#### 850 Seminar in 20th Century Art

Fall of odd years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Investigation of a topic in the history of 20th-century painting, sculpture, or architecture.

#### Seminar in American Art 855

Spring of odd years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with American Studies. R: Approval of department

Intensive investigation of a topic in the history of American art.

#### 860 Seminar in Asian Art

Fall of even years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department

Intensive investigation of a topic in the history of Asian art

#### 870 Seminar in African Art

Spring of odd years. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Intensive investigation of a topic in the history of African painting, sculpture, or architecture.

#### 890 Independent Study

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Special project, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings.

#### 891 Special Topics in History of Art

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Special topics supplementing regular course offerings proposed by faculty on a group study basis for graduate students.

# 893

Museum Internship Fall, Spring, Summer. 2 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Arts and Letters. R: Open only to juniors or seniors or graduate students.

Activities, functions and organization of a museum.

#### 899 Master's Thesis Research

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Directed research leading to a master's thesis, used in partial fulfillment of Plan A master's degree reauirements.

# HORTICULTURE

# **Department of Horticulture** College of Agriculture and Natural Resources

#### Horticulture: Plants and People 100

Spring. 3(2-2) R: Not open to juniors or seniors in the Department of Horticulture. Functional uses of plants: aesthetics, food, industry, recreation. Growing and using horticultural plants. Consumer and environmental issues related to horticulture in daily living.

### Principles of Horticulture I 203 Fall. 2(2-0) SA: HRT 201

Contributions of horticulture to society. Cultivar development, crop geography, environmental factors, vegetative and reproductive development, and crop management. Field trip required.

# Principles of Horticulture I Laboratory 2031 Fall. 1(0-3) P:M: (HRT 203 or concurrently) SA: HRT 201L

Growing, handling, and identifying plants. Irrigation, fertilization, and media for plant production. Pruning and control of flowering and growth. Measuring environmental factors

### Principles of Horticulture II 204

Spring. 2(3-0) SA: HRT 202 Asexual and sexual propagation. Plant population effects, pest management, harvesting, and postharvest handling and marketing of horticultural crops. Field trip required.

# 204L Principles of Horticulture II Laboratory Spring. 1(0-3) P:M: (HRT 204 or concur-rently) SA: HRT 202L

Growing, handling, and identifying plants. Asexual propagation from cuttings. Micropropagation. Bulbs, tubers, and corms. Grafting. Seed germination on perennial and annual crops. Storage of fruit.

#### 207 Horticulture Career Development Fall. 1(1-0)

Internship preparation and identification of employment opportunities. Career goal establishment, resume construction, correspondence development, personal budgeting, interview skills and strategies.

#### 210 **Nursery Management**

Fall. 3(2-3) P:NM: (HRT 203 and HRT 203L and HRT 204 and HRT 204L) R: Not open to freshmen or sophomores. SA: HRT 071, HRT 310

Management of field and container grown nursery operations. Site selection and development, financing, legal restrictions, production practices, nutrition, irrigation, weed and pest control, modification of plant growth, storage, shipping, and marketing. Field trip required.

#### Landscape Plants I 211 Fall. 3(2-3)

Identification, adaptation, and evaluation of shade trees, narrow-leaved evergreens, shrubs, woody vines, herbs, ornamental grasses, and herbaceous perennials.

#### 212 Landscape Plants II

HRT

Fall, Spring. 3(2-3) Identification, adaptation, and evaluation of flowering trees and shrubs, broad-leaved evergreens, herbaceous vines, ground covers, bulbs, wildflowers, ferns, and aquatic plants.

#### Landscape Irrigation 218

Spring. 3(3-3) Not open to students with credit in HRT 078.

Design, installation and maintenance of irrigation systems for turfgrass and landscape plants. Design hydraulics, equipment selection, pump stations, offered the first 10 weeks of the semester.

