HORTICULTURE TECHNOLOGY

University Transfer Degree

University Transfer Degree Information:
This degree program is designed for students planning to transfer to baccalaureate colleges and universities. Transfer credit varies among colleges. Students should consult both the catalog of the specific college/university to which they plan to transfer and the signed transfer agreement or the current transfer planning guide posted at www.tulsacc.edu/12960/ to select courses that will meet requirements for both the associate and baccalaureate degree programs.

Program Description:
Horticulture Technology is for students who want to make an enduring difference in the environment by working with plants. Opportunities abound in landscape architecture, public horticulture, turf management and numerous related fields.

Degree Awarded: Associate in Science

General Education Requirements Credit Hours: 45

Biology 8 hours
*BIOL 1224 Introduction to Biology for Majors
*BIOL 1404 General Botany

Chemistry 10 hours
*CHEM 1315 General Chemistry I
*CHEM 1415 General Chemistry II

English 6 hours
* ENGL 1113 Composition I
* ENGL 1213 Composition II

Humanities 6 hours
See the General Education Requirements page for complete list.

Mathematics 3 hours
* MATH 1513 College Algebra

Psychology 3 hours
PSYC 1113 Introduction to Psychology

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Speech 3 hours
SPCH 1113 Speech Communication I

Specialized Course Requirements Credit Hours: 18

Horticulture 18 hours
HORT 1303 Principles of Horticulture Technology
HORT 1313 Ornamental Horticulture
*HORT 1343 Plant Identification
HORT 2353 Lawn and Turf Care
HORT 2413 Nursery and Greenhouse Management
HORT 2483 Interior Plants

Total Credit Hours: 63
*Course has a prerequisite (See course description section of catalog).
To receive an A.A. or A.S. degree, students must demonstrate computer proficiency.

General education requirements can be found at:
www.tulsacc.edu/gened

HORTICULTURE TECHNOLOGY

Workforce Development Degree

Program Description:
This multi-option program is designed to develop the necessary skills for graduates to function in such jobs as foreman, groundskeeper, horticulture technician, interiorscaper, floral designer, landscaper, management trainee, and sales person with greenhouses, garden centers, landscaping operation, parks, and private industry.

Areas of Emphasis:
1) Floral Design and Interiorscape 2) General Horticulture 3) Golf and Sports Turf
4) Landscape Design and Construction 5) Landscape Maintenance 6) Nursery & Greenhouse Production

Degree Awarded: Associate in Applied Science

For More Information Contact:
Green Country Horticulture Center Northeast: (918) 595-8435

General Education Requirements Credit Hours: 19

Biology 4 hours
*BIOL 1404 General Botany

Computer Information Systems 3 hours
CSCI 1203 Computer Concepts and Applications

English 6 hours
* ENGL 1113 Composition I
and select one course from the following:
* ENGL 1213 Composition II
* ENGL 2333 Technical/Professional Writing
* ENGL 2343 Business Communication I

Social Science 6 hours
POLS 1113 American Federal Government
and select one course from the following:
HIST 1483 U.S. History 1492 to Civil War Era
HIST 1493 U.S. History Civil War Era to Present

Specialized Course Requirements Credit Hours: 41

Horticulture Technology Core Courses 23 hours
HORT 1233 Introduction to Irrigation
HORT 1303 Principles of Horticulture Technology
HORT 1313 Ornamental Horticulture
*HORT 1343 Plant Identification
*HORT 1353 Fertilizers and Soils
*HORT 1363 Plant Diseases and Pests
HORT 2251 Horticulture Internship I Project
HORT 2401 Pest Control Certification and Licensing
*HORT 2493 Horticulture Management Principles

Select 12 credit hours from the following areas of emphasis:

1) Floral Design and Interiorscape Emphasis
*HORT 2363 Landscape Planning and Design I
HORT 2413 Nursery and Greenhouse Management
HORT 2433 Floral Design
HORT 2483 Interior Plants

2) General Horticulture Emphasis
HORT 1413 Equipment Safety and Maintenance
HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I
HORT 2413 Nursery and Greenhouse Management

3) Golf and Sports Turf Emphasis
HORT 1413 Equipment Safety and Maintenance
HORT 2224 Golf and Sports Turf
HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I

4) Landscape Design and Construction Emphasis
HORT 1091 Landscape Construction
HORT 1413 Equipment Safety and Maintenance
*HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I
*HORT 2513 Landscape Planning and Design II
*SURV 1324 Surveying I

5) Landscape Maintenance Emphasis
HORT 1413 Equipment Safety and Maintenance
*HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I
HORT 2423 Arboriculture Practices

6) Nursery & Greenhouse Production Emphasis
HORT 1413 Equipment Safety and Maintenance
HORT 2413 Nursery and Greenhouse Management
HORT 2433 Floral Design
HORT 2483 Interior Plants

Controlled Electives 6 hours
Select any Horticulture Classes

Total Credit Hours: 60-61
*Course has a prerequisite (See course description section of catalog).
NOTE: Students who complete all the courses in any of the six areas of emphasis may apply for an institutional certificate of completion from the Science and Mathematics division at Northeast Campus.

