HORTICULTURE, B.S.

Horticulturists work to enrich our lives by integrating and applying plant science, environmental science, molecular biology, biotechnology, genetics, physiology, and management. Specifically, horticultural science deals with the development, production, growth, distribution, and use of fruits, vegetables, greenhouse crops, ornamentals, turf, and specialty plant crops (used for flavoring and medicine). Horticultural science is one of the most diverse biological sciences one can study at a university. Not only are the biology and genetics of crop plants interesting, but the application of this knowledge is equally important in a myriad of situations. Undergraduate horticulture majors will obtain specialized training in greenhouse/field management and the production and use of fruits, vegetables, nuts, and herbaceous/woody ornamentals through the bachelor of science degree program.

In addition to obtaining a job with an undergraduate degree in horticulture, the major provides an excellent background for graduate study in the field of plant sciences. Areas of graduate study include plant breeding and plant genetics, horticulture, agronomy, plant pathology, or other related fields such as biology, environmental science, natural resource management, agroecology, and genetics.

Students with either undergraduate or graduate degrees in horticulture have a variety of career opportunities. Recent studies show that there are more jobs in agriculture in the US than there are students graduating with agricultural bachelor of science degrees to fill them. Estimates in 2015 showed that there were 57,900 job openings in agriculture and related fields and only 35,400 students graduating annually in those areas. As our world grapples with the need to contribute science-based solutions to feeding 9 billion people by 2050, students trained in the agricultural and horticultural sciences will be called on to contribute.

Horticulture graduates may find opportunities in working on developing higher yielding crops or crops that can withstand more stressful growing conditions. Others may find opportunities working on improving qualities such as flavor, appearance, texture, and postharvest shelf life for a wide range of horticultural commodities from fruits to vegetables to flowers. Sustainable production is a particular area of growth where horticultural expertise can make a contribution. Students may wish to read a recent report from the United States Department of Agriculture and Purdue University (https://www.purdue.edu/usda/employment/wp-content/uploads/2015/04/2-Page-USDA-Employ.pdf) on the subject of employment opportunities in this area.

The horticulture degree serves as excellent preparation for careers in food production, plant nurseries, community supported agriculture (CSA), public gardens, landscaping, greenhouse production, teaching, public parks, vegetable fields, golf courses, urban agriculture, extension- and community-based educational work, work in research labs, and the health sciences. In addition, many horticultural science majors go on to work in public sector jobs including city and state positions with the Department of Natural Resources, the Wisconsin Department of Agriculture, and University of Wisconsin Division of Extension. Students with degrees in horticulture also work in hospitals (horticultural therapy), aerospace (food and recycling in space labs), and zoos (managing environments for animals and visitors). Although the career opportunities are numerous, horticulture students have a common desire to work intensively with plants to improve our environment and our health.
## COLLEGE REQUIREMENTS FOR ALL CALS B.S. DEGREE PROGRAMS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quality of Work: Students must maintain a minimum cumulative grade point average of 2.000 to remain in good standing and be eligible for graduation.</td>
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<td></td>
<td>Residency: Students must complete 30 degree credits in residence at UW–Madison after earning 86 credits toward their undergraduate degree.</td>
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<tr>
<td></td>
<td>First Year Seminar <a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext</a></td>
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<tr>
<td></td>
<td>Physical Science Fundamentals</td>
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<tr>
<td>CHEM 103</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM 108</td>
<td>Chemistry in Our World</td>
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<td>CHEM 109</td>
<td>Advanced General Chemistry</td>
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<td>Biological Science</td>
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<td>Additional Science (Biological, Physical, or Natural)</td>
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<td></td>
<td>Science Breadth (Biological, Physical, Natural, or Social)</td>
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<td></td>
<td>CALS Capstone Learning Experience: included in the requirements for each CALS major (see 'Major Requirements') <a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext</a></td>
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## MAJOR REQUIREMENTS

Courses may not double count within the major (unless specifically noted otherwise), but courses counted toward the major requirements may also be used to satisfy a university requirement and/or a college requirement. A minimum of 15 credits must be completed in the major that are not used elsewhere.

