Selective - Credit Hours: 3.00

16 Credits

Fall 4th Year

- HORT 49100 - Special Assignments In Horticulture
- Horticultural Production Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- UCC Science, Technology, & Society Selective - Credit Hour: 1.00
- Elective - Credit Hours: 2.00

15 Credits

Spring 4th Year

- HORT 49200 - Horticultural Science Capstone Seminar
- HORT 51300 - Nutrition Of Horticulture Crops
- HORT 54100 - Postharvest Technology Of Fruits And Vegetables
- Concentration Selective - Credit Hours: 7.00
- Elective - Credit Hours: 3.00

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Horticulture: Public Horticulture Concentration, BS

About the Program

This broad major can prepare students for the business of horticulture with concentrations in Horticultural Production and Marketing or Landscape Horticulture and Design, or it can be focused on education and communication through Public Horticulture, or it can lead to a research and development career via the Plant Science concentration. Horticulture Science applies knowledge from many disciplines, including biology, chemistry, ecology, engineering, communications, business, and education to solve real world problems related to the production, marketing and management of landscape plants, flowers, fruits and vegetables.

Horticulture Science (multiple concentrations) Website

Summary of Program Requirements

The Summary of Program Requirements for Horticulture -Public Horticulture (2015-16) is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (112 credits)

Required Major Courses (35 credits)

- HORT 10100 - Fundamentals Of Horticulture ♦
- HORT 11000 - Survey Of Horticulture
- HORT 20100 - Plant Propagation ♦
- HORT 21700 - Woody Landscape Plants
- HORT 21800 - Herbaceous Landscape Plants
- HORT 30100 - Plant Physiology

- HORT 30600 - History Of Horticulture
- HORT 31000 - Planting Design Basics
- HORT 31700 - Landscape Contracting And Management
- HORT 42000 - Ornamental Plant Production
- HORT 44000 - Public Garden Management
- LA 10100 - Survey Of Landscape Architecture
- LA 16600 - History And Theory Of Landscape Architecture

Other Departmental /Program Course Requirements (77 credits)

(See Advising Resources)

- 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 - Fundamentals Of Plant Classification
- CHM 11100 - General Chemistry (satisfies Science #1 for core)
- CHM 11200 - General Chemistry (satisfies Science #2 for core)
- CHM 25700 - Organic Chemistry ♦
- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants
- Calculus Selective (satisfies Quantitative Reasoning for core) - Credit Hours: 3.00
- Statistics Selective (satisfies Information Literacy for core)
- Communications Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00
- Supervision/Personnel Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- UCC Science, Technology & Society Selective (satisfies Science, Technology & Society Selective for core) - Credit Hours: 1.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communication Selective - Credit Hours: 3.00

Electives (8 credits)

- Elective - Credit Hours: 8.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- HORT 10100 - Fundamentals Of Horticulture ♦

15 Credits

Spring 1st Year

- CHM 11200 - General Chemistry
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- HORT 11000 - Survey Of Horticulture
- HORT 20100 - Plant Propagation ♦
- Calculus Selective - Credit Hours: 3.00

- UCC Humanities Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- AGRY 25500 - Soil Science
- CHM 25700 - Organic Chemistry ♦
- HORT 21700 - Woody Landscape Plants
- LA 10100 - Survey Of Landscape Architecture
- UCC Science, Technology & Society Selective - Credit Hours: 1.00

15 Credits

Spring 2nd Year

- BCHM 30700 - Biochemistry ♦
- LA 16600 - History And Theory Of Landscape Architecture
- Economics Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00
- BTNY 30100 - Introductory Plant Pathology

15 Credits

Fall 3rd Year

- BTNY 30500 - Fundamentals Of Plant Classification
- HORT 21800 - Herbaceous Landscape Plants
- HORT 30100 - Plant Physiology
- Statistics Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- HORT 30600 - History Of Horticulture
- BTNY 30200 - Plant Ecology
- Written or Oral Communication Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

