chasing of new and used equipment, equipment design, and basic kitchen design. Prerequisite: Introduction to Food Service Systems or Permission of Instructor. 3 hours Lecture — 3 credits

**FS 4149**  
**Quality Assurance and Regulation**  
This course focuses on an examination of statistical tests, interpretations and sample plans as applied to the control of food production systems and product evaluations. The requirements placed on quality assurance systems to insure compliance with regulatory mandates are covered. Particular attention is given to documents for the Food and Drug Administration, the Food Safety and Inspection Service and the Agriculture Marketing Service. Other regulatory laws that impact on the food industry are examined. 2 hours Lecture and 2 hours Laboratory — 3 credits

**FS 4212**  
**Refined Foods and Food Ingredients**  
Food ingredients derived from plant materials and food products manufactured from those ingredients are the topics of this course. Starches and sweeteners, fats and oils, spices, as well as the manufacture of snack foods, confections, baked products, and nonalcoholic beverages will be discussed. 2 hours Lecture and 3 hours Laboratory — 3 credits

**FS 4213**  
**Introduction to Brewing Science**  
This course introduces the student to the basic methods of producing a malt beverage and the factors which influence beverage quality. Prerequisite: Age 21 and Senior status. 2 hours Laboratory and Discussion — 1 credit

**FS 4222**  
**Quantity Food Production**  
In this course, the student is introduced to the principles and practices of production management. Students perform all aspects of meals, including planning, ordering, preparing and presenting. Quality control is stressed. Prerequisite: Principles of Professional Cooking. 2 hours Lecture and 3 hours Laboratory — 3 credits.

**FS 4223**  
**Seminar (Food Science)**  
A review and discussion of the literature concerned with advancements in the food industry are features in this course. Prerequisite: Senior Standing or permission of Instructor. 1 hour Lecture and Discussion — 1 credit

**FS 4224**  
**Food Product Development**  
Criteria considered in the development and production of a food product are the topics of this course. The format of the course is designed to draw upon and expand by application material from the Food Science areas of chemistry, nutrition, microbiology, statistics, and engineering. Sensory evaluation, packaging, and engineering economics will also be introduced. Prerequisite: Senior status in Food Science or Food Technology specializations or permission of Instructor. 2 hours Lecture and 3 hours Laboratory — 3 credits

**FS 4228**  
**Meat and Meat Products**  
A study of slaughtering, post mortem handling, meat fabrication, and further process and package systems. The microstructure and microbiology of meats is covered in conjunction with meat inspection, safety systems and quality evaluation. 2 hours Lecture and 3 hours Laboratory — 3 credits

**FS 4229**  
**Foodservice Marketing Strategy**  
This course takes the traditional marketing concepts and applies them directly to the restaurant and foodservice industry. Current trends and consumer behavior are discussed along with the importance of menu design and pricing, advertising, and promotions. Prerequisite: Principles of Marketing or permission of Instructor. 3 hours Lecture — 3 credits

**FS 4232**  
**Legal Aspects of Foodservice Management**  
This course is designed to help food service managers and owners prevent legal problems, or minimize the harmful effects of legal situations. Federal, state, and local laws and regulations are discussed on topics including liability, patron civil rights, employee relations, contracts, and security. How to choose and work with an attorney will also be discussed. 3 hours Lecture — 3 credits

**HORTICULTURE**

**HT 1101**  
**Exploring Horticulture, Science and the Environment**  
The objectives of this course are to define the field of horticulture, to indicate what horticulturists produce,
to explore the various disciplines and areas of specialization and the challenging career opportunities in business, science, education and industry. 2 hours Lecture — 2 credits

**HT 2003**
*Fruits and Vegetables for Food, Fun and Profit*
This course tells how horticulture is a delicious, healthful diet source, gardening pastime, physical fitness routine, science, business, profession, art, industry, and a life sustaining career learning experience. 1 hour Lecture — 1 credit

**HT 2005**
*Plant Physiology*
A study of the life processes of plants with laboratory experiments designed to illustrate the physiochemical principles controlling plant growth. Prerequisite: Botany of Vascular Plants. 2 hours Lecture and 3 hours Laboratory — 3 credits