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<tr>
<th>Code</th>
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<td>Mathematics and Statistics</td>
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<td>Select one of the following (or may be satisfied by placement exam):</td>
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<tr>
<td>MATH 112 &amp; MATH 113</td>
<td>Algebra and Trigonometry</td>
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<td>MATH 114</td>
<td>Algebra and Trigonometry</td>
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<tr>
<td>MATH 171</td>
<td>Calculus with Algebra and Trigonometry I α</td>
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<td>Select one of the following:</td>
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<td>MATH 211</td>
<td>Calculus</td>
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<td>MATH 217</td>
<td>Calculus with Algebra and Trigonometry II β</td>
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<td>MATH 221</td>
<td>Calculus and Analytic Geometry 1</td>
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<td>MATH 222</td>
<td>Calculus and Analytic Geometry 2</td>
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<td>STAT 301</td>
<td>Introduction to Statistical Methods</td>
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<td>STAT 371</td>
<td>Introductory Applied Statistics for the Life Sciences</td>
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<td>Programming II</td>
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<td>Chemistry</td>
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<td>CHEM 103 &amp; CHEM 104</td>
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<td>Advanced General Chemistry</td>
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<td>Biology</td>
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<td>BOTANY/ BIOLOGY 130</td>
<td>General Botany</td>
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<td>ZOOLOGY/ BIOLOGY 101</td>
<td>Animal Biology</td>
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<td>ZOOLOGY/ BIOLOGY 102</td>
<td>Animal Biology Laboratory</td>
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<td>Option 2:</td>
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<tr>
<td>BIOLOGY/ BOTANY/ ZOOLOGY 152</td>
<td>Introductory Biology</td>
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<td>Option 3:</td>
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<tr>
<td>BIOCORE 381</td>
<td>Evolution, Ecology, and Genetics</td>
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<td>BIOCORE 383</td>
<td>Cellular Biology</td>
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<td>And select two of the following:</td>
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<td>BIOCORE 382</td>
<td>Evolution, Ecology, and Genetics Laboratory</td>
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<td>BIOCORE 384</td>
<td>Cellular Biology Laboratory</td>
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<td>BIOCORE 486</td>
<td>Principles of Physiology Laboratory</td>
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<td>Agricultural Breadth</td>
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<tr>
<td>ENTOM/ ZOOLOGY 302</td>
<td>Introduction to Entomology</td>
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<tr>
<td>or ENTOM 351</td>
<td>Principles of Economic Entomology</td>
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<td>GENETICS 466</td>
<td>Principles of Genetics</td>
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<td>Select one of the following:</td>
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<tr>
<td>BOTANY 300</td>
<td>Plant Anatomy</td>
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<td>BOTANY 305</td>
<td>Plant Morphology and Evolution</td>
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<tr>
<td>BOTANY 500</td>
<td>Plant Physiology</td>
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<tr>
<td>PL PATH 300</td>
<td>Introduction to Plant Pathology</td>
<td>3-4</td>
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<tr>
<td>or PL PATH/ F&amp;W ECOL/HORT/ LAND ARC 309</td>
<td>Diseases of Trees and Shrubs</td>
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<tr>
<td>SOIL SCI 301</td>
<td>General Soil Science</td>
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<tr>
<td>Horticultural Core</td>
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<tr>
<td>HORT 120</td>
<td>Survey of Horticulture</td>
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<td>HORT 121</td>
<td>Horticulture Colloquium</td>
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<td>HORT 227</td>
<td>Propagation of Horticultural Plants</td>
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<td>HORT 320</td>
<td>Environment of Horticultural Plants</td>
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<tr>
<td>HORT/AGRONOMY/ SOIL SCI 326</td>
<td>Plant Nutrition Management</td>
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<td>Select one of the following:</td>
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<tr>
<td>HORT 334</td>
<td>Greenhouse Cultivation</td>
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<td>HORT 335</td>
<td>Greenhouse Cultivation Lab</td>
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<td>HORT 375</td>
<td>Special Topics (Organic Vegetable Production) β</td>
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<td>Select three of the following:</td>
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<tr>
<td>Electives</td>
<td>Credits</td>
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<tr>
<td>Select 5 elective credits (see list below)</td>
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### Capstone

