

HORTICULTURE

To meet the educational needs of a student population with interests ranging from plant physiology to landscape design/installation to fruit and vegetable production to golf course/athletic field construction and management, considerable flexibility is built into the horticulture curriculum. The diversity of interests and need for flexibility are reflected in the impressive array of horticulture courses offered.

The Department of Horticulture offers six options within the horticulture major:

1. Greenhouse Plant Production
2. Horticultural Food Crop Production and Management
3. Landscape Design, Installation, and Management
4. Public Horticulture
5. Horticulture Research
6. Turfgrass Management

Graduates possess the technical knowledge and skills to become professional horticulturists. They understand principles of life science, plant growth and development, and are familiar with cultural and management practices for a wide assortment of horticultural crops. They are able to work and communicate effectively with fellow horticultural professionals and other citizens who share an interest in horticulture. Graduates also understand the ethical and environmental dimensions of problems and issues facing horticultural professionals.

A degree in horticulture opens the door to employment opportunities with production nurseries, seed companies, interior landscaping firms, greenhouses, garden centers, conservatories, landscape design/installation firms, public gardens and arboreta, orchards and vineyards, food processing companies, vegetable farms, fertilizer cooperatives, agricultural chemical companies, golf courses, sports fields, sod production companies, and lawn care businesses. Several allied plant-science industries also provide employment opportunities in the areas of sales, management, and communication. Opportunities exist for careers in research, teaching, extension, and business after obtaining advanced training in graduate school.

Student Learning Outcomes

Upon graduation, students should be able to:

1. Acquire, integrate, and apply knowledge of plant science to manage systems.
2. Demonstrate interdisciplinary knowledge and competency in managing horticulture systems.
3. Synthesize knowledge and use insight and creativity to better understand and improve plant systems.

4. Appreciate and communicate the diverse impacts of horticulture on people.
5. Demonstrate professionalism and proficiency in skills that relate to horticulture.

Degree Requirements

Students majoring in horticulture will select an option in which to specialize before reaching junior standing and will fulfill the requirements described below under Options.

Total Degree Requirement: 129 credits

Only 65 credits from a two-year institution may apply which may include up to 16 technical credits; 9 P-NP credits of free electives; 2.00 minimum GPA.

Biological Sciences: 18 cr.

BIOL 211	Principles of Biology I	3
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BIOL 211L	Principles of Biology Laboratory I	1
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And complete fourteen credit hours from the following:	14
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AGRON 217	Weed Identification	
AGRON 282	Soil Conservation and Land Use	
AGRON 316	Crop Structure-Function Relationships	
AGRON 317	Principles of Weed Science	
AGRON 354 & 354L	Soils and Plant Growth and Soils and Plant Growth Laboratory	
BIOL 212 & 212L	Principles of Biology II and Principles of Biology Laboratory II	
BIOL 312	Ecology	
BIOL 313 & 313L	Principles of Genetics and Genetics Laboratory	
	or GEN 320 Genetics, Agriculture and Biotechnology	
BIOL 314	Principles of Molecular Cell Biology	
BIOL 355	Plants and People	
BIOL 366	Plant Systematics	
BIOL 430	Principles of Plant Physiology	
BIOL 454	Plant Anatomy	
BIOL 474	Plant Ecology	
ENT 201	Introduction to Insects	
ENT 211	Insects and Society	
ENT 370	Insect Biology	
ENT 375	Plant Protection Using Natural Enemies	
ENT 376	Fundamentals of Entomology and Pest Management	
FOR 416	Forest Insects and Diseases	

PL P 408	Principles of Plant Pathology	
Total Credits		18

Communications Proficiency (with a grade of C or better)

6 credits of English composition (see approved courses below)

3 credits of speech fundamentals (see approved courses below)

Communication/Library: 13 cr.

ENGL 150	Critical Thinking and Communication	3
ENGL 250	Written, Oral, Visual, and Electronic Composition	3
LIB 160	Introduction to College Level Research	1
ENGL 302	Business Communication	3
or ENGL 309	Proposal and Report Writing	
or ENGL 314	Technical Communication	
One of the following:		3
SP CM 212	Fundamentals of Public Speaking	
AGEDS 311	Presentation and Sales Strategies for Agricultural Audiences	
COMST 214	Professional Communication	
Total Credits		13

Ethics: 3 cr.

