

# HORTICULTURE (HORT)

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## **HORT 100. Introduction to Horticulture. (3 Credits)**

A dual-credit course with designated high schools to acquaint selected high school students with horticulture basics such as: plant processes, function, reproduction, and growth. Lab activities include plant propagation and greenhouse growing of various ornamental plants. Lectures will review career opportunities in a wide range of horticultural professions. 3 credits (2 lecture hours, 1 recitation hour), fall semester

## **HORT 101. Plant Materials. (3 Credits)**

The identification and landscape characteristics of woody plants commonly found in landscapes of Northeastern United States. Part of each weeks labs include an outdoor plant walk to view various specimens in the landscape. 3 credits (2 lecture hours, 2 laboratory hours), fall semester

## **HORT 102. Intro to Floral Design. (2 Credits)**

Introduction to the principles, elements, and basic construction techniques of commercial floral design. Hands-on labs include: corsages, bud vases, assorted arrangements, dried flowers, wreaths, and holiday designs. 2 credits (1 lecture hour, 2 laboratory hours), fall semester

## **HORT 103. Landscape Planning & Design I. (3 Credits)**

This course is an introduction to the design process, principles and vocabulary used in landscape architecture. The course content addresses landscape planning and design specifically as it applies to residential site design. Students gain creative problem-solving skills and explore effective methods of graphic, written and oral communication in a series of design projects. The semester culminates in a final design project in which students develop a landscape design solution for an actual residential site. 3 credits (2 lecture hours, 2 laboratory hours), spring semester

## **HORT 105. Landscape Planning & Design II. (3 Credits)**

This is a sequential course to Landscape Planning and Design I with emphasis on advanced landscape design skills and techniques. The course is organized around several studio design projects that vary in context, complexity, and scale. Students continue to apply the phases of the planning and design process and to strengthen their design knowledge, graphics, and communication skills. Fieldwork and field trips are required. Prerequisite: HORT 103 or permission of the instructor 3 credits (2 lecture hours, 2 laboratory hours), fall semester

## **HORT 106. Floral Design. (3 Credits)**

A general overview of the sympathy flower industry. Topics will include: consultation, sales, traditions, and servicing funeral orders. Casket sprays, standing sprays, baskets, vases, and more will be featured in lab. 3 credits (2 lecture hours, 2 laboratory hours), fall semester

## **HORT 108. Herbaceous Plant Materials. (2 Credits)**

Identification, culture, and landscape use of annuals, perennials, and tropical foliage plants. Emphasis on plants that are commercially common to the Northeast. 2 credits (1 lecture hour, 2 lab hours), spring semester

## **HORT 109. Landscape & Turf Management. (3 Credits)**

This course addresses the principles and practices of landscape installation, maintenance and management. The lectures focus on a range of topics such as the value of landscape management, the landscape industry, site analysis and preparation, soils, plant selection, water management, pest and weed management. Lab activities are organized around hands-on campus and community projects. Successful completion of this course could qualify a student to sit for the NYS Certified Nursery and Landscape Professional exam sponsored by the CNY Nursery and Landscape Association. 3 credits (2 lecture hours, 2 laboratory hours), fall semester

## **HORT 110. Horticulture Practices I. (2 Credits)**

Horticulture Practices is a series of courses designed to engage students in a wide range of horticulture practices. These practices include methods acceptable by both commercial and research sectors of the Green Industry. HORT 110 is a freshman-level course that introduces students to basic science, production procedures, and entrepreneurial skills of horticulture. 2 credits (1 lecture hour, 2 laboratory hours), fall semester.

