

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 (<https://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 (<https://catalog.ndsu.edu/academic-policies/undergraduate-policies/general-education/>).

Code	Title	Credits
Category C: Communication		12
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		
Category L: Digital Literacy		
Total Credits		39

Major Requirements

Code	Title	Credits
Required Core Courses for Horticulture		
PLSC 189	1	
CSCI 114 or TL 116	Computer Applications Business Software Applications	3
CHEM 117 & 117L or CHEM 121 & 121L	Chemical Concepts and Applications and Chem Concepts and Applications Lab General Chemistry I and General Chemistry I Laboratory	4
ECON 105 or ECON 201 or ECON 202	Elements of Economics Principles of Microeconomics Principles of Macroeconomics	3
ENT 350	General Entomology	3
MATH 104 or MATH 103	Finite Mathematics 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 380	Principles of Plant Physiology	3
PLSC 457	Horticulture and Turfgrass Systems (Capstone)	3
PLSC 491		1
PLSC 496		2
or PLSC 493		
or PLSC 494		
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 72

Production-Business Option (Standard) - 34 Credits

Code	Title	Credits
ENT 431	Principles of Insect Pest Management ²	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 457	Landscape Plant Pathology ²	2

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		
PLSC 323	Principles of Weed Science	
PLSC 375	Turfgrass Management	
PLSC 375L	Turfgrass Management Laboratory	
PLSC 412	Nursery Production and Management ²	
PLSC 415	Vegetable Crop Production ²	
PLSC 416	Fruit Crop Production ²	
PLSC 422	Greenhouse Production and Management ²	
PLSC 425	Potato Science ²	
PLSC 453	Advanced Weed Science ²	
PLSC 465	Advanced Landscape Plants ²	
PLSC 484	Plant Tissue Culture and Biotechnology ²	
PLSC 486	Applied Crop Physiology ²	
SOIL 322	Soil Fertility and Fertilizers	

Total Credits 33

Horticulture Science Option - 34 Credits

Code	Title	Credits
BIOC 260	Elements of Biochemistry	4
CHEM 122	General Chemistry II	4
& 122L	and General Chemistry II Laboratory	
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 ²	3
Electives: Select 9 credits of the following:		9
PLSC 296		
PLSC 323	Principles of Weed Science	
PLSC 375 & 375L	Turfgrass Management and Turfgrass Management Laboratory	
PLSC 411	Genomics ²	
PLSC 412	Nursery Production and Management ²	
PLSC 415	Vegetable Crop Production ²	
PLSC 416	Fruit Crop Production ²	
PLSC 422	Greenhouse Production and Management ²	
PLSC 425	Potato Science ²	
PLSC 431	Intermediate Genetics ²	
PLSC 453	Advanced Weed Science ²	
PLSC 465	Advanced Landscape Plants ²	
PLSC 485	Arboriculture Science ²	
PLSC 486	Applied Crop Physiology ²	
PPTH 457	Landscape Plant Pathology ²	
SOIL 465	Soil And Plant Analysis ²	
STAT 330	Introductory Statistics	
STAT 331	Regression Analysis	
STAT 367	Probability	
STAT 462	Introduction to Experimental Design ²	
Total Credits		34

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 ²	3
PLSC 468	Landscape Irrigation Design	2
Electives: Select 4 credits of the following:		4
PLSC 296		
PLSC 375	Turfgrass Management	
PLSC 375L	Turfgrass Management Laboratory	
PLSC 412	Nursery Production and Management ²	
PLSC 422	Greenhouse Production and Management ²	
PLSC 469	Landscape Irrigation Installation and Management	
PLSC 485	Arboriculture Science ²	
PPTH 457	Landscape Plant Pathology ²	
Landscape Architecture Minor		21
Total Credits		34

Landscape management Option - 34 Credits

Code	Title	Credits
PLSC 341	Landscape Bidding, Contracting and Operations	2
PLSC 370	Landscape Management	3
PLSC 465	Advanced Landscape Plants ²	3

PLSC 468	Landscape Irrigation Design	2
PLSC 469	Landscape Irrigation Installation and Management	2
PPTH 457	Landscape Plant Pathology ²	3
Electives: Select 19 credits of the following:		19
ENT 431	Principles of Insect Pest Management ²	
ENTR 201	Introduction to Entrepreneurship	
PLSC 296		
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 ²	
PLSC 480	Advanced Turfgrass Topics ²	
PLSC 485	Arboriculture Science ²	
SOIL 322	Soil Fertility and Fertilizers	
Total Credits		34

Sports & Urban Turfgrass management Option - 34 Credits

Code	Title	Credits
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 ²	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 ²	
HNES 128	Golf	
PLSC 219	Introduction to Prairie & Community Forestry	
PLSC 296		
PLSC 323	Principles of Weed Science	
PLSC 341	Landscape Bidding, Contracting and Operations	
PLSC 465	Advanced Landscape Plants ²	
PLSC 480	Advanced Turfgrass Topics ²	
PLSC 485	Arboriculture Science ²	
SOIL 217	Introduction to Meteorology & Climatology	
Total Credits		34

Urban Forestry & Parks Option - 34 Credits

Code	Title	Credits
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 ²	3
PLSC 465	Advanced Landscape Plants ²	3
PLSC 485	Arboriculture Science ²	3
PPTH 457	Landscape Plant Pathology ²	3
Electives: Select 15 credits of the following:		15
ENT 431	Principles of Insect Pest Management ²	

ENTR 201	Introduction to Entrepreneurship
GEOG 105	Fundamentals of Geographic Information Systems
NRM 264	Natural Resource Management Systems
NRM 401	Urban-Ecosystem Management ²
PLSC 296	
PLSC 323	Principles of Weed Science
PLSC 370	Landscape Management
PLSC 375	Turfgrass Management
PLSC 375L	Turfgrass Management Laboratory
PLSC 416	Fruit Crop Production ²
PLSC 468	Landscape Irrigation Design
PLSC 469	Landscape Irrigation Installation and Management
SOIL 322	Soil Fertility and Fertilizers

Total Credits**34**

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.

² 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.