

Horticulture

Department Information

- **Department Location:**
Loftsgard Hall
- **Department Phone:**
701-231-7971
- **Department Email:**
ndsu.plantsciences@ndsu.edu
- **Department Web Site:**
www.ag.ndsu.edu/plantsciences/ (<http://www.ag.ndsu.edu/plantsciences/>)
- **Credential Offered:**
B.S.
- **Plan Of Study Sample:**
bulletin.ndsu.edu/programs-study/undergraduate/horticulture/#planofstudytext (<http://bulletin.ndsu.edu/programs-study/undergraduate/horticulture/#planofstudytext>)

Major Requirements

Major: Horticulture

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 36 credits presented for graduation must be in courses numbered 300 or higher.
6. Transfer Students: Must earn a minimum of 60 credits from a baccalaureate-degree granting or professional institution.
 - a. Of these 60, at least 36 must be NDSU resident credits as defined in #7.
 - b. Within the 36 resident credits, a minimum of 15 must be in courses numbered 300 or higher and 15 credits in the major field of study.
7. At least 36 credits must be NDSU resident credits. Resident credits include credits registered and paid for at NDSU.

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

University General Education Requirements

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

* May be satisfied by completing 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.

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

Major Requirements

| Code | Title | Credits |
|---|--|---------|
| Required Core Courses for Horticulture | | |
| PLSC 189 | Skills for Academic Success ¹ | 1 |
| BIOL 150 | General Biology I | 3 |
| BIOL 151 | General Biology II | 3 |
| PLSC 380 | Principles of Plant Physiology | |
| CHEM 121 & 121L | General Chemistry I and General Chemistry I Laboratory (May satisfy general education category S) | 4 |
| CHEM 122 | General Chemistry II (May satisfy general education category S) | 3 |
| CSCI 114 or TL 116 | Computer Applications (May satisfy general education category S) Business Software Applications | 3 |
| ECON 105 or ECON 201 or ECON 202 | Elements of Economics (May satisfy general education category B and G) Principles of Microeconomics Principles of Macroeconomics | 3 |
| ENT 350 | General Entomology | 3 |
| MATH 103 | College Algebra | 3 |
| PLSC 210 | Horticulture Science | 3 |
| PLSC 211 | Horticulture Science Lab | 1 |
| PLSC 215 | Weed Identification | 1 |
| PLSC 355 | Woody Landscape Plants | 3 |
| PLSC 365 | Herbaceous Landscape Plants | 2 |
| PLSC 457 | Horticulture and Turfgrass Systems (Capstone) | 3 |
| PLSC 496 or PLSC 494 | Field Experience Individual Study | 2 |
| PLSC 491 | Seminar | 1 |
| PPTH 324 | Introductory Plant Pathology | 3 |
| SOIL 210 | Introduction to Soil Science | 3 |
| STAT 330 | Introductory Statistics (May satisfy general education category R) | 3 |

Options: Select one of the six options listed below.

32-34

Option information: Students must select one of the options listed below to complete the major. The standard option is Production Business; if students wish to complete one of the other options available they must officially declare their option with the Office of Registration and Records.

Total Credits

83-85

¹ PLSC 189 is only required for first-time, first-year students--A first-time, first-year student is defined as a student who has not yet completed a college course as a college student. Students that are not first-time, first-year students that either transfer into the university or change their major are not required to take this course.

Production-Business Option (Standard) - 33 Credits

| Code | Title | Credits |
|-------------------------|---|---------|
| ACCT 102 | Fundamentals of Accounting | 3 |
| ENT 431 | Principles of Insect Pest Management | 3 |
| MGMT 320 | Foundations of Management | 3 |
| MRKT 320 or MGMT 430 | Foundations of Marketing Leadership in Organizations | 3 |
| PLSC 368 | Plant Propagation | 3 |

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|-------------|---------------------------|---|
| PPTH 455 | Plant Disease Management | 3 |
| or PPTH 457 | Landscape Plant Pathology | |

