

**MP 4132**

***Symbolic Logic***

Topics covered include Boolean algebra, logic circuit analysis, Karnaugh mapping, IC logic families, D/A and A/D conversions, memory devices, flip-flops, arithmetic circuits, number systems and codes, and interfacing. Prerequisites: Elementary Functions or Finite Math and either Physics II or a computer course. 3 hours Lecture and Discussion, 3 hours Laboratory — 4 credits

**MP 4227**

***Complex Variables***

This is an introduction to the theory of functions of complex variables. Topics covered are derivatives, Cauchy Riemann equations, harmonic functions, integrals, Cauchy's Integral formula and power series. Additional topics may include conformal mapping and the theory of residues. Prerequisite: Advanced Calculus and either Linear Algebra or Methods in Advanced Mathematics. 3 hours Lecture and Discussion — 3 credits

**MP 4228**

***Special Topics in Mathematics***

Topics to be decided at the discretion of Instructor and enrolled students. Prerequisite: Permission of Instructor. 3 hours Lecture and Discussion — 3 credits

***ORNAMENTAL HORTICULTURE AND ENVIRONMENTAL DESIGN (OH)***

**OH 2118**

***Woody Plant Identification II***

The course focuses on the identification, culture and landscape uses of native and introduced trees, shrubs and vines. This spring course features plants that are evergreen and also plants that bloom in the spring. Extensive use is made of the Henry Schmieider Arboretum plant collections on campus. CAN be taken without Woody Plant Identification I. 1 hour Lecture and 3 hours Laboratory — 2 credits

**OH 2220**

***Woody Plant Identification I***

The course focuses on the identification, culture and landscape uses of native and introduced trees, shrubs and vines. This fall course features plants that bloom in the summer and fall as well as plants that display autumn foliage and fruits. Extensive use is made of

the Henry Schmieider Arboretum plant collections on campus. 1 hour Lecture and 3 hours Laboratory — 2 credits

**OH 3000, 4000**

***Selected Topics I and II***

Special projects designed to meet individual needs of students in the specialized fields of agriculture. Projects arranged on a one-to-one basis with a department faculty member and with the approval of the Department Chairperson. Total Selected Topics credit accepted toward graduation is limited to 2 credits. 3 hours of student/faculty instruction per week — 1 credit each

**OH 3005**

***Plant Propagation***

The course covers, in theory and practice, the principles and methods involved in the propagation of woody and herbaceous plants. Sexual reproduction and asexual reproduction by cuttings, graftage, layering, etc. are considered and practiced. 2 hours Lecture and 3 hours Laboratory — 3 credits

**OH 3020**

***Basic Design***

A practical and applied approach to the elements and principles of design, using mixed mediums. The course culminates with a three-dimensional presentation. 2 hours Studio — 1 credit

**OH 3101**

***Flower Show Practicum***

In this course, students are involved with every aspect of a major exhibit at the Philadelphia Flower Show, the largest indoor flower show in the world. Field trips and guest lecturers are used extensively to enrich the course. NOTE: This special course runs from September through March, with times arranged. Students must register for both for Fall and Spring semesters. Total practicum credit accepted towards graduation is limited to 2 credits — 1 credit, pass/fail

**OH 3106**

***Floral Crop Production I***

Fall and winter major and minor floral crops are studied to indicate specific applications of the fundamental factors and cultural practices required. Prerequisite: Floriculture Techniques or Permission of Instructor. 1 hour Lecture and 3 hours Laboratory — 2 credits

## Course Descriptions

### OH 3109

#### ***Interior Plant Identification, Culture and Use***

This self-paced, independent course of study uses the resources of the College's Arthur Poley Conservatory and the Henry Schmieder Arboretum tropical plant collections, a specially designed internet accessible study manual and instructor/student interaction to guide students in the study of interior plant identification, culture and use. 2 hours lecture (Arranged) — 2 credits

### OH 3117

#### ***Herbaceous Plant Materials I***

The identification, use, culture, and sources of annuals, aquatics, biennials, bulbs, and ornamental grasses are covered. Extensive use is made of the Henry Schmieder Arboretum plant collections. 1 hour Lecture and 3 hours Laboratory — 2 credits

### OH 3130

#### ***Major Native Landscapes***

This design studio features natural processes, planting patterns, plant habitats and communities based on the interdependence of our built and natural landscapes. Students will be able to integrate residential sites into the larger landscapes and understand landscape dynamics and design accordingly. Prerequisites: Woody Plant Identification I and II, Site Analysis and the Design Process, Herbaceous Plant Materials, Landscape Graphics, Plant Communities, and Computer Aided Design. 6 hours Studio — 3 credits

### OH 3205

#### ***Site Analysis and the Design Process***

An introduction to landscape design, this studio course explores the process of developing a scheme from a program to the final design. Students study the process of natural and social site analysis, and learn to use concept diagrams in developing the most appropriate solution to a given site and the development of presentation. Prerequisite: Landscape Graphics. 6 hours Studio — 3 credits

### OH 3208

#### ***Floral Crop Production II***

Winter and spring major and minor crops including bedding plants are studied to indicate specific application of the fundamental factors and cultural practices required. CAN be taken without Floral Crop Production I. Prerequisite: Floriculture Techniques or Permission of Instructor. 1 hour Lecture and 3 hours Laboratory — 2 credits

### OH 3210

#### ***Interior Plantscaping***

This course examines "Stress Horticulture" as it affects Interior Plantscaping, the landscaping of interior areas such as offices, shopping malls, and other public and private buildings. It explores Interior Plantscaping professional practice, design, installation, and maintenance and introduces computer imaging as a valuable Interiorscaping tool. Prerequisite: OH 3109 Interior Plant Identification Culture and Use. Offered in Fall Semester of even numbered years. 2 hours lecture — 2 credits

### OH 3213

#### ***Landscape Graphics***

This course focuses on perspective drawing, computer graphics and various rendering techniques for presentational landscapes relating to the professional needs of landscape designers and architects. Topics covered include lettering, constructional details, one and two point perspectives, isometrics, free-hand drawing and shadowing. 4 hours Studio — 2 credits

### OH 3216

#### ***History of Landscape Architecture***

A critical and historical analysis of the development of the main types and periods of landscape design. 2 hours Lecture and Discussion — 2 credits

### OH 3217

#### ***Herbaceous Plant Materials II***

The identification, use, culture, and sources of perennials, herbs and roses are covered. Extensive use is made of the Henry Schmieder Arboretum plant collections. 1 hour Lecture and 3 hours Laboratory — 2 credits

### OH 3224

#### ***Landscape Construction***

Understanding the materials used in Landscape Construction, design consideration for these materials, and installation of construction projects. 2 hours Lecture and 3 hours Laboratory — 3 credits

### OH 3225

#### ***Arboriculture***

Principles are presented in this course that pertain to the area and management of large ornamental trees and shrubs in the established landscape. Consideration is given to environmental factors, nutrition, soils, insect and disease control, and the use of ropes and other safety equipment in tree climbing, cavity work, bracing, cabling, and pruning. Prerequisites: Landscape Techniques and/or

Permission of Instructor. Offered in Fall Semester. 2 hours Lecture and 3 hours Laboratory — 3 credits

**OH 3232**

***Introductory Floral Design***

Basic skills and techniques required to create floral arrangements, corsages, and various other designs are discussed and practiced. Use of materials, care of cut flowers, and appropriate design presentation are discussed. Laboratory fee: \$100. 6 hours Studio — 3 credits

**OH 3237**

***Intro to Horticultural Therapy:***

This course will provide students with educational opportunities on the profound interaction of people and plants as well as benefits of horticulture on mind, body and soul. Students will learn the concepts, history, principles, practice, basic skills, applied research and recent developments of horticultural therapy; familiarize with physically, mentally and emotionally challenged populations in different settings; take field trips to local facilities and connect with professionals in the field. Two hours lecture and two hours lab.

**OH 3240**

***Advanced Woody Plant Materials***

An advanced course in the characteristics, identification and use of woody plant materials. Stress is placed on unusual plants. Prerequisites: Woody Plant Identification I and II. Offered in Spring Semester of even numbered years. 1 hour Lecture and 3 hours Laboratory — 2 credits

**OH 4008**

***Seminar (Ornamental Horticulture and Environmental Design)***

This course involves the research, construction and presentation of a seminar in the student's field of interest. 1 hour Lecture and Discussion — 1 credit

**OH 4034**

***Sustainable Design and Model Making***

This studio course focuses on design issues of townhouses, garden apartments, shopping and other commercial development on real sites. Computer Aided Design, imaging and other technologies will be fully integrated into this practical studio. Site design model making will also be a component of this course. Prerequisite: The Built Environment. 6 hours Studio — 3 credits

**OH 4041**

***Senior Research***

Selected seniors engage in supervised investigations involving library work and laboratory or field experiments related to ornamental horticulture. Requirement: Permission of Department Chairperson. 1-3 credits

**OH 4125**

***Ecological Landscape Management and Restoration***

The intent of this course is to present and develop the methodology to restore, manage and design natural systems and landscapes. The focus will be on a variety of different habitat types, including: woodlands, urban woodlands, grasslands, wetlands, and parkscapes. Prerequisite: Landscape Graphics and Major Native Landscapes. Field trips are required. 2 hours Lecture and 3 hours Laboratory — 3 credits

**OH 4145**

***Advanced Floral Design***

Emphasis is placed on creative floral design techniques for weddings, parties, funerals, holidays, and current design trends. Discussions follow the history of some design styles, market trends, current plant availabilities, shop management and operations. Prerequisite: Introductory Floral Design. Laboratory Fee: \$50. Offered in Fall Semester of odd numbered years. 4 hours Studio — 2 credits

**OH 4206**

***Nursery Management***

This course offers a study of the various practices and methods of operating a commercial nursery for the production of ornamental trees and shrubs. Prerequisites: Woody Plant Identification I and II and Plant Propagation, or Permission of Instructor. Offered in Spring Semester of odd numbered years. 2 hours Lecture and 3 hours Laboratory — 3 credits

**OH 4209**

***Greenhouse Management***

This is a study of the principles involved in the construction, maintenance, and utilization of greenhouse facilities, including the management of the greenhouse environment. 2 hours Lecture and 3 hours Laboratory — 3 credits

**OH 4215**

***The Built Environment***

The central objective of this design studio is to develop a holistic view of how to integrate the fabric of the built environment with the natural environment. The course explores plant associations, plant species and

## **Directories**

planting methods appropriate to urban conditions and stresses the geometry of space created by buildings, fountains, walls, pavements, etc. Several design projects are undertaken. Prerequisite: Major Native Landscapes. 6 hours Studio — 3 credits

### **OH 4230**

#### ***Landscape Contracting and Bidding***

The course focuses on the comprehension of the costs involved in the operation of a landscape contracting business, strategies for the recovery of those costs, and methodology for obtaining reasonable profits. 3 hours Lecture and Discussion — 3 credits

### **Specialized Methods and Techniques**

### **OH 2014**

#### ***Floriculture Techniques***

This course stresses the application of basic floriculture, greenhouse management and crop-production techniques, as well as fundamental florist skills, through hands-on laboratories in small groups and practical lectures. Required for all Ornamental Horticulture majors. 2 hours Lecture and 3 hours Laboratory — 3 credits

### **OH 2015**

#### ***Landscape Techniques***

This course stresses the application of basic landscaping, landscape maintenance and nursery production, handling and marketing techniques through hands-on laboratories in small groups and practical lectures. Required for all Ornamental Horticulture majors. 2 hours Lecture and 3 hours Laboratory — 3 credits

### ***Employment Program***

### **OH 2370**

#### ***Employment Program***

Each student in Ornamental Horticulture and Environmental Design is required to spend 500 hours in approved jobs related to the student's major. Registration for each Employment Program must occur prior to the beginning of a relevant experience. Registration materials are available from the Office of Career and Life Education, located in Segal Hall. — 4 credits

## **PHYSICAL EDUCATION**

### **PE 1109, 1209**

#### ***Physical Education I and II***

Two credits are required for graduation. This course emphasizes the importance of physical fitness, with carry-over value. Each student enrolled in the College engages in designated activities. The activities are geared toward developing a level of fitness which will enable individual students to function at peak efficiency. Activities include: weight training, aerobic conditioning, jogging, dance exercise, dance on video, aerobics and other fitness activities. May be taken a maximum of 4 times — 1 credit each

### **PE 2011**

#### ***First Aid and Cardiopulmonary Resuscitation***

This course is designed to prepare the student, through knowledge and skill development, to meet the needs of most situations when emergency first aid care is needed and medical assistance is not readily available. This course enables students to increase personal safety and accident prevention knowledge by becoming acquainted with many causes of accidents and with action that can be taken to eliminate or minimize such cases. This course cannot be used to satisfy the Physical Education Core Curriculum requirement. 2 hours Participation — 2 credits