HORTICULTURE TECHNOLOGY

Workforce Development Certificate

Program Description:
This curriculum serves as an overview of Horticulture. Designed primarily to allow individuals to master most residential horticulture challenges.

Degree Awarded: Certificate of Achievement

Biology 4 hours
*BIOL 1404 General Botany

Horticulture Technology 23 hours
HORT 1233 Introduction to Irrigation
HORT 1303 Principles of Horticulture Technology
*HORT 1313 Ornamental Horticulture
*HORT 1343 Plant Identification
*HORT 1353 Fertilizers and Soils
*HORT 1363 Plant Diseases and Pests
HORT 2251 Horticulture Internship I Project
HORT 2401 Pest Control Certification and Licensing
*HORT 2493 Horticulture Management Principles

Select 6 credit hours from the following areas of emphasis:

1) Floral Design and Interiorscape Emphasis
*HORT 2363 Landscape Planning and Design I
HORT 2413 Nursery and Greenhouse Management
HORT 2433 Floral Design
HORT 2483 Interior Plants
HORT 2493 Horticulture Management Principles

2) General Horticulture Emphasis
HORT 1413 Equipment Safety and Maintenance
HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I
HORT 2413 Nursery and Greenhouse Management

3) Golf and Sports Turf Emphasis
HORT 1413 Equipment Safety and Maintenance
HORT 2224 Golf and Sports Turf
HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I

4) Landscape Design and Construction Emphasis
HORT 1091 Landscape Construction
HORT 1413 Equipment Safety and Maintenance
*HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I
*HORT 2513 Landscape Planning and Design II
*SURV 1324 Surveying I

5) Landscape Maintenance Emphasis
HORT 1413 Equipment Safety and Maintenance
*HORT 2353 Lawn and Turf Care
*HORT 2363 Landscape Planning and Design I
HORT 2423 Arboriculture Practices

6) Nursery & Greenhouse Production Emphasis
HORT 1413 Equipment Safety and Maintenance
HORT 2413 Nursery and Greenhouse Management
HORT 2433 Floral Design
HORT 2483 Interior Plants
HORT 2493 Horticulture Management Principles

Total Credit Hours: 33
*Course has a prerequisite (See course description section of catalog).
NOTE: Students who complete all the courses in any of the six areas of emphasis may apply for an institutional certificate of completion from the Science, Technology, Engineering and Mathematics division at Northeast Campus.

HORTICULTURE TECHNOLOGY

Interior Plant Care Specialist Option

Workforce Development Certificate

Program Description:
This program is designed to develop the necessary skills for graduates to function as an assistant to an Interior Plant Technician.

Computer Information Systems 2 hours
CSCI 1011 Introduction to Microcomputers
*CSCI 1161 Introduction to the Internet

Horticulture Technology 8 hours
HORT 1031 Therapeutic Horticulture
HORT 1041 Bonsai
HORT 1081 Small Greenhouses
HORT 1221 Principles of Floral Arranging
HORT 1241 Cacti and Kin/Orchids and Others
HORT 1261 Tropical Plant Care
HORT 2251 Horticulture Internship I Project
HORT 2401 Pest Control Certification and Licensing

Total Credit Hours: 10
*Course has a prerequisite (See course description section of catalog).

HORTICULTURE TECHNOLOGY

Landscape Specialist Option

Workforce Development Certificate

Program Description:
This program is designed to develop the necessary skills for graduates to function as a nursery retail assistant or assistant to a Landscape Technician.