## **HORT 112. Intro to Horticultural Science. (3 Credits)**

This course is organized to cover a broad range of topics about the principles and practices of horticultural science. These topics focus on the fundamentals of horticulture in terms of plant science, the culture of outdoor and indoor plants, and the industries within the field of horticulture. In addition to the two lectures per week, students will be involved in several hands-on horticultural practices during a weekly two-hour lab at the greenhouse. 3 credits (2 lecture hours, 2 laboratory hours), fall semester

## **HORT 150. Fruit & Vegetable Production. (3 Credits)**

This course will cover the biology of fruits and vegetables. Emphasis will be placed on introducing students to soils, nutrition, botany as it relates to fruits and vegetables, site selection, planting, fruit and vegetable quality factors, pests (entomological, mycological, bacteriological, etc...), Integrated Pest Management (IPM) strategies, horticultural production practices, marketing strategies, and career opportunities. Students will gain a greater understanding of fruit and vegetable production industry, an increased knowledge of the variety of vegetables, and knowledge of the specific cultural needs of the common vegetable species. Reasons and principles for establishing crop production systems will be explored using observation, evaluation of current production models, and hands-on application of scientific concepts. 3 credits (2 lecture hours, 2 lab hours) spring semester This course satisfies the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for Natural Science.

## **HORT 200. Greenhouse Management. (3 Credits)**

Lecture topics include greenhouse and nursery design, construction, structure, machinery, production methods, and operation. Laboratory exercises will include soil, media, nutrition, plant growth modification, and the identification and control of pests. Students are expected to grow a variety of commercial floriculture crops, including poinsettia. Participation in outdoor activities associated with field and container production of trees and shrubs is required. 3 credits (2 lecture hours, 2 lab hours), fall semester

**HORT 201. Plant Propagation. (3 Credits)**

This course involves the evaluation, analysis, and application of the scientific theoretical and technical practices of sexual and asexual plant propagation. The concepts to be explored utilizing observation and experimentation include division and separation, layering, grafting, budding, cuttings, micropropagation, and seed propagation. Prerequisite: BIOL 102 or permission of instructor 3 credits (2 lecture hours, 2 lab hours), fall semester This course satisfies the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for Natural Science.

**HORT 202. Greenhouse Production. (3 Credits)**

A greenhouse crop growing course. Lecture topics include crop scheduling, propagation, cultural procedures, pest/disease identification and control, and plant marketing. All major and minor ornamental crops common to commercial greenhouses will be discussed. Lab crop assignments will emphasize growing Easter lilies, pot mums, and bedding plants. 3 credits (2 lecture hours, 2 laboratory hours), spring semester

**HORT 204. Horticultural Business Mgt. (3 Credits)**

This course will focus on establishing and operating a small horticultural business. Topics to be covered include, getting a business started, laws and legal issues, marketing and advertising, professional selling, buying, pricing, wholesale sales, retail sales, financing, and ownership. Individual special units will focus on florist, nursery, greenhouse, and garden center issues. Students will be expected to participate in Horticulture Department entrepreneurial activities. 3 credits (2 lecture hours, 2 laboratory hours), spring semester

**HORT 206. Sustainable Landscapes. (3 Credits)**

This course addresses the principles and practices of sustainable landscapes and the current policies & guidelines used to achieve them. Areas of focus include: soils; water & energy conservation; biodiversity; permeable pavement; native plant species; alternatives to invasive plants; and construction material selection. 3 credits (3 lecture hours), spring semester

**HORT 210. Horticultural Practices II. (2 Credits)**

Horticulture Practices is a series of courses designed to engage students in a wide range of horticulture practices. These practices include methods acceptable by both commercial and research sectors of the Green Industry. HORT 210 is a sophomore-level course which continues to introduce students to the basics while adding advanced production skills and technology. The level of student's crop and entrepreneurial responsibilities will also increase. 2 credits (1 lecture hour, 2 laboratory hours), spring semester.

**HORT 211. Horticulture Practices II. (2 Credits)**

Horticulture Practices is an on-going series of courses designed to engage students in a wide range of horticulture practices. These practices include methods acceptable by both commercial and research sectors of the Green Industry. HORT 211 is a sophomore-level course which continues to introduce students to the basics while adding advanced production skills and technology. The level of students' crop and entrepreneurial responsibilities will also increase. 2 credits (1 lecture hour, 2 laboratory hours per credit), spring semester.