3 cr. from approved list 3

Humanities and Social Sciences: 6 cr.

Approved Humanities course	3
Approved Social Science course	3
Total Credits	6

International Perspective: 3 cr.

3 cr. from approved list 3

Total Credits	3
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U.S. Diversity: 3 cr.

3 cr. from approved list 3

Total Credits	3
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Life Sciences: 6 cr.

BIOL 211	Principles of Biology I	3
Approved Life Sciences course		3
Total Credits		6

Mathematical Sciences: 6 cr.

Select one course from the following: 3

MATH 140	College Algebra	
MATH 150	Discrete Mathematics for Business and Social Sciences	
MATH 165	Calculus I	

AND select one of the following: 3

STAT 101	Principles of Statistics	
STAT 104	Introduction to Statistics	
STAT 226	Introduction to Business Statistics I	
STAT 301	Intermediate Statistical Concepts and Methods	

Total Credits 6**Physical Sciences: 11 cr.**

Complete one of the following: 5

CHEM 163 & 163L	College Chemistry and Laboratory in College Chemistry	
or CHEM 177 & 177L	General Chemistry I and Laboratory in General Chemistry I	

AND complete one course from the following: 3-4

AGRON 259	Organic Compounds in Plants and Soils	
CHEM 178 & 178L	General Chemistry II and Laboratory in College Chemistry II	
CHEM 331 & 331L	Organic Chemistry I and Laboratory in Organic Chemistry I	
PHYS 101	Physics for the Nonscientist	
PHYS 115	Physics for the Life Sciences	
PHYS 131 & 131L	General Physics I and General Physics I Laboratory	

AND complete one course from the following: 3-5

BBMB 221	Structure and Reactions in Biochemical Processes	
CHEM 231 & 231L	Elementary Organic Chemistry and Laboratory in Elementary Organic Chemistry	
CHEM 331 & 331L	Organic Chemistry I and Laboratory in Organic Chemistry I	

Total Credits 11-14**Horticultural Sciences: Minimum of 30 cr.**

HORT 110	Professional and Educational Development in Horticulture.	1
HORT 221	Principles of Horticulture Science	3
HORT 321	Horticulture Physiology	3
Select 23 cr. hours from courses within selected option.		23
Total Credits		Minimum of 30

Soil Sciences: 3 cr.

AGRON 182	Introduction to Soil Science	3
Total Credits		3

Electives

No more than 4 cr. of Hort 490 may count toward graduation.

Options

Greenhouse Plant Production

The following courses are required to meet the Horticulture requirement:

HORT 240	Trees, Shrubs, and Woody Vines for Landscaping	3
HORT 322	Plant Propagation	3
HORT 330	Herbaceous Ornamental Plants	3
HORT 331	Hydroponic Crop Production	2
HORT 332	Greenhouse and Nursery Operations and Management	4
HORT 434	Floriculture Crop Production	3
HORT 435	Landscape Plant Production	3

Other recommended courses are:

HORT 391	Horticultural Management Experience
HORT 424	Sustainable and Environmental Horticulture Systems
HORT 476	Horticultural Postharvest Technology
HORT 233	House Plants and Interiorscaping

Required for option:

ACCT 284	Financial Accounting	3
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And select 9 cr. hours from the following: 9

ACCT 215	Legal Environment of Business
ACCT 285	Managerial Accounting
ACCT 416	Business Law
AGRON 206	Introduction to Weather and Climate
COM S 103	Computer Literacy and Applications
ECON 101	Principles of Microeconomics
ECON 102	Principles of Macroeconomics
ECON 230	Farm Business Management
ECON 234	Small Business Management
ECON 334	Entrepreneurship in Agriculture
ENTSP 310	Entrepreneurship and Innovation
ENTSP 313	Feasibility Analysis for New Ventures
MGMT 370	Managing Organizations
MGMT 371	Organizational Behavior
MKT 340	Principles of Marketing
MKT 442	Sales Management
MKT 447	Consumer Behavior
TSM 270	Principles of Injury Prevention and Safety