Degree Awarded: Certificate of Achievement

Computer Information Systems 1 hour
*CSCI 1161 Introduction to the Internet

Horticulture Technology 9 hours
HORT 1021 Lawn Sprinkler System and Drainage
HORT 1051 Nightscaping
HORT 1061 Water Gardening
HORT 1071 Annual and Perennial Culture
HORT 1091 Home Landscape Construction
HORT 1201 Habitat Gardening
HORT 1381 Home Landscape Design
HORT 2251 Horticulture Internship I Project
HORT 2401 Pest Control Certification and Licensing

Total Credit Hours: 10
*Course has a prerequisite (See course description section of catalog)

Horticulture Technology Course Descriptions

HORT 1011 - Rose Culture
This course provides information on the culture and uses of a number of types and varieties of roses, their propagation, production, pruning, planting, and maintenance.

HORT 1021 - Lawn Sprinkler System/Drainage
A study of subsurface water management required to establish and maintain high quality residential turf and landscape plants.

HORT 1031 - Therapeutic Horticulture
An introductory background and orientation on how to improve the physical and mental health of the individual, using plants in many settings such as psychiatric, medical, vocational rehabilitation, geriatric, corrections and community gardening.

HORT 1041 - Bonsai
The study of miniaturizing living trees in small containers and shaping into beautiful treelike forms.

HORT 1051 - Nightscaping
Practical design study using outdoor lights to illuminate the home landscape.

HORT 1061 - Water Gardening
The functions of water fountains and garden pools in the home landscapes to include design, construction, and maintenance.

HORT 1071 - Annual and Perennial Culture
The culture and uses of a number of types and varieties of annuals and perennials including bulbs, corns, tuberous plants, and ornamental grasses to include their planting, maintenance, and propagation.

HORT 1081 - Small Greenhouses
The use of materials, methods of construction, and related environmental systems used to operate the backyard greenhouse. Methods of growing are covered.

HORT 1091 - Landscape Construction
Emphasis on the study of various landscape materials, their proper application in the residential and small commercial landscape. Job plan reading, specifications, bidding, with coverage of job estimating.

HORT 1141 - Basic Plant Science
This course will instruct the student on how plants grow and reproduce, basic soil science, and an introduction to pest management using integrated pest management techniques.

HORT 1151 - Grow Your Own Vegetables, Fruit, and Nuts
Introduction to the sustainable production of vegetables both field grown and hydroponics, tree borne fruit such as apples and pecans, blackberries, and grapes.

HORT 1171 - Sell Your Own Produce
This course will prepare a person to store, package and market produce that is grown at home.

HORT 1181 - Build or Buy Your Own
This course is an overview of how to build or buy tools and structures needed for growing your crops using sustainable techniques of production.

HORT 1201 - Habitat Gardening
Class will discuss wildlife-friendly landscape techniques. This class will teach the basics of using native plants as well as other important features necessary for inviting nature to your doorstep.

HORT 1221 - Principles of Floral Arranging
Principles of floral design, which include basic design shapes, corsages, bud vases, centerpieces and bows. Study will include care and handling of cut flowers from both the florist and the home garden. Each class will have a lecture followed by a creative hands-on laboratory.

Horticulture Technology Course Descriptions

HORT 1233 - Introduction to Irrigation
This course will focus on the following topics: greenhouse and nursery; topics pertaining to lawn and turf; components and terms used in industry; differences in AC and DC current; use of test equipment; interpreting wiring diagrams and schematics; and systematic troubleshooting of mechanical and electrical components.

HORT 1241 - Cacti and Kin/Orchids and Others
Identification, growth habits, cultural requirements and use of cacti, succulents, orchids and bromeliads for indoor and outdoor environments.

HORT 1261 - Tropical Plant Care
This class will cover the basics for caring for common interior foliage plants used at home and in the office.

HORT 1303 - Principles of Horticulture Technology
Introduction to horticultural principles and practices, including basics of landscape design, characteristics and the use of horticultural plants, and the scope and development of the horticulture industry.

HORT 1313 - Ornamental Horticulture
Care and maintenance of trees, shrubs, hedges, groundcovers, and flowers. Principles of planting, transplanting, pruning, mulching, and fertilizing techniques will be covered. Emphasis will also be given to the care and identification of annuals and perennials. Prerequisites: HORT 1303, HORT 1363, BIOL 1404, or consent of instructor.

HORT 1343 - Plant Identification
Identification and classification of plants. Will include growth habits, cultures, habitat, range and uses of vines, shrubs, trees, and ornamental plants. Prerequisite: BIOL 1404.

HORT 1353 - Fertilizers and Soils
The evaluation of soils and their properties in relation to plant growth and climate factors. Economical use of commercial fertilizers also will be discussed. Prerequisite: HORT 1303.

