Horticultural Sciences Course Descriptions (HORT)

101. Concepts of Horticultural Science. (1-0). Credit 1. Introduction to the many facets of horticulture in Texas and the United States including organization, history and nature of the industry; discussion of professional development and identification of career opportunities.

201. (AGRI 1315, 1415, 1301, 1401) Horticultural Science and Practices. (3-0). Credit 3. Structure, growth and development of horticultural plants from a practical and scientific approach; environmental effects, basic principles of propagation, greenhouse and outdoor production, nutrition, pruning and chemical control of growth, pest control and branches of horticulture.

202. Horticultural Science and Practices Laboratory. (0-3). Credit 1. Methods and practices related to production of horticultural crops; practical exercises in greenhouse and field. Prerequisite: HORT 201 or registration therein.

203. Floral Design. (2-2). Credit 3. Principles of design illustrated with the use of floral materials; floral design elements and techniques including color, form, line and texture; history and utilization of floral art in society.

223. Flower Quality Standards. (0-2). Credit 1. Judging quality standards for flowers and potted plants for retail flower shops. Intercollegiate flower judging team chosen from this class.*Course Descriptions/Horticultural Sciences 699

225. Horticulture Learning Community. (1-0). Credit 1. Understanding the personal and professional competencies that should develop during college career; determine learning style; develop oral and written communication skills, teamwork and leadership characteristics, analytical and critical thinking, research and problem solving skills; exposure to current critical issues in horticulture and science. Prerequisite: Horticulture or floriculture major.*

291. Research. Credit 1 to 3. Research conducted under the direction of faculty member in horticulture. May be repeated 2 times for credit. Prerequisites: Freshman or sophomore classification and approval of instructor.

301. Garden Science. (3-0). Credit 3. Identification, propagation, soil management, fertilization, growth control and protection of common garden plants: indoor ornamentals, landscape ornamentals, fruits and vegetables; special topics include home landscaping, container gardens, bonsai, herbs and medicinal plants and hobby greenhouse management. The effects of organic and non-organic practices on the garden ecosystem.


306. Woody Ornamental Plants. (2-2). Credit 3. Better known woody ornamental trees and shrubs; identification, morphology, classification, nomenclature and adaptability for use in landscape environments. Prerequisite: BIOL 101 or HORT 201 or approval of instructor.

308. Landscape Plant Materials. (2-2). Credit 3. Identification and use of indigenous and introduced landscape plants; plants for special uses in urban environments; emphasis on plants’ ornamental attributes, cultural requirements, and adaptability in urban and suburban environments. Prerequisite: HORT 201 or HORT 306 or BIOL 101 or approval of instructor.

309. Interior Plants. (2-2). Credit 3. Identification, selection and maintenance of interior foliage plants; emphasis on design solutions for commercial and private facilities. Prerequisites: HORT 201; junior or senior classification.


315. Issues in Horticulture. (3-0). Credit 3. Analysis of contemporary economic, technological, environmental, human resource, and regulatory issues that impact the way global horticultural firms compete; emphasis on problem recognition and analysis of managerial decisions by firms throughout the entire horticultural supply chain. Prerequisites: HORT 201 and HORT 202.

319. Fruit and Nut Production. (2-3). Credit 3. Rootstocks, cultivars, identification, site selection, pollination, pruning, fruit thinning, dormancy, orchard culture management, irrigation, pest control, harvesting and post harvest physiology of temperate fruit and nut species. Prerequisite: HORT 201.*

325. Vegetable Crop Production. (2-3). Credit 3. Origin, nutritive value, economic importance, botany and cultural practices of the major vegetable crops. Lab activities include organic and non-organic production of major vegetable crops.

332. Horticulture Landscape Graphics. (1-2). Credit 2. Graphic representation of landscape design; demonstrations of technique; examination of drawing examples and drawing production; basic hand graphics techniques for visual-thinking and presentation-quality landscape drawings. Prerequisite: Junior or senior classification.

335. Sociohorticulture. (3-0). Credit 3. Horticulture as a therapeutic medium for special populations; use of horticulture in urban development and community garden programs. Prerequisite: Junior classification.

