

HORTICULTURE/ ARBORICULTURE/ LANDSCAPE/ORGANIC FARMING (HOR)

Many horticulture classes will transfer as Lower Division Collegiate (LDC) credits to Oregon State University. For additional information contact April Chastain, Horticulture Department Advisor, 503-594-3055.

HOR-111 Horticulture Practicum/Fall 2 credits, Fall

Practical experience with seasonal horticulture activities in the areas of container nurseries, greenhouses, landscape management, arboriculture, and organic food production.

HOR-112 Horticulture Career Exploration 2 credits, Spring

This course is a survey of the various career options available to students in the horticulture industry, with emphasis on nursery and greenhouse production, retail nursery, organic fruit and vegetable production, and landscape maintenance/installation. Includes field trips to local businesses. Oregon State University transfer course.

HOR-113 Organic Farming Practicum/Fall 3 credits, Fall

Essential organic farming practices, including seasonal activities such as crop rotation, cover cropping, four-season production strategies, edible crop planting, pest management, and tool and equipment operations. Field trips to area farms included. Class lecture, field trips, and lab are essential components of this course. This format has been selected to create a hands-on experience for each student in seasonal crop production. Class includes a lab component.

HOR-115 Horticulture Safety 1 credits, Fall

Overview of safe practices in the horticulture workplace which will reduce the chance for accidents and injuries.

HOR-120 Pesticide Laws & Safety 1 credits, Spring

Plant protection methods for weed, insect or disease control. Laws and regulations related to safety, handling and storage of pesticides. Techniques for product selection, including chemical and non-chemical options, applicator safety and environmental protection included. Prepare and test for the Oregon Pesticide Laws & Safety exam.

HOR-122 Greenhouse I 3 credits, Winter

Environmental influences on plant growth, crop scheduling, greenhouse structures and equipment. Emphasis on foliage and flowering potted plant production.

HOR-123 Landscape Maintenance 3 credits, Spring

Principles and practices of sustainable landscape maintenance, plant growth and development, soil-water-fertilizer management, pruning, turf, pest control, diagnosis of problems in trees and shrubs, and maintenance scheduling.

HOR-124 Food Harvest 3 credits, Fall

This course provides a basic knowledge of aspects of harvesting, handling, storing and marketing of produce from small-scale, organic operations. Topics include: food safety laws and practices, harvest and storage requirements for a variety of crops, factors that impact quality and storage ability, and post-harvest biology. Class includes a lab component.

HOR-126 Landscape Water Features 1 credits, Not Offered Every Year

Methods used in building water features with emphasis placed on design, material selection, construction and maintenance considerations.

HOR-127 Landscape Lighting 1 credits, Not Offered Every Year

Methods used with lighting in the residential landscape, with emphasis placed on design, material selection, installation and maintenance considerations.

HOR-128 Landscape Stones & Pavers 1 credits, Not Offered Every Year

Methods used in building walls, patios and walkways out of stones and pavers, with an emphasis placed on design, material selection, construction and maintenance considerations.

HOR-129 Landscape Decks & Fences 1 credits, Not Offered Every Year

Methods used in building wood fences and decking with emphasis placed on design, material selection, construction and maintenance considerations.

HOR-130 Plant Propagation Theory 3 credits, Fall

Covers plant anatomy and reproduction techniques of plants from seed, cuttings, grafting, division, and micro-propagation (tissue culture). Offers an in-depth overview of propagation systems that may be selected.

HOR-131 Tree & Shrub Pruning 3 credits, Winter

Emphasis on dormant pruning of fruiting and ornamental plants. Pruning and training techniques for grapes, fruit trees, and both evergreen and deciduous ornamental trees and shrubs. Basic woody plant anatomy, growth and development. Class includes a lab component.

HOR-133 Horticulture Practicum/Winter 2 credits, Winter

Practical experience with seasonal (winter) horticulture activities in the areas of container nurseries, greenhouses, and landscape management. Prerequisites: HOR-111

HOR-135 Propagation of Edible Plants 3 credits, Spring

Reproduce food plants using a variety of methods, including seed, cutting and grafting techniques. Instruction will focus on methods suitable for sustainable farm operations.