Horticultural Food Crop Production and Management

The following courses are required to meet the Horticulture requirement:

HORT 276	Understanding Grape and Wine Science	3
HORT 376	Fundamentals of Field Production of Horticultural Food Crops	3
HORT 461	Fruit Crop Production and Management	3
HORT 471	Vegetable Production and Management	2
HORT 471L	Vegetable Production and Management Lab	1
HORT 476	Horticultural Postharvest Technology	3

Other recommended courses:

HORT 322	Plant Propagation
HORT 331	Hydroponic Crop Production
HORT 332	Greenhouse and Nursery Operations and Management
HORT 338	Seed Science and Technology
HORT 391	Horticultural Management Experience
HORT 484	Organic Agricultural Theory and Practice

Required for option:

ACCT 284	Financial Accounting	3
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And select 9 cr. hours from the following: 9

ACCT 215	Legal Environment of Business
ACCT 285	Managerial Accounting
ACCT 416	Business Law
COM S 103	Computer Literacy and Applications
ECON 101	Principles of Microeconomics
ECON 102	Principles of Macroeconomics
ECON 230	Farm Business Management
ECON 234	Small Business Management
ECON 334	Entrepreneurship in Agriculture
ENV S 293	Environmental Planning
ENV S 324	Energy and the Environment
ENV S 382	Environmental Sociology
ENV S 491	Environmental Law and Planning
FS HN 403	Food Laws and Regulations
FS HN 471	Food Processing
FS HN 472	Food Processing Laboratory
ENTSP 310	Entrepreneurship and Innovation
ENTSP 313	Feasibility Analysis for New Ventures
MGMT 370	Managing Organizations
MGMT 371	Organizational Behavior
MKT 340	Principles of Marketing
MKT 442	Sales Management

MKT 447	Consumer Behavior	
TSM 270	Principles of Injury Prevention and Safety	
TSM 324	Soil and Water Conservation Management	

Horticulture Research

The following courses are required for this option:

AGEDS 312	Science With Practice	3
HORT 322	Plant Propagation	3

Biological Sciences:

BIOL 430	Principles of Plant Physiology	3
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Other recommended courses:

HORT 240	Trees, Shrubs, and Woody Vines for Landscaping	
HORT 330	Herbaceous Ornamental Plants	
HORT 331	Hydroponic Crop Production	
HORT 332	Greenhouse and Nursery Operations and Management	
HORT 342	Landscape Plant Installation, Establishment, and Management	
HORT 376	Fundamentals of Field Production of Horticultural Food Crops	
HORT 391	Horticultural Management Experience	

Mathematical Sciences Requirement: 8

MATH 165	Calculus I	
MATH 166	Calculus II	

Physical Sciences Requirement:

BBMB 301	Survey of Biochemistry	
	or BBMB 404 Biochemistry I	
	or BBMB 316 Principles of Biochemistry	
CHEM 177	General Chemistry I	
CHEM 177L	Laboratory in General Chemistry I	
CHEM 178	General Chemistry II	
CHEM 178L	Laboratory in College Chemistry II	
CHEM 331	Organic Chemistry I	
CHEM 331L	Laboratory in Organic Chemistry I	
CHEM 332	Organic Chemistry II	
CHEM 332L	Laboratory in Organic Chemistry II	
PHYS 131	General Physics I	
& 131L	and General Physics I Laboratory	
PHYS 132	General Physics II	
& 132L	and General Physics II Laboratory	

And select 5 cr. hours from the following:

