

AGRONOMY, BS

for the degree of Bachelor of Science Major in Agronomy

Agronomy is the fundamental agricultural science: managing multiple parts of agricultural systems to sustainability and economically meet the growing need for food, fuel and fiber. The agronomy major provides a foundation that by necessity integrates the science and practice of agricultural production through courses in plant biology, genetics, weed and pest management, soil science, environmental quality, and agricultural management practices. The program also offers many opportunities to participate in research and internships. This curriculum prepares students for careers in agricultural sciences as well as for entrance into graduate and professional schools. Our students pursue employment in scientific research or fields related to agronomy including crop consulting, soil and crop management, international food security and agricultural development, and science policy.

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Graduation Requirements

Minimum hours required for graduation: 126 hours.

University Requirements

Minimum of 40 hours of upper-division coursework, generally at the 300 and 400 level. These hours can be drawn from all elements of the degree. Students should consult their academic advisor for additional guidance in fulfilling this requirement.

The university and residency requirements can be found in the Student Code (<https://studentcode.illinois.edu/article3/part8/3-801/>) (§ 3-801) and in the Academic Catalog (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

General Education Requirements

Follows the campus General Education (Gen Ed) requirements (<https://courses.illinois.edu/gened/DEFAULT/DEFAULT/>). Some Gen Ed requirements may be met by courses required and/or electives in the program.

| Code | Title | Hours |
|------|--|-------|
| | Composition I | 4-6 |
| | Advanced Composition | 3 |
| | Humanities & the Arts (6 hours) | 6 |
| | Natural Sciences & Technology (6 hours) fulfilled by CHEM 102, CHEM 104, IB 103, IB 150, and CPSC 112 | 6 |
| | Social & Behavioral Sciences (6 hours) fulfilled by ECON 102 or ACE 100 and any other course approved as Social & Behavioral Sciences | 6 |
| | Cultural Studies: Non-Western Cultures (1 course) | 3 |
| | Cultural Studies: US Minority Cultures (1 course) | 3 |
| | Cultural Studies: Western/Comparative Cultures (1 course) | 3 |
| | Quantitative Reasoning (2 courses, at least one course must be Quantitative Reasoning I) | 6-8 |
| | fulfilled by MATH 220, MATH 221, or MATH 234, and CPSC 241 | |

Language Requirement (Completion of the third semester or equivalent of a language other than English is required) 0-15

| Code | Title | Hours |
|---|---|------------|
| Departmental Foundation | | |
| Communication Option: | | 3 or 6 |
| CMN 101 | Public Speaking | |
| ALEC 115 | Let's Talk about Food, Agriculture, and the Environment | |
| CMN 111 & CMN 112 | Oral & Written Comm I and Oral & Written Comm II | |
| ACES 101 or ACES 200 | ACES Transfer Orientation | 2 |
| Calculus Option - Select one of the following: | | 4-5 |
| MATH 220 | Calculus | |
| MATH 221 | Calculus I | |
| MATH 234 | Calculus for Business I | |
| CHEM 102 & CHEM 103 | General Chemistry I and General Chemistry Lab I | 4 |
| CHEM 104 & CHEM 105 | General Chemistry II and General Chemistry Lab II | 4 |
| ECON 102 or ACE 100 | Microeconomic Principles and Introduction to Applied Microeconomics | 3 or 4 |
| CPSC 241 | Intro to Applied Statistics | 3 |
| Major Core | | |
| CPSC 102 | Foundational Skills in Crop Sciences | 2 |
| CPSC 112 | Introduction to Crop Sciences | 4 |
| CPSC 212 | Introduction to Plant Protection | 4 |
| CPSC 498 | Crop Sci Professional Developmt | 1 |
| IB 103 | Introduction to Plant Biology | 4 |
| IB 150 | Organismal & Evolutionary Biol | 4 |
| NRES 201 | Introductory Soils | 4 |
| Internship or Research/Thesis Option - Select one of the following: | | 3 |
| CPSC 393 | Crop Sciences Internship | |
| HORT 393 | Horticulture Internship | |
| CPSC 395 | Undergrad Research or Thesis | |
| HORT 395 | Undergrad Research or Thesis | |
| PLPA 395 | Undergrad Research or Thesis | |
| Agronomy Requirements | | |
| CPSC 336 | Tomorrow's Environment | 3 |
| CPSC 352 | Plant Genetics | 4 |
| CPSC 382 | Organic Chem of Biol Processes | 4 |
| CPSC 418 | Crop Growth and Management | 3 |
| Major Electives | | |
| Choose 15 hours from any 300- or 400- level CPSC, HORT, or PLPA courses, excluding CPSC 393, HORT 393, CPSC 395, HORT 395 & PLPA 395. | | |
| Code | Title | Hours |
| Total Hours | | 126 |