**HT 2101**
*Botany of Vascular Plants*
A survey of the Plant Kingdom with emphasis on vascular plants. Principles of seed plant structure and function are presented with stress on the plant’s relationship to its environment. Prerequisites: Biological Science I. 2 hours Lecture and 3 hours Laboratory — 3 credits

**HT 2112**
*Commercial Fruit Production*
A study of the commercial production and handling of the deciduous tree fruit crops. Production and marketing of fruits are studied in reference to the selection of sites, soils, choice of varieties, plants, pruning, cultivation, fertilization, pests, spraying and dusting, harvesting, grading, packing, storing, and marketing. Non-majors must have permission of the Department Chairperson. 2 hours Lecture and 3 hours Laboratory — 3 credits

**HT 2211**
*Commercial Vegetable Production*
A study of the culture of the principal vegetable crops, emphasizing production of vegetable plants in hotbeds, coldframes, greenhouses and fields, variety choice, soil adaptation, planting, fertilization, cultivation, pest control, harvesting, storage and marketing. Non-majors must have permission of the Department Chairperson. 2 hours Lecture and 3 hours Laboratory — 3 credits

**HT 2235**
*Principles of Sustainable Agriculture*
The course in sustainable agriculture embraces several variants of non-conventional agriculture (alternative, regenerative, ecological, low-input) and pulls together these practices into systems that are profitable and environmentally sound. It addresses the serious problems of high energy costs, groundwater contamination, soil erosion and risks to human health and wildlife from pesticides. 2 hours Lecture and Discussion — 2 credits

**HT 2240**
*Organic Crop Science*
This course provides the student with practical experience in the organic production of fruits, vegetables, herbs, ornamentals, field crops and turf. Environmental, social, and political issues concerning organic crop production will be addressed. Comparisons to conventional production will be made. 2 hours lecture and 3 hours Laboratory — 3 credits

**HT 2370**
*Employment Program*
Each student in Horticulture is required to spend 500 hours in approved jobs related to the student’s major. Each employment experience that will be used toward the Employment Program must be registered with the Office of Career and Life Education before employment commences — 4 credits

**HT 3000, 4000**
*Selected Topics I and II*
Special projects designed to meet individual needs of students in the specialized fields of agriculture. Projects will be 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 student/faculty instruction per week — 1 credit each

**HT 3025**
*Plant Cell and Tissue Culture*
This course studies both applied and fundamental aspects of *in vitro* culture of plant cells, tissues, organs and plants. Information about equipment, procedures, and training in the techniques of establishing and maintaining plant cell and tissue cultures will be covered. Prerequisite: Plant Physiology or Microbiology. 1 hour Lecture and 3 hours Laboratory — 2 credits
HT 3128

*Horticulture Techniques I*

Scientific investigations and techniques relative to horticultural crop production and management are thoroughly reviewed and tested, using the extensive laboratory, greenhouse and field facilities available. Particular emphasis is placed on techniques used in plant acquisition, selection, and field and orchard layout, and in the management, harvesting, and storage of horticultural crops. Required for Horticulture students in the Junior year. Prerequisite: Information Technology Concepts and Computer Applications. 1 hour Lecture and 3 hours Laboratory — 2 credits

HT 3132

*Dendrology*

This covers the identification, ecological adaptation, distribution and use of both native and introduced woody trees and shrubs. The laboratory includes identification and adaptation studies during the different seasons of the year. Not open to Ornamental Horticulture majors. 2 hours Lecture and 3 hours Laboratory — 3 credits

HT 3134

*Fruit Judging*

This course enables students to identify fruit cultivars based upon their physical characteristics. Students also learn how to evaluate fruit quality and to grade fruit according to USDA standards. 2 hours Lecture and Practicum — 1 credit

HT 3204

*Small Fruit Culture*

This course is concerned with the theory and practice of commercial production of small fruits, such as grapes, strawberries, raspberries, blackberries, currants, gooseberries, cranberries, and blueberries. Prerequisite: Commercial Fruit Production or Permission of Department Chairperson. 2 hours Lecture and 3 hours Laboratory — 3 credits

