

HORTICULTURE • HORT

- 2001 Organic Gardening (2) F** One hr. lecture; 2 hrs. lab. For non-horticulture majors. Principles and practices of organic vegetable production.
- 2010 Horticulture Technology (2) F** Prereq.: MATH 1021. Introduction and overview of calculations and measurements used in applied horticulture.
- 2020 Installation and Maintenance of Ornamentals in the Landscape I (2) F** 1 hr. lecture; 2 hrs. lab. Introduction to soil analysis and preparation; installation and maintenance of landscape plants including trees, shrubs, perennials, and annuals; irrigation installation and repair.
- 2022 Installation and Maintenance of Ornamentals in the Landscape II (2) S** Prereq.: HORT 2020 or consent of instructor. 1 hr. lecture; 2 hrs. lab. Introduction to the management of interior plants; pruning techniques for trees, shrubs, palms, and roses; evaluation of landscape documents, cost estimation and bidding.
- 2025 Introduction to the Green Industry (2) F** Defining the general management structure and use of horticultural concepts specific to the "green agribusiness" sector; topics include entrepreneurial entry; specialized green industry labor; regulatory oversight; applied use of permits, waivers, and variances; cost effect of regulatory compliance; acquired use of patent and proprietary licensing.
- 2050 General Horticulture (4) F,S** 3 hrs. lecture; 2 hrs. lab. Science and art of modern horticultural plant production, including propagation, fertilization, pest control, and pruning; major groups of garden crops including vegetables, fruits and nuts, ornamentals, houseplants, and florist crops; lab includes propagation and culture of garden plants in field and greenhouse.
- 2061 Plant Propagation (3) S-O** Prereq.: HORT 2050. 2 hrs. lecture; 2 hrs. lab. Principles of sexual and asexual propagation; specific methods for reproduction of plants.
- 2086 Introduction to Turfgrass Management (3) S-E** Prereq.: BIOL 1202 or 1002; AGRO 2051 or equivalent. 2 hrs. lecture; 3 hrs. lab. Required field trips. Also offered as AGRO 2086. Turfgrass identification and adaptation; establishment and maintenance of high quality turf areas; turfgrass pests and their control.
- 2122 Herbaceous Plant Materials (2) S-O** 1 hr. lecture; 2 hrs. lab. Identification and study of plant materials; production protocols, growth and development, and visual characteristics of herbaceous plant materials used in ornamental horticulture and landscaping.
- 2124 Woody Plant Materials I (2) F** 1 hr. lecture; 2 hrs. lab. Identification and study of plant materials; ecological and visual characteristics of plants used in landscape design.
- 2125 Wood Plant Materials II (2) S** Prereq.: HORT 2124 or consent of instructor. 1 hr. lecture; 3 hrs. lab. Continuation of HORT 2124. Introduction to the nursery industry including production, availability, and marketing.
- 2130 Survey of Arboriculture (2) S** 1 hr. lecture; 2 hrs. lab. Review of the biology, growth, environment, and management practices for trees in the landscape.
- 2860 Growth and Development of Agricultural Crops (3) F-O** Prereq.: CHEM 1002 or 1202 and BIOL 1002 or 1202. 2 hrs. lecture; 2 hrs. lab. Physiology of agricultural plants, including water relations, respiration, photosynthesis, and growth and development.
- 3000 Horticultural Internship (3)** Prereq.: HORT 2050 and written consent of instructor. May be taken for a max. of 6 sem. hrs. credit. Work experience in horticultural industries culminating in acceptable written reports and a seminar presentation.
- 3010 Research Problems (3)** Written consent of the instructor. May be taken for a max. of 6 sem. hrs. credit. Independent research under a faculty member culminating in an oral and written research report.
- 3015 Urban Landscape Management (3) S-E** Prereq.: HORT 2050, 2124 or equivalent. 2 hrs. lecture; 2 hrs. lab. Management of the landscape through proper installation, soil management, plant care, pesticide management, employee management, and cost accounting.
- 3040 Landscape Construction (2) S-O** 1 hr. lecture; 2 hrs. lab. Survey of construction techniques and materials used in landscape contracting including drainage systems, paving, retaining walls, decking, and fencing.
- 4010 Tropical/Subtropical Horticulture (3) S-E** Prereq.: HORT 2050 or equivalent. Current status of cultivation throughout the world; production practices; postharvest handling; international trade of tropical/subtropical horticultural crops.