BBMB 405	Biochemistry II	
BBMB 404	Biochemistry I	

or BBMB 316 Principles of Biochemistry

BBMB 411	Techniques in Biochemical Research	
BIOL 313	Principles of Genetics	
BIOL 313L	Genetics Laboratory	
BIOL 314	Principles of Molecular Cell Biology	
BIOL 315	Biological Evolution	
CHEM 211	Quantitative and Environmental Analysis	
CHEM 211L	Quantitative and Environmental Analysis Laboratory	
CHEM 316	Instrumental Methods of Chemical Analysis	
CHEM 316L	Instrumental Analysis Laboratory	
CHEM 321L	Laboratory in Physical Chemistry	
CHEM 322L	Laboratory in Physical Chemistry	
CHEM 324	Introductory Quantum Mechanics	
COM S 107	Windows Application Programming	
	or COM S 20 Fundamentals of Computer Programming	
GEN 409	Molecular Genetics	
GEN 410	Analytical Genetics	

Landscape Design, Installation and Management

The following courses are required to meet the Horticulture requirement:

HORT 240	Trees, Shrubs, and Woody Vines for Landscaping	3
HORT 281	Landscape Graphics	2
HORT 330	Herbaceous Ornamental Plants	3
HORT 341	Woody Plant Cultivars: Shade Trees, Ornamental Trees and Woody Shrubs	2
HORT 342	Landscape Plant Installation, Establishment, and Management	3
HORT 351	Turfgrass Establishment and Management	3
HORT 380	Principles of Garden Composition	2
HORT 381	Beginning Garden Composition Studio	2
HORT 444	Landscape Construction Management	3
HORT 481	Advanced Garden Composition	2

Other recommended courses are:

HORT 322	Plant Propagation	
HORT 332	Greenhouse and Nursery Operations and Management	
HORT 391	Horticultural Management Experience	

Required for option:

ACCT 284	Financial Accounting	3
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And select 9 cr. hours from the following: 9

ACCT 215	Legal Environment of Business	
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ACCT 285	Managerial Accounting
ACCT 416	Business Law
COM S 103	Computer Literacy and Applications
ECON 234	Small Business Management
ECON 334	Entrepreneurship in Agriculture
ENTSP 310	Entrepreneurship and Innovation
ENTSP 313	Feasibility Analysis for New Ventures
MGMT 370	Managing Organizations
MGMT 371	Organizational Behavior
MKT 340	Principles of Marketing
MKT 442	Sales Management
MKT 447	Consumer Behavior
TSM 324	Soil and Water Conservation Management

Public Horticulture

The following courses are required to meet the Horticulture requirement:

HORT 240	Trees, Shrubs, and Woody Vines for Landscaping	3
HORT 322	Plant Propagation	3
HORT 330	Herbaceous Ornamental Plants	3

Other recommended courses:

HORT 233	House Plants and Interiorscaping
HORT 281	Landscape Graphics
HORT 332	Greenhouse and Nursery Operations and Management
HORT 341	Woody Plant Cultivars: Shade Trees, Ornamental Trees and Woody Shrubs
HORT 342	Landscape Plant Installation, Establishment, and Management
HORT 351	Turfgrass Establishment and Management
HORT 351L	Turfgrass Establishment and Management Laboratory
HORT 376	Fundamentals of Field Production of Horticultural Food Crops
HORT 380	Principles of Garden Composition
HORT 381	Beginning Garden Composition Studio
HORT 391	Horticultural Management Experience

Required for option

ACCT 284	Financial Accounting	3
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And select 9 credit hours from the following: 9

ACCT 215	Legal Environment of Business
ACCT 285	Managerial Accounting
ACCT 416	Business Law
AGEDS 310	Foundations of Agricultural Education Programs

AGEDS 401	Planning Agriculture and Life Sciences Education Programs
COMST 211	Interpersonal Communication
COMST 214	Professional Communication
COMST 317	Small Group Communication
ECON 101	Principles of Microeconomics
ECON 234	Small Business Management
ECON 334	Entrepreneurship in Agriculture
ENGL 220	Descriptive English Grammar
ENGL 303	Free-Lance Writing for Popular Magazines
ENGL 305	Creative Writing: Nonfiction
ENGL 309	Proposal and Report Writing
ENGL 313	Rhetorical Website Design
ENGL 415	Business and Technical Editing
ENGL 416	Visual Aspects of Business and Technical Communication
ENSCI 446	Integrating GPS and GIS for Natural Resource Management
FIN 301	Principles of Finance
JL MC 201	Reporting and Writing for the Mass Media
JL MC 310	Fundamentals of Photojournalism
MGMT 370	Managing Organizations
MGMT 371	Organizational Behavior
MGMT 471	Introduction to Human Resource Management
P R 220	Principles of Public Relations
SP CM 312	Business and Professional Speaking