400. Field Studies in Horticulture. Credit 1 to 3. Field trip to observe operation of horticultural businesses, governmental agencies affecting horticultural programs, and public and private institutions active in horticulture in the U.S. and other countries; usually arranged during spring break, between semesters or during the summer; may be repeated for credit. Prerequisites: HORT 201 or HORT 301 and approval of instructor.*

404. Plant Breeding. (2-2). Credit 3. Application of genetics and other sciences to breeding and improvement of horticultural crops; methods and special techniques employed. Offered in even numbered years. Prerequisite: GENE 301. Cross-listed with GENE 404. Credit cannot be given for both HORT 404 and SCSC 304.*

418. Nut Culture. (3-0). Credit 3. Orchard management, native grove development, cultivars, fruit setting, soils, nutrition, propagation, pest control, harvesting, shelling, storage and marketing of temperate tree nut crops grown in the U.S. with major emphasis on pecans. Offered in odd numbered years. Prerequisite: HORT 319 or approval of instructor.*

419. Viticulture and Small Fruit Culture. (3-0). Credit 3. Classic wine grape culture in Europe and U.S. are taught; influence of climate, soil, cultivar, rootstock, canopy and management is presented; nutrition, water, spacing, trellis, pruning, IPM and harvest are integrated for quality yields; culture of muscadines, berries, figs and persimmons are taught. Offered in even numbered years. Prerequisite: HORT 319 or approval of instructor.

420. Concepts of Wine Production. (3-0). Credit 3. Classic wine grapes of the world and where they are produced; evaluation of wine style and quality through formal laboratory tastings. Prerequisites: HORT 201, HORT 319, HORT 419 or HORT 446 or FSTC 201; must be 21 years of age; junior or senior classification.

421. Enology. (2-3). Credit 3. Provides a basic understanding of each step of the wine making process; emphasis on home and small scale commercial wine production as related to Texas conditions. Prerequisites: Must be 21 years of age; junior or senior classification.*

422. Citrus and Subtropical Fruits. (3-0). Credit 3. Various types of citrus: identification, culture, processing, marketing, and economic future; prepares students to function in a continuously changing production environment in production areas. Offered in even numbered years. Prerequisite: Approval of instructor.*

423. Tropical Horticulture. (3-0). Credit 3. Production, processing and marketing of coffee, bananas, cacao, mango, cashew, pineapple, coconut and root and tuber crops; recent significant developments in plant breeding and cultural practices. Offered in odd numbered years. Prerequisites: HORT 201 or approval of instructor.

425. Landscape Maintenance and Construction. (2-3). Credit 3. Principles and practices of grading, drainage and construction of residential and small commercial landscapes; cost and bid estimation; soil preparation; transplanting operations; control of landscape diseases and pests; maintenance of landscape areas. Prerequisite: HORT 201 or approval of instructor.

426. International Floriculture Marketing. (2-2). Credit 3. Importance, cost, and opportunities in marketing floral products, fresh cut flowers, flowering potted plants, foliage plants, and bedding/garden plants; topics include: world production areas, economic value, species grown, marketing channels, retail environments, current/future consumers, postharvest handling, promotion/advertising, perceived/added value, marketing trends and employment opportunities. Prerequisites: HORT 201; junior or senior classification.

427. Fall Greenhouse Crops. (0-2). Credit 1. Hands-on lab for growing and managing fall greenhouse crops including fall bedding plants, cut flowers, foliage, poinsettias and other flowering potted plants.

428. Greenhouse Operation and Management. (2-2). Credit 3. Principles of greenhouse operation and management for production of horticultural crops; construction and operation of greenhouse structures and systems; regulating and controlling the environment and applying cultural practices as they affect plant physiological processes and influence plant growth and development; management of a greenhouse business. Prerequisite: HORT 201.*

429. Floriculture Crop Production. (2-2). Credit 3. Production of floriculture crops in the greenhouse environment; scheduling and controlling crop growth for target market periods; specific flowering crops will be used as models to demonstrate potted flowering plant, cut flower, and garden plant production systems; hands-on crop production experience in lab. Prerequisite: HORT 201.*Course Descriptions/Horticultural Sciences 701

431. Nursery Production and Management. (2-2). Credit 3. Container, field and protected culture production of ornamental nursery plants (shrubs, trees, ground covers, bedding plants and herbaceous perennials); retail and
wholesale nursery-site selection and development, financing, niche-marketing, personnel and labor management; wholesale nursery production cycles and systems, storage and shipping.*

432. Horticulture Landscape Design. (2-2). Credit 3. Application of the principles and elements of design to planning and developing both exterior residential landscape designs and interior commercial designs. Prerequisites: HORT 203; HORT 332; HORT 306 or HORT 308 or approval of instructor.