Select one of the following: 1-3

1. A course as approved by advisor and chair of the curriculum committee, usually taken as the following: 3

   - **HORT**/**AGRONOMY** 376, Tropical Horticultural Systems
   - **HORT** 378, and Tropical Horticultural Systems International Field Study
   - **HORT** 399, Coordinative Internship/Cooperative Education
   - **HORT** 699, Special Problems

2. If MATH 171 is taken, MATH 217 must also be taken.
3. Alternate years.

4. Example activities include broad-based internships or broad-based international study.

### ELECTIVE COURSES

Students may not double count courses within the major requirements (Agricultural Breadth, Horticultural Core, Electives, Capstone)

<table>
<thead>
<tr>
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<tr>
<td><strong>Business and Economics</strong></td>
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<td><strong>A A E 215</strong></td>
<td>Introduction to Agricultural and Applied Economics</td>
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<tr>
<td><strong>A A E/ENVIR ST 244</strong></td>
<td>The Environment and the Global Economy</td>
<td>4</td>
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<tr>
<td><strong>A A E 246</strong></td>
<td>Climate Change Economics and Policy</td>
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<tr>
<td><strong>A A E 319</strong></td>
<td>The International Agricultural Economy</td>
<td>3</td>
</tr>
<tr>
<td><strong>A A E 320</strong></td>
<td>Farming Systems Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>A A E 323</strong></td>
<td>Cooperatives and Alternative Forms of Enterprise Ownership</td>
<td>3</td>
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<tr>
<td><strong>A A E/ECON/ENVIR ST 343</strong></td>
<td>Environmental Economics</td>
<td>3-4</td>
</tr>
<tr>
<td><strong>GEN BUS 310</strong></td>
<td>Fundamentals of Accounting and Finance for Non-Business Majors</td>
<td>3</td>
</tr>
<tr>
<td><strong>GEN BUS 311</strong></td>
<td>Fundamentals of Management and Marketing for Non-Business Majors</td>
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### Ecology, Conservation, and the Environment

<table>
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<tr>
<td><strong>HORT 345</strong></td>
<td>Fruit Crop Production (alternate years)</td>
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<tr>
<td><strong>HORT 370</strong></td>
<td>World Vegetable Crops</td>
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### Total Credits

70-84
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<th>Credits</th>
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<tbody>
<tr>
<td>PL PATH 311</td>
<td>Global Food Security (Food Systems, Sustainability, and Climate Change)</td>
<td>3</td>
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<tr>
<td>PL PATH 375</td>
<td>Special Topics</td>
<td>1-4</td>
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**Landscape Horticulture**

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>BSE 201</td>
<td>Land Surveying Fundamentals</td>
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<tr>
<td>BSE 243</td>
<td>Operating and Management Principles of Off-Road Vehicles</td>
<td>3</td>
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<tr>
<td>F&amp;W ECOL 375</td>
<td>Special Topics (Tree Risk Assessment and Decay Detection)</td>
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<tr>
<td>HORT 234</td>
<td>Ornamental Plants</td>
<td>3</td>
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<tr>
<td>HORT/PL PATH 261</td>
<td>Sustainable Turfgrass Use and Management</td>
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<td>HORT/PL PATH 262</td>
<td>Turfgrass Management Laboratory</td>
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<tr>
<td>HORT/ LAND ARC 263</td>
<td>Landscape Plants I</td>
<td>3</td>
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<tr>
<td>HORT/SOIL SCI 332</td>
<td>Turfgrass Nutrient and Water Management</td>
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<tr>
<td>HORT 334</td>
<td>Greenhouse Cultivation</td>
<td>2</td>
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<tr>
<td>HORT 335</td>
<td>Greenhouse Cultivation Lab</td>
<td>1</td>
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<tr>
<td>HORT 375</td>
<td>Special Topics ( Arboriculture and Landscape Maintenance)</td>
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<tr>
<td>LAND ARC 250</td>
<td>Survey of Landscape Architecture Design</td>
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<td>LAND ARC 260</td>
<td>History of Landscape Architecture</td>
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<td>LAND ARC 211</td>
<td>Landscape Inventory and Evaluation Methods</td>
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**Pest Management**

