

# Horticulture and Urban Agriculture Major

## Major Requirements

Degree Type: B.S.  
Minimum Credits Required: 120

### University Degree Requirements

For complete details on these and other university degree requirements, refer to the Degree and Graduation Requirements (<http://catalog.ndsu.edu/academic-policies/undergraduate-policies/degree-and-graduation/>) section in the University Catalog.

1. Minimum of 120 semester credits (some programs may exceed this minimum).
2. Complete the University General Education requirements.
3. Minimum institutional GPA of 2.00 based on work taken at NDSU.
4. Minimum of 30 credits in residence at NDSU.
5. Minimum of 36 upper level credits (courses numbered 300 or higher).
6. Students with transfer credit must meet the NDSU 30 credits in residence (#4). Of these 30 credits in residence, a minimum of 15 credits must be in courses numbered 300 or above, and 15 credits must be in the student's declared major curricula.

### University General Education Requirements

A list of university approved general education courses along with the administrative policies governing the requirement and the categories is available here (<http://catalog.ndsu.edu/academic-policies/undergraduate-policies/general-education/>).

Code	Title	Credits
<b>Category C: Communication</b>		<b>12</b>
<b>Category R: Quantitative Reasoning</b>		<b>3</b>
<b>Category S: Science and Technology</b>		<b>10</b>
<b>Category A: Humanities and Fine Arts</b>		<b>6</b>
<b>Category B: Social and Behavioral Sciences</b>		<b>6</b>
<b>Category W: Wellness</b>		<b>2</b>
<b>Category D: Cultural Diversity</b>		
<b>Category G: Global Perspectives</b>		
<b>Category L: Digital Literacy</b>		
<b>Total Credits</b>		<b>39</b>

## Major Requirements

Code	Title	Credits
<b>Required Core Courses for Horticulture</b>		
PLSC 189	Skills for Academic Success <sup>1</sup>	1
CSCI 114	Computer Applications	3
or TL 116	Business Software Applications	
CHEM 117 & 117L	Chemical Concepts and Applications and Chem Concepts and Applications Lab	4
or CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory	
ECON 105	Elements of Economics	3
or ECON 201	Principles of Microeconomics	
or ECON 202	Principles of Macroeconomics	
ENT 350	General Entomology	3
MATH 104	Finite Mathematics	3
or MATH 103	College Algebra	
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 380	Principles of Plant Physiology	3
PLSC 457	Horticulture and Turfgrass Systems (Capstone)	3
PLSC 491	Seminar	1
PLSC 496	Field Experience	2
or PLSC 493	Undergraduate Research	
or PLSC 494	Individual Study	
PPTH 324	Introductory Plant Pathology	3
SOIL 210	Introduction to Soil Science	3

**Option: Students select one of the six options listed below.**

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. **34**

**Total Credits** **76**

### Production-Business Option (Standard) - 34 Credits

Code	Title	Credits
ENT 431	Principles of Insect Pest Management <sup>2</sup>	3
MGMT 320	Foundations of Management	3
MRKT 320	Foundations of Marketing	3
or MGMT 430	Leadership in Organizations	
PLSC 368	Plant Propagation	3
PLSC 468	Landscape Irrigation Design	2
PLSC 469	Landscape Irrigation Installation and Management	2
PPTH 455	Plant Disease Management <sup>2</sup>	3
or PPTH 457	Landscape Plant Pathology	

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

ABEN 286	Introduction to Controlled Environment Agriculture	
ASM 373	Tractors & Power Units	
ENTR 201	Introduction to Entrepreneurship	
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 <sup>2</sup>	
PLSC 415	Vegetable Crop Production <sup>2</sup>	
PLSC 416	Fruit Crop Production <sup>2</sup>	
PLSC 422	Greenhouse Production and Management <sup>2</sup>	
PLSC 425	Potato Science <sup>2</sup>	
PLSC 453	Advanced Weed Science <sup>2</sup>	
PLSC 465	Advanced Landscape Plants <sup>2</sup>	
PLSC 484	Plant Tissue Culture and Biotechnology <sup>2</sup>	
PLSC 486	Applied Crop Physiology <sup>2</sup>	
SOIL 322	Soil Fertility and Fertilizers	

**Total Credits** **34**

### Horticulture Science Option - 34 Credits

Code	Title	Credits
BIOC 260	Elements of Biochemistry	4
CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	4

CHEM 240	Survey of Organic Chemistry	3
MATH 146	Applied Calculus I	4
PLSC 315 & 315L	Genetics and Genetics Laboratory	4
PLSC 368	Plant Propagation	3
PLSC 484	Plant Tissue Culture and Biotechnology <sup>2</sup>	3
Electives: Select 9 credits of the following:		9
PLSC 296	Field Experience	
PLSC 323	Principles of Weed Science	
PLSC 375 & 375L	Turfgrass Management and Turfgrass Management Laboratory	
PLSC 411	Genomics <sup>2</sup>	
PLSC 412	Nursery Production and Management <sup>2</sup>	
PLSC 415	Vegetable Crop Production <sup>2</sup>	
PLSC 416	Fruit Crop Production <sup>2</sup>	
PLSC 422	Greenhouse Production and Management <sup>2</sup>	
PLSC 425	Potato Science <sup>2</sup>	
PLSC 431	Intermediate Genetics <sup>2</sup>	
PLSC 453	Advanced Weed Science <sup>2</sup>	
PLSC 465	Advanced Landscape Plants <sup>2</sup>	
PLSC 485	Arboriculture Science <sup>2</sup>	
PLSC 486	Applied Crop Physiology <sup>2</sup>	
PPTH 455 or PPTH 457	Plant Disease Management <sup>2</sup> Landscape Plant Pathology	
SOIL 465	Soil And Plant Analysis <sup>2</sup>	
STAT 330	Introductory Statistics	
STAT 331	Regression Analysis	
STAT 367	Probability	
STAT 462	Introduction to Experimental Design <sup>2</sup>	
<b>Total Credits</b>		<b>34</b>