**HORT 240. Landcadd. (3 Credits)**

In this course students gain a basic proficiency in computer-aided drafting and design skills. The course covers software programs commonly used by professionals in the design fields such as AutoCAD, Google SketchUp, and Adobe Design Suite. Students are expected to apply this technical knowledge as a design tool in a series of projects that range in type & scale. Prerequisites: CAD 181 or permission of the instructor 3 credits (2 lecture hours, 2 laboratory hours), spring semester

**HORT 241. Plant Protection. (3 Credits)**

HORT 241 is an interdisciplinary introduction to the study of pest management. This course involves the application, evaluation, and analysis of ecological, biological, and economic principles from each of the following disciplines: entomology, nematology, plant pathology, and weed science. Reasons and principles for establishing pest management programs will be explored using observation, evaluation of evidence, and hands-on employment of data. Prerequisite: BIOL 102 or permission of instructor 3 credits (2 lecture hours, 2 laboratory hours), spring semester This course satisfies the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for Natural Science.

**HORT 245. Landscape Architecture Design. (3 Credits)**

Conducted in a studio format, this capstone course is designed as a sequence of projects in which students apply and reinforce some of the most fundamental skills required in landscape architecture. Students are challenged and expected to expand their capacity for abstract & analytical thinking as it relates to the relationship of mass and space. A main focus is on translation of 2D compositions into 3D volumes. The projects will vary in scale and context to cover research, abstract and analytical thinking, aesthetic appreciation, drawing, design, and model making. Fieldwork and field trips may be required. Prerequisites: HORT 103, HORT 105, or permission of instructor 3 credits (2 lecture hours, 2 laboratory hours), spring semester

**HORT 250. Internship In Horticulture. (4 Credits)**

The 160-hr internship provides the student with experience in an approved job in the horticulture industry. Final requirements include; a summary report oral presentation and employer and faculty evaluations. Prerequisites: Completion of one semester and permission of instructor 4 credits (160 hours of supervised employment), fall, spring, or summer semester

**HORT 310. Horticultural Practices III. (2 Credits)**

Horticulture Practices is a series of courses that is designed to introduce, educate, and reinforce a wide range of horticultural practices. These practices include methods acceptable by both commercial and research sectors of the Green Industry. The goal of HORT 310 is to develop a broad base of horticultural skills and knowledge. Students will continue to develop mastery of basic skills while assuming managerial responsibilities of horticulture institute, horticulture students, and departmental projects. Advanced technology and skills will be added with each semester and credit hour. Prerequisites: HORT 110, HORT 210, or permission of instructor 2 credits (2 lecture hours), fall semester

**HORT 311. Horticultural Practices III. (3 Credits)**

Horticulture Practices is an on-going group of courses that is designed to introduce, educate, and reinforce a wide range of horticultural practices. These practices include methods acceptable by both commercial and research sectors of the Green Industry. The goal of this course is to develop a broad base of horticultural skills and knowledge. Students will continue to develop mastery of basic skills while assuming managerial responsibilities of horticulture institute, horticulture students, and departmental projects. Advanced technology and skills will be added with each semester and credit hour. Prerequisites: HORT 111, HORT 211, or permission of instructor 2 credits (2 lecture hours), spring semester

**HORT 320. Horticulture Internship Orient. (1 Credit)**

Horticulture Internship Orientation prepares students for a horticulture industry internship and assists them with the process of employment and career development. The course helps students meet internship requirements such as goal definition, industry sponsor identification, job application and report writing. It formalizes internship planning and preparation to ensure that internships are conducted in a professional manner, follow guidelines, and satisfy the goals and objectives of students, faculty advisors, and industry sponsors. Prerequisite: Junior status or permission of instructor 1 credit (1 lecture hour), fall or spring semester

**HORT 335. SPPR Upper Level Hort 1. (1 Credit)****HORT 336. SPPR in Upper Level Hort II. (1 Credit)****HORT 337. SPPR Upper Level Hort III. (1 Credit)****HORT 400. Hort Production Management. (3 Credits)**