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<tr>
<td>ENTOM/BOTANY/ ZOOLOGY 473</td>
<td>Plant-Insect Interactions</td>
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<tr>
<td>ENTOM/ F&amp;W ECOL 500</td>
<td>Insects in Forest Ecosystem Function and Management</td>
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<td>PL PATH/ BOTANY 332</td>
<td>Fungi</td>
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**Plant Biology**

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<td>BOTANY 300</td>
<td>Plant Anatomy</td>
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<tr>
<td>BOTANY 305</td>
<td>Plant Morphology and Evolution</td>
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<tr>
<td>BOTANY 400</td>
<td>Plant Systematics</td>
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<td>BOTANY 401</td>
<td>Vascular Flora of Wisconsin</td>
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<td>BOTANY/ANTHRO/ ZOOLOGY 410</td>
<td>Evolutionary Biology</td>
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<td>BOTANY 422</td>
<td>Plant Geography</td>
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<tr>
<td>BOTANY/AMER IND/ ANTHRO 474</td>
<td>Ethnobotany</td>
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<td>BOTANY 500</td>
<td>Plant Physiology</td>
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<tr>
<td>F&amp;W ECOL 415</td>
<td>Tree Physiology</td>
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**Plant Breeding, Genetics, and Biotechnology**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tr>
<td>AGRONOMY/ C&amp;E SOC/MED HIST/ PHILOS 565</td>
<td>The Ethics of Modern Biotechnology</td>
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<td>BIOCHEM 501</td>
<td>Introduction to Biochemistry</td>
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<tr>
<td>CHEM 341</td>
<td>Elementary Organic Chemistry</td>
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<td>CHEM 342</td>
<td>Elementary Organic Chemistry Laboratory</td>
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<td>CHEM 343</td>
<td>Introductory Organic Chemistry</td>
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<tr>
<td>HORT/ AGRONOMY 338</td>
<td>Plant Breeding and Biotechnology</td>
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<tr>
<td>HORT/AGRONOMY/ BOTANY 339</td>
<td>Plant Biotechnology: Principles and Techniques I</td>
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<td>HORT/AGRONOMY/ BOTANY 340</td>
<td>Plant Cell Culture and Genetic Engineering</td>
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<td>HORT/ AGRONOMY 360</td>
<td>Genetically Modified Crops: Science, Regulation &amp; Controversy</td>
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<td>HORT 375</td>
<td>Special Topics (Epigenetics)</td>
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<td>HORT/PATH-BIO 500</td>
<td>Molecular Biology Techniques</td>
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<td>HORT/ AGRONOMY 501</td>
<td>Principles of Plant Breeding</td>
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<td>HORT/ AGRONOMY 502</td>
<td>Techniques of Plant Breeding</td>
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<td>HORT/ GENETICS 550</td>
<td>Molecular Approaches for Potential Crop Improvement</td>
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<td>HIST SCI 202</td>
<td>The Making of Modern Science</td>
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**Public Policy and Environmental Ethics**

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<td>Environmental Stewardship and Social Justice</td>
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<tr>
<td>ENVIR ST/GEOG 439</td>
<td>US Environmental Policy and Regulation</td>
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<td>ENVIR ST/ SOIL SCI 575</td>
<td>Assessment of Environmental Impact</td>
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<tr>
<td>POLI SCI 272</td>
<td>Introduction to Public Policy</td>
<td>3-4</td>
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<td>POLI SCI/ECON/ ENVIR ST/ URB R PL 449</td>
<td>Government and Natural Resources</td>
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**Soil Science**