## Landscape Computer Aided Design Spring. 2(0-4) P:NM: (CSE 101) or (CSS 219

110)

Computer Aided Design (CAD) for landscape design. Calculations, take offs, perspective drawings, AutoCAD and LandCADD software.

### 221 **Greenhouse Structures and Management** Fall. 3(3-0)

Planning and operation of a commercial greenhouse. Structures, coverings, heating, cooling, ventilation, irrigation, fertilization, root media, and pest control. Field trips required.

### 225A **Basic Floral Design** Fall, Spring. 2(1-2)

Principles and mechanics of floral design. Line and mass designs, symmetrical and asymmetrical designs. Contemporary techniques. Flower identification. Retail pricing. Laboratory fee required. First half of semester.

#### Advanced Floral Design 225B

Fall, Spring. 2(1-2) P:M: (HRT 225A or concurrently)

Marketing, selling, and designing flowers for weddings, funerals, and other special events. Identification, handling, and design use of fresh flowers and other materials. Laboratory fee required. Second half of semester

#### **Nursery Management** 310

Fall. 3(2-3) P:NM: (HRT 203 and HRT 203L and HRT 204 and HRT 204L) R: Not open to freshmen or sophomores.

Management of field and container grown nursery operations. Site selection and development, financing, legal restrictions, production practices, nutrition, irrigation, weed and pest control, modification of plant growth, storage, shipping, and marketing. Field trip required.

# 311 Landscape Design and Management Specifications Spring. 4(3-2) Interdepartmental with Land-

scape Architecture. P:M: (HRT 211 and HRT 212 or concurrently)

Landscape design techniques, spatial organization, plant selection, plant and site interaction. Relationship between design, construction and maintenance. Preparation of planting and maintenance specifications

# Floriculture Production I: Potted Plants 322 and Cut Flowers Fall. 3(1-4) P:M: (HRT 203 and HRT 203L

and HRT 204 and HRT 204L and HRT 221 or concurrently)

Commercial greenhouse and outdoor production of flowering and foliage potted plants and cut flowers. Plant identification, propagation, production, scheduling, and finishing procedures based on specific plant growth requirements. Field trips required.

### 323 Floriculture Production II: Herbaceous Perennials and Annuals

Spring. 3(1-4) P:M: (HRT 203 and HRT 203L and HRT 204 or concurrently and HRT 204L or concurrently and HRT 221)

Commercial greenhouse and outdoor production of herbaceous perennials, annuals, and other plants typically sold in retail nurseries for outdoor gardens. Plant identification, propagation, production, scheduling, and finishing procedures based on specific plant growth requirements. Plant selection, marketing and retailing issues. Field trips required.

### 331 Tree and Small Fruit Production and Management

Spring. 3(2-3) P:M: (HRT 203 and HRT 203L and HRT 204 and HRT 204L) P:NM: (BOT 301) SA: HRT 330

Commercial aspects of tree and small fruit production. Procedures used in production of major fruit crops grown in Michigan: apples, cherries, peaches, grapes, blueberries, brambles, and strawberries. Field trips required.

# 333

Wine Judging Fall. 3(3-0) R: Open only to students in the IAT Viticulture and Enology program. Approval of department: application required.

Sensory evaluation and selection of wines. World and regional wine production. Characteristics influenced by grape cultivar and wine production methodology. Aroma and flavor components. Quality assessment. Identification of specific wine "faults" and suggested means for amelioration in the cellar and prevention in future wine production.

### Current Issues in Viticulture and Enology 334 Spring of even years. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Open only to students in the IAT Viticulture and Enology program.

Grape, juice, and wine production. Current and new technologies. Wine sales and marketing. Vineyard and winery establishment and management. Presentations and discussions by MSU faculty and Michigan grape and wine industry professionals.

# Vegetable Production and Management Spring. 3(2-3) P:M: (HRT 203 and HRT 341 203L and HRT 204 or concurrently and HRT 204L or concurrently) SA: HRT 440, HRT 442

Field production of vegetable crops. Marketing systems, tillage practices, field establishment, cultural management, pest management, harvesting, and postharvest handling and storage. Field trip required.

