864. Readings in Recent European History

Fall, Winter, Spring. 4 credits.

- 867. Readings in Russian History Fall, Winter, Spring. 4 credits.
- 873. Readings in the History of International Relations Fall, Winter, Spring, 4 credits.
- 894. Readings in African History Fall, Winter, Spring. 4 credits.
- 897. Readings in Asian History Fall, Winter, Spring. 4 credits.

898. Directed Reading

Fall, Winter, Spring, Summer. 4 credits. May reenroll for a maximum of 16 credits. Graduate students; approval of department.

Supervised individual reading on special topics and fields.

899. Master's Thesis Research

Fall, Winter, Spring. Variable credit. Approval of department.

901A. Doctoral Seminar

Fall. 3(3-0) Admission to doctoral program in history.

HST 901A, HST 901B and HST 901C constitute a three-term seminar required of students entering doctoral program. Under guidance of dissertation director and course instructors student will prepare major research paper and submit for criticism by all participants. Grades are given for the three terms at the end of HST 901C.

901B. Doctoral Seminar

Winter. 3(3-0) HST 901A.

Continuation of HST 901A.

901C. Doctoral Seminar

Spring. 3(3-0) HST 901B.

Continuation of HST 901B.

999. Doctoral Dissertation Research

Fall, Winter, Spring. Variable credit. Approval of department.

HISTORY OF ART

See Art.

HORTICULTURE HRT

Coilege of Agriculture and Natural Resources

101. Principles of Horticulture

Fall, Spring. 4(3-2) Not open to students with credit in HRT 201.

Principles of horticultural science and horticultural crop production, as related to fruits, vegetables, flowers and landscape plants.

211. Ornamental Trees and Narrow-leaved Evergreens Fall. 4(2-4)

Identification, adaptation and evaluation of trees, deciduous shrubs, narrow-leaved evergreens and woody vines. Emphasis is on the asthetic and functional uses of trees and shrubs in the landscape.

212. Ornamental Flowering Shrubs and Broad-leaved Evergreens

Spring. 4(2-4) HRT 211 or approval of instructor.

Identification, adaptation and evaluation of trees, deciduous shrubs, broad-leaved evergreens, woody vines and ground covers. Emphasis is on the flowering characteristics and aesthetic and functional uses of plants in the landscape.

221. Commercial Plant Propagation

Winter. 4(3-2) HRT 101.

Principles of plant propagation by seed, cuttage, layerage, and graftage employed by nurseries; use of growth regulators and environmental treatments in plant propagation.

319. Small Fruit Production

(419.) Winter of odd-numbered years. 3(3-0) HRT 101, BOT 205, BOT 301.

Commercial production culture, utilization and physiology of strawberries, grapes, blueberries and raspberries.

320. Tree Fruit Production

Fall. 4(3-2) HRT 101, Juniors.

Commercial production of principle tree fruit crops of Michigan with emphasis on planting, soil management, fertilization, pruning, thinning, and grafting.

325. Ornamental Plant Management Spring. 4(3-2) HRT 101, HRT 211, HRT

212.

Transplanting and maintenance of landscape plants subject to stresses of urban environment. Development of annual maintenance specifications. Identification and evaluation of herbaceous annuals, biennials and perennials for landscape.

326. Herbaceous Ornamental Plants

Summer. 4(3-3) HRT 101 or BOT 205 or approval of department.

Identification, evaluation, and utilization of annual, biennial, and herbaceous perennial plants for landscape. Includes bulbs, herbs, grasses, ferns, and cultivated plants.

330. Special Problems

Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 12 credits. Approval of department.

Individual work on a field, laboratory or library research problem of special interest to the student.

331. Selected Topics

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

350. Floral Design

Spring. 2(0-4) Junior majors and approval of department.

Principles of floral design and the care and handling of materials. Creation of