

# HORTICULTURE UNDERGRADUATE MAJOR (BS, HBS)

This major offers the following option(s):

- Ecological Management of Turf, Landscape and Urban Horticulture (<http://catalog.oregonstate.edu/college-departments/agricultural-sciences/horticulture/horticulture-bs-hbs/ecological-management-turf-landscape-urban-horticulture-option/>)
- General Horticulture (<http://catalog.oregonstate.edu/college-departments/agricultural-sciences/horticulture/horticulture-bs-hbs/general-horticulture-option/>)
- Horticultural Research (<http://catalog.oregonstate.edu/college-departments/agricultural-sciences/horticulture/horticulture-bs-hbs/horticultural-research-option/>)
- Plant Breeding and Genetics (<http://catalog.oregonstate.edu/college-departments/agricultural-sciences/horticulture/horticulture-bs-hbs/plant-breeding-genetics-option/>)
- Sustainable Horticultural Production (<http://catalog.oregonstate.edu/college-departments/agricultural-sciences/horticulture/horticulture-bs-hbs/sustainable-horticultural-production-option/>)
- Therapeutic Horticulture (<http://catalog.oregonstate.edu/college-departments/agricultural-sciences/horticulture/horticulture-bs-hbs/therapeutic-horticulture-option/>)
- Viticulture and Enology (<http://catalog.oregonstate.edu/college-departments/agricultural-sciences/horticulture/horticulture-bs-hbs/viticulture-enology-option/>)

Also available via Ecampus.

Grow with us in the Horticulture Major. Our graduates go on to do sustainable farming; vineyard management; greenhouse & nursery production; breeding of new plant varieties; therapeutic horticulture; ecological management of golf courses, athletic fields, parks, botanical gardens, landscapes, urban centers and natural environments; and research on horticultural crops and systems.

We emphasize active learning and stress broad knowledge, critical thinking, field-based problem solving, analysis of novel situations, and application and synthesis from many areas. Our courses tackle contemporary real-world decisions faced by professional horticulturists. They include hands-on labs, diagnostics, landscape construction, and student-managed projects. Research opportunities are available. You will become skilled at finding and synthesizing information in order to manage the novel situations you will face during your horticultural career.

**Major Code: 145**

- Find, interpret and integrate data and theory from horticultural systems and sciences, and related disciplines.
- Assess horticultural systems, diagnose horticultural problems and recommend solutions, and create novel systems based on data and theory from horticultural sciences and related disciplines.
- Comprehend and demonstrate how horticultural sciences integrate with contemporary social, economic, political and environmental issues.
- Demonstrate proficiency in oral and written communication.

## Grade Requirements for Horticulture Major

Students pursuing a major in horticulture are required to receive a grade of C– or better in all HORT (horticulture) and PBG (plant breeding and genetics) courses that are required for completion of their major and option. If a grade below C– is received in a HORT or PBG course required for their major and option a student will need to re-take the course and receive a grade of C– or better. If the grade below a C– was received for a course that is part of a group of courses where the student can select which courses to take (i.e., they do not need to take all of the courses, just a specified number of courses or credits) then it would be acceptable for the student to substitute a course for the one that they had received a grade below a C–. For example, in most of our options, a student needs to complete three of four plant identification courses. If a student received a grade lower than a C– in one of the classes, they could either re-take the same course or complete the other three courses with a grade of C– or better.

## Grade Requirements for Horticulture Major – Plant Breeding and Genetics Option

Students pursuing an option in Plant Breeding and Genetics, under the Horticulture Major, and under the Crop and Soil Science Major, are required to receive a grade of C– or better in all BOT, CROP, CSS, FOR, HORT, MB, PBG, SOIL and ST courses required within their major and option.

Code	Title	Credits
<b>Baccalaureate Core</b>		
Select 48 credits and complete an option and its corresponding core to complete the major, which requires a minimum of 180 credits		48
<b>Major Core</b>		
<i>General Science</i>		
Select one of the following groups:		12
Group A: Principles of Biology (required for Horticultural Research option)		
BI 221	*PRINCIPLES OF BIOLOGY: CELLS	
BI 222	*PRINCIPLES OF BIOLOGY: ORGANISMS	
BI 223	*PRINCIPLES OF BIOLOGY: POPULATIONS	
Group B: Introductory Biology		
BI 204	*INTRODUCTORY BIOLOGY I	
BI 205	*INTRODUCTORY BIOLOGY II	
BI 206	*INTRODUCTORY BIOLOGY III	
Select one of the following:		5
CH 121	GENERAL CHEMISTRY	
CH 231 & CH 261	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 231 <sup>1</sup>	
Select one of the following:		5
CH 122	*GENERAL CHEMISTRY	
CH 232 & CH 262	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 232 <sup>1</sup>	
Select one of the following:		5
CH 123	*GENERAL CHEMISTRY	
CH 233 & CH 263	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 233 <sup>1</sup>	
MTH 111	*COLLEGE ALGEBRA	4
Select one of the following:		4
MTH 112	*ELEMENTARY FUNCTIONS	
MTH 241	*CALCULUS FOR MANAGEMENT AND SOCIAL SCIENCE	
MTH 245	*MATHEMATICS FOR MANAGEMENT, LIFE, AND SOCIAL SCIENCES	

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MTH 251	*DIFFERENTIAL CALCULUS (required for Horticultural Research option)	
ST 351	INTRODUCTION TO STATISTICAL METHODS (Plant Breeding and Genetics option already requires ST 351 –students in that option will need to choose from one of the above selection of math courses to fulfill this requirement.)	
<i>Agricultural Science</i>		
BOT 331	PLANT PHYSIOLOGY	4
BOT 350	INTRODUCTORY PLANT PATHOLOGY	4
CROP 440	WEED MANAGEMENT	4
ENT 311	INTRODUCTION TO INSECT PEST MANAGEMENT	4
Select one of the following:		4
SOIL 205 & SOIL 206	SOIL SCIENCE and *SOIL SCIENCE LABORATORY FOR SOIL 205	
CSS 205	*SOIL SCIENCE	
<i>Orientation</i>		
Select one of the following:		1-2
HORT 112	INTRODUCTION TO HORTICULTURAL SYSTEMS, PRACTICES AND CAREERS	
CROP 101/ENT 101/SOIL 101	INTRODUCTION TO CROP, SOIL, AND INSECT SCIENCE (For Plant Breeding & Genetics option only)	
<i>Horticultural Science</i>		
HORT 301	GROWTH AND DEVELOPMENT OF HORTICULTURAL CROPS	3
HORT 311	PLANT PROPAGATION	4
HORT 316	PLANT NUTRITION	4
<i>Experiential Learning</i>		
Select one of the following:		6-12
HORT 403	THESIS (required for Horticultural Research option) <sup>2</sup>	
HORT 410	INTERNSHIP <sup>2</sup>	
HORT 412	CAREER EXPLORATION: INTERNSHIPS AND RESEARCH PROJECTS	1
<b>Total credits required for graduation</b>		<b>180</b>

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*Horticultural Research option requires the CH 231/CH 261, CH 232/CH 262, CH 233/CH 263 chemistry series.*

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Plant Breeding and Genetics option requires PBG 403 or PBG 410 and CSS majors only need to complete 3 credits minimum

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Baccalaureate Core Course (BCC)

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