

HORTICULTURAL TECHNOLOGY (HT)

Course numbers with the # symbol included (e.g. #400) have not been taught in the last 3 years.

HT #404 - Plant Propagation

Credits: 0-4

Reproduction of plants for horticultural purposes by sexual and asexual methods. Seeds, cuttings, separation, division, layering, grafting, budding, and in vitro propagation. Special fee. Prereq: HORT 207 or permission. 2 lec/1 lab.

Equivalent(s): HT 204

HT 407 - Plant Structure and Function

Credits: 4

Morphology, anatomy, and physiology, with emphasis on the higher plants. Horticultural implications. Lab stresses observations and manipulations of the particulars of plant life. Special fee. 2 rec/1 lab.

Equivalent(s): HT 207

HT 415 - Soils and Land Use

Credits: 2

Introduction to soils with emphasis on physical, morphological, chemical, and biological characteristics and their applications in horticultural land use decisions. Includes soil genesis and classification and soil survey use. Special fee. 3 rec/1 lab/7 wks.

Equivalent(s): HT 215

HT 416 - Soils and Plant Nutrition

Credits: 0-2

Role of nutrition in plant health care. Macro- and micro-nutrient needs, nutrition deficiency symptoms, soil testing, and fertilizer application techniques in both soil and soil-less media. Special fee. 3 rec/1 lab/7 wks.

Equivalent(s): HT 217, HT 417

HT #427 - Greenhouse Operation and Design

Credits: 0 or 2

Designing, using, equipping and managing greenhouses for production and retail with a focus on structure and environment and how these pertain to plant production. Includes lab in our production greenhouse. Special fee.

Equivalent(s): HT 227, HT 227A

HT #428 - Plant Production Techniques

Credits: 2

Managing greenhouse infrastructure and crops for production and retail. This class will focus on irrigation, plant nutrition, pest and disease control and lighting. Labs and experience in our production greenhouse range supplement lectures in this hands-on course.

Equivalent(s): HT 227, HT 227B

HT 450 - Flower Show Design and Construction

Credits: 1

Design, construction, and maintenance of the Thompson School horticultural exhibit at a public flower show. May be repeated. Special fee. 1 rec.

Equivalent(s): HT 250

HT #454 - Irrigation Design

Credits: 0 or 3

Design, installation, and operation of irrigation systems in the greenhouse, nursery, field crops, and landscape. Special fee. 1 lec/1 lab.

Equivalent(s): HT 254

HT #460 - Sustainable Plant Management

Credits: 4

Sustainable practices and principles in selecting, establishing and maintaining woody and herbaceous plants for optimum health. Topics include planting, pruning, fertilization, pest identification, plant culture and communities.

HT #493 - Field Operations

Credits: 1-3

Seven-week or fourteen-week modules of field experience in selected areas of horticulture under the supervision of an appropriate member of the faculty/staff. A student may enroll in two modules per term. A) Floriculture; B) Floral Design; C) Nursery and Garden; D) Landscape; E) Horticultural Therapy. Special fee. Prereq: permission of instructor and student's adviser.

Equivalent(s): HT 293

HT 494 - Field Operations

Credits: 1-3

Seven-week or fourteen-week modules of field experience in selected areas of horticulture under the supervision of an appropriate member of the faculty/staff. A student may enroll in two modules per term. A) Floriculture; B) Floral Design; C) Nursery and Garden; D) Landscape; E) Horticultural Therapy. Special fee. Prereq: permission of instructor and student's adviser.

Equivalent(s): HT 294

HT 529 - Horticultural Facilities Mgmt

Credits: 0 or 2

Layout, systems, construction, management principles, and horticultural techniques used in controlled growth structures, including greenhouses, propagation houses and beds, cold frames, hoop houses, and lath houses. Includes practicum in daily operation of Thompson School horticultural facilities, with second-year focus on scheduling and supervision. 2 lab.

Equivalent(s): HT 227, HT 227C

HT 530 - Horticultural Facilities Mgmt

Credits: 0 or 2

Layout, systems, construction, management principles, and horticultural techniques used in controlled growth structures, including greenhouses, propagation houses and beds, cold frames, hoop houses, and lath houses. Includes practicum in daily operation of Thompson School horticultural facilities, with second-year focus on scheduling and supervision. 2 lab.

Equivalent(s): HT 227, HT 227D

HT #551 - Introduction to Design Communication

Credits: 2

Introduction to methods of communicating garden and landscape design. Lab work covers selected 2-D and 3-D tools and techniques, including instrumental drawing, modeling, and computer-aided drafting and design (CADD). Special fee. Prereq: TSAS 205, Computers in the Workplace. 1 lec/1 lab.

Equivalent(s): FORT 251

HT 553 - "Pond-less" Water Feature Design and Installation

Credits: 2

A major trend in landscape design is the use of water features that range from simple recirculating pond to major waterfalls and fountains. Class starts with the design principles of "pond-less" features and expands to proper installation techniques. Determining water flow, recirculation rates, appropriate pump requirements and filter techniques are critical to a fully functioning feature. Explore differences between "pond-less" and eco-system ponds. Class culminates in the design and installation of a complete system.