HOR-136 Organic Farming Practicum/Winter 3 credits, Winter

Essential organic farming practices, including seasonal activities such as ground preparation and planning for crop production. Also covers farm business structures, financial management, recordkeeping, and marketing and distribution techniques. Field trips to area farms included. Class lecture, field trips, and lab are essential components of this course. This format has been selected to create a hands-on experience for each student in seasonal crop production.

HOR-140 Soils

3 credits, Spring

Soil characteristics and management, including nutritional elements and the relationship between the soil and plant growth.

HOR-141 Organic Farming Practicum/Spring

4 credits, Spring

Essential organic farming practices, including seasonal activities such as production of transplants, direct seeding, weed control strategies, building raised beds in the field, equipment operations, and soil, water and fertilizer management. Also covers preparation of the finished crop for market, transportation, display and marketing. Field trips to area farms included. Class lecture, field trips, and lab are essential components of this course. This format has been selected to create a hands-on experience for each student in seasonal crop production. Class includes a lab component.

HOR-142 Greenhouse II

3 credits, Spring

Detailed study of environmental influences on individual crops, their requirements, scheduling, including annual, biennial, and perennial plant production.

Prerequisites: HOR-122

HOR-143 Horticulture Practicum/Spring

2 credits, Spring

Practical experience with seasonal (spring) horticulture activities in the areas of container nurseries, greenhouses, and landscape management.

Prerequisites: HOR-133

HOR-146 Fruit & Berry Growing

3 credits, Summer

Regionally appropriate fruit and berry production practices that are suitable for urban areas and small farms. Class will utilize the Home Orchard Society's demonstration orchard located on campus. Class includes a lab component.

HOR-211 Native Plant Identification

1 credits, Summer

Identification and use of plants native to the Pacific Northwest and the use of plant keys.

HOR-215 Herbaceous Perennials

3 credits, Spring

The identification, propagation, selection and garden culture as well as individual attributes of herbaceous perennial plants, including the evolution of perennial garden design and current gardening styles. Class includes a lab component. Oregon State University transfer course.

HOR-216 Integrated Pest Management

3 credits, Winter

Learn the components of, and develop an Integrated Pest Management (IPM) plan for landscape, nursery, greenhouse or organic farming. The plan will incorporate pest detection, control practices and an evaluation of effectiveness.

HOR-222 Horticultural Computer Applications

2 credits, Winter

Utilizes database, spreadsheet, word-processing, PowerPoint, social media and other computer programs for record keeping and management and marketing for horticulture businesses.

Recommended: CS-120 or comparable computer skills

HOR-223 Applied Plant Science

4 credits, Fall

An overview of the practical aspects of plant growth and development, classification systems, plant breeding and environmental factors that impact plant growth.

HOR-224 Landscape Installation

3 credits, Fall

Materials and practices in landscape installation, including plan reading, materials take-off, estimating, bidding, scheduling, grading, construction materials, and plant installation. Provides an overview of Oregon state landscape contracting and licensing requirements.

Recommended: MTH-050

HOR-225 Arboriculture I

3 credits, Fall

Management of trees in residential, commercial, and urban landscapes.

Follows course materials prepared by the International Society of Arboriculture (ISA). Topics covered include tree anatomy, selection, installation, response to damage, soil characteristics, pruning techniques and diagnosis of pest problems. Prepares student for Arboriculture II.

HOR-226 Plant Identification/Fall

4 credits, Fall

Identification of deciduous trees, shrubs, and groundcovers, including their cultural requirements in the landscape, for fall plants. Oregon State University transfer course.

HOR-227 Plant Identification/Winter

4 credits, Winter

Identification of conifers and broadleaf evergreens, shrubs, and groundcovers, including their cultural requirements in the landscape, for winter plants.

HOR-228 Plant Identification/Spring

4 credits, Spring

Identification of flowering trees, shrubs, and groundcovers, including their cultural requirements in the landscape, for spring plants. Oregon State University transfer course.