HORT 1363 - Plant Diseases and Pests
A study of common plant diseases, insects, weeds, and other pests indigenous to the local horticulture industry. Will include recognizing pest life-cycle vulnerabilities, calculation of application rates, and a brief survey of laws pertaining to the industry. Lecture 3 hours. No Laboratory.

HORT 1381 - Home Landscape Design
Individual landscape plans will be constructed by the students with professional help from the instructor. Emphasis is on what will grow where, what works and does not work for your particular site. Where to buy and proper methods of installations for all materials will be discussed. Emphasis on solving particular landscape problems.

HORT 1413 - Equipment Safety and Maintenance
Techniques involved in preventive maintenance, operational safety, and minor repairs of commonly used machinery and equipment used in landscaping, golf courses, parks, and related areas. The student will study safety program planning and develop actual maintenance schedules.

HORT 2224 - Golf and Sports Turf This course is a management based study of principles used in caring for and design of golf course and sports turf areas, with emphasis on seasonal maintenance and construction problems and procedures. This will include equipment and maintenance record keeping, labor and materials budgeting, and time scheduling of daily work activities such as mowing, fertilizing, and pest control.

HORT 2251 - Horticulture Internship 1 Project
This course will provide a supervised work experience as an internship either with a local firm or a supervised special project with the student's current employer with input from TCC faculty. This course should be considered a capstone experience for advanced students in the Horticulture program. Prerequisite: Instructor approval.

HORT 2262 - Horticulture Internship 2 Project
This course will provide a supervised work experience as an internship either with a local firm or a supervised special project with the student's current employer with input from TCC faculty. This course should be considered a capstone experience for advanced students in the Horticulture program. Prerequisite: Instructor approval.

Horticulture Technology Course Descriptions

HORT 2273 - Horticulture Internship 3 Project
This course will provide a supervised work experience as an internship either with a local firm or a supervised special project with the student's current employer with input from TCC faculty. This course should be considered a capstone experience for advanced students in the Horticulture program. Prerequisite: Instructor approval.

HORT 2353 - Lawn and Turf Care
The study of the factors influencing the successful establishment and maintenance of turf grasses. Includes budgets, schedules, and selection of equipment.

HORT 2363 - Landscape Planning and Design I
Planning and designing landscape areas. Basic drafting techniques will be covered. Emphasis on location of lawns, trees, shrubs, walks, driveways patios, planters, and other landscape structures for home and commercial areas. Reading of job plans as well as techniques of job estimating will be covered. Prerequisites: HORT 1313 and HORT 1343.

HORT 2401 - Pest Control Certification and Licensing
The study of general and specific standards required by federal and state laws in the obtaining of licenses in the State of Oklahoma for pest control purposes.

HORT 2413 - Nursery and Greenhouse Management
Analysis and comparison of practices involved in building and operating a commercial nursery and greenhouse including design, construction, maintenance, environmental control, and crop production. Lecture 2 hours. Laboratory 2 hours.

HORT 2423 - Arboriculture Practices
A study of the organization and management of the work done by municipal departments and businesses concerned with the care of trees. Street tree planting and care are emphasized. Tree maintenance is practiced in actual field experiences.

HORT 2433 - Floral Design
Elementary principles of floral design, which include design of boutonnieres and corsages, rose bud vases and vase arrangements, hospital arrangements centerpiece designs, and bows. Study will include floral care and handling customer service, order taking and telephone skills, computer-wire-service fundamentals, and delivery.

HORT 2483 - Interior Plants
Course designed to familiarize the student with the use of foliage plants and blooming plants for interior use. Emphasis on identification, culture, and maintenance of interior plants. Both residential and commercial design application will be reviewed.

HORT 2493 - Horticulture Management Principles
Aspects of establishment and operation of various wholesale and retail horticulture business ventures including financing, purchasing, advertising, and merchandising. Includes taxes, insurance, security, and governmental regulations of horticultural businesses as compared to others.

HORT 2513 - Landscape Planning and Design II
A continuation of HORT 2363 with theory and practical application of some advanced landscape design practice. Special emphasis will be on working drawings, which are illustrated with the use of color plot plans and elevation. Construction details and specification writing will be covered. Computer aids also will be discussed. Prerequisites: SURV 1324 and HORT 2363, or instructor approval.

HORT 2533 - Horticulture for Special Populations
An intensive study of the concepts and methods of using plants and gardening as therapeutic activities with developmentally disabled, geriatric, economically and socially disadvantaged, emotionally disturbed, educationally deprived or physically disabled clients.

HORT 2990 - Selected Topics in Horticulture
The study and/or analysis of a selected topic in Horticulture. May be repeated with a different topic.