# Crop and Weed Science

Department Information

- **Department Web Site:**
  www.ndsu.edu/agriculture/academics/academic-units/plant-sciences/undergraduate-majors/crop-and-weed-sciences (http://www.ndsu.edu/agriculture/academics/academic-units/plant-sciences/undergraduate-majors/crop-and-weed-sciences/)
- **Credential Offered:**
  B.S.; Minor
- **Sample Program Guide:**
  catalog.ndsu.edu/programs-study/undergraduate/crop-weed-science/#planofstudytext (http://catalog.ndsu.edu/programs-study/undergraduate/crop-weed-science/#planofstudytext)

## Major Requirements

### Major: Crop & Weed Sciences

**Degree Type: B.S.**
**Minimum Degree Credits to Graduate: 120**

### University Degree Requirements

1. Satisfactory completion of all requirements of the curriculum in which one is enrolled.
2. Earn a minimum total of 120 credits in approved coursework. Some academic programs exceed this minimum.
3. Satisfactory completion of the general education requirements as specified by the university.
4. A minimum institutional GPA of 2.00 based on work taken at NDSU.
5. At least 30 credits must be NDSU resident credits. Resident credits include credits registered and paid for at NDSU.
6. At least 36 credits presented for graduation must be in courses numbered 300 or higher.
7. Students presenting transfer credit must meet the NDSU residence credits and the minimum upper level credit. Of the 30 credits earned in residence, a minimum of 15 semester credits must be in courses numbered 300 or above, and 15 semester credits must be in the student's curricula for their declared major.

For complete information, please refer to the Degree and Graduation Requirements (http://catalog.ndsu.edu/past-bulletin-archive/2024-25/academic-policies/undergraduate-policies/degree-and-graduation/) section of this Bulletin.

### University General Education Requirements

A list of university approved general education courses and administrative policies are available here (http://catalog.ndsu.edu/past-bulletin-archive/2024-25/academic-policies/undergraduate-policies/general-education/#genedcoursestext).

| Code | Title | Credits |
|---|---|---|
| **Category C: Communication** | | **12** |
| ENGL 110 | College Composition I | |
| ENGL 120 | College Composition II | |
| COMM 110 | Fundamentals of Public Speaking | |
| Upper Division Writing † | | |
| **Category R: Quantitative Reasoning †** | | **3** |
| **Category S: Science and Technology †** | | **10** |
| **Category A: Humanities and Fine Arts †** | | **6** |
| **Category B: Social and Behavioral Sciences †** | | **6** |
| **Category W: Wellness †** | | **2** |
| **Category D: Cultural Diversity *†** | | |
| **Category G: Global Perspectives *†** | | |
| **Total Credits** | | **39** |

*

Courses for category D & G are satisfied by completing D & G designated courses in another general education category.

†
General education courses may be used to satisfy requirements for both general education and the major, minor, and program emphases, where applicable. Students should carefully review major requirements to determine if specific courses can also satisfy these general education categories.

## Major Requirements

| Code | Title | Credits |
|---|---|---|
| **Required Courses for Crop & Weed Sciences** | | |
| PLSC 189 | Skills for Academic Success | 1 |
| BIOL 150<br>& 150L | General Biology I<br>and General Biology I Laboratory | 4 |
| BIOL 151<br>& 151L | General Biology II<br>and General Biology II Laboratory | 4 |
| CHEM 121<br>& 121L | General Chemistry I<br>and General Chemistry I Laboratory | 4 |
| CHEM 122<br>& 122L | General Chemistry II<br>and General Chemistry II Laboratory | 4 |
| ECON 201 | Principles of Microeconomics | 3 |
| ENT 350 | General Entomology | 3 |
| PLSC 110 | World Food Crops | 3 |
| PLSC 215 | Weed Identification | 1 |
| PLSC 225 | Principles of Crop Production | 3 |
| PLSC 312 | Expanding the Boundaries of Learning with Service | 1 |
| PLSC 315<br>& 315L | Genetics<br>and Genetics Laboratory | 4 |
| PLSC 380 | Principles of Plant Physiology | 3 |
| PLSC 420 | Integrated Forage and Cover Crops Production Management and Ecosystem Services [2] | 3 |
| PLSC 323 | Principles of Weed Science | 3 |
| PLSC 455 | Cropping Systems:An Integrated Approach [2] | 3 |
| PLSC 491 | Seminar | 1 |
| PPTH 324 | Introductory Plant Pathology | 3 |
| SOIL 210 | Introduction to Soil Science | 3 |
| STAT 330 | Introductory Statistics | 3 |
| **Options: Select one from the following four option areas:** | | |
| The standard default option for the major is Agronomy. Student wishing to pursue a different option must officially declare that option with the Office of Registration and Records. | | 16-27 |
| **Total Credits** | | **73-84** |