HOR-229 Introduction to Landscape Design

3 credits, Winter

Introduction to landscape planning, including basic drafting skills, grading, drainage, and site planning.

HOR-230 Equipment Operation & Maintenance

2 credits, Winter

The safe selection, operation, and maintenance of power driven machines in horticultural operations. Includes hands on experience with mowing equipment, rototillers, chain saws, edgers, shears, tractors, chippers, and skid steer.

Corequisites: HOR-230L

HOR-231 Irrigation Design

3 credits, Winter

Principles of irrigation system design for various situations, including underground, above-ground, residential, commercial, and urban farm systems.

HOR-234 Advanced Landscape Design

3 credits, Not Offered Every Year

Further skill development in drawing, site analysis, and design, including two & three dimensional design concepts. Graphic exercises will be included as well as the study of creative and practical solutions for various site and program requirements of small commercial and residential landscape sites.

Prerequisites: HOR-229

Recommended: Prior Plant ID knowledge or HOR-226, HOR-227, and HOR-228

HOR-235 Weed Identification

2 credits, Fall

Identification and life cycles of weeds commonly found in landscapes, nurseries, and farms.

HOR-236 Insect Identification

2 credits, Fall

Develop skills to identify common insects which are important in greenhouse/nursery production, landscapes and food production.

HOR-237 Disease Identification

2 credits, Winter

Identification of ornamental plant diseases which occur in greenhouses, landscapes, nurseries, and farms.

HOR-239 Tree Climber Training

1 credits, Winter

The safe use of rope and saddle tree climbing procedures will be covered through lecture, discussion, and field practice. For beginner to moderately experienced climbers. May be repeated for up to 3 credits.

HOR-240 Irrigation Practices

3 credits, Spring

Materials, equipment, and methods used to install and repair irrigation systems in landscape areas.

Recommended: HOR-231

HOR-244 Ecological Landscape Design

3 credits, Not Offered Every Year

Overview of landscape design features that will benefit the natural environment, provide habitat for wildlife and require minimal inputs of energy, water and other materials. Includes basic design concepts, design terminology and techniques, as well as ideas for marketing of sustainable designs.

Prerequisites: HOR-229

Recommended: Prior Plant ID knowledge or HOR-226, HOR-227, and HOR-228

HOR-246 Organic Farming and Gardening

2 credits, Spring

Overview of the fundamental principles and practices of organic fruit and vegetable production in the Pacific Northwest. Class includes a lab component. Oregon State University transfer course.

HOR-250 Herb Growing and Gardening

1 credits, Spring

Study of herb plant propagation and garden use. Identification of herbs, parts of the plant, garden culture, planning, site requirements and care of plants are covered.

HOR-251 Herbal Products

1 credits, Winter

Instruction in making herbal teas, skin lotion, tincture, infused oil, vinegar, spritzers and herbal mixes. Instruction includes the use of specific ingredients, methods for effective usage and storage, and their importance.

HOR-252 Kitchen Herbs

1 credits, Fall

Instruction will focus on how to use common herbs and spices in a variety of edible forms.

HOR-260 Arboriculture II

3 credits, Winter

Evaluation, assessment and management of trees in the urban environment. Covers monetary and ecosystem values for trees, property development considerations, tree appraisals, tree inventories, risk assessments, and crew management. Together with Arboriculture I, this class will prepare students for passing the ISA Certified Arborist exam.

Prerequisites: HOR-225

HOR-261 Tree Diagnostics

2 credits, Spring

Theory and practice in diagnosing specific biotic and abiotic causes of poor tree health. Includes identification of symptoms, use of monitoring tools and effective customer communications. Prepare and test for the Oregon Department of Agriculture Ornamental and Turf Insecticide/ Fungicide exam.