435. Urban Horticulture. (3-0). Credit 3. Introduction to urban horticulture and its role in community development and well-being; emphasis on career opportunities and the roles of the urban horticulture programmer. Offered in odd numbered years. Prerequisite: Junior or senior classification.

440. International Horticulture. (3-0). Credit 3. Examines the source of horticultural commodities; shows how geography, culture, politics, and history influence our markets, gardens and refrigerators; educates students on interpreting different garden styles; offered in even number years. Prerequisite: Junior or senior classification.

442. Horticulture Landscape Design II. (2-2). Credit 3. Introduce computer-aided-drafting (CAD) to produce site layout, grading and planting plan, and construction details for small-scale landscape design; advanced design principles and practices in their historical context, includes design and drafting of hardscape details, manipulation of earth forms, ecological urban park design to traditional garden design. Prerequisites: HORT 203, HORT 308 and HORT 432 or approval of instructor; junior or senior classification.

445. Horticultural Therapy. (2-3). Credit 3. Principles and practices of horticultural therapy; planning and implementing horticultural programs for persons with special needs. Offered in odd numbered years. Prerequisites: HORT 335 or HORT 435 or approval of instructor; junior or senior classification.*

446. Commercial Fruit and Vegetable Processing. (2-3). Credit 3. Pilot plant and laboratory operations pertaining to processed fruits, vegetables and beverages; new product development emphasized via individual laboratory projects. Offered in even numbered years. Prerequisite: FSTC 311. Cross-listed with FSTC 446.

451. Retail Floristry. (2-3). Credit 3. Principles of floral design in a commercial shop enterprise; aspects of design in vase arrangements, personal flowers, sympathy flowers and flowers for special occasions; production costs and profit analysis, selling techniques and customer relations; term project required. Prerequisite: HORT 203 or approval of instructor.

452. Floral Design: Weddings and Personal Flowers. (2-3). Credit 3. Basic principles of floral design as applied to wedding work; design principles and mechanics as applied to corsages, headpieces, hand bouquets and ceremony and reception decorations; history of wedding traditions; selling and pricing weddings. Prerequisite: HORT 203 or HORT 451 or approval of instructor.

453. Floral Art. (1-2). Credit 2. Advanced study of floral design as an art form in contrast to a commercial florist operation; interpretive expression of design principles and color stressed along with international design styles. Prerequisites: HORT 203; HORT 451 and/or HORT 452.

454. Special Event Design and Production. (1-2). Credit 2. Role of event planners, production managers, designers, and decorators within traditional event management practices; analyze how artistic components are used in visual styling to achieve a specific purpose; impact of collaborative planning, effective research, and strong communication skills, social psychological and economic influences as they relate to event planning. Prerequisite: Junior or senior classification.

481. Seminar. (1-0). Credit 1. Review of current research literature in field of horticulture presented by senior students; transition from college to work environment, including professional development and career advancement; required of all senior students in horticulture.

484. Internship. Credit 1 to 4. On-the-job experience program in the student’s area of horticultural specialization. Must be taken satisfactory/unsatisfactory. May be taken three times. Prerequisites: Sophomore, junior or senior classification; approval of instructor; 2.0 GPR in major and overall.

485. Directed Studies. Credit 1 to 4. Special problems and projects in any area of horticulture. Prerequisite: Junior or senior classification or approval of department head.

489. Special Topics in... Credit 1 to 4. Selected topics in an identified area of horticultural science. May be repeated for credit. Prerequisite: Approval of instructor.*

491. Research. Credit 1 to 3. Research conducted under the direction of faculty member in horticulture. May be repeated 2 times for credit. Registration in multiple sections of this course are possible within a given semester provided that the per semester credit hour limit is not exceeded. Prerequisites: Junior or senior classification and approval of instructor.

NOTE: Undergraduate floriculture courses are taught under the horticulture designation.

*Field trips required for which departmental fees may be assessed to cover costs.