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<tr>
<td>SOIL SCI 305</td>
<td>Field Study of Soil</td>
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<tr>
<td>SOIL SCI 321</td>
<td>Soils and Environmental Chemistry</td>
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<tr>
<td>SOIL SCI 322</td>
<td>Physical Principles of Soil and Water Management</td>
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<td>SOIL SCI/ PL PATH 323</td>
<td>Soil Biology</td>
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<tr>
<td>SOIL SCI/ ENVIR ST 324</td>
<td>Soils and Environmental Quality</td>
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<tr>
<td>SOIL SCI/ ENVIR ST 575</td>
<td>Assessment of Environmental Impact</td>
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**Weather and Climate Change**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ATM OCN 101</td>
<td>Weather and Climate</td>
<td>4</td>
</tr>
<tr>
<td>ATM OCN/ENVIR ST/ GEOSCI 102</td>
<td>Climate and Climate Change</td>
<td>3</td>
</tr>
<tr>
<td>ATM OCN/ ENVIR ST 171</td>
<td>Global Change: Atmospheric Issues and Problems</td>
<td>2-3</td>
</tr>
<tr>
<td>ATM OCN/ENVIR ST/ GEOG 332</td>
<td>Global Warming: Science and Impacts</td>
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<tr>
<td>ATM OCN/ ENVIR ST 520</td>
<td>Bioclimatology</td>
<td>3</td>
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</table>

**HONORS IN THE MAJOR**

Admission to the Honors Program is not competitive provided students meet the required admission criteria.

**Admission Criteria for New Freshmen:**
• In the upper 10% of their high school graduating class
• ACT score of 28 or higher
• SAT score of at least 1240

Admission Criteria for Transfer and Continuing UW-Madison Students:
• UW-Madison cumulative GPA of at least 3.25

Highly motivated students can apply for admission to the program in the absence of these requirements by including a letter with their application addressed to the Honors Dean in 116 Agricultural Hall explaining why they should be in the program.

HOW TO APPLY
Apply to the program online (https://cals.wisc.edu/wp-content/uploads/2017/05/honorsapplication_form.pdf) or request an application in the Office of Academic Affairs, 116 Agricultural Hall. Applications are accepted at any time.

New freshmen with accepted applications will automatically be enrolled in Honors in Research. It is possible to switch to Honors in the Major in the student’s first semester on campus after meeting with the advisor for that major by completing the application form and selecting Honors in the Major. Transfer and continuing students may apply directly to Honors in Research or Honors in the Major (after meeting with the major advisor).

HOW TO CANCEL PARTICIPATION
Students who are no longer interested in pursuing Honors should contact the CALS Honors Program Manager (see the contact box for CALS Honors Program (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/college-wide/college-agricultural-life-sciences-honors/)). Students may cancel their participation at any time, and this will not be noted on the student’s transcript.

REQUIREMENTS
To earn Honors in the Major, students are required to take at least 20 honors credits. In addition, students must take HORT 289 Honors Independent Study, HORT 681 Senior Honors Thesis and HORT 682 Senior Honors Thesis when completing their thesis project; please see the Honors in Major Checklist for Horticulture (http://www.cals.wisc.edu/academics/undergraduate-programs/get-involved/honors-program/honors-in-the-major/) for more information. The Department of Horticulture also works collaboratively to strongly support students through the Honors in Research program.

UNIVERSITY DEGREE REQUIREMENTS

Total Degree
To receive a bachelor’s degree from UW–Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.

Residency
Degree candidates are required to earn a minimum of 30 credits in residence at UW–Madison. ‘In residence’ means on the UW–Madison campus with an undergraduate degree classification. ‘In residence’ credit also includes UW–Madison courses offered in distance or online formats and credits earned in UW–Madison Study Abroad/Study Away programs.

Quality of Work
Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.

LEARNING OUTCOMES

1. Acquire, integrate and apply knowledge of plant science to horticultural systems.
2. Demonstrate interdisciplinary knowledge and competency in managing horticultural systems.
3. Synthesize knowledge and use insight and creativity to better understand and improve horticultural systems.
4. Appreciate and communicate the diverse impacts of horticulture on people.
5. Demonstrate professionalism and proficiency in skills that relate to horticulture.