- 4012 Special Topics in Horticulture (1-3) V** Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Lab/field trip may be required. Subject areas not covered in other horticulture courses.
- 4020 Greenhouse Production and Management (4) F** 3 hrs. lecture; 2 hrs. lab. Physiology and greenhouse production of floriculture crops with hands-on learning in production technology, scheduling, economics, and regulation of crop growth and development and general physiology of flowering pot plants.
- 4030 Plantation, Beverage, and Tropical Nut Crops (3) S-O** Prereq.: HORT 2050 or equivalent. World situations, production practices, pest management, harvesting, postharvest care, agro-processing, and international trade of rubber, oil palm, cocoa, coconut, olive, coffee, tea, wine grapes, vanilla, and various tropical/subtropical nut crops.
- 4040 International Horticulture (3) S** Prereq.: HORT 2050 or equivalent. Overview of the horticulture industry worldwide. Production, handling, marketing, and international trade issues presented in a global context.
- 4050 Horticultural Science Education (3) F,S** 2 hrs. lecture; 2 hrs. lab. May be taken for a max. of 6 sem. hrs. of credit. Methodology for teaching horticultural science education and service education laboratory experiences in local schools.
- 4051 Processing of Fruits and Vegetables (3) S-O** Prereq.: FDSC 1049 or HORT 2050 or equivalent. 2 hrs. lecture; 2 hrs. lab. Methods of processing horticultural crops; includes canning, freezing, dehydration, and fermentation.
- 4052 Horticulture Processing Facilities (2) S-E** Prereq.: HORT 4051 or FDSC 4075 or consent of instructor. Required field trips. Review of criteria for GMP design and construction of fruit and vegetable processing plants, including process layout and sanitary considerations.
- 4064 Principles of Plant Breeding (4)** See AGRO 4064.
- 4071 Nursery Management (3) F-O** Prereq.: BIOL 3060 or equivalent. 2 hrs. lecture; 2 hrs. lab. Required field trips. Principles and practices involved in commercial production, management, and marketing of nursery crops.
- 4083 Principles and Practices in Olericulture (4) F-E** Prereq.: AGRO 2051 and HORT 2050. 3 hrs. lecture; 3 hrs. lab. Required field trips. Review of U.S. commercial vegetable industry; seed handling, field microclimate modification, transplant handling, stand establishment, influence of soil chemical and physical properties, and greenhouse vegetable production.
- 4085 Principles and Practices in Fruit and Nut Production (4) S-O** Prereq.: HORT 2050 or equivalent. 3 hrs. lecture; 2 hrs. lab. Required field trips. Physiological principles involved in growing pomological crops; overview of state, U.S., and worldwide fruit and nut industry; marketing and production strategies.
- 4090 Golf Course Operations (4) S** Prereq.: HORT 4086. 3 hrs. lecture; 2 hrs. lab. Golf course management; construction; cultural practices; environmental concerns.
- 4096 Postharvest Physiology (4) S-E** Prereq.: PLHL 3060. 3 hrs. lecture; 2 hrs. lab. Physiological changes associated with storage and handling of fruits and vegetables; current practices used in extending shelf-life; basic and applied laboratory analysis techniques.
- 7050 Plant Tissue Culture (4)** Prereq.: BIOL 4024, PLHL 3060, HORT 2061. 2 hrs. lecture; 6 hrs. lab. The *in vitro* culture of selected higher vascular plants; media preparation; cell, callus, and organ cultures; protoplast isolation, culture, and fusion; embryo genesis and plantlet regeneration and haploid culture.
- 7070 Advanced Plant Breeding (4) S-E** See AGRO 7070.
- 7071 Advanced Plant Genetics (4) S-O** Prereq.: AGRI 2072 or equivalent. See also AGRO 7071. Theory and practical application of cytogenetics, extrachromosomal inheritance, and molecular techniques in plant genetics.
- 7074 Quantitative Genetics in Plant Improvement (3)** See AGRO 7074.
- 7913 Seminar (1)** May be taken for a max. of 4 hrs. of credit. Topics of current interest in horticulture.
- 8000 Thesis Research (1-12 per sem.)** "S"/"U" grading.
- 8900 Research Problems in Horticulture (3)** Prereq.: consent of department head. May be taken for a max. of 6 hrs. of credit when topics vary. Pass-fail grading. Students minoring in horticulture may take this course only once.
- 9000 Dissertation Research (1-12 per sem.)** "S"/"U" grading.