

# Horticulture Programs

The Horticulture programs offer career training in Horticulture and the emerging field of Phytotechnology. Both programs include training and education for those entering the career field and for those already employed. Chemeketa has a well-equipped greenhouse and an on-site wetlands management laboratory area in which students will acquire the hands-on training in the basic knowledge and technical skills required for successful employment in these fields.

You may be interested in our Cooperative Work Experience program, which allows you to earn college credit for work relating to your program. With the approval of the program chair, you may enroll in HOR280B-L Cooperative Work Experience and earn college credit hours. For more information, look under Cooperative Work Experience in the catalog index.

Total required credit may vary due to three to four credit conversion. Chemeketa degree and certificate minimum requirements must be met.

## Horticulture Associate of Applied Science

The Horticulture program prepares students for occupations in greenhouse and nursery production, propagation, or plant protection as managers, crew leaders, inventory controllers, irrigation specialists, and plant sales or customer service representatives. The program offers a two-year Associate of Applied Science (AAS) degrees.

For more information about the program, contact Gail Gredler at 503.365.4692

## Program outcomes

### Students completing the Horticulture AAS will:

- Perform skills and use equipment necessary to propagate, transplant, fertilize, irrigate, prune, and otherwise regulate growth of plants produced in the nursery and greenhouse.
- Recognize, name, and understand management requirements for plants commonly grown in the Oregon nursery and greenhouse industry and their associated pests.
- Demonstrate knowledge of government regulations related to nursery and greenhouse operations, workplace safety, water regulations, pesticide safety, and crop sanitation requirements to effectively manage a nursery or greenhouse.
- Evaluate production practices in terms of currently understood principles of sustainability.

## Getting started

The first step to entering this program is to take part in an assessment process, which includes taking the college's free placement test and meeting with Counseling and Career Services. You may need to complete pre-program courses. Then,

your advisor will help you develop an individualized program of study, which may include one or more of the following:

CA121A	Keyboarding A (if less than 25 wpm) .....	1
MTH060	Introductory Algebra .....	4
RD115	Academic Thinking and Reading.....	3
	or	
SSP112	Effective Learning.....	3
WR115	Introduction to Composition .....	4

If you have questions about the requirements, call Counseling and Career Services at 503.399.5120 or 503.399.6071. Failure to be assessed may delay your entry into program classes.

*In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$2,675; class fees, \$357; universal fee, \$873. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.*

You may earn an Associate of Applied Science degree by successfully completing the required 97 credit hours with a grade of "C" or better in all courses:

Course	Title	Credit Hours
<b>Term 1</b>		
BI153	Fundamentals of Plant Biology .....	4
CIS101	Introduction to Microcomputer Applications (or higher) .....	3
HOR111	Introduction to Horticulture .....	3
WR121	English Composition-Exposition+ (or higher) .....	4
<b>Term 2</b>		
HOR211	Plant Propagation .....	4
HOR260	Soils, Media, and Nutrition.....	4
MTH070	Elementary Algebra+ (or higher).....	4
PSY104	Psychology in the Workplace+ (or higher).....	4
	Topics in Ecological Horticulture** .....	2
<b>Term 3</b>		
HOR221	Nursery Production and Management.....	3
HOR236	Integrated Pest Management: Weeds .....	3
SP111	Fundamentals of Public Speaking (or higher).....	4
	or	
SP115	Introduction to Intercultural Communication (or higher) .....	4
WR227	Technical Writing (or higher) .....	4
<b>Term 4</b>		
HOR113	Mathematical Applications in Horticulture .....	2
HOR237	Integrated Pest Management: Insects and Diseases.....	4



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SPN111	Beginning Spanish Conversation Term 1 (or higher) .....	3
	Horticulture elective* .....	2
	Topics in Ecological Horticulture** .....	2
	Plant Identification course*** .....	3
<b>Term 5</b>		
HOR112	Pesticides and Safety .....	2
HOR224	Horticulture Practicum .....	3
HOR225	Greenhouse Production and Management .....	4
SPN112	Beginning Spanish Conversation Term 2 (or higher) .....	3
	Plant Identification course*** .....	3

<b>Term 6</b>		
VMW256	Agricultural Business Management .....	3
	Horticulture elective* .....	4
	Topics in Ecological Horticulture** .....	4
	Plant Identification course*** .....	3

<b>Term 7</b>		
HOR280F	Cooperative Work Experience .....	6

+Meets related instruction requirement, see page 43. For subject areas, see page 55.

**\*Horticulture electives (select 6 credit hours):**

BI131	Environmental Science 1 .....	4
BI132	Environmental Science 2 .....	4
BI133	Environmental Science 3 .....	4
CH121	College Chemistry (or higher) .....	5
HOR115	Nursery and Greenhouse Equipment and Safety... ..	3
HOR212	Advanced Plant Propagation .....	2
HOR238	Plant Problem Diagnosis .....	2
HOR240	Sustainable Landscape Design .....	4
HOR254	Wetland Plant Identification .....	3
HOR256	Identification of Herbaceous Plants 2 .....	2
HOR257	Horticultural Marketing .....	3
HOR259	Marketing Plant Ecological Services .....	2
HOR273-279	Topics in Ecological Horticulture .....	2 ea.