Electives: Select 15 credits of the following: 15

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|-----------|--|--|
| ASM 373 | Tractors & Power Units | |
| PLSC 177 | Floral Design I | |
| PLSC 296 | Field Experience | |
| PLSC 323 | Principles of Weed Science | |
| PLSC 375 | Turfgrass Management | |
| PLSC 375L | Turfgrass Management Laboratory | |
| PLSC 412 | Nursery Production and Management | |
| PLSC 415 | Vegetable Crop Production | |
| PLSC 416 | Fruit Crop Production | |
| PLSC 422 | Greenhouse Production and Management | |
| PLSC 425 | Potato Science | |
| PLSC 453 | Advanced Weed Science | |
| PLSC 465 | Advanced Landscape Plants | |
| PLSC 484 | Plant Tissue Culture and Biotechnology | |
| PLSC 486 | Applied Crop Physiology | |
| SOIL 322 | Soil Fertility and Fertilizers | |

Total Credits 33

Horticulture Science Option - 33 Credits

| Code | Title | Credits |
|--------------------|---|---------|
| BIOC 260 | Elements of Biochemistry | 4 |
| CHEM 122L | General Chemistry II Laboratory | 1 |
| CHEM 341 & 341L | Organic Chemistry I and Organic Chemistry I Laboratory | 4 |
| MATH 146 | Applied Calculus I | 4 |
| PLSC 315 | Genetics | 3 |
| PLSC 315L | Genetics Laboratory | 1 |
| PLSC 368 | Plant Propagation | 3 |

Electives: Select 13 credits of the following: 13

| | | |
|-------------------------|---|--|
| CLAS 180 | Scientific Term: Greek & Latin | |
| PLSC 296 | Field Experience | |
| PLSC 323 | Principles of Weed Science | |
| PLSC 375 & 375L | Turfgrass Management and Turfgrass Management Laboratory | |
| PLSC 411 | Genomics | |
| PLSC 412 | Nursery Production and Management | |
| PLSC 415 | Vegetable Crop Production | |
| PLSC 416 | Fruit Crop Production | |
| PLSC 422 | Greenhouse Production and Management | |
| PLSC 425 | Potato Science | |
| PLSC 431 | Intermediate Genetics | |
| PLSC 444 | Applied Plant Breeding and Research Methods | |
| PLSC 453 | Advanced Weed Science | |
| PLSC 484 | Plant Tissue Culture and Biotechnology | |
| PLSC 485 | Arboriculture Science | |
| PPTH 455 or PPTH 457 | Plant Disease Management Landscape Plant Pathology | |
| SOIL 465 | Soil And Plant Analysis | |
| STAT 331 | Regression Analysis | |

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|----------------------|-------------------------------------|-----------|
| STAT 367 | Probability | |
| STAT 462 | Introduction to Experimental Design | |
| Total Credits | | 33 |

Landscape Design Option - 34 Credits

This option also requires the completion of the Landscape Architecture minor (19 credits).

| Code | Title | Credits |
|--|--|----------|
| PLSC 177 | Floral Design I | 2 |
| PLSC 341 | Landscape Bidding, Contracting and Operations | 2 |
| PLSC 465 | Advanced Landscape Plants | 2 |
| Electives: Select 9 credits of the following: | | 9 |
| PLSC 296 | Field Experience | |
| PLSC 375 | Turfgrass Management | |
| PLSC 375L | Turfgrass Management Laboratory | |
| PLSC 412 | Nursery Production and Management | |
| PLSC 422 | Greenhouse Production and Management | |
| PLSC 468 | Landscape Irrigation Design | |
| PLSC 469 | Landscape Irrigation Installation and Management | |
| PLSC 485 | Arboriculture Science | |
| PPTH 457 | Landscape Plant Pathology | |

Landscape Architecture Minor

Core Courses

| | | |
|---|---|-----------|
| LA 231 | Digital Media + Methods Technology | 3 |
| LA 271 | Introduction to Landscape Architecture Studio | 6 |
| Electives: Select 10 credits of the following: | | 10 |
| LA 232 | Design Technology | |
| LA 272 | Parks & Open Spaces Studio | |
| LA 322 | History of Landscape Architecture | |
| LA 341 | Site Design + Development | |
| LA 342 | Site Development and Detailing II | |
| LA 441 | Site Development and Detailing III | |