#### Retail Florist Practicum 394

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Approval of department; application required. Maximum of 6 credits may be earned in HRT 394 and HRT 493. SA: HRT 394A

Customer relations. Floral design, flower buying, holiday planning. Advertising, display. Financial recordkeeping. Flower care and handling.

# 401 Physiology and Management of Herbaceous Plants Fall. 3(3-0) P:M: (HRT 221 and BOT 301) R:

Not open to freshmen or sophomores.

Physiological and flowering responses of herbaceous plants to light, temperature, nutrients, and gases. Management of these factors for optimum production

### 403 Handling and Storage of Horticultural

Crops Fall. 3(2-3) P:M: (BOT 105 or BS 110) R: Not open to freshmen or sophomores. SA: HRT 482

Biological principles involved in quality maintenance of horticultural products. Control of deterioration during harvesting, handling, transport, and storage. Field trip required.

#### Horticulture Management (W) 404

Spring. 3(2-2) P:M: Completion of Tier I writing requirement. P:NM: (EC 201 or EC 202) and (HRT 203 and HRT 204) or (CSS 370 or FOR 404) R: Open only to seniors in the College of Agriculture and Natural Re-sources. SA: HRT 488

Integration of management, economic, marketing, and horticultural production principles to develop personnel, financial, and resource strategies. Horticultural business plan development in a team situation. Effects of business decisions on people and profits.

# 407

Horticulture Marketing Fall. 3(2-1) P:NM: (HRT 203 and HRT 204) and (EC 201 and EC 202) and (HRT 310 or concurrently or HRT 322 or concurrently or HRT 323 or concurrently or HRT 331 or concurrently or HRT 341 or concurrently)

Demographic and purchase trends of perishable horticultural commodities, including landscape and floral crops, and fruits and vegetables. Market segmentation and product targeting, distribution, brand-ing and packaging, and advertising and promotion. Services as a critical component of strategic business planning.

### Landscape Contract Management 411 Fall. 3(2-2) P:NM: (HRT 311)

Management of landscape construction and maintenance operations. Working drawing, contracts, bonds, and insurance. Estimating and bidding procedures. Installation techniques for hardscapes and plant material. Field trip required.

### **Principles and Practices of Grape** 432 Production I

Spring. 3(3-0) P:M: (CEM 141 and CEM161 and CSE 101) R: Open only to students in the IAT Viticulture and Enology program.

Grapevine physiology, structure, and function. Techniques for vineyard establishment. Cultivar and rootstock selection, influence of environmental factors on vine growth, pre-plant site selection and preparation, training and trellising systems, cultural practices for canopy management, and methods of crop control.

# **Principles and Practices of Grape** 432L

Production I Laboratory Spring. 2(0-4) P:M: (CEM 141 and CEM 161 and CSE 101) R: Open only to students in the IAT Viticulture and Enology program. C: HRT 432 concurrently.

Grafting, pruning, and training of grapevines. Determination of vineyard structure and methods of trellis construction. Assessment of grapevine nutrient needs, irrigation management, and disease and pest control strategies.

### 433 **Principles and Practices of Grape** Production II

Summer. 3(3-0) P:M: (HRT 432 and HRT 432L) R: Open only to students in the IAT Viticulture and Enology program.

Canopy management, disease and pest control, and the influence of crop adjustment on vine physiology. Environmental effects on fruit maturation. Vinevard sampling techniques and harvesting practices for improved fruit quality.

### 433L **Principles and Practices of Grape**

Production II Laboratory Summer. 2(0-4) P:M: (HRT 432 and HRT 432L) R: Open only to students in the IAT Viticulture and Enology program. C: HRT 433 concurrently.