Turfgrass Management

The following courses are required to meet the Horticulture requirement:

HORT 240	Trees, Shrubs, and Woody Vines for Landscaping	3
HORT 351	Turfgrass Establishment and Management	3
HORT 351L	Turfgrass Establishment and Management Laboratory	1
HORT 451	Professional Turfgrass Management	2
HORT 453	Sports Turf Management	3
HORT 454	Turf & Landscape Irrigation	3
HORT 551	Growth and Development of Perennial Grasses	2

Other recommended courses:

HORT 330	Herbaceous Ornamental Plants
HORT 322	Plant Propagation
HORT 391	Horticultural Management Experience
HORT 424	Sustainable and Environmental Horticulture Systems

Required for option:

ACCT 284	Financial Accounting	3
And select 9 cr. hours from the following: 9		
ACCT 285	Managerial Accounting	
ACCT 416	Business Law	
AGRON 206	Introduction to Weather and Climate	
AGRON 360	Environmental Soil Science	
AGRON 459	Environmental Soil and Water Chemistry	
COM S 103	Computer Literacy and Applications	
ECON 234	Small Business Management	
ECON 334	Entrepreneurship in Agriculture	
ENV S 201	Introduction to Environmental Issues	
ENV S 324	Energy and the Environment	
HSP M 101	Introduction to the Hospitality Industry	
HSP M 289	Contemporary Club Management	
MGMT 370	Managing Organizations	
MGMT 371	Organizational Behavior	
TSM 270	Principles of Injury Prevention and Safety	
TSM 324	Soil and Water Conservation Management	

Horticulture, B.S. Greenhouse Plant Production Option**Freshman**

Fall	Credits Spring	Credits
ENGL 150	3 ENGL 250	3
CHEM 163	4 BIOL 211	3
CHEM 163L	1 BIOL 211L	1
ECON 101	3 STAT 104	3
HORT 121	3 AGRON 182	3
LIB 160	1 HORT 221	3
HORT 110	1	
	16	16

Sophomore

Fall	Credits Spring	Credits
ENT 201	1 HORT 332	4
ENT 211	2 AGRON 282	3
HORT 240	3 PHYS 101, 115, BBMB 221, or AGRON 259	3-4
MATH 140	3 ENT 376	3
ACCT 284	3 Elective	3
HORT 331	2	
Elective	1	
	15	16-17

Junior

Fall	Credits Spring	Credits
HORT 434	3 ENT 375	3
HORT 321	3 ENTSP 310	3
HORT 391	1 HORT 322	3
PL P 408	3 CHEM 231 & 231L or BBMB 221	3-4
Elective	3 International Perspective	3
US Diversity	3 Elective	1
	16	16-17

Senior

Fall	Credits Spring	Credits
HORT 321	3 HORT 435	3
HORT 391	1 ECON 334	3
ECON 234	3 Humanities	3
Ethics	3 HORT 341	2
SP CM 212 or AGEDS 311	3 ENGL 302 or 314	3
Elective	3 Elective	2
	16	16

Horticulture, B.S. - Horticulture Food Crop Production and Management Option**Freshman**

Fall	Credits Spring	Credits
ENGL 150	3 ENGL 250	3
CHEM 163	4 BIOL 211	3
CHEM 163L	1 BIOL 211L	1
ECON 101	3 STAT 104	3
HORT 121	3 AGRON 182	3
LIB 160	1 HORT 221	3
HORT 110	1	
	16	16

Sophomore

Fall	Credits Spring	Credits
ENT 201	1 AGRON 282	3
ENT 211	2 HORT 276	3
HORT 376	3 PHYS 101, 131, 115, BBMB 221, or AGRON 259	3-4
MATH 140	3 ENT 376	3
ACCT 284	3 HORT 471	2
International Perspective	3 HORT 471L	1
Elective	1 Elective	1
	16	16-17