Total Credits **34**

Landscape management Option - 32 Credits

| Code | Title | Credits |
|----------|--|---------|
| ACCT 102 | Fundamentals of Accounting | 3 |
| MGMT 320 | Foundations of Management | 3 |
| PLSC 341 | Landscape Bidding, Contracting and Operations | 2 |
| PLSC 370 | Landscape Management | 3 |
| PLSC 465 | Advanced Landscape Plants | 2 |
| PLSC 468 | Landscape Irrigation Design | 2 |
| PLSC 469 | Landscape Irrigation Installation and Management | 2 |
| PPTH 457 | Landscape Plant Pathology | 3 |

Electives: Select 12 credits of the following: **12**

| | | |
|-----------|--------------------------------------|--|
| ENT 431 | Principles of Insect Pest Management | |
| PLSC 296 | Field Experience | |
| PLSC 323 | Principles of Weed Science | |
| PLSC 368 | Plant Propagation | |
| PLSC 375 | Turfgrass Management | |
| PLSC 375L | Turfgrass Management Laboratory | |
| PLSC 412 | Nursery Production and Management | |
| PLSC 480 | Advanced Turfgrass Topics | |

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|----------------------|--------------------------------|-----------|
| PLSC 485 | Arboriculture Science | |
| SOIL 322 | Soil Fertility and Fertilizers | |
| Total Credits | | 32 |

Sports & Urban Turfgrass management Option - 33 Credits

| Code | Title | Credits |
|--------------------|---|---------|
| ACCT 102 | Fundamentals of Accounting | 3 |
| MGMT 320 | Foundations of Management | 3 |
| PLSC 375 & 375L | Turfgrass Management and Turfgrass Management Laboratory | 4 |
| PLSC 381 | Sports Turf Operations | 3 |
| PLSC 468 | Landscape Irrigation Design | 2 |
| PLSC 469 | Landscape Irrigation Installation and Management | 2 |
| PPTH 457 | Landscape Plant Pathology | 3 |
| SOIL 322 | Soil Fertility and Fertilizers | 3 |

Electives: Select 10 credits of the following: **10**

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|----------|---|--|
| ASM 373 | Tractors & Power Units | |
| ASM 374 | Power Units Laboratory | |
| ENT 431 | Principles of Insect Pest Management | |
| HNES 128 | Golf | |
| PLSC 219 | Introduction to Prairie & Community Forestry | |
| PLSC 296 | Field Experience | |
| PLSC 323 | Principles of Weed Science | |
| PLSC 341 | Landscape Bidding, Contracting and Operations | |
| PLSC 465 | Advanced Landscape Plants | |
| PLSC 480 | Advanced Turfgrass Topics | |
| PLSC 485 | Arboriculture Science | |
| PPTH 455 | Plant Disease Management | |
| SOIL 217 | Introduction to Meteorology & Climatology | |

Total Credits **33**

Urban Forestry & Parks Option - 33 Credits

| Code | Title | Credits |
|----------|---|---------|
| ACCT 102 | Fundamentals of Accounting | 3 |
| MGMT 320 | Foundations of Management | 3 |
| PLSC 219 | Introduction to Prairie & Community Forestry | 2 |
| PLSC 386 | Arboriculture Climbing and Rigging Operations | 2 |
| PLSC 465 | Advanced Landscape Plants | 2 |
| PLSC 485 | Arboriculture Science | 3 |
| PPTH 457 | Landscape Plant Pathology | 3 |

Electives: Select 15 credits of the following: **15**

| | | |
|-----------|--|--|
| ENT 431 | Principles of Insect Pest Management | |
| GEOG 105 | Fundamentals of Geographic Information Systems | |
| NRM 264 | Natural Resource Management Systems | |
| NRM 401 | Urban-Ecosystem Management | |
| PLSC 296 | Field Experience | |
| PLSC 315 | Genetics | |
| PLSC 323 | Principles of Weed Science | |
| PLSC 368 | Plant Propagation | |
| PLSC 370 | Landscape Management | |
| PLSC 375 | Turfgrass Management | |
| PLSC 375L | Turfgrass Management Laboratory | |
| PLSC 412 | Nursery Production and Management | |

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| PLSC 468 | Landscape Irrigation Design |
| PLSC 469 | Landscape Irrigation Installation and Management |
| SOIL 322 | Soil Fertility and Fertilizers |

Total Credits

33