Vineyard management. Climate, crop load and vine physiology. Effects of pre- and post-veraison practices on vine and fruit development. Disease and pest control strategies. Vineyard berry sampling techniques and laboratory methods to assess fruit quality for harvest.

### 434 **Principles and Practices of Wine** Production I

Fall. 3(3-0) P:M: (CEM 142 and CEM 162 and CSE 101) R: Open only to students in the IAT Viticulture and Enology program.

Origin and history of wine and wine production. Determination and timing of harvest, methods of postharvest handling, storage, and processing of grapes into juice and wine. Physical and chemical changes in wine and processes. Must analysis and adjustment, fermentation, fining, and aging. Physiology of yeasts and bacteria involved in winemaking and spoilage. Cellar practices, problems, and operations.

# Principles and Practices of Wine 434L Production I Laboratory Fall, 2(0-4) P:M: (CEM 142 and CEM 162

and CSE 101) R: Open only to students in the IAT Viticulture and Enology program. C: HRT 434 concurrently.

White and red wine production. Harvest through the aging process. Methods of harvest and factors affecting yield components. Crushing and pressing grapes, must preparation and instrumental analysis of juice and wine. Methods of fermentation, fining treatments, and cellar and small winery operations.

### 435 **Principles and Practices of Wine** Production II

Spring. 3(3-0) P:M: (HRT 434 and HRT 434L) R: Open only to students in the IAT Viticulture and Enology program.

Continuation of wine production and winery practices. Instrumental analyses of wine, filtration testing, and bottling. Principles, microbiology, and chemistry involved in the production of good wines. Product quality, cellar practices and problems, and costs of winery establishment. Federal requirements for licensing and operating a small winery.

# 435L **Principles and Practices of Wine**

Production II Laboratory Spring. 2(0-4) P:M: (HRT 434 and HRT 434L) R: Open only to students in the IAT Viticulture and Enology program. C: HRT 435 concurrently.

Procedures and analysis involved in wine production during the aging process. Management practices of a small winery, including quality analysis of wines and cellar and equipment concerns.

# Plant Breeding and Biotechnology 441 Spring of even years. 4(3-2) Interdepart-mental with Crop and Soil Sciences; Forestry. Administered by Department of Crop and Soil Sciences. P:M: (CSS 350)

Plant improvement by genetic manipulation. Genetic variability in plants. Traditional and biotechnological means of creating and disseminating recombinant genotypes and cultivars.

### Cellular and Molecular Principles and 451

Techniques for Plant Sciences Spring. 4(2-6) Interdepartmental with Crop and Soil Sciences; Forestry. Administered by Department of Crop and Soil Sciences. P:NM: (CSS 350 or ZOL 341)

Principles, concepts, and techniques of agricultural plant biotechnology. Recombinant DNA technology, plant molecular biology, transformation, cell tissue, and organ culture in relation to plant improvement.

### Pest Management I: Pesticides in 477 Management Systems

Fall. 3(3-0) Interdepartmental with Entomology; Crop and Soil Sciences; Fisheries and Wildlife. Administered by Department of Entomology. P:NM: (CEM 143 or CEM 251) and (BOT 405 and CSS 402) and (ENT 404 or ENT 470 or FW 328)

Chemistry, efficient use, and environmental fate of pesticides. Legal and social aspects of pesticide use.

### 478 Pest Management II: Biological Components of Management Systems (W)

Spring of even years. 3(2-3) Interdepartmental with Entomology; Crop and Soil Sciences; Forestry; Fisheries and Wildlife. Administered by Department of Entomology. P:M: (ENT 404 or ENT 470 or BOT 405 or CSS 402 or FW 328) and completion of Tier I writing requirement.

Principles of host plant resistance and biological control and their relationship to the design of agroecosystems. Classification of insect biological control agents.

#### Woody Plant Physiology 480

Spring. 3(3-0) Interdepartmental with Forestry. P:M: (BOT 301) R: Not open to freshmen or sophomores.