Junior			Junior		
Fall	Credits Spring	Credits	Fall	Credits Spring	Credits
HORT 331	2 Biological Science	3	HORT 444	3	
HORT 321	3 HORT 332	4			
HORT 391	1 HORT 322	3			
Humanities	3 HORT 461	3			
CHEM 231 & 231L or BBMB 221	3-4 Elective	3			
Elective	3				
	15-16	16		17	16-17
Senior			Senior		
Fall	Credits Spring	Credits	Fall	Credits Spring	Credits
ENTSP 310	3 ENGL 302 or 314	3	HORT 240	3 BIOL 355	3
HORT 391	1 ECON 334	3	HORT 321	3 CHEM 231 & 231L or BBMB 221	3-4
ECON 234	3 PL P 408	3	HORT 391	1 International Perspective	3
HORT 476	3 Ethics	3	HORT 481	2 US Diversity	3
HORT 331	2 US Diversity	3	SP CM 212 or AGEDS 311	3 HORT 341	2
SP CM 212 or AGEDS 311	3 Elective	1	ECON 234	3 HORT 342	3
Elective	1				
	16	16		15	17-18

Horticulture, B.S. - Landscape Design, Installation, and Management

Freshman		
Fall	Credits Spring	Credits
ENGL 150	3 ENGL 250	3
CHEM 163	4 BIOL 211	3
CHEM 163L	1 BIOL 211L	1
ECON 101	3 STAT 104	3
HORT 121	3 AGRON 182	3
LIB 160	1 HORT 221	3
HORT 110	1	
	16	16

Sophomore		
Fall	Credits Spring	Credits
ENT 201	1 AGRON 282	3
ENT 211	2 HORT 380	2
HORT 330	3 PHYS 101, 131, 115, BBMB 221, or AGRON 259	3-4
MATH 140	3 ENT 376	3
ACCT 284	3 HORT 381	2
HORT 281	2 Elective	3

Horticulture, B.S. - Public Horticulture Option

Freshman		
Fall	Credits Spring	Credits
ENGL 150	3 ENGL 250	3
CHEM 163	4 BIOL 211	3
CHEM 163L	1 BIOL 211L	1
ECON 101	3 STAT 104	3
HORT 121	3 AGRON 182	3
LIB 160	1 HORT 221	3
HORT 110	1	
	16	16

Sophomore		
Fall	Credits Spring	Credits
ENT 201	1 AGRON 282	3
ENT 211	2 HORT 322	3
HORT 240	3 PHYS 101, 131, 115, BBMB 221, or AGRON 259	3-4
MATH 140	3 ENT 376	3
ACCT 284	3 Elective	3
International Perspective	3	

