



## HORT TECH AAS-LANDSCAPE CONTRACTING OPTION COURSE DESCRIPTIONS

### **HRT 1013 PRINCIPLES OF HORTICULTURE**

Horticulture fundamentals course covering the characteristics of and uses for horticultural plants, plant growth principles and plant care practices, the scope of the horticulture industry, basics in plant propagation, landscape plant maintenance, fruit and vegetable gardening and pest control. Lab: three hours per week. (Sp, Su, F)

### **HRT 1103 LANDSCAPE GRAPHICS I**

Drafting and illustration techniques for landscape designs. Introduction to landscape drawing, delineation, lettering and color rendering with applications to simple and more complex landscape plans. Additional \$15 lab fee. Lab: three hours per week.

### **HRT 1133 LANDSCAPE GRAPHICS II**

Advanced drafting and illustration techniques for landscape designs, focusing on presentation drawings in both black and white and color formats. Application of graphic techniques to more complex plans, drawings and programs. Introduction to electronic media and blending of electronic and hand drawn graphics. Lab: three hours per week. Prerequisite: 1103

### **HRT 1163 BILINGUAL HORTICULTURE COMMUNICATIONS**

This course is designed to assist supervisors and employees within the horticulture industry with the Spanish/English language transition and to gain better understanding of contemporary Hispanic culture. Emphasis will be placed on translating and then properly speaking horticulture terminology in Spanish while addressing cultural and communication issues. The linkages and implications of these issues will be examined as they apply to successfully managing and understanding a diversified work force. (sp)

### **HRT 1413 MATH APPLICATIONS FOR HORTICULTURE**

Topics include learning measurement and quantity applications as commonly encountered in gardens, landscape design, landscape contracting, turfgrass management, greenhouse operations and interiorscape maintenance. Emphasis on calculating based on units of measure. Prerequisites: HRT 1013 and MATH 0404.

### **HRT 1423 LANDSCAPE BIDDING AND CONTRACTS**

Investigation of professional principles and practices in the field of landscape contracting, focusing on costs of business and project implementation. Course work includes: estimating costs for landscape installation and maintenance, bidding on landscape installation and maintenance work, preparation and review of contracts for landscape installation and maintenance, controlling the work and costs of the work under the terms of landscape contracts and subcontracts, and administering a landscape contracting business. Prerequisites: HRT 1013, MATH 0104 and CIS 1113 or CIS 1503. (sp)

### **HRT 1723 GROUNDS MAINTENANCE EQUIPMENT: MECHANICS AND REPAIR**

Addresses grounds maintenance power-equipment selection, function and operations. Emphasis is placed on hydraulic systems, trouble-shooting, repair and adjustment of the equipment. Lab: three hours per week.

### **HRT 1843 IRRIGATION AND DRAINAGE DESIGN**

This course is designed to teach student basic principles of irrigation and drainage design. Students will be presented with engineering aspects of water dynamics and hydraulics. Additional topics include soil-water-plant interactions, system components, electrical systems and business practices and estimating. Students will design irrigation systems for residential, commercial and sport fields. Lecture: two hours per week. Lab: three hours per week.

### **HRT 2013 MAINTENANCE OF LANDSCAPE PLANTS**

Preparation of soil, pruning and training of ornamental trees, shrubs and vines, pest and disease control, fertilization and environmental factors which affect the care and maintenance of landscape plants. Lab: three hours per week. Prerequisite: HRT 1013.. (sp)

### **HRT 2023 HORTICULTURAL SOIL SCIENCE**

Principle physical, chemical and biological properties of the soil as related to horticultural plant growth. Soil testing and fertilizer usage: formation and classification of soils, rural and urban land use. Prerequisites: HRT 1013. . Lab: three hours per week. . (sp)

### **HRT 2050 (2051-2056) ADVANCED PROBLEMS-HORTICULTURE**

One to six credits, six credits maximum. A study of applied problems that are of particular interest to horticulture majors. Prerequisite: consent of department head.

### **HRT 2113 TURFGRASS MANAGEMENT**

Selection, establishment and maintenance of turf grass, use of equipment, identification of weeds and chemicals used for turf management. Lab: three hours per week. Prerequisite: HRT 1013.

### **HRT 2123 LANDSCAPE DESIGN THEORY**

The understanding and use of basic design principles and elements and their application to landscape design. Theories of analysis, planning and organization of outdoor spaces for human use and enjoyment. A look at historical styles and approaches to landscape architectural design, and past and present design theories. The study of uses of plant materials for design effect. Additional \$15 lab fee. Lab: three hours per week. Prerequisites: HRT 1013 and HRT 1103. (f)

### **HRT 2143 LANDSCAPE DESIGN APPLICATIONS**

The use of materials, methods of construction, and related systems to support the design process. Emphasis on solving landscape problems through logical analysis and application of design skills. Additional \$15 lab fee. Lab: three hours per week. Prerequisite: HRT 2123, HRT 2313 and/or HRT 2413. (so)

### **HRT 2232 SEMINAR IN HORTICULTURE OCCUPATIONS**

To acquaint the student with the variety of job opportunities and placement in the horticulture industry. Skills used in resume writing, public speaking and project presentations will be covered. Development of skills necessary at the supervisory level including leadership, motivation of employees, communication, and recruiting and retaining good employees will be discussed. Guest speakers will address topics within the horticulture industry. Prerequisite: consent of department head.