Physiology of carbon utilization. Effects of water, temperature, nutrition, and light on apical, vegetative, and reproductive growth of woody plants.

### 486 Biotechnology in Agriculture:

Applications and Ethical Issues Fall of even years. 3(3-0) Interdepartmental with Crop and Soil Sciences; Forestry; Philosophy. P:M: (BOT 105 or BS 111) P:NM: (CSS 350 or ZOL 341) R: Not open to freshmen or sophomores.

Current and future roles of biotechnology in agriculture: scientific basis, applications. Environmental, social, and ethical concerns.

#### Independent Study 490

Fall, Spring, Summer. 1 to 2 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (HRT 203 and HRT 203L and HRT 204 and HRT 204L) R: Approval of department; application required.

Independent study of horticulture on a field, laboratory or library research program of special interest to the student.

#### Selected Topics in Horticulture 491

Fall, Spring. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (HRT 203 and HRT 203L and HRT 204 and HRT 204L) P:NM: (HRT 202) R: Not open to freshmen or sophomores.

Selected topics in horticulture of current interest and importance.

#### **Professional Internship in Horticulture** 493

Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (HRT 203 and HRT 203L and HRT 204 and HRT 204L) R: Open only to juniors and seniors in the College of Agriculture and Natural Resources. Approval of department; application required. A student may earn a maximum of 6 credits in all enrollments for any or all of these courses: ABM 493, AEE 493, ANR 493, ANS 493, CSS 493, FIM 493, FW 493, HRT 493, PKG 493, PRM 493, PRR 493 and RD 493

Professional career related work experience supervised by a professional horticulturist. Requires 40 hrs per week for 12 to 14 weeks. Must enroll semester prior to completing work experience.

#### Industry Master's Apprenticeship 494

Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P:M: (HRT 433 and HRT 433L) or (HRT 435 and HRT 435L) R: Open only to students in the IAT Viticulture and Enology program. Approval of department: application required.

A focused and supervised work experience with a grape or wine industry master. Intensive training in vineyard or winery techniques, operations and management.

# Research Procedures in Plant Science Spring. 3(2-2) P:NM: (STT 422) 801

Applications of epistemology and logic in plant science research. Classical research methods. Hvpotheses. Analysis of laboratory, storage, greenhouse, and field experiments.

### Growth and Development of Horticultural 802 Crops

Spring of odd years. 3(2-2) P:NM: (BOT 301)

Molecular biology of growth and development including dormancy, germination, leaf development, flowering, fruiting, sexual reproduction, and senescence in horticultural crops.

### Molecular and Genetic Aspects of Plant 811 Development

Fall of even years. 3(2-2) Interdepartmental with Botany and Plant Pathology. RB: (ZOL 341 or CSS 350) and (BOT 415 and ZOL 320)

Genetic mechanisms controlling plant development.Model systems and internal, nonenvironmental factors. Methods for the study of plant development. The plant genome. Genetics underlying developmental diversity in higher plants.

# 819

Advanced Plant Breeding Fall. 3(3-0) Interdepartmental with Crop and Soil Sciences; Forestry. P:NM: (CSS 450 and STT 422)

Genetic expectations resulting from breeding strategies with cross- and self-pollinated crop plants. Germplasm collections, mapping populations, and modifications of reproductive biology useful for crop improvement.

#### 827 **Techniques in Cytogenetics**

Fall of odd years. 1(0-3) Interdepartmental with Crop and Soil Sciences; Forestry. Administered by Department of Crop and Soil Sciences

Preparation of chromosomes from commercially important plants for cytogenetic analysis.

### 836 Plant Evolution and the Origin of Crop Species

Fall of even years. 3(3-0) Interdepartmental with Crop and Soil Sciences; Forestry. P:NM: (CSS 350)

Cultural and biological aspects of the evolution of domestic plants. Origin and diversity of cultivated plants.