14 Credits

Fall 4th Year

- ENTM 44600 - Integrated Plant Health Management For Ornamental Plants
- HORT 31000 - Planting Design Basics
- HORT 31700 - Landscape Contracting And Management
- HORT 42000 - Ornamental Plant Production
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Concentration Selective - Credit Hours: 3.00

16 Credits

Spring 4th Year

- HORT 44000 - Public Garden Management
- Communications Selective - Credit Hours: 3.00
- Humanities or Social Sciences Selective - Credit Hours: 3.00
- Supervision/Personnel Selective - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

13 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

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

Summary of Program Requirements

The Summary of Program Requirements for Landscape Architecture is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

120 credits required for graduation

Departmental/Program Major Courses (115 credits)

Required Major Courses (60 credits)

- LA 10100 - Survey Of Landscape Architecture ♦
- LA 11600 - Graphic Communication For Students Of Landscape Architects And Design
- LA 11700 - Computer Technology In Design
- 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 25000 - Architectural Design
- 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

Other Departmental /Program Course Requirements (55 credits)

(See Advising Resources)

- AD 10500 - Design I
- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs (Fall & Spring 4th Year)

- ASM 21600 - Introduction To Surveying
- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II (Fall 5th Year) or
- BTNY 11000 - Introduction To Plant Science (Fall 5th Year)
- HORT 21700 - Woody Landscape Plants
- HORT 31700 - Landscape Contracting And Management
- Calculus or Statistics Selective - Credit Hours: 3.00
- Mathematics or Sciences Selective - Credit Hours: 3.00
- Mathematics or Sciences Selective - Credit Hours: 3.00
- Mathematics or Sciences Selective - Credit Hours: 1.00
- Art & Design 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
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanities Selective (satisfies Human Cultures Humanities for core) - Credit Hours: 3.00
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- Written or Oral Communications Selection - Credit Hours: 3.00

Electives (5 credits)

- Elective - Credit Hours: 5.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue

- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- ENGL 10600 - First-Year Composition
- LA 10100 - Survey Of Landscape Architecture ♦
- LA 11600 - Graphic Communication For Students Of Landscape Architects And Design

15 Credits

Spring 1st Year

- AD 10500 - Design I
- 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
- LA 21600 - Landscape Architectural Design I ♦
- Calculus or Statistics Selective - Credit Hours: 3.00

16 Credits

Fall 2nd Year

- HORT 21700 - Woody Landscape Plants
- LA 11700 - Computer Technology In Design
- LA 24600 - Site Systems I ♦
- Economics Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

16 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
- Art & Design Selective - Credit Hours: 3.00

14 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
- LA 34600 - Site Systems II

14 Credits

Spring 3rd Year

- LA 25000 - Architectural Design
- LA 32600 - Landscape Architectural Design IV
- LA 35600 - Site Systems III
- Mathematics or Sciences Selective - Credit Hours: 3.00
- Elective - Credit Hours: 2.00

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
- Humanities or Social Sciences Selective (30000+ level) - Credit Hours: 3.00
- Mathematics or Sciences Selective - Credit Hours: 1.00
- Written or Oral Communications Selection - Credit Hours: 3.00
- Elective - Credit Hour: 1.00

15 Credits

Spring 5th Year

- LA 42600 - Capstone Course In Landscape Architecture
- Humanities or Social Sciences Selective - Credit Hours: 3.00

- UCC Humanities Selective - Credit Hours: 3.00
- Mathematics or Sciences Selective - Credit Hours: 3.00

14 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Sustainable Food and Farming Systems, BS

Overview

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

Summary of Program Requirements

The Summary of Program Requirements for Sustainable Food and Farming Systems is a comprehensive list of those categories which a student must fulfill in order to earn their degree. Unlike the full Detailed Program Requirements listed below, complete lists of selectives for any given category are not shown. These summaries are intended to be printer-friendly and less expansive in detail.

Detailed Program Requirements

Please see below for detailed program requirements and possible selective fulfillments.

