

**821. Genetic Concepts in Plant Breeding**  
Fall. 3(3-0) CSS 350 or ZOL 441. Interdepartmental with the departments of Crop and Soil Sciences, and Forestry. Administered by the Department of Crop and Soil Sciences.  
Genetic structure of plant populations, gene action, inbreeding, outbreeding, heterosis, linkage and recombination, genetic architecture of traits, genetic distance.

**825. Post Harvest Physiology**  
Winter of odd-numbered years. 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 reenroll for a maximum of 12 credits. Approval of department.

**831. Selected Topics (MTC)**  
Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 12 credits if different topics are taken. Approval of department.  
Selected topics in horticultural science of current interest and importance.

**836. Evolution of Crop Plants**  
Fall of even-numbered years. 3(3-0)  
CSS 821 or approval of department. Interdepartmental with the departments of Crop and Soil Sciences, and Forestry.  
Cultural and biological aspects of evolution under domestication; origin and diversity of cultivated plants.

**838. Tissue Culture for Plant Breeding**  
Winter of even-numbered years. 3(2-2)  
BOT 414, CSS 821. Interdepartmental with the departments of Crop and Soil Sciences, and Forestry.  
The application of plant cell, protoplast and tissue culture methodologies and principles to crop improvement.

**850. Plant Interactions in Agroecosystems**  
Winter of odd-numbered years. 3(3-0)  
BOT 450, BCH 401, CSS 402.  
Interactions between plants affecting mortality and plastic responses in horticultural, agronomic, and forest systems, including interference and symbiosis.

**899. Master's Thesis Research**  
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

**940. Theoretical Population Genetics**  
Winter. 4(4-0) MTH 113, STT 422 or approval of department. Interdepartmental with the departments of Crop and Soil Sciences, and Forestry. Administered by the Department of Forestry.  
Discussion of mathematical theories in population genetics and experimental works on natural and laboratory populations.

**941. Quantitative Genetics in Plant Breeding**  
Spring of even-numbered years. 4(4-0)  
STT 423, CSS 817 or approval of department. Interdepartmental with the departments of Crop and Soil Sciences, and Forestry. Administered by the Department of Crop and Soil Sciences.  
Calculation and implication of genetic parameters. Linkage. Coancestry and inbreeding. Covariance between relatives. Heritability and selection. Genotype by environment interaction. Emphasis on relationship of quantitative genetics to plant breeding.

**944. Physiological Genetics**  
Winter of odd-numbered years. 3(3-0)  
BOT 413; CSS 821. Interdepartmental with the departments of Crop and Soil Sciences, and Forestry. Administered by the Department of Forestry.  
Control of variation in higher plants including adaptive physiology, quantitative genetics, growth correlation, biochemical genetics, hybrid physiology, and geneecology.

**999. Doctoral Dissertation Research**  
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

## HOTEL, RESTAURANT AND INSTITUTIONAL MANAGEMENT HRI

### College of Business and Graduate School of Business Administration

**102. Introduction to Hospitality Management**  
Winter. 4(4-0) Not open to Seniors.

Survey of the sectors, segments and disciplines of the hospitality and tourism industries; of the nature of career opportunities; of the hotel and restaurant management and travel and tourism management curricula.

**203. Hospitality Accounting**  
Fall, Winter, Spring. 4(4-0) CPS 115; HRI 102; ACC 202.

Principles of accounting, both financial and managerial, applied to hospitality industry enterprises.

**235. Physical Facilities Management**  
(HRI 335.) Winter. 4(4-0) HRI 102.

Planning and control of building systems in lodging and foodservice operations. Heat, light, power, water, ventilation, sanitation, sound, traffic; furniture, fixtures, and equipment.

**237. Lodging Management**  
Winter. 4(4-0) HRI 102.

Typical departments and logical functions in operation of transient, destination and convention lodging properties.

**252. Professional Experience I**  
Fall, Winter, Spring, Summer. 1 credit. HRI 102 or HRI 261, approval of school.

A written report based on the completion of 400 hours of approved professional work experience in the hospitality industry.

**261. Dimensions of Tourism**  
Fall, Winter, Summer of odd-numbered years. 4(4-0) EC 201 or concurrently; not open to Seniors.

Forces which influence the international and domestic hospitality, leisure, travel and recreation industries. Socio-economic models and measurement of regional impact, demand and supply.

**265. Food Production Standards**  
Spring. 4(4-0) HRI 100, FSC 256.

Standards of food taste, texture, appearance; packaging and presentation; selection, receiving, storage, and preparation; consumer safety and sanitation.

**307. Organizational Behavior in Hospitality Management**  
Fall, Winter, Spring. 4(4-0) HRI 237, MGT 302.

Relationship between human and other resources, and the management of people. Staffing, defining roles, decision making, communicating, motivating.

**337. Hospitality Information Systems**  
Fall, Winter, Spring. 4(4-0) EC 201, HRI 203, HRI 237.

Traditional and state-of-the-art technology for gathering, storing, disseminating and communicating information within the hospitality industry.

**345. Food Production Systems**  
(HRI 245.) Fall, Winter, Spring, Summer. 4(2-4) HRI 265.

Food handling techniques and strategies. Purchasing, storage and retrieval, preparation, packaging and delivery.

