

Horticulture Technology A.A.S.

- Sustainable Crops Production Option

Program Description

There is a national emerging interest in local food systems that includes farmers' markets, community-supported agriculture, food co-ops and direct sales from the farm. In addition, the consumer's desire for a safe and secure food supply and environmentally-sound production methods has created a need for more local production of sustainable horticultural food crops. This field of study is designed to help an individual develop the skill to produce horticultural food crops using environmentally-sound methods. Studies include sustainable production methods of vegetables, small fruits, tree fruits, cut flowers, herbs and other niche crops. Season extension and year-round market gardening are emphasized.

Employment Information

Graduates would have a wide range of employment opportunities in agricultural production systems, government service and non-profit organizations. In addition, entrepreneurial opportunities for small farm development and direct sales of crops are unlimited.

Degree Awarded

Associate in Applied Science

For More Information Contact:

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Student Name:	_____
CWID:	_____
Counselor:	_____
Catalog 2011-2012	

Technical Occupational Specialty				37 Credit Hours	Date	Institution
<input type="checkbox"/>	BIOL	1404	Plant Biology	4		
<input type="checkbox"/>	HRT	1013	Principles of Horticulture	3		
<input type="checkbox"/>	HRT	1023	Sustainable Horticultural Practices	3		
<input type="checkbox"/>	HRT	1173	Market Gardening-Fall/Winter Production	3		
<input type="checkbox"/>	HRT	1183	Market Gardening-Spring/Summer Production	3		
<input type="checkbox"/>	HRT	2023	Horticulture Soil Science	3		
<input type="checkbox"/>	HRT	2213	Horticulture Marketing	3		
<input type="checkbox"/>	HRT	2232	Seminar in Horticulture Occupations	2		
<input type="checkbox"/>	HRT	2244	Horticulture Practicum	4*		
Select a minimum of 6 credit hours from the following:						
<input type="checkbox"/>	HRT	2453	Herbaceous Ornamental Plants	3		
<input type="checkbox"/>	HRT	2463	Interior Plants	3		
<input type="checkbox"/>	HRT	2313	Deciduous Landscape Plants	3		
<input type="checkbox"/>	HRT	2413	Evergreen Landscape Plants	3		
Select 3 credit hours from the following:						
<input type="checkbox"/>	HRT	1123	Home Gardening - Fruits & Vegetables	3		
<input type="checkbox"/>	HRT	2050	Advanced Problems-Horticulture	3*		
<input type="checkbox"/>	HRT	2133	Nursery Management and Operations	3		
<input type="checkbox"/>	HRT	2163	Plant Propagation	3		
<input type="checkbox"/>	HRT	2343	Controlled Environments Horticulture - Fall	3		
<input type="checkbox"/>	HRT	2443	Controlled Environments Horticulture - Spring	3		
Support and Related Courses				6 Credit Hours		
<input type="checkbox"/>	BUS	2003	Small Business Management			
<input type="checkbox"/>	OR			3		
			Business Management Course-3 cr. Hrs *			
<input type="checkbox"/>	CIS	1503	Microcomputer Applications-Microsoft Office			
<input type="checkbox"/>	OR			3		
<input type="checkbox"/>	Select 3 credit hours from the following:			3		
<input type="checkbox"/>	CIS	1113	Computer Concepts with Applications			
<input type="checkbox"/>	ITD	1323	Internet Fundamentals			
General Education Requirements				18 Credit Hours		
<input type="checkbox"/>	ENGL	1113	English Composition I	3		
<input type="checkbox"/>	HIST	1483	U.S. History to 1865			
<input type="checkbox"/>	OR			3		
<input type="checkbox"/>	HIST	1493	U.S. History Since 1865			
<input type="checkbox"/>	MATH	1413	General College Math			
<input type="checkbox"/>	OR			3		
<input type="checkbox"/>	MATH	1513	College Algebra			
<input type="checkbox"/>	POLS	1113	American Government	3		
<input type="checkbox"/>	SPCH	1113	Introduction to Speech Communications	3		
<input type="checkbox"/>	General Education Electives			3		
				(Prefix of: BIOL, ENGL, HUMN, MATH, PSYC, etc)		
Total to Graduate				61 Credit Hours		

*Department head approval required

HORTICULTURE TECHNOLOGY AAS-SUSTAINABLE CROPS PRODUCTION
OPTION COURSE DESCRIPTIONS

BIOL 1404 PLANT BIOLOGY (L, N)

Survey of the plant phyla, structure and function of plant organs, water relations, translocation, reproduction, growth and development. Emphasis on the importance of plants to humans. Lab: two hours per week. Prerequisites: [R] [Sci] MATH 0104

BUS 2003 SMALL BUSINESS MANAGEMENT

Focuses on the experiences and problems faced by those who go into business for themselves. Looks at problems of organizing and managing individually owned businesses including location, securing capital, records, personnel and sales promotion. Prerequisite: MGMT 2103.

***CIS 1113 COMPUTER CONCEPTS WITH APPLICATIONS**

Provides students with an introduction to concepts and applications of the personal computer in business. Topics include spreadsheets, databases, word processing, ethics, vocabulary, Internet skills and file system management. Theory and hands-on computer instruction is included. This course is intended for students with existing computer skills. Prerequisite: READ 0033 or [R].

***CIS 1503 MICROCOMPUTER APPLICATIONS-MS OFFICE**

Familiarizes the student with fundamental terminology and concepts of microcomputers, their operating systems and disk management, as well as major production applications including word processing, spreadsheets, data base management systems, and may include graphics, data communications and desktop publishing. Familiarity with computer keyboard is recommended. Hands on computer instruction.

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.

HRT 1023 SUSTAINABLE HORTICULTURAL PRACTICES

This course will provide a base knowledge of the principles and practices of sustainable horticultural management systems. The class will review soil biological processes, pest management, and production systems. The course will also include studies of alternative farming systems, organic agriculture and National Organic Program (NOP) certification. Study of specific applications of sustainable production such as vegetables, fruits and ornamentals will also be included. Prerequisite: HRT 1013.

HRT 1173 MARKET GARDENING – FALL/WINTER PRODUCTION

This course will address fall and winter production of various horticultural crops including vegetables, fruits and ornamentals for direct markets. Cultural practices including soil building, fertilization, pest management, harvest and post harvest handling will be addressed. This course will also cover season extension structures, equipment needs, farm management, and marketing. Co-Requisite: HRT 1013.(f)

HRT 1183 MARKET GARDENING – SPRING/SUMMER PRODUCTION

This course will address spring and summer production of various horticultural crops including vegetables, fruits and ornamentals for direct markets. Cultural practices including soil building, fertilization, pest management, harvest and post harvest handling will be addressed. This course will also cover season extension structures, equipment needs, farm management, and marketing. Co-Requisite: 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 2133 NURSERY MANAGEMENT AND OPERATIONS

The propagation, production, management and marketing of commercial nursery stock including facilities, equipment, supplies, environmental and pest control. Lab: three hours per week. Prerequisites: HRT 1013. (f)

HRT 2163 PLANT PROPAGATION

Principles and practices used in the sexual and asexual propagation of horticultural plants including seeds, division, layering, cuttings, grafting, budding and tissue culture techniques. Lab: three hours per week. Prerequisite: HRT 1013. (sp)

HRT 2213 HORTICULTURE MARKETING

An in-depth study of marketing principles and how marketing applies to the horticulture industry. Includes location, facilities, sales methods and price determination. Services, merchandising, marketing and advertising techniques, as well as supervisory and personnel responsibilities are also offered. (f)

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 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 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. (su,f)

HRT 2343 CONTROLLED ENVIRONMENTS HORTICULTURE-FALL

This is a study of the operation and management of greenhouses and related environments. Emphasis is on infrastructure, cultural systems, production, and marketing of commercial floricultural, vegetable, and herb crops as practiced in the fall such as fall bedding plants and poinsettia. Lab and field trips are included. Prerequisite: HRT 1013 . (f)

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. (sp)

HRT 2443 CONTROLLED ENVIRONMENTS HORTICULTURE-SP

This is a study of the operation and management of greenhouses and related environments. Emphasis is on infrastructure, cultural systems, production, and marketing of commercial floricultural, vegetable, and herb crops as practiced in the spring such as spring bedding plants and easter lily. Lab and field trips are included. Prerequisite: HRT 1013 . (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)

***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.