Departmental/Program Major Courses (114 credits)

Required Major Courses (13 credits)

- SFS 21000 - Small Farm Experience I (Spring)
- SFS 21100 - Small Farm Experience II (Fall)
- SFS 30100 - Agroecology
- SFS 30200 - Principles Of Sustainability
- SFS 35000 - Summer Farm Internship
- SFS 35100 - SFS Capstone Project

Other Departmental /Program Course Requirements (101 credits)

(See Advising Resources)

- AGR 10100 - Introduction To The College Of Agriculture And Purdue University
- AGR 12000 - Introduction To Horticulture And Landscape Architecture Academic Programs
- AGECE 20300 - Introductory Microeconomics For Food And Agribusiness

- AGRY 10500 - Crop Production or
- HORT 10100 - Fundamentals Of Horticulture

- AGRY 25500 - Soil Science or
- AGRY 27000 - Forest Soils

- AGRY 32000 - Genetics
- ANSC 10200 - Introduction To Animal Agriculture

- ANSC 23000 - Physiology Of Domestic Animals or
- HORT 30100 - Plant Physiology

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

- BTNY 20700 - The Microbial World or
- BIOL 22100 - Introduction To Microbiology

- 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
- Agronomy/Horticulture Selective - Credit Hours: 3.00
- Animal Science 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
- Pest Management Selectives - Credit Hours: 6.00
- Soil Science Selective - Credit Hours: 3.00

- Systems Modules Selectives - Credit Hours: 6.00
- Economics Selective (satisfies Human Culture Behavioral/Social Science for core) - Credit Hours: 3.00
- UCC Humanites 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
- ENGL 10600 - First-Year Composition (satisfies Written Communication for core) (satisfies Information Literacy for core)
- COM 11400 - Fundamentals Of Speech Communication (satisfies Oral Communication for core) or
- COM 21700 - Science Writing And Presentation (satisfies Oral Communication for core)
- AGR 20100 - Communicating Across Culture

Electives (6 credits)

- Elective - Credit Hours: 6.00

University Core Requirements

- Human Cultures Humanities
- Human Cultures Behavioral/Social Science
- Information Literacy
- Science #1
- Science #2
- Science, Technology, and Society
- Written Communication
- Oral Communication
- Quantitative Reasoning

120 semester credits required for Bachelor of Science degree

2.0 GPA required for Bachelor of Science degree

College of Agriculture & University Level Requirements

- 2.0 GPA required for Bachelor of Science degree
- 32 Upper division credits taken from Purdue
- 9 credits International Understanding
- 3 credits Multicultural Awareness
- 9 credits of Hum and/or Social Sciences outside the College of Agriculture

Program Requirements

<https://ag.purdue.edu/oap/Pages/major.aspx>

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
- COM 11400 - Fundamentals Of Speech Communication or
- COM 21700 - Science Writing And Presentation
- MA 16010 - Applied Calculus I

14 Credits

Spring 1st Year

- AGRY 10500 - Crop Production or
- HORT 10100 - Fundamentals Of Horticulture
- BTNY 11000 - Introduction To Plant Science
- CHM 11200 - General Chemistry
- ENGL 10600 - First-Year Composition
- SFS 21000 - Small Farm Experience I

17 Credits

Fall 2nd Year

- ANSC 10200 - Introduction To Animal Agriculture
- SFS 21100 - Small Farm Experience II
- SFS 30200 - Principles Of Sustainability
- Agronomy/Horticulture Selective - Credit Hours: 3.00
- Systems Modules Selective - Credit Hours: 3.00

15 Credits

Spring 2nd Year

- AGECE 20300 - Introductory Microeconomics For Food And Agribusiness
- AGRY 25500 - Soil Science or
- AGRY 27000 - Forest Soils
- BTNY 20700 - The Microbial World or
- BIOL 22100 - Introduction To Microbiology
- SFS 30100 - Agroecology
- Systems Modules Selective - Credit Hours: 3.00

15-16 Credits

Fall 3rd Year

- AGR 20100 - Communicating Across Culture
- ANSC 23000 - Physiology Of Domestic Animals or
- HORT 30100 - Plant Physiology
- Pest Management Selective - Credit Hours: 3.00
- Soil Science Selective - Credit Hours: 3.00
- UCC Humanities Selective - Credit Hours: 3.00