**353. Professional Experience II**  
Fall, Winter, Spring, Summer. 1 credit. HRI 252, approval of school. Must be completed before enrollment for final term of the senior year.

A written report based on the completion of 400 hours of approved professional work experience in the hospitality industry.

**375. Hospitality Marketing**  
Fall. 4(4-0) HRI 102.

Principles of marketing and their application to hospitality enterprises. The marketing of highly perishable, people intensive intangibles in a highly competitive environment.

**392. Hospitality Industry Finance**  
Fall, Winter, Spring, Summer. 4(4-0) F I 391, HRI 375, HRI 337.

Strategies for financing hospitality ventures and expansion. Determining the financial viability of proposed and existing operations.

**405. Foodservice Control Systems**  
Fall, Winter, Spring, Summer. 4(4-0) HRI 245, HRI 337.

Development and evaluation of policy and procedures for planning, organizing, staffing, directing and controlling food and beverage operations.

**435. Advanced Foodservice Management**  
Fall, Winter, Spring, Summer. 4 credits. HRI 375, HRI 405.

Foodservice team projects. Planning, organization, production and service delivery of catered foodservice events.

**455. Beverage Management**  
(HRI 455B.) Fall. 4(4-0) HRI 245.

Evaluation of beverage alcohol and non-alcohol beverage products with respect to quality, price-value perceptions, packaging. Purchasing, storage, preparation and merchandising.

**462. Tourism Management**  
Winter. 4(4-0) HRI 261.

Tourism organizations, functions, and policy determination, 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.

**Descriptions — Hotel, Restaurant and Institutional Management  
of  
Courses**

**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.

**473. Hospitality Industry Research**  
Fall, Winter, Spring. 4(4-0) HRI 392, MTA 317.

Strategies and techniques for obtaining, analyzing, evaluating and reporting relevant research data.

**475. Advanced Hospitality Marketing**  
Fall, Winter, Spring. 4(4-0) HRI 473.

Gathering, analyzing and using marketing research. Developing and evaluating marketing plans and promotional strategies.

**490C. Special Problems in Club Management**  
Spring. 4(4-0) HRI major, HRI 405.

Complex management problems cutting across the major functions. Focus on decision-making. Cases and projects.

**490I. Special Problems in Institutional Management**  
Fall. 4(4-0) HRI major, HRI 405.

Complex management problems cutting across the major functions. Focus on decision-making. Cases and projects.

**490L. Special Problems in Lodging Management**  
Spring. 4(4-0) HRI major, HRI 405.

Complex management problems cutting across the major functions. Focus on decision-making. Cases and projects.

**490M. Special Problems in Multi-unit Chain Restaurant Management**  
Spring. 4(4-0) HRI major, HRI 405.

Complex management problems cutting across the major functions. Focus on decision-making. Cases and projects.

**490R. Special Problems in Real Estate Selection, Financing and Design**  
Winter. 4(4-0) HRI major, HRI 405.

Complex management problems cutting across the major functions: marketing, human resources, law. Focus on decision-making. Cases and projects.

**490X. Special Problems in Hospitality Management**  
Winter. 4(4-0) HRI major, HRI 405.

Complex management problems cutting across the major functions, industry sectors and entity types. Focus on decision-making. Cases and projects.

**495. Current Issues**  
Spring of even-numbered years. 4(4-0) Seniors, approval of school.

Focus on specific topic or issue facing the hospitality and tourism industries.

**499. Independent Study**  
Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 8 credits. Majors and approval of school.

Research in any phase of hospitality and tourism management.

**805. Seminar in 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**  
Fall. 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**  
Winter. 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**  
Spring. 4(4-0) ACC 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. Perspectives in Human Ecology**  
(F E 110.) Fall, Winter. 3(3-0) Sophomores.

Introduction to the study of families from a human ecological perspective. Development of the profession of human ecology. Analysis of issues affecting families. Interdepartmental emphasis.

**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 in 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.

**155. Clothing Construction Studio**  
(HED 152.) Fall, Winter, Spring. 3(1-4)

Emphasis on fit, alterations, different techniques in assembling apparel. Basic principles of clothing construction. Completed garments required.

**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. Introduction to Merchandising Management**  
Fall, Winter. 3(3-0) Sophomores.

An overview of the merchandising function as it provides goods and services to individuals and families. Field trips required.

**203. Nontextile Merchandise Production, Properties and Performance**  
Fall, Winter. 3(3-0) HED 143.

Product information for selected nontextile merchandise as it assists consumers and professionals in decision making. Investigation of materials, construction, production, quality and care of nontextile goods.

**215. Interior Environments**  
Fall, Winter. 3(3-0) Spring, Summer: 3 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 Design Drafting**  
Fall, Winter. 3(1-4) HED 215, HED 216 or concurrently. Drafting and two-dimensional drawing for interior designing.

**221. Interior Design Process and Presentation**  
Winter, Spring. 3(1-4) HED 220.

Understanding and use of the design process in solving problems related to design fundamentals as components of interior space. Presentation procedures and techniques.