Prerequisites: HOR-120, HOR-216, HOR-225, HOR-236, and HOR-237

HOR-262 Treework Practicum I

2 credits, Fall

Experience with the implementation of basic requirements, equipment and techniques employed by arborists who work aloft. Covers personal protective equipment, safe operation, and common cutting techniques in accordance with current industry standards. Students operate chainsaws in a variety of field exercises, and will gain exposure to other pieces of industry equipment, such as chipper, truck and trailer, and aerial lift. Students will participate as members of a crew, gaining introductory experience in tree pruning, rigging, hardware installation, electrical hazard awareness, aerial rescue, ground work, and work site management.

Prerequisites: HOR-115, HOR-131, and HOR-239

HOR-263 Plant Health Care Practicum

2 credits, Spring

Experience with the implementation of basic requirements and techniques employed by Plant Health Care Technicians who work on tree crews. Covers personal protective equipment, safe operation, routine maintenance and common techniques in accordance with current industry standards. Students will perform ground related activities, gaining experience in spray techniques, chipper operation, driving truck with chipper, interpretation of water audits, hazard tree identification, evaluation of key plants in the landscape, fertilization, customer education/communication and work site management. Class is a lab.

Prerequisites: HOR-115, HOR-120, HOR-131, HOR-216, HOR-236, and HOR-237

HOR-264 Treework Practicum II (Aerial)

2 credits, Fall

Experience with the implementation of intermediate requirements, using equipment and techniques employed by arborists who work aloft. Reinforces personal protective equipment, safe operation, and common cutting techniques in accordance with current industry standards. Students operate chainsaws in a variety of field exercises, and will gain exposure to other pieces of industry equipment, such as chipper, truck and trailer, and aerial lift. Students will participate as members of a crew, gaining additional experience in tree pruning, rigging, hardware installation, electrical hazard awareness, aerial rescue, ground work, and work site management.

Prerequisites: HOR-262

HOR-280 Horticulture/CWE

3 credits, Fall/Winter/Spring/Summer

On-the-job experience in the student's major course of study. Students are allowed to enroll after completing nine credits of horticulture courses. May be repeated for up to 6 credits. Required: Student Petition. Required: Students are expected to work a minimum of 90 job site hours
Corequisites: CWE-281

HOR-281 Horticulture/CWE

6 credits, Fall/Winter/Spring/Summer

On-the-job experience in the student's major course of study. Students are allowed to enroll after completing nine credits of horticulture courses. May be repeated for up to 12 credits. Required: Student Petition. Required: Students are expected to work a minimum of 180 job site hours
Corequisites: CWE-281

HOR-282 Horticulture/CWE

3 credits, Fall/Winter/Spring/Summer

On-the-job experience in the student's major course of study. Students are allowed to enroll after completing nine credits of horticulture courses. May be repeated for up to 6 credits. Required: Student Petition. Required: Students are expected to work a minimum of 90 job site hours
Corequisites: CWE-281

HOR-284 Organic Farming Practicum/Summer

3 credits, Summer

Experiential learning of organic farming techniques, while working on the Student Farm. Students learn ecological and sustainable practices, principles, and management strategies. This course includes the seasonal activities of a working, small scale Organic Farm: seed sowing, planting, cultivation, irrigation, harvest, packing, selling at farmers market and to restaurants. An important aspect of this course is participating in the on-campus, weekly farmers market. All tasks are hands-on and guided by the instructor. This format has been selected to create a hands-on experience for each student in seasonal crop production and marketing.
Prerequisites: HOR-141 or Student Petition

HOR-285 Organic Farming/CWE

3 credits, Fall/Winter/Spring/Summer

On-the-job experience working with an agricultural business/farm. Students are allowed to enroll in CWE after completing nine credits of Organic Farming courses. May be repeated for up to 6 credits. Required: Student Petition. Required: Students are expected to work a minimum of 90 job site hours
Corequisites: CWE-281

HOR-290 Special Topics in Horticulture

1-3 credits, Winter

This course gives students an opportunity to gain knowledge in a specific area relevant to the field of horticulture, landscaping, arboriculture or organic farming. This topic will be pulled from a comprehensive list of areas identified by horticulture professionals as having importance for students pursuing work in the field. Variable Credit: 1-3 credits. May be repeated for up to 6 credits. Required: Student Petition.