FOUR-YEAR PLAN

FOUR-YEAR PLAN
SAMPLE HORTICULTURE FOUR-YEAR PLAN (WITH BOTANY/BIOLOGY 130 IN THE FIRST SEMESTER)

Freshman

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
<th>Credits</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>HORT 120</td>
<td>3</td>
<td>MATH 113</td>
<td>3</td>
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<tr>
<td></td>
<td>HORT 121</td>
<td>1</td>
<td>Ethnic Studies Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BOTANY/BIOLOGY 130</td>
<td>1</td>
<td>ZOOLOGY/BIOLOGY 101 &amp; ZOOLOGY/BIOLOGY 102</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>MATH 112</td>
<td>3</td>
<td>Electives Courses</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>COMM A Course</td>
<td>3</td>
<td>First Year Seminar</td>
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<tr>
<td></td>
<td>Total Credits 32</td>
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Sophomore

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
<th>Credits</th>
<th>Courses</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
<td>HORT 320</td>
<td>3</td>
<td>CHEM 104</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>CHEM 103</td>
<td>4</td>
<td>HORT 227</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COMM B Course</td>
<td>3</td>
<td>HORT 334 &amp; HORT 335 (OR HORT 375 (Organic Vegetable Production))</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Horticulture Breadth Courses or Electives</td>
<td>4-5 Electives</td>
<td>4-5</td>
<td></td>
</tr>
<tr>
<td></td>
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Junior

<table>
<thead>
<tr>
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<th>Credits</th>
<th>Courses</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Agricultural Breadth Courses</td>
<td>6-8</td>
<td>Agricultural Breadth Courses</td>
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</table>

TOTAL CREDITS: 120
<table>
<thead>
<tr>
<th>Course</th>
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<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>3 Math / Statistics / Computer Science Course</td>
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<td>5 ZOOLOGY/BIOLOGY 101 &amp; ZOOLOGY/ BIOLOGY 102</td>
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<tr>
<td>Electives</td>
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<td></td>
<td>3</td>
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<td>4-5 Electives</td>
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<td></td>
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</tr>
<tr>
<td>13-16 Electives</td>
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<td>14</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
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<td>Total Credits 25-31</td>
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**Senior**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Agricultural Breadth Course²</td>
<td>3-4</td>
<td>6-9 Agricultural Breadth Course²</td>
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<tr>
<td>Horticulture Breadth or Elective Courses</td>
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<td>9-10 Horticulture Breadth or Elective Courses³</td>
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<tr>
<td>Horticulture Capstone Course</td>
<td>3</td>
<td>3 Horticulture Capstone Course (if not taken in fall)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-13 Electives</td>
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<td>15-16 Electives</td>
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<tr>
<td>Total Credits 27-29</td>
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</table>

¹ BOTANY/BIOLOGY 130 and ZOOLOGY/BIOLOGY 101/ ZOOLOGY/ BIOLOGY 102 are the preferred biology track
² ENTOM/ZOOLOGY 302, ENTOM 351, GENETICS 466, BOTANY 300, BOTANY 305, BOTANY 500, PL PATH 300, PL PATH/F&W ECOL/HORT/LAND ARC 309, and SOIL SCI 301. Please consult with a Horticulture advisor to discuss when these courses are typically offered.
³ Note that at least 120 credits must be completed to be eligible for graduation. Aim to complete an average of 15 credits per semester.