Horticulture Production Management provides a solid grounding for managing a wholesale nursery. Nutritional, IPM, chemical, physical, biological, and economic principles and practices will be emphasized. Prerequisites: BIOL 102, HORT 200, HORT 201, and HORT 202 or permission of instructor 3 credits (2 lecture hours, 2 laboratory hours), fall semester

**HORT 403. Planting Design. (4 Credits)**

This course addresses the theory and practices of the landscape planting design process. Topics will be covered in lectures using textbook readings, Power Point presentations, and class discussions. The lab component is designed as a sequence of both studio and outdoor projects that will involve the student in applying the knowledge gained from the lectures and readings. The projects vary in type and scale to cover client relationships, site study, aesthetic, functional, and ecological plant uses, plant selection criteria, design process and vocabulary, design principles & elements, design graphic tools & techniques, planting plan drawings and models. A basic understanding of design, drafting and ornamental horticulture is needed to complete the assignments for the class. A semester-long sketchbook assignment and a design portfolio documenting student's projects and creative process are required. Prerequisites: HORT 101, 103, or permission of instructor 4 credits (2 lecture hours, 4 lab hours/week), fall semester This course satisfies the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for The Arts.

**HORT 410. Horticulture Practices IV. (2 Credits)**

Horticulture Practices is an on-going group of courses that is designed to introduce, educate, and reinforce a wide range of horticultural practices. These practices include methods acceptable by both commercial and research sectors of the Green Industry. Horticulture 410 students are expected to direct a wide range of activities performed by underclassmen in various horticultural disciplines. Advanced technology, skills, and responsibilities will be added with each semester and credit hour. Prerequisites: HORT 110, HORT 210, HORT 310, or permission of instructor 2 credits (2 lecture hours), fall semester

**HORT 411. Horticulture Practices IV. (3 Credits)**

Horticulture Practices is an on-going group of courses that is designed to introduce, educate, and reinforce a wide range of horticultural practices. These practices include methods acceptable by both commercial and research sectors of the Green Industry. Horticulture 411 students are expected to direct a wide range of activities performed by underclassmen in various horticultural disciplines. Advanced technology, skills, and responsibilities will be added with each semester and credit hour. Prerequisites: HORT 111, HORT 211, HORT 311, or permission of instructor 3 credits (1 lecture hour or 2 laboratory hours per credit), spring semester

**HORT 420. Horticulture Internship. (5 Credits)**

Horticulture Internship is a 200 hour supervised, professional experience appropriate to a professional position in the horticulture field. Students will be involved in a wide range of on-the-job work experiences in their chosen career field. Final requirements include: portfolio, journal, supervisor evaluation, summary report and oral presentation. Prerequisite: permission of instructor 5 credits (200 hours of supervised internship employment)

**HORT 430. Horticulture Business Develop. (3 Credits)**

Horticulture Business Development is the capstone course of the Horticultural Business Management BT curriculum. This course is designed to combine horticultural and business knowledge that has been presented during the previous three years. Special emphasis will be placed on the link between product development, branding, and sales. Current green industry trends will be closely examined with case studies and profiles of successful horticulture entrepreneurs. Prerequisite: Senior status or permission of instructor 3 credits (3 lecture hours per week), spring semester

**HORT 440. Hort Business Internship. (15 Credits)**

This required internship is a supervised, professional experience appropriate for an entry-level position in a horticultural business or related field. Prior to the start of the internship, the student must develop and submit an internship proposal that includes contact information, job description, goals, objectives, activities, and outcomes for the internship. The student, sponsor and faculty advisor must agree to the written plan in a signed contract. The on-site experience is about 15 weeks or 600 hours in length. In addition to agency supervision, each intern is advised and monitored by a faculty advisor on a regular basis. Final course requirements include: portfolio, journal, interim reports, mid-term assessment, supervisor evaluation, summary report and oral presentation. Prerequisites: HORT 320 Horticulture Internship Orientation; Min. 2.0 GPA; Permission of the instructor 15 credits, (600 hours of supervised internship employment), fall, spring, or summer semester