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Sample Sequence

This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

Students must fulfill their Language Other Than English requirement by successfully completing a third level of a language other than English. See the corresponding section on the Degree and General Education Requirements page (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

First Year

| First Semester | Hours | Second Semester | Hours |
|---------------------------------------|-----------|---------------------------------------|-----------|
| CPSC 102 | 2 | CPSC 212 | 4 |
| CPSC 112 | 4 | Calculus Option | 4 |
| CHEM 102 | 3 | CHEM 104 | 3 |
| CHEM 103 | 1 | CHEM 105 | 1 |
| Composition I or Communication Option | 3 | Communication Option or Composition I | 4 |
| ACES 101 or ACES 200 | 2 | | |
| | 15 | | 16 |

Second Year

| First Semester | Hours | Second Semester | Hours |
|--|-----------|--|-----------|
| NRES 201 | 4 | CPSC 241 | 3 |
| ECON 102 or ACE 100 | 3 | IB 103 | 4 |
| Language Other than English (3rd level) | 4 | General Education course | 3 |
| Advanced CPSC, PLPA, or HORT Elective course | 3 | Advanced CPSC, PLPA, or HORT Elective course | 3 |
| Free Elective course | 2 | Free Elective course | 3 |
| | 16 | | 16 |

Third Year

| First Semester | Hours | Second Semester | Hours |
|--|-----------|--|-----------|
| CPSC 382 | 4 | IB 150 | 4 |
| Internship or Research/Thesis Option | 3 | Advanced CPSC, PLPA, or HORT Elective course | 3 |
| Advanced CPSC, PLPA, or HORT Elective course | 3 | General Education course | 3 |
| General Education course | 3 | General Education course | 3 |
| General Education course | 3 | Free Elective course | 3 |
| | 16 | | 16 |

Fourth Year

| First Semester | Hours | Second Semester | Hours |
|--|-----------|----------------------|-----------|
| CPSC 352 | 4 | CPSC 336 | 3 |
| CPSC 498 | 1 | CPSC 418 | 3 |
| General Education course | 3 | Free Elective course | 3 |
| General Education course | 3 | Free Elective course | 3 |
| Advanced CPSC, PLPA, or HORT Elective course | 3 | Free Elective course | 3 |
| Free Elective course | 2 | | |
| | 16 | | 15 |

Total Hours 126

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1. Students will demonstrate proficiency in the areas of crop production, plant breeding, pathogen control, soil and nutrient management, genetics and genomics, environmental quality, and data analysis.
2. Students will gain leadership skills through team-based science in an experiential learning context to become leaders in scientific fields.
3. Students will communicate agronomy content to the public using traditional and 21st century media platforms.
4. Students will discover how agronomy can be used as the foundation to solve global and regional food security challenge, and how agronomy is an ever-evolving field poised to meet the demand for food of a growing population.
5. Students will develop professional networks that will enhance future career choices.

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Crop Sciences

Crop Sciences website (<https://cropsciences.illinois.edu/>)

AW-101 Turner Hall

MC-046

1102 S. Goodwin Ave.

Urbana, IL 61801

(217) 333-3420

cropsciences@illinois.edu

College of Agricultural, Consumer & Environmental Sciences

College of Agricultural, Consumer & Environmental Sciences website (<https://aces.illinois.edu/>)

ACES Office of Academic Programs

128 Mumford Hall

1301 West Gregory Drive

Urbana, IL 61801

(217) 333-3380

aces-academics@illinois.edu

Advising

Advising website (<https://cropsciences.illinois.edu/about/contact-us/#paragraph-604>)

Undergraduate Advising email: ugrad@cropsciences.illinois.edu

Graduate Advising email: grad@cropsciences.illinois.edu

Admissions

ACES Undergraduate Admissions (<https://aces.illinois.edu/admissions/>)

University of Illinois Urbana-Champaign Undergrad Admissions (<https://www.admissions.illinois.edu/>)

University of Illinois Urbana-Champaign Graduate Admissions (<https://grad.illinois.edu/>)

(217) 333-3380

visitACES@illinois.edu