440. Nursery Management  
Fall, 3(2-2) Juniors.  
Management practices applied to wholesale nursery production and marketing. One all-day field trip to visit nurseries is required.

452. Warm Season Vegetables  
Spring, 3(3-0) HRT 101, BOT 301, CSS 210.  
Warm season vegetable crops with emphasis on botany, taxonomy, morphology, growth processes, production, harvesting, handling, quality and composition.

453. Warm Season Vegetables Laboratory  
Spring, 1(0-3) HRT 452 or concurrently. Identification of seeds and plants and factors affecting germination, sex expression, permeability, flowering, bulb and tuber formation.

456. Cool Season Vegetables  
Fall, 3(3-0) HRT 101, BOT 301, CSS 210. Cool season vegetable crops with emphasis on botany, taxonomy, morphology, growth processes, production, harvesting, handling, quality and composition.

457. Cool Season Vegetables Laboratory  
Fall, 1(0-2) HRT 456 or concurrently. Mineral nutrition, fertilizer placement and sources, herbicide action, weed competition, plant identification and post-harvest conditions for vegetables.

501. Research Procedures in Plant Science  
Winter, 4(3-2) Approval of department.  
Orderly approach to problems of biological research in relation to basic principles of research.

508. Physiology of Horticultural Crops  
Winter of even-numbered years, 4(3-2) BOT 415. Physiology of grafting, juvenility, flowering of woody plants, fruiting, senescence, bud and seed dormancy as related to horticultural crops. Emphasis on critical review of literature.

510. Seminar  
Fall, Winter, 1(0-1)

825. Post Harvest Physiology  
Spring, 4(3-2)  
Biochemical and biophysical changes associated with the maturation, ripening and senescence of harvested horticultural plants.

830. Special Research Problems  
Fall, Winter, Spring, Summer. 1 to 12 credits. May recertify for a maximum of 12 credits. Approval of department.

831. Selected Topics  
Fall, Winter, Spring, Summer. 1 to 4 credits. May recertify for a maximum of 12 credits if different topic is taken. Approval of department.

840. Tissue Culture for Plant Breeding  
Winter of even-numbered years, 3(2-2) BOT 414, HRT 408.  
The application of plant cell, protoplast and tissue culture methodologies and principles to crop improvement.
455B. Beverage Evaluation  
Fall, 4(4-0) Approval of school. History of beverages and related physiological and psychological theories and their application to quality considerations.

462. Tourism Management  
Winter, 4(4-0) HRI 261. Tourism organizations, functions, and policy determinations, tour wholesaling and retail travel agency management. Field trip required.

463. Tourism Distribution Management  
Fall, 4(4-0) HRI 261. Component channels of the tourism distribution system. Functional interrelationships of these channels with emphasis on increasing distribution effectiveness. Field trips required.

466. Tourism Planning and Development  
Fall, Spring, 4(4-0) HRI 261. Tourism resource characteristics, location, and market demand considerations. Analysis of development potential, planning processes and procedures, capital and personnel requirements, and tourism destination developments.

472. Design and Layout  
Winter, Spring, 4(4-0) HRI 335. Conceptualization, design, layout and specification of service industry facilities.

473. Operations Research in the Service Industries  
Fall, Spring, Summer of odd-numbered years, 4(4-0) HRI 337, MTA 317. Application of marketing and operational research techniques to service industry management problems, emphasizing quantitative and qualitative decision models designed for specific operations in this field.

475. Promotion of Hospitality Services  
Fall, Winter, Spring, Summer of odd-numbered years, 4(4-0) HRI 375. Advertising, personal selling, sales promotion, merchandising, public relations, and publicity to compete effectively for individual and group sales in the hospitality industry.

490. Operational Analysis in the Hospitality Industry  
Fall, Spring, 4(4-0) HRI 405, 500 hours work experience requirement. HRI majors only. Advanced management concepts, leading to an understanding of decision theory as applied to directed investigation into specific hospitality operations.

499. Independent Study  
Fall, Winter, Spring, Summer. 1 to 4 credits. May enroll for a maximum of 8 credits. Majors and approval of school. Research in any phase of food, lodging, hospitality, tourism or health facilities operations.

805. Advanced Foodservice Management  
Winter, 4(4-0) HRI 435. Administrative and technical management of foodservices. Emphasis on operation analysis and problem solving.