## Agronomy Option

For students interested in production agriculture.

| Code | Title | Credits |
|---|---|---|
| **Agronomy Requirements** | | |
| BIOL 461 | Plant Ecology [2] | 3-4 |
| or BIOC 260 | Elements of Biochemistry | |
| or CHEM 240 | Survey of Organic Chemistry | |
| MATH 103 | College Algebra (or higher) | 3 |
| MICR 202<br>& 202L | Introductory Microbiology<br>and Introductory Microbiology Lab | 3 |
| SOIL 322 | Soil Fertility and Fertilizers | 3 |
| PLSC 300-400 | (No more than 2 credits of co-op allowed) [2] | 4 |
| **Total Credits** | | **16-17** |

### Biotechnology Option

For students interested in the biotechnology industry or pursuing graduate study in crop biotechnology.

| Code | Title | Credits |
|---|---|---|
| **Biotechnology Requirements** | | |
| BIOC 460 | Foundations of Biochemistry and Molecular Biology I [2] | 3 |
| MATH 105 | Trigonometry | 3-4 |
| or MATH 146 | Applied Calculus I | |
| MICR 350<br>& 350L | General Microbiology<br>and General Microbiology Lab | 5 |
| PLSC 453 | Advanced Weed Science [2] | 2-3 |
| or PLSC 431 | Intermediate Genetics | |
| PLSC 484 | Plant Tissue Culture and Biotechnology [2] | 3 |
| **Total Credits** | | **16-18** |

### Science Option

For students interested in advanced study and foundational studies.

| Code | Title | Credits |
|---|---|---|
| **Science Requirements** | | |
| CHEM 341<br>& 341L | Organic Chemistry I<br>and Organic Chemistry I Laboratory | 4 |
| MATH 146 | Applied Calculus I | 4 |
| MICR 202<br>& 202L | Introductory Microbiology<br>and Introductory Microbiology Lab | 3 |
| PLSC 300-400 | (No more than 2 credits of co-op may be used) [2] | 4 |
| Science and Math Electives | BIOC, BIOL, CHEM, MATH, MICR, and STAT prefix courses (100-400 level) | 12 |
| **Total Credits** | | **27** |

### Weed Science Option

For students interested in crop consulting, weed science, and plant protection areas.

| Code | Title | Credits |
|---|---|---|
| **Weed Science Rquirements** | | |
| CHEM 240 | Survey of Organic Chemistry | 3-4 |
| or BIOC 260 | Elements of Biochemistry | |
| ENT 431 | Principles of Insect Pest Management [2] | 3 |
| MATH 103 | College Algebra (or higher level) | 3 |
| MICR 202<br>& 202L | Introductory Microbiology<br>and Introductory Microbiology Lab | 3 |
| PLSC 433 | Weed Biology and Ecology [2] | 2 |
| PLSC 453 | Advanced Weed Science [2] | 2 |
| PPTH 454 | Diseases Of Field and Forage Crops [2] | 3 |
| SOIL 322 | Soil Fertility and Fertilizers | 3 |
| **Total Credits** | | **22-23** |

## Degree Requirements and Notes

- The major allows no more than 6 credits of cooperative education (co-op) to be counted toward degree requirements.

**1**

PLSC 189 is only required for first-time, first-year students. These are students who have not yet completed a college course as a college student. Student that are not first-time, first-year students that either transfer into the university or change their major are not required to take this requirement.

**2**

Students who are approved to complete the accelerated program in the Master of Science in Plant Sciences are eligible to complete the 600 level course with graduate supervisor approval. Students are allowed to take 15 graduate credits and apply the graduate credit to these undergraduate program requirements. Students are required to complete the Accelerated Degree Student Declaration form and make formal application to the NDSU Graduate School.

# Minor Requirements

## Minor: Crop & Weed Science

**Minimum Required Credits: 18**

| Code | Title | Credits |
|---|---|---|
| **Required** | | |
| PLSC 110 | World Food Crops | 3 |
| PLSC 225 | Principles of Crop Production | 3 |
| **Elective Courses: Select two of the following:** | | **6-7** |
| PLSC 315 & 315L | Genetics and Genetics Laboratory (both must be taken to count as one selection) | |
| PLSC 320 | | |
| PLSC 323 | Principles of Weed Science | |
| **Elective Courses:** | | **5-6** |
| Other courses approved by the department: | | |
| PLSC 215 | Weed Identification | |
| SOIL 210 | Introduction to Soil Science | |
| ENT 350 | General Entomology | |
| PPTH 324 | Introductory Plant Pathology | |
| PLSC 300-400 | Level Course | |
| **Total Credits** | | **18-19** |

## Minor Requirements and Notes

- A minimum of 8 credits must be taken at NDSU.
- Students must earn a minimum 2.00 GPA for the minor requirements.