Elective	1				
	16	15-16			
Junior			Junior		
Fall	Credits Spring	Credits	Fall	Credits Spring	Credits
HORT 330	3 BIOL 355	3	PHYS 132	4 ENT 376	3
HORT 321	3 CHEM 231 & 231L or BBMB 221	3-4	PHYS 132L	1 BIOL 313	3
HORT 391	1 HORT 424	3	HORT 321	3 BIOL 313L	1
SP CM 212 or AGEDS 311	3 Elective	3	HORT 391	1 HORT 322	3
P R 220	3 US Diversity	3	PL P 408	3 CHEM 331	3
Elective	3 Elective	1	AGEDS 312	3 CHEM 331L	1
			HORT 342	3 International Perspective	3
	16	16-17		18	17
Senior			Senior		
Fall	Credits Spring	Credits	Fall	Credits Spring	Credits
ENGL 309	3 ENGL 302 or 314	3	CHEM 332	3 BIOL 314	3
PL P 408	3 Elective	3	CHEM 332L	1 BIOL 430	3
HORT 391	1 Humanities	3	HORT 391	1 Humanities	3
JL MC 201	3 HORT 332	4	BBMB 301, 404, or 316	3 Ethics	3
Ethics	3 HORT 342	3	ENGL 302 or 314	3 HORT 330	3
MGMT 371	3		SP CM 212 or AGEDS 311	3 Elective	1
			Elective	2	
	16	16		16	16
	16	16			
<u>Horticulture, B.S. - Horticulture Research Option</u>					
Freshman			Freshman		
Fall	Credits Spring	Credits	Fall	Credits Spring	Credits
ENGL 150	3 ENGL 250	3	ENGL 150	3 ENGL 250	3
CHEM 177	4 BIOL 211	3	CHEM 163	4 BIOL 211	3
CHEM 177L	1 BIOL 211L	1	CHEM 163L	1 BIOL 211L	1
ECON 101	3 STAT 104	3	ECON 101	3 STAT 104	3
HORT 121	3 AGRON 182	3	HORT 121	3 AGRON 182	3
LIB 160	1 HORT 221	3	LIB 160	1 HORT 221	3
HORT 110	1		HORT 110	1	
	16	16		16	16
Sophomore			Sophomore		
Fall	Credits Spring	Credits	Fall	Credits Spring	Credits
BIOL 212	3 US Diversity	3	ENT 201	1 AGRON 282	3
BIOL 212L	1 HORT 332	4	ENT 211	2 Humanities	3
HORT 240	3 MATH 166	4	HORT 240	3 PHYS 101, 131, 115, BBMB 221, or AGRON 259	3-4
MATH 165	4 PHYS 131	4	MATH 140	3 HORT 551	2
CHEM 178	3 PHYS 131L	1	ACCT 284	3 SP CM 212 or AGEDS 311	3
CHEM 178L	1		HORT 351	3 Elective	3
	15	16	HORT 351L	1	
				16	17-18

Junior

Fall	Credits Spring	Credits
HORT 453	3 AGRON 354	3
HORT 321	3 ENT 376	3
HORT 391	1 HORT 451	2
PL P 408	3 HORT 322	3
International Perspective	3 Elective	2
US Diversity	3 CHEM 231 & 231L or BBMB 221	3-4
16		16-17

Senior

Fall	Credits Spring	Credits
AGRON 206	3 ENGL 302 or 314	3
HORT 391	1 HORT 342	3
HORT 454	3 HORT 424	3
Option Class	3 Ethics	3
MGMT 371	3 Option Class	3
Option Class	3 Elective	1
16		16

Graduate Study

The graduate major in horticulture leads to the M.S. (thesis and non-thesis option) and Ph.D. Some faculty members of the department serve as major professors for students in interdepartmental graduate majors in plant biology; genetics and genomics; molecular, cellular, and developmental biology; ecology and evolutionary biology; sustainable agriculture; and environmental science.

Graduates possess a broad understanding of horticulture and the allied plant sciences. They are able to communicate effectively with members of the scientific community, industry groups, and other interested citizens. They are experienced in conducting research and communicating the results from that research. They are capable of addressing and solving complex problems that confront the many horticultural, agricultural, and plant science professions. They also understand the ethical, legal, social, and environmental issues associated with modern agricultural/horticultural practices.

Minors

The Department of Horticulture offers two minors: 1) Horticulture and 2) Landscape Management. Both minors are earned by taking HORT 221 Principles of Horticulture Science plus 12 additional credits with a maximum of 3 credits at the 200-level and a minimum of 9 credits at the 300-level or above. The minor must include at least 9 credits that are not used to meet any other department, college, or university requirement.

Horticulture minor

The Horticulture minor is a broad-based minor that does not focus within a specific area of horticulture. The 12 additional credits for this minor can be selected from the full list of Horticulture courses.

Landscape Management minor

The Landscape Management minor focuses on landscape management including plant selection, landscape installation and management, and turfgrass management. The 12 additional credits for this minor can be selected from the following courses: HORT 240 Trees, Shrubs, and Woody Vines for Landscaping, HORT 281 Landscape Graphics, HORT 330 Herbaceous Ornamental Plants, HORT 341 Woody Plant Cultivars: Shade Trees, Ornamental Trees and Woody Shrubs, HORT 342 Landscape Plant Installation, Establishment, and Management, HORT 351 Turfgrass Establishment and Management or HORT 444 Landscape Construction Management.