### **HRT 2233 LANDSCAPE CONSTRUCTION**

Emphasis is placed on the basic information necessary for constructing various elements needed to develop the landscape site. Landscape construction elements including walkways, decking, walls, screens, steps, irrigation, garden pools and fountains, and landscape lighting will be studied. Lab: three hours per week. Lecture: two hours per week. (f)

### **HRT 2244 HORTICULTURE PRACTICUM**

Occupational aspects of ornamental horticulture are covered. An internship in ornamental horticulture in areas such as park maintenance, landscape construction, landscape maintenance, wholesale or retail sales, horticultural therapy or turf management will be established either in the industry or at the Horticulture Center. The lecture will involve problem-solving techniques for the area of specialization. Refinement of skills as well as speed and accuracy will be emphasized. Lab: six hours per week. Prerequisite: Consent of department head .

### **HRT 2263 HORTICULTURAL PEST MANAGEMENT**

Introduces and thoroughly covers the topic of pest management in all areas of horticulture technology. Lab: three hours per week. Prerequisite: HRT 1013. (F)

### **HRT 2313 DECIDUOUS LANDSCAPE PLANTS**

Identification and classification of deciduous trees, shrubs, vines and groundcovers with some evergreen trees and shrubs. Includes the study of the plant materials cultural requirements and landscape uses. Lab: three hours per week. Lecture: two hours per week. Prerequisite: HRT 1013 or consent of department head. (sp,su)

### **HRT 2413 EVERGREEN LANDSCAPE PLANTS**

The identification and classification of evergreen trees, shrubs, vines and groundcovers with some deciduous trees and shrubs. Includes the study of their cultural requirements and landscape uses. Lab: three hours per week. Lecture: two hours per week. Prerequisite: HRT 1013 or consent of department head. (f)

### **\*HRT 2423 COMPUTER GRAPHICS FOR LANDSCAPE DESIGN**

Introduction to computer programs utilized in the practice of landscape design. Principles of electronic drafting, utilizing Auto CAD and Photoshop. Students will master drawing set up, basic drawing and modification commands, and file management in AutoCAD. Introductory Photoshop exercises relate to landscape plan and illustration rendering. Applications to the landscape design industry are emphasized. Prerequisite: HRT 1103..(sp)

### **HRT 2453 HERBACEOUS ORNAMENTAL PLANTS**

This plant identification course introduces ornamental annual and herbaceous flowering perennials for garden, landscape and patio spaces. The study includes flowering bulbs, roses, ornamental grasses and herbs. Culture, care and design issues are considered. Lab and field trips are included. Prerequisite: HRT 1013 or consent of department head. (sp,su)

### **HRT 2463 INTERIOR PLANTS**

This plant identification course introduces tropical foliage and flowering plants for interior spaces. Cultural requirements, practical maintenance and design issues are considered, along with an introduction to the interiorscape industry. Lab and field trips are included. Prerequisite: HRT 1013 or approval of department head. (f)

### **HRT 2533 ADVANCED TURFGRASS MANAGEMENT**

Emphasis will be placed on the appropriate grounds maintenance activities for commercial lawn care, sports facilities and golf courses. Advanced topics in turfgrass ecology, turf cultural requirements, pest control and equipment will be studied along with construction techniques of sports turf and day-to-day operations of various facilities. Lab: three hours per week. Lecture: two hours per week. Prerequisites: HRT 1013 and HRT 2113. . (sp-odd years)

### **HRT 2843 IRRIGATION INSTALLATION AND TROUBLESHOOTING**

This hands-on course introduces basic irrigation layout, installation, maintenance and troubleshooting techniques. Topics include: gluing and repairing PVC and polyethylene pipe, installing and adjusting heads, electric valve operation, troubleshooting and repairing electric valves and field controllers. Additional topics include pump and well operations, cross connection, winterizing, drainage and micro irrigation system installations. Lecture: two yours per week. Lab: three hours per week. Prerequisite: HRT 1843.

### **\*ITD 1323 INTERNET FUNDAMENTALS**

Introduction to the worldwide computer network. Course uses a hands-on approach to teach students the history and capabilities of the Internet. Students learn the resources available via the World Wide Web and searching capabilities. Prerequisites: placement test or CIS 1003.