HT 3205

*Subtropical Horticulture*

The course features a spring tour of growing operations, processors, extension research sites, and universities in Florida to enable students to examine the culture, processing and handling of tropical and subtropical horticultural crops and to learn first-hand about current research and emerging trends in these areas. Prerequisite: Junior or Senior status. Scheduled by arrangement — 2 credits

HT 3229

*Horticulture Techniques II*

This course introduces advanced horticultural techniques through the study and use of modern equipment and instruments. Qualitative and quantitative determinations as well as statistical analyses are made by the student on a generally independent basis. Development of food products is studied in conjunction with field trips to industry plants. Required for Horticulture students in the Junior year. Prerequisite: Information Technology Concepts and Computer Applications. 1 hour Lecture and 3 hours Laboratory — 2 credits

HT 3230

*Hydroponics*

This course is designed to acquaint the student with the general principles of hydroponic crop production. Topics covered include the essential elements required for plant growth, currently employed hydroponic systems and techniques, and cultural practices employed in hydroponic greenhouse production of such crops as tomatoes, cucumbers and lettuce. Prerequisites: General Chemistry I and II. 2 hours Lecture and 3 hours Laboratory — 3 credits

HT 3238

*Taxonomy of Horticultural Food Products*

This course covers identification, classification (botanical, horticultural and commercial), morphology and importance of fresh and processed fruits, vegetables and nuts. Specific product characteristics are examined in relation to quality, condition, storage, availability and grade standards. Product terminology and techniques used by scientists, growers, business managers and government specialists are emphasized. 2 hours Lecture and 3 hours Laboratory — 3 credits

HT 3240

*Integrated Pest Management*

An introduction to the principles and techniques applied in an integrated pest management program. The objective of the course is to enable the student to become knowledgeable about the natural and supplemental control measures that can be employed to control insects, diseases, and weeds in an integrated pest management program. Prerequisite: Entomology. 3 hours Lecture — 3 credits

HT 4005

*Plant Pathology*

This course covers the history, distribution, disease symptoms, etiology, epiphytology, and control of the
more common plant pathogens. Laboratory techniques include isolation, culture, and identification of plant pathogenic bacteria, fungi, and nematodes. Appropriate pathogens are emphasized each semester. Prerequisites: Botany of Vascular Plants and Plant Physiology. 2 hours Lecture and 3 hours Laboratory — 3 credits

**HT 4041**  
**Senior Research**  
Selected seniors engage in supervised investigations involving library work and laboratory or field experiments related to Horticulture. Prerequisite: Permission of the Department Chairperson — 1-3 credits

**HT 4105**  
**Seminar (Horticulture)**  
This course centers on the current events and experimentation in fruits and vegetables as well as students’ organizational and public speaking skills. Each student is expected to participate in a major presentation and discussion of subjects pertaining to research and current events in Horticulture. The course also involves use of media, interview techniques and resume preparation. 1 hour Lecture and Discussion — 1 credit

**HT 4106**  
**Marketing Horticultural Products**  
An advanced study of modern techniques in the marketing of fruits, vegetables, and ornamentals. Illustrated lectures, discussion periods and research reports are supplemented by laboratory field trips to various types of retail and wholesale facilities for marketing of processed and fresh market products as well as floral and landscaping operations. 1 hour Lecture and 3 hours Laboratory — 2 credits

**HT 4113**  
**Advanced Vegetable Production**  
An advanced study designed to acquaint the student with the application of scientific facts and principles as well as commercial trends and applications involved in the successful production, utilization and marketing of the important vegetable crops. Prerequisite: Commercial Vegetable Production. 2 hours Lecture and 3 hours Laboratory — 3 credits

**HT 4127**  
**Applied Marketing in Horticulture**  
This course is designed to provide the Horticulture Marketing intern with a background in the applied techniques for marketing fruit and vegetables. The student will focus on one aspect of marketing and develop an innovative idea for the possible improvement of current College practices. An oral presentation and written report will be given. Applied courses in Horticulture may be taken one time only. Prerequisite: Student must be currently enrolled in the Horticulture Production Internship. Work experience during the Fall Semester cannot be used for the work employment program. Scheduled by arrangement — 1 credit