**Note:** HORT 121 Horticulture Colloquium can be taken in any year

**SAMPLE HORTICULTURE FOUR-YEAR PLAN (WITH CHEM 103 IN THE FIRST SEMESTER)**

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
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<tr>
<td>HORT 120</td>
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<td>HORT 121</td>
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<td>CHEM 103</td>
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<td>BOTANY/BIOLOGY 130¹</td>
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<td>MATH 112</td>
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<td>First Year Seminar</td>
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<tr>
<td>COMM A</td>
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<td>15</td>
<td>16</td>
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<table>
<thead>
<tr>
<th>Sophomore</th>
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<td>Fall</td>
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<td></td>
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</tr>
<tr>
<td>HORT 320</td>
<td>3</td>
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<tr>
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**ADVISORY AND CAREERS**

<table>
<thead>
<tr>
<th>Junior</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Fall</td>
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<table>
<thead>
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<th>Senior</th>
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<th>Spring</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Fall</td>
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<td>Agricultural Breadth Course²</td>
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**ADVISORY**

Students interested in learning more about the Horticulture major should meet with Kathryn Jones, kjones26@wisc.edu or schedule an advising appointment via Starfish (https://advising.wisc.edu/facstaff/starfish/starfish-student-resources/).

**FACULTY MENTORS**

The Horticulture Department maintains a list of faculty mentors (https://horticulture.wisc.edu/academics/undergraduate-program/advising-2/) that are available to help current students with internships and careers, graduate school preparation, research opportunities, etc.
CAREERS
A degree in horticulture prepares students for numerous career paths, including plant breeding and genetics, applied plant science, food crop production, greenhouse production, urban agriculture, community-supported agriculture (CSA), gardening and landscaping, horticulture education, extension- and community-based education, horticultural therapy, and the health sciences. For sample career profiles in horticulture, see Career Opportunities (https://horticulture.wisc.edu/academics/undergraduate-program/research-career-opportunities-3/) on the department website.

PEOPLE

PROFESSORS
Bamberg, Colquhoun, Goldman, Havey, Jansky, Krysan (chair), Nienhuis, Palta, Simon, Spooner, Yandell

ASSOCIATE PROFESSORS
Bethke, Dawson, Endelman, Jull, Weng, Zalapa

ASSISTANT PROFESSORS
Atucha, Wang

INSTRUCTIONAL STAFF
Calderon, Ellison, Futa, Luby, Oosterwyk

WISCONSIN EXPERIENCE

INTERNSHIPS
Internships are a great way for Horticulture students to get hands-on horticultural experience. Many of our students intern at locations that vary from seed companies to wineries to public gardens. Horticulture students also have many opportunities to intern during the year on or near campus at facilities such as the Allen Centennial Garden (https://allencentennialgarden.org/), the UW Arboretum (https://arboretum.wisc.edu/), and the Agricultural Research Stations (https://ars.wisc.edu/).

RESEARCH
Horticulture students have many opportunities to get involved with research in the department. Students primarily find research opportunities by directly contacting faculty. Faculty can be found on the department’s website by the directory list (https://horticulture.wisc.edu/faculty-and-staff-2/faculty-and-staff/), by crops studied (https://horticulture.wisc.edu/research-and-outreach-2/crops-studied/), or by program area (https://horticulture.wisc.edu/research-and-outreach-2/faculty-by-program-area/). Occasionally, research positions are posted on the Student Job Center.

STUDY ABROAD
Horticulture students have unique opportunities to contextualize the learning acquired in traditional face-to-face courses on campus by participating in short-term field experiences abroad led by program leaders from the Department of Horticulture.

Some of these programs are:

UW Tropical Horticulture in Costa Rica – students enroll in AGRONOMY/HORT 376 Tropical Horticultural Systems in the fall then participate in a two-week intensive field experience in Costa Rica during winter break. Students have the opportunity to visit tropical crop plantations (for example—banana, pineapple, cacao, coffee, palm oil) and contrast different agricultural practices (small and large scale, organic, conventional).

UW Food Systems and the Environment in Northern Japan – this two-week field study takes place in mid-August. In this program, students from UW–Madison are partnered with students from Obihiro University of Agriculture and Veterinary Medicine, and through a combination of lectures and site visits, they will compare and contrast the landscape and ecology of Japan and Wisconsin.

HORTICULTURE SOCIETY
Connect with other Hort majors and those interested in horticulture by joining the Horticulture Society (https://win.wisc.edu/organization/hortsociety/). The Horticulture Society is a professional, social, and educational group which provides a common ground for all students interested in horticulture to meet other students with the same interests.