### Landscape Design Option - 34 Credits

This option also requires the completion of the Landscape Architecture minor (21 credits).

Code	Title	Credits
PLSC 177	Floral Design I	2
PLSC 341	Landscape Bidding, Contracting and Operations	2
PLSC 465	Advanced Landscape Plants <sup>2</sup>	3
PLSC 468	Landscape Irrigation Design	2
Electives: Select 4 credits of the following:		4
PLSC 296	Field Experience	
PLSC 375	Turfgrass Management	
PLSC 375L	Turfgrass Management Laboratory	
PLSC 412	Nursery Production and Management <sup>2</sup>	
PLSC 422	Greenhouse Production and Management <sup>2</sup>	
PLSC 469	Landscape Irrigation Installation and Management	
PLSC 485	Arboriculture Science <sup>2</sup>	
PPTH 457	Landscape Plant Pathology <sup>2</sup>	
Landscape Architecture Minor		21
<b>Total Credits</b>		<b>34</b>

**Landscape management Option - 34 Credits**

<b>Code</b>	<b>Title</b>	<b>Credits</b>
PLSC 341	Landscape Bidding, Contracting and Operations	2
PLSC 370	Landscape Management	3
PLSC 465	Advanced Landscape Plants <sup>2</sup>	3
PLSC 468	Landscape Irrigation Design	2
PLSC 469	Landscape Irrigation Installation and Management	2
PPTH 457	Landscape Plant Pathology <sup>2</sup>	3
Electives: Select 19 credits of the following:		19
ENT 431	Principles of Insect Pest Management <sup>2</sup>	
ENTR 201	Introduction to Entrepreneurship	
PLSC 296	Field Experience	
PLSC 323	Principles of Weed Science	
PLSC 368	Plant Propagation	
PLSC 375	Turfgrass Management	
PLSC 375L	Turfgrass Management Laboratory	
PLSC 381	Sports Turf Operations	
PLSC 412	Nursery Production and Management <sup>2</sup>	
PLSC 480	Advanced Turfgrass Topics <sup>2</sup>	
PLSC 485	Arboriculture Science <sup>2</sup>	
SOIL 322	Soil Fertility and Fertilizers	
<b>Total Credits</b>		<b>34</b>

**Sports & Urban Turfgrass management Option - 34 Credits**

<b>Code</b>	<b>Title</b>	<b>Credits</b>
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 <sup>2</sup>	3
SOIL 322	Soil Fertility and Fertilizers	3
Electives: Select 17 credits of the following:		17
ASM 373	Tractors & Power Units	
ASM 374	Power Units Laboratory	
ENT 431	Principles of Insect Pest Management <sup>2</sup>	
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 <sup>2</sup>	
PLSC 480	Advanced Turfgrass Topics <sup>2</sup>	
PLSC 485	Arboriculture Science <sup>2</sup>	
PPTH 455	Plant Disease Management <sup>2</sup>	
SOIL 217	Introduction to Meteorology & Climatology	
<b>Total Credits</b>		<b>34</b>

**Urban Forestry & Parks Option - 34 Credits**

<b>Code</b>	<b>Title</b>	<b>Credits</b>
PLSC 219	Introduction to Prairie & Community Forestry	2
PLSC 368	Plant Propagation	3

PLSC 386	Arboriculture Climbing and Rigging Operations	2
PLSC 412	Nursery Production and Management <sup>2</sup>	3
PLSC 465	Advanced Landscape Plants <sup>2</sup>	3
PLSC 485	Arboriculture Science <sup>2</sup>	3
PPTH 457	Landscape Plant Pathology <sup>2</sup>	3
Electives: Select 15 credits of the following:		15
ENT 431	Principles of Insect Pest Management <sup>2</sup>	
ENTR 201	Introduction to Entrepreneurship	
GEOG 105	Fundamentals of Geographic Information Systems	
NRM 264	Natural Resource Management Systems	
NRM 401	Urban-Ecosystem Management <sup>2</sup>	
PLSC 296	Field Experience	
PLSC 323	Principles of Weed Science	
PLSC 370	Landscape Management	
PLSC 375	Turfgrass Management	
PLSC 375L	Turfgrass Management Laboratory	
PLSC 416	Fruit Crop Production <sup>2</sup>	
PLSC 468	Landscape Irrigation Design	
PLSC 469	Landscape Irrigation Installation and Management	
SOIL 322	Soil Fertility and Fertilizers	

**Total Credits****34**

<sup>1</sup> 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.

<sup>2</sup> Students who are approved to complete the accelerated program in the Master of Science in Horticulture and Urban Agriculture 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.