**HT 4132**  
**Principles of Plant Protection**  
This course is designed to develop a basic understanding of methods of control of insect pests, plant diseases, and weeds. Emphasis is placed on the identification of common pest insects, plant diseases and weeds and the selection of appropriate control agents. Safe handling and disposal of pesticides are important components of the course. The course is also designed to prepare students for pesticide applicator certification. Not open to Horticulture majors. 2 hours Lecture and 2 hours Laboratory — 3 credits

**HT 4202**  
**Advanced Pomology**  
This course presents an advanced study of the pre-harvest and post-harvest physiology, breeding and nutrition of deciduous fruit plants. Illustrated lectures are based on the latest research findings supplemented by laboratory periods in which research projects and advanced field techniques are studied and undertaken. Prerequisite: Commercial Fruit Production. 2 hours Lecture and 3 hours Laboratory — 3 credits
HT 4204
Plant Pest Management
This course is concerned with the recognition and methods of control of insects, fungi and weeds which adversely affect agriculture and the health and welfare of man. Prerequisites: Entomology and Principles of Organic Chemistry. 2 hours Lecture and 3 hours Laboratory — 3 credits

HT 4225
Plant Disease Diagnosis
This course provides the student with intensive laboratory experience in the identification of plant pathogens, plant disease diagnosis, and plant disease control as well as a focus on the physiology of the host-parasite interaction, plant disease resistance, and disease appraisal. Prerequisite: Plant Pathology. 2 hours Lecture and 3 hours Laboratory — 3 credits

LIBERAL ARTS

LA 0040
“A” Day Leadership Laboratory
The student leaders who manage the College’s annual “A” Day exposition may earn credit for their management role; 1/2 credit per semester of leadership participation; may be accumulated to a maximum of 4 semester credits. Pass/Fail

LA 1015
Music Appreciation
The music of each period of history is interpreted and analyzed with a view of understanding and appreciating our musical heritage. Illustrations for the works of the great composers are presented to assist in the establishment of criteria for evaluating music. 3 hours Lecture and Discussion — 3 credits

LA 1020
Skills for College Success
The goal of this course is to improve students’ learning abilities and to sharpen the ability to think clearly, logically, critically, and effectively. This course is also an introduction to the ideals and values of the academic community. Students will also learn about the key abilities and dispositions of a liberally educated person. Required for freshmen who entered the College in the Fall of 2008 and after. 1 hour Discussion — 1 credit

LA 1058
Community Concert Band
This course provides students the opportunity to develop their musical skills through the study and performance of selected works for concert band. Performances are held on campus throughout the school year. 2 rehearsals per week — 1 credit per semester

LA 1059
Chorale
This course provides students the opportunity to develop their musical skills through the study and singing of selected choral literature from various periods of music history. Performances are held on campus throughout the school year. 2 rehearsals per week — 1 credit per semester

LA 1060
Introduction to the Fine Arts
This course studies the music of each period of history. Illustrations from the works of the great composers are presented to assist in the establishment of criteria for evaluating the music. One field trip is taken to The Philadelphia Academy of Music for the purpose of studying the orchestra in a rehearsal setting. This course also examines painting, sculpture, and architecture in history to increase the student’s ability to interpret and appreciate works of art. 3 hours Lecture and Discussion — 3 credits

LA 1112
Spanish I
A study of basic grammar and vocabulary with oral and written exercises that include conversation and composition. 3 hours Lecture and Discussion — 3 credits

LA 1113
French I
Students develop a skill for recognizing cognate words using idiomatic expressions and acquire a basic vocabulary enabling them to read aloud with understanding, to pronounce accurately, to recognize and use appropriate grammatical structure, and to write and translate sentences for composition. 3 hours Lecture and Discussion — 3 credits

LA 1160
German I
Instruction and practice in understanding and speaking the German language with stress on sentence structure, inflections, vocabulary, and pronunciation. 3 hours Lecture and Discussion — 3 credits