807. Workforce Management in the Hospitality Industry  
Spring, 4(4-0) HRI 337. Developing and maintaining a productive workforce for hospitality firms. Emphasis on supervisory skills and labor relations.

835. Energy Management in Hospitality Facilities  
Fall, 4(4-0). Achieving energy efficiency through system analysis and design. Includes energy audits and design problems.

837. Advanced Lodging Management  
Spring, 4(4-0) HRI 337. Administrative and technical management of hotels. Emphasis on operations and analysis and problem solving.

875. Innovation in Hospitality Marketing  
Spring, 4(4-0) MTA 805 or concurrently. Application of marketing concepts to the hospitality sector, with special emphasis on the role of promotion in the hospitality marketing process.

888. Financial Management for the Service Industries  
Winter, 4(4-0) AFA 840. Preparation and interpretation of financial statements, budget preparation and analysis of budgetary variances. Financial aspects of hospitality business expansion, franchising contracts, feasibility studies, and valuation considerations.

890. Special Problems  
Fall, Winter, Spring, Summer. 1 to 15 credits. Approval of school. Opportunity for outstanding students to engage in a thorough analysis of a service industry area of their choice that will result in a positive contribution to the field.

HUMAN ECOLOGY  
(HEC COLLEGE OF)

201. Family in Its Near Environment  
(F E 110) Fall, Winter, Spring. Summer of odd-numbered years. 3(3-0) Sophomores. Foundations of human ecology are explored using conceptual frameworks of family as ecosystem and human development. Interrelationships of ecosystems which focus on families are examined.

HUMAN ENVIRONMENT AND DESIGN  
(HED)

College of Human Ecology

143. Design for Living I  
Fall, Winter, Spring. 3(3-0). Perceptual development including analytical judgement through the study of design, a vital part of the matrix of living. Design components and principles as they relate to the function and ideas to the various phases of human environment and daily life.

144. Design for Living II  
Fall, Spring. 3(1-4) HED 143. Use of design elements and application of principles in creative problems and media.

153. Principles of Clothing Construction  
Fall, Winter, Spring. 3(2-2). Principles of clothing construction related to fit, fabric and garment assembling.

171. Textiles for Consumers  
Fall, Winter, Spring. 4(4-0). A programmed sequence develops decision-making abilities in the selection of textile alternatives for various uses. Consumer-oriented concepts of durability, comfort, care and aesthetic appearance are used to evaluate products.

201. Contemporary Merchandising Management  
Fall, Winter, Spring. 3(3-0) Sophomores. Merchandisers supplying goods and services for consumer needs.

203. Selected Non-Textile and Apparel Merchandise  
Winter, Spring. 3(0-6) HED 143. Selected non-textile and apparel merchandise as it fulfills consumer needs and expectations.

215. Interior Environments  
Fall, Winter, Spring. 3(4-0) HRI 337, MTA 317. Credits; credit by examination only. HED 144, sophomores or approval of department. Students may not receive credit in both HED 215, and HED 210, HED 213. Design fundamentals as they relate to interior design and human behavior. Characteristics of interior design, finishing materials and artifacts.

216. Interior Environments: Studio  
Fall, Winter, Spring. 3(0-6) HED 215 or concurrently. Students may not receive credit in both HED 216 and HED 211, HED 214. Application of design fundamentals.

220. Interior Space Design  
Fall, Winter. 3(0-6) HED 215, HED 216 or concurrently. Basic designing and drawing of interior space in relationship to human needs.

221. Interior Color and Texture Design  
Winter, Spring. 3(0-6) HED 220. The manipulation and development of color and texture as components of environmental design.

223. Interior Design Synthesis I  
(222) Fall, Spring. 3(0-6) HED 221. Experimentation and representation of space, color and texture as they relate to environmental interior design.

239. Housing Conservation  
Spring. 3(3-0) Interdepartmental with and administered by Building Construction. Skills and techniques in conserving, repairing and remodeling existing housing. Structural components of housing and evaluation of housing structure.

253. Experimental Clothing Construction  
Winter, Spring. 3(2-2) HED 152 or pass departmental placement examination. Application of principles of clothing construction with emphasis on fitting, alteration and couturier construction techniques. Experimental execution and evaluation of techniques.