16 Credits

Spring 3rd Year

- AGRY 32000 - Genetics
- STAT 30100 - Elementary Statistical Methods
- Animal Science Selective - Credit Hours: 3.00
- Pest Management Selective - Credit Hours: 3.00
- Humanities or Social Science Selective - Credit Hours: 3.00

15 Credits

Summer Session

- SFS 35000 - Summer Farm Internship

Fall 4th Year

- SFS 35100 - SFS Capstone Project
- Business Management Selective - Credit Hours: 3.00
- Economics Selective - Credit Hours: 3.00
- Humanities or Social Science Selective (30000+ level) - Credit Hours: 3.00
- Elective - Credit Hours: 3.00

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: 3.00

15 Credits

Note

120 semester credits required for Bachelor of Science degree.

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. A Critical Course is one that a student must be able to pass to persist and succeed in a particular major.

Foreign Language Courses

Foreign Language proficiency requirements vary by program. For acceptable languages and proficiency levels, see your advisor:

American Sign Language, Arabic, Chinese, French, German, (ancient) Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Spanish

Minor

Horticulture Minor

HLA • Minor • Credits: 16

Departmental permission is not required to enroll in this minor.

New requirements for the Horticulture Minor were adopted in December 2014.

Previously, it was announced that only students who had declared a HORT Minor prior to Spring Semester 2015 would be permitted to follow the old minor requirements. All others would follow the new plan.

This policy is now changed.

The NEW policy is: Any student declaring the HORT Minor prior to Fall Semester 2015 will be permitted to follow the old minor requirements OR the new plan. All others declaring the HORT Minor after August 23, 2015, will follow the new plan.

Recommended Plan of Study OLD REQUIREMENT (18 Credits):

REQUIRED COURSES:

- BTNY 11000 - Introduction to Plant Science or
- HORT 10100 - Fundamentals of Horticulture or
- three credits of plant biology

Plant Propagation - Three credits Required

- HORT 20100 - Plant Propagation

SELECTIVES:

Twelve (12) credits of horticulture (HORT) at the 20000+ level.

NEW REQUIRMENT:

Required Courses

- HORT 10100 - Fundamentals Of Horticulture
- HORT 11000 - Survey Of Horticulture
- HORT 20100 - Plant Propagation

Selectives

A minimum of nine (9) credits must be taken from the following list:

- HORT 21700 - Woody Landscape Plants
- HORT 21800 - Herbaceous Landscape Plants
- HORT 22200 - DynaSCAPE Applications In Horticulture
- HORT 22300 - AutoCAD Applications In Horticulture
- HORT 22400 - Photoshop Applications In Horticulture
- HORT 30100 - Plant Physiology
- HORT 30600 - History Of Horticulture
- HORT 31000 - Planting Design Basics
- HORT 31500 - Landscape Design
- HORT 31600 - Landscape Construction
- HORT 31700 - Landscape Contracting And Management
- HORT 36000 - Flower Arrangement And Indoor Plant Management
- HORT 37000 - Professional Floral Design
- HORT 40300 - Tropical Horticulture
- HORT 42000 - Ornamental Plant Production
- HORT 42100 - Fruit Production
- HORT 42200 - Vegetable And Herb Production
- HORT 42500 - Landscape Horticulture Capstone Project
- HORT 43500 - Principles Of Marketing And Management For Horticultural Businesses
- HORT 44000 - Public Garden Management
- HORT 44500 - Strategic Analysis Of Horticultural Production And Marketing
- 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 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

Department of Youth Development and Agricultural Education

Overview

Welcome to the Department of Youth Development and Agricultural Education 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.

Faculty

<https://ag.purdue.edu/Pages/directory.aspx>.

Contact Information

Youth Development & Agricultural Education
Agriculture Administration Building
615 West State Street
West Lafayette, IN 47907
Phone: (765) 494-8423
Email: undergrad@ydae.purdue.edu

<http://ydae.purdue.edu/undergrad/aged>

Graduate Information

For Graduate Information please see Youth Development and Agricultural Education Graduate Program Information.