Equivalent(s): HT 253

HT 554 - Sustainable Irrigation and Rain Harvesting

Credits: 3

As identifying water resources becomes ever more critical, students learn how to efficiently irrigate the landscape using low volume irrigation with harvested rainwater as the water source. Course focuses on proper design concepts of low volume irrigation as well as the design of rainwater storage systems. Includes developing site plans, identifying soil types and determining plant material to be irrigated. Learn about flow rates, water pressure and the technical components required for a complete system.

HT 555 - Landscape Lighting Design and Installation

Credits: 2

Creating outdoor "rooms" is a hot trend in landscaping. Class starts with design elements that are functional, aesthetically pleasing while minimizing light pollution and electrical usage. Learn various lighting options from LED to other low-voltage systems and their unique technical installation requirements plus how to prepare a good cost estimate. Landscape lighting provides exterior security, comfort and adds visually to the landscape canvas for both private and commercial properties.

Equivalent(s): HT 244, HT 252

HT 559 - Plants in the Horticulture Industry: Identification and Culture

Credits: 4

A comprehensive study of herbaceous and woody plants in the horticulture industry including morphology, classification, identification, and culture of common trees, shrubs, ground cover, perennials, annuals, ferns, ornamental grasses, and bulbs used in the Northeast.

HT 563 - Landscape Construction

Credits: 0 or 4

Materials and methods of landscape construction: grading and drainage, site preparation, transplanting, turf installation, pavements, walls, and retaining walls, wood structures. Introduction to construction drawings, specifications, estimating, and bidding. Special fee. Prereq: HT 405, 215. 4 lec.

Equivalent(s): HT 263, HT 275

HT 565 - Turf Management

Credits: 4

An introductory look at turf grass management; turf grass culture and physiology; identifying cool-season grasses; identifying and controlling turf grass pests (insect, diseases and weeds); controlling pests using traditional, biological and integrated (IPM) practices; establishing cool-season grasses; seed and sod installation; fertilization practices will be covered.

HT #566 - Garden Design and Culture

Credits: 2

What makes a garden inviting and sustainable? Explore elements of design then learn how to design and install a variety of gardens that are attractive, integrate with the surrounding environment/ecosystem, and require minimal inputs of time, water, and nutrition. Course emphasizes the selection of native and low maintenance plants. Projects include residential landscape plantings and specialty gardens such as water, rock, rain and themed gardens. Cost estimation and business management considerations also introduced.

Co-requisite: HT 458

Equivalent(s): HT 266

HT 572 - Landscape Design Studio

Credits: 4

Principles of residential and commercial landscape design: site analysis, spatial organization, graphics and drafting, use of landscape fixtures and plant materials, final plans and specifications, cost estimates. Special fee. Prereq: HT 257 and HT 563. 2 lec/4-hr lab.

Equivalent(s): HT 272

HT 575 - Hydroponics

Credits: 0 or 2

Production of hydroponic crops in the greenhouse, focusing on systems management, plant nutritional management, crop types and production schedules. Includes lab in Thompson School production greenhouse range. Special fee. Prereq: HT 407 Plant Structure and Functioning or equivalent.

Equivalent(s): HT 275, HT 563

HT 576 - Greenhouse Crop Production

Credits: 2

All aspects of production of floriculture and food crops in the greenhouse for the spring season. Includes lab in our production greenhouse range. Special fee.

Equivalent(s): HT 258, HT 276

HT 585 - Fruit and Vegetable Production

Credits: 3

Tree fruits (apple, pears, and peaches) small fruits (strawberries, raspberries, grapes and blueberries) and vegetables grown in New England will be covered. Information will emphasize the growing, maintenance and the marketing of fruits and vegetables from the garden center perspective. Special fee. 2 lec/1 lab.

Equivalent(s): HT 286

HT 591 - Studies

Credits: 1-3

Students who have the ability and adequate preparation to work independently may propose a contract to design a course or research project on a new topic not available through existing course offerings. The purpose of this research is to explore new areas in the student's field of study or to pursue course material in greater depth. Work is supervised by an appropriate faculty/staff member and credit varies depending on the proposed project/research. Areas may include floriculture, floral design, nursery, landscape, and horticultural therapy. Permission required. Course may be repeated up to a maximum of 6 credits.

Equivalent(s): HT 291

HT 592 - Studies**Credits:** 1-3

Students who have the ability and adequate preparation to work independently may propose a contract to design a course or research project on a new topic not available through existing course offerings. The purpose of this research is to explore new areas in the student's field of study or to pursue course material in greater depth. Work is supervised by an appropriate faculty/staff member and credit varies depending on the proposed project/research. Areas may include floriculture, floral design, nursery, landscape, and horticultural therapy. Permission required. Course may be repeated up to a maximum of 6 credits.

Equivalent(s): HT 292**HT 597 - Horticultural Work Experience****Credits:** 0

A guided work experience in a student-selected area of horticulture, providing both a broad overview and a detailed understanding of work in the field. Contracting with an employer for 480 hours of career-oriented work, the student is assigned a wide variety of duties and responsibilities typical of that business or organization. Students maintain a detailed reflective journal of the experience, a portfolio-based summary report, and thorough self-evaluations. Cr/F.

Equivalent(s): HT 297