**\*\*Topics in Ecological Horticulture (select 8 credit hours):**

HOR116	Introduction to Phytotechnology .....	4
HOR269	Plant Selection for Phytotechnology .....	3
HOR273	Urban and Community Forestry .....	2
HOR274	Wetlands Design and Management .....	4
HOR275	Innovative Strategies for Water Management in Nurseries .....	2
HOR276	Organic Gardening .....	2
HOR277	Composting .....	2
HOR278	Ecological Problem Solving .....	4
HOR279	Edible Crops in Urban Landscapes .....	2

**\*\*\*Plant Identification courses (select 9 credit hours):**

HOR226	Fall Plant Identification .....	3
HOR227	Winter Plant Identification .....	3
HOR228	Spring Plant Identification .....	3
HOR255	Identification of Herbaceous Plants 1 .....	3

**Horticulture**

**Phytotechnology Associate of Applied Science Option**

The Phytotechnology option of the Horticulture degree program provides instruction and training required for successful employment in a wide range of environmental and horticultural disciplines.

Students will be prepared for occupations in landscape construction and/or design; horticulture/landscape management; nursery/garden center sales and marketing; remediation industries (wastewater treatment, hazardous site clean-up, etc.); environmental consulting; urban sustainability or transportation planning; natural resource agencies; or research. Entry into these fields could be at the technician, assistant, coordinator, or customer service level. Students will also be prepared to pursue a higher degree in environmental engineering, hydrology, urban planning, landscape architecture, or scientific research.

For more information about the program, contact Gail Gredler at 503.365.4692.

**Program outcomes**

**Students completing the Phytotechnology AAS will:**

- Perform skills necessary to support the design and construction of functional landscape technologies including green-roofs, living walls, raingardens, bioswales, and wetlands.
- Recognize wetland and other commonly used functional plant species and understand basic management requirements for healthy growth and functional performance of plants in natural or urban landscapes.
- Demonstrate knowledge of markets, incentives, and government regulations related to water quality, wastewater treatment, stormwater treatment, wetlands, hazardous/superfund sites, carbon sequestration, and ecosystem services.
- Evaluate functional landscape situations and environmental resource challenges from an ecological problem solving perspective that utilizes critical thinking skills and an ability to see beyond the immediate scale.
- Integrate currently understood principles of sustainability into phytotechnology projects.

**Getting started**

The first step to entering this program is to take part in an assessment process, which includes taking the college's free placement test and meeting with Counseling and Career Services. You may need to complete pre-program courses. Then, your advisor will help you develop an individualized program of study, which may include one or more of the following:

CA121A	Keyboarding A (if less than 25 wpm) .....	1
MTH070	Elementary Algebra .....	4
RD115	Academic Thinking and Reading .....	3
	or	
SSP112	Effective Learning .....	3
WR115	Introduction to Composition .....	4

If you have questions about the requirements, call Counseling and Career Services at 503.399.5120 or 503.399.6071. Failure to be assessed may delay your entry into program classes.

*In addition to tuition, estimated costs for students who complete the entire program listed below are books, \$2,324; class fees, \$646; universal fee, \$927. Contact the Financial Aid Office at 503.399.5018 to find out if you qualify for help with these costs.*

You may earn an Associate of Applied Science degree by successfully completing the required 103 credit hours with a grade of "C" or better in all courses:

<b>Course</b>	<b>Title</b>	<b>Credit Hours</b>	
<b>Term 1</b>			<b>Term 7</b>
BI131	Environmental Science 1 .....	4	HOR280F Cooperative Work Experience..... 6
BI153	Fundamentals of Plant Biology.....	4	+Meets related instruction requirement, see page 43. For subject areas, see page 55.
HOR116	Introduction to Phytotechnology.....	4	<b>*Phytotechnology electives (select 7 credit hours):</b>
WR121	English Composition-Exposition+ (or higher) .....	4	HOR226 Fall Plant Identification .....
<b>Term 2</b>			HOR228 Spring Plant Identification .....
BI132	Environmental Science 2 .....	4	HOR229 Phytotechnology Landscape Practicum .....
BI230	Introductory Microbiology.....	4	HOR236 Integrated Pest Management: Weeds.....
HOR268	Urban Stormwater Treatment and Systems Design .....	4	HOR238 Plant Problem Diagnosis .....
SP111	Fundamentals of Public Speaking .....	4	HOR273 Urban and Community Forestry.....
<b>Term 3</b>			HOR275 Innovative Strategies for Water Management in Nurseries.....
BI133	Environmental Science 3 .....	4	HOR279 Edible Crops in Urban Landscapes .....
CIS101	Introduction to Microcomputer Applications (or higher) .....	3	HOR281 Phytoremediation Research Survey .....
WR227	Technical Writing (or higher) .....	4	VMW256 Agricultural Business Management.....
	Core elective** .....	4	<b>**Core electives (select 8 credit hours):</b>
	Phytotechnology Elective* .....	2	HOR240 Sustainable Landscape Design .....
<b>Term 4</b>			HOR267 Greenroof/Living Wall Design and Management ..
CH121	College Chemistry (or higher).....	5	HOR274 Wetlands Design and Management.....
HOR278	Ecological Problem Solving .....	4	
MTH095	Intermediate Algebra+ (or higher) .....	4	
	Core elective** .....	4	
<b>Term 5</b>			
CH122	College Chemistry (or higher).....	5	
HOR269	Plant Selection for Phytotechnology .....	3	
HOR260	Soils, Media, and Nutrition.....	4	
	Phytotechnology elective* .....	3	
<b>Term 6</b>			
CH123	College Chemistry (or higher).....	5	
PSY104	Psychology in the Workplace+ (or higher).....	4	
HOR254	Wetland Plant Identification.....	3	
HOR259	Marketing of Plant Ecological Services .....	2	
	Phytotechnology elective* .....	2	