# 850 Population Genetics, Genealogy and

**Genomics** Fall. 3(3-0) Interdepartmental with Forestry; Animal Science; Crop and Soil Sciences; Genetics; Fisheries and Wildlife. Administered by Department of Forestry. RB: Precalculus, basic genetics

Population genetic processes underlying patterns of molecular genetic variation. Genealogical approaches to the study of genomic diversity, phylogenetic reconstruction, and molecular ecology.

#### 853 Plant Mineral Nutrition

Fall of odd years. 3(3-0) Interdepartmental with Crop and Soil Sciences. Administered by Department of Crop and Soil Sciences. P:NM: (BOT 301)

Inorganic ion transport in plant cells and tissues. Physiological responses and adaptation to problem soils. Genetic diversity in nutrient uptake and use by plants. Physiological roles of elemental nutrients in crop growth.

#### **Environmental Plant Physiology** 863

Spring of odd years. 3(3-0) Interdepartmental with Botany and Plant Pathology. Administered by Department of Botany and Plant Pathology. P:NM: (BOT 301 or BOT 414 or BOT 415)

Interaction of plant and environment. Photobiology, thermophysiology, and plant-water relations.

### Techniques of Analyzing Unbalanced 870 **Research Data**

Spring. 4(4-0) Interdepartmental with Animal Science; Crop and Soil Sciences; Forestry; Fisheries and Wildlife. Administered by Department of Animal Science. P:NM: (STT 464) R: Open only to graduate students in the College of Agriculture and Natu-ral Resources. SA: ANS 943 Not open to students with credit in ANS 943.

Linear model techniques to analyze biological research data characterized by missing and unequal number of observations in classes. Simultaneous consideration of multiple factors. Prediction of breeding values and estimation of population parameters from variance and covariance components.

#### 890 Independent Study

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Individual study of problems of special interest.

# Selected Topics in Horticulture 891A Fall, Spring, Summer. 1 to 3 credits. A stu-dent may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate students in Horticulture. Approval of department.

Horticultural science topics of current interest and importance.

### 891B Selected Topics in Plant Breeding and Genetics

Fall, Spring, Summer. 1 to 2 credits. A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Crop and Soil Sciences; Forestry. R: Open only to graduate students in Plant Breeding and Genetics or Genetics. Approval of department.

Selected topics in plant breeding.

#### 892 Plant Breeding and Genetics Seminar

Fall, Spring, Summer. 1(1-0) A student may earn a maximum of 8 credits in all enrollments for this course. Interdepartmental with Crop and Soil Sciences; Forestry.

Experience in review, organization, oral presentation, and analysis of research.

#### 894 Horticulture Seminar

Fall, Spring. 1(1-0) A student may earn a maximum of 4 credits in all enrollments for this course.

Experience in review, organization, oral presentation and analysis of research.

#### Master's Research 898

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.

Master's degree Plan B project.

#### Master's Thesis Research 899

Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to graduate students in Horticulture.

Master's thesis research.

## Quantitative Genetics in Plant Breeding 941 Spring of even years. 3(3-0) Interdepartmental with Crop and Soil Sciences; Forestry. Administered by Department of Crop and Soil Sciences. P:NM: (CSS 450 and STT 422)

Theoretical genetic basis of plant breeding with emphasis on traits exhibiting continuous variation. Classical and contemporary approaches to the study and manipulation of quantitative trait loci.

#### 999 **Doctoral Dissertation Research**

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to Ph.D. students in Horticulture. Doctoral dissertation research.

# HOSPITALITY BUSINESS HB

# School of Hospitality Business The Eli Broad College of Business and The Eli Broad **Graduate School of Management**

Introduction to the Hospitality Industry 200 Fall. 3(3-0) R: Open only to freshmen or sophomores or approval of school. SA: HRI 200

Sectors, segments and disciplines of the hospitality and tourism industries. Impact of travel and tourism. Hospitality trends. Overview of accounting, marketing, and sales.

### Introduction to the Casino Industry 210 Fall. 3(3-0)

Social issues of gaming, casino games of chance, management controls and marketing plans.

#### 211 **Club Operations and Management**

Spring of odd years. 3(3-0) Club operations and management. City, country, yacht, and athletic clubs. Field trips required.

#### 237 **Management of Lodging Facilities**

Spring. 3(3-0) P:M: (HB 200) R: Open only to freshmen or sophomores or juniors. SA: HRI 237

Operational departments and logical functions in the operation of various types of lodging properties. Planning and control of physical, mechanical, and electrical systems.

# 265

Quality Food Management Spring. 3(3-0) P:M: (HB 200) R: Open only to freshmen or sophomores or juniors. SA: HRI 265

Standards of microbiology, sanitation, nutrition, and other quality issues in food management. Chemical, health, and workplace standards. Management of product quality and costs.

### 293 **Cooperative Education for Business** Students

Fall, Spring. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course. Interdepartmental with Marketing and Supply Chain Management; Accounting; Economics; Finance; Management. Administered by Department of Marketing and Supply Chain Management. R: By permission of the Department only.

Integration of pre-professional educational employment experiences in industry and government with knowledge and processes taught in the student's academic program. Educational employment assignment approved by the Department of Marketing and Supply Chain Management.

# Hospitality Managerial Accounting Fall, Spring. 3(3-0) P:M: (ACC 201 and CSE 101 or concurrently and HB 200) R: Open 302

only to juniors or seniors. SA: HRI 302 Principles of managerial accounting applied to hos-

pitality enterprises. Topics include financial stat ements, forecasting methods, internal control, and accounting ethics.

# 307 Organizational Behavior in the

Hospitality Industry (W) Spring. 3(3-0) P:M: (MGT 315 or concur-rently) and completion of Tier I writing pquirement. R: Open only to juniors or seniors in the College of Business. SA: HRI 307 Human resource management and interpersonal skills in the hospitality industry. Managing in a cul-

#### **Casino Operations and Management** 320

turally diverse workplace.

Spring of even years. 3(3-0) P:M: (HB 210) Practices and problems associated with casino management, staffing, security, protection of table games, and control.

# 337

Hospitality Information Systems Fall. 3(3-0) P:M: (HB 237 and CSE 101) SA: HRI 337

Technology for gathering, analyzing, storing and communicating information within the hospitality industry.

#### 345 **Quantity Food Production Systems**

Fall, Spring. 3(1-4) P:M: (HB 265) R: Open only to juniors or seniors. SA: HRI 345

Organization of food and beverage operations. Product knowledge, especially purchasing, storing, preparing and production in food service operations. Menu development and recipe management.

#### 410 **Casino Controls and Finance**

Fall of odd years. 3(3-0) P:M: (ACC 201 and HB 210)

Gaming regulation of the casino industry, casino cash controls, accounting controls, slot machine controls, financial reporting, requirements.

**411** Hospitality Beverages Spring of odd years. 3(3-0) P:M: (HB 200) Evaluation and selection of hospitality beverages. Geographical origins of beverages, beverage production, quality assessment, matching beverages with food, health and social considerations.

# Total Quality Management in the 415 Hospitality Industry Spring. 3(3-0) P:M: (MGT 315 or HB 307)

Total quality management and continuous quality improvement in the hospitality industry. Quality planning and control, assessment, customer surveys and feedback, cost of quality.

#### 473 **Hospitality Industry Research**

Fall, Spring. 3(3-0) P:M: (HB 337 and STT 315) R: Open only to seniors. SA: HRI 473 Not open to students with credit in MSC 317 or STT 317.

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

#### 475 Innovations in Hospitality Marketing

Fall, Spring. 3(3-0) P:M: (MSC 300 and HB 307 and HB 473) R: Open only to seniors. SA: HRI 475

Marketing of hospitality industry products and concepts, amid global competition and culturally diverse markets and workforces.