Section I: Course Description

Department: Landscape Horticulture (LHO)  Division: Hospitality and Service Occupations
Curriculum: Landscape and Environmental Horticulture  Revision: S. Skamser
Course Title: Horticulture Science II  Effective Date: June 2000
Course Number: LHO151  Status: Active
Type Of Course: Vocational Preparatory
Course Length: 1 Quarter
Credit Hours: 2
Lecture Hours: 22
Lab Hours: 0
Class Size: 25
Prerequisites: LHO 150

Course Description

Exploration and discussion of plant-soil-water relations, metabolism, control of growth and development, plant adaptations, ecology and environmental considerations. Emphasis is placed on group research project involving an environmental topic related to horticulture industry.

Section II: Student Learning Outcomes

Student Learning Outcomes

1. Communication – Read and listen actively to learn and communicate. Speak and write effectively for presentation of the group project.
2. Human Relations – Use social interactive skills to work in groups effectively toward the project goals.
4. Personal Responsibility – Be motivated and able to continue learning and adapt to changes in the industry and work. Value and capitalize on one’s own skills, abilities, ideas and art. Take pride in one’s work. Manage personal health and safety. Be aware of civic and environmental issues in the field of horticulture and their importance.
Section III: Course Objectives

General Course Objectives

At the end of the course the student will:

1. Understand the ecology of plants and the impact on growth and development.
2. Understand the plant systems, how they interact with their environment, and how the horticulturist can manipulate them.
3. Raise awareness of environmental issues and their relation to the industry through a term project.
4. Experience working in a group on a research project and presentation of the results to the class.

Section IV: Course Outline

Topical Course Outline

Topical Outline: Approx. Hours

| I. | Ecology | 4 |
| II. | Plant adaptations | 3 |
| III. | Plant-soil-water relations | 5 |
| IV. | Plant metabolism | 2 |
| V. | Control of growth and development | 3 |
| VI. | Environment and plant growth | 3 |
| VII. | Horticulture industry and the environment | 2 |

Total 22

Section I: Course Description

Department: Landscape Horticulture (LHO)
Curriculum: Landscape and Environmental Horticulture
Course Title: Horticulture Science I
Course Number: LHO150
Type Of Course: Vocational Preparatory

Division: Hospitality and Service Occupations
Revision: S. Skamser
Effective Date: June 2002
Status: Active
Course Length: 1 Quarter
Credit Hours: 2
Lecture Hours: 22
Lab Hours: 0
Class Size: 25
Prerequisites: None

Course Description
Discover the basic principles of plant anatomy, physiology, adaptations, control of growth and development, plant-soil-water relations and ecological considerations in two quarters.

Section II: Student Learning Outcomes
Student Learning Outcomes
1. Personal Responsibility – Use personal work ethic to manage greenhouse and complete work in greenhouse lab. Take pride in one’s own skills and abilities.
2. Human Relations – Use social interactive skills to work in groups effectively.

Section III: Course Objectives
General Course Objectives
At the end of the course the student will:

1. Understand the various areas of horticulture.
2. Understand the basics of binomial nomenclature.
3. Be able to distinguish between common plant classifications applicable to horticulture.
4. Understand the basis of plant life.
5. Be able to describe and identify basic plant anatomical structures with an understanding of modifications for adaptability.
6. Be able to use the information to identify plant structures for plant identification, pruning and propagation.
7. Acquire knowledge of science as it applies to practical horticulture.
## Topical Outline:

| I.  | Introduction to various areas of horticulture | 1 |
| II. | Plant binomial nomenclature                  | 2 |
| III. | Plant classifications for horticulture        | 2 |
| IV. | Gross morphology and functions of roots      | 3 |
| V.  | Gross morphology and functions of stems       | 3 |
| VI. | Gross morphology and functions of flowers, fruits & seeds | 3 |
| VII. | Basis of plant life                           | 1 |
| VIII. | Basics of cells and tissues                   | 2 |
| IX.  | Tissue patterns in roots, stems and leaves   | 5 |
| X.   | Internal pathways of water, mineral nutrients and manufactured foods | 1 |

**Total 22**