HORTICULTURE COURSE DESCRIPTIONS

First Semester:

- **MATHEMATICS FOR THE GREEN INDUSTRY – HORT 212 (3 Credit Hours)**
  
  This course is designed to provide the student with an agriculturally relevant review of basic arithmetic, statistical and algebraic concepts. The application problems use current and realistic agricultural situations similar to those encountered by professionals engaged in agricultural production and equipment maintenance.

- **INTRODUCTION TO HORTICULTURE – HORT 101 (3 Credit Hours)**
  
  An introduction to the principles and practices in the development, production, and use of horticulture crops (fruits, vegetables, greenhouse, turf, nursery, floral, and landscape). This class includes the classification, structure, growth and development, and environmental influences on horticulture plants; horticultural technology; and an introduction to the horticulture industries.

- **NATURE AND PROPERTIES OF SOILS – HORT 130 (3 Credit Hours)**
  
  An introduction to the chemical, physical, and biological properties of soil; the origin, classification, and distribution of soils and their influence on people and food production; the management and conservation of soils; and the environmental impact of soil use.

- **LANDSCAPE PLANT MATERIALS – HORT 111 (3 Credit Hours)**
  
  This course covers identification, culture, characteristics, and use of plants. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials.

- **FLORAL DESIGN – HORT 118 (3 Credit Hours)**
  
  The art of floral design is a hands-on course that presents the basic principles and elements of floral design including traditional and contemporary floral construction, wiring and taping flowers for corsages and boutonnieres, and holiday or special occasion designs. Proper identification use of tools, containers, and mechanics will be addressed. Students will gain knowledge of the rich history, diverse cultural significance and ancient theory of floral design. Identification, care and handling of fresh and everlasting flowers and foliages will be discussed. An emphasis will be placed on the business practices of the floral industry. Students will become familiar with the wide variety of industry careers and educational requirements.

Second Semester:

- **LANDSCAPE DESIGN & CONSTRUCTION - HORT 134 (3 Credit Hours)**
  
  This course will provide students with the basic principles and skills of landscape design used in the landscape. It includes planning and computer graphical representation of the landscape, including the development of site plan, section, elevation, and perspective views, techniques and materials used in the landscaping. Includes structures and other non-plant materials used in the landscape and provides a basic knowledge of plant selection, planting procedures, and construction materials as presented in the landscape plan. Students will participate in group landscape projects. The course will encourage the exploration of sustainable landscape solutions at the site scale based on the concept that a landscape designed for multiple functions (ecological, economic, and social) will meet the needs of society, while minimizing the negative impacts on the future environment.
• CARE & MAINTENANCE OF LANDSCAPE PLANTS - HORT 123 (3 CREDIT HOURS)

This course introduces the cultural techniques required for proper landscape maintenance with an emphasis on practical application and managerial techniques. Topics include proper pruning, fertilization, weed control, water management, pest control, mulching, turf management practices, leaf removal, seasonal color management, estimating practices and management skills.

• GREENHOUSE OPERATIONS - HORT 122 (3 Credit Hours)

This course covers the principles and procedures involved in the operation and maintenance of greenhouse facilities. Emphasis is placed on the operation of greenhouse systems, including the environmental control, record keeping, scheduling, and production practices. Upon completion, students should be able to demonstrate the ability to operate greenhouse systems and facilities to produce greenhouse crops.

• PERSONAL COMPUTERS IN HORTICULTURE - HORT 213 (4 CREDIT HOURS)

Designed for students in agriculture with focus on specific computer applications relating to agriculture business management. Students will be trained in MS Word and Excel, as well as exposure to other MS Office components. In addition, students will experience agriculture software programs such as Farmworks Farm Funds, Farm Stock, Farm Site, and potentially Fastools. The course will incorporate knowledge and application of GPS technologies to computer farm management systems.

• TURF GRASS MANAGEMENT - HORT 124

To develop an understanding of turfgrass growth, development, and adaptation, cultural practices used to manage turfgrasses, pest problems, and establishment methods. Further, students are expected to learn the various grasses used in turfgrass management and to understand the strengths and weaknesses of these grasses. Finally, students need to gain an understanding of the complexity involved in managing turfgrasses at an intensive management level.

Third Semester:

• NURSERY PRODUCTION AND PRACTICES – HORT 200 (3 Credit Hours)

This course is designed to cover total aspects of field and container nursery stock production. Course includes site selection and development, propagation, growing procedures, harvesting, marketing, shipping, and labor and business management practices.

• HOME GARDENING – HORT 215 (3 Credit Hours)

The methods and practices of successful commercial and home vegetable production will be presented. Crop requirements, growth patterns and production techniques to maximize yield and quality of vegetables are emphasized along with discussion of consumption/marketing patterns and U.S. and Illinois production areas. Each member of the class will also develop a vegetable garden with different crops suitable for fall production and participate in vegetable crop production activities. The purpose of this course is to familiarize students with the basic practices required to successfully produce a wide variety of vegetables.

• URBAN FORESTRY AND ARBORICULTURE – HORT 245 (3 Credit Hours)

Arboriculture is the art, science, and practice of selecting, identifying, establishing, and maintaining landscape trees. The purpose of this course is to familiarize students with the principles and practices of arboriculture. Upon successful completion of this course, students will possess knowledge and skills of tree problem diagnosis, and urban tree management. Students will learn proper arboriculture practices including tree selection, installation, and care, and be able to demonstrate a professional approach to managing trees in an urban landscape
Fourth Semester:

- **PLANT PROPAGATION – HORT 235 (3 Credit Hours)**
  In this course students will obtain a basic knowledge and understanding of plant propagation as practiced in the world of horticulture. Students will have knowledge of sexual and asexual plant propagation, become familiar with propagation tools, media, and propagation structures. Plant propagation teaches the principles and practices of sexual and asexual reproduction of plants. Propagation methods covered are seed, cuttings, layering, division, grafting, budding and micro-propagation.

- **HORTICULTURE BUSINESS RECORDS & ANALYSIS – HORT 255 (3 Credit Hours)**
  This course includes the profit and loss statement, the balance sheet, and other accounting instruments needed to analyze the operation of an agriculture business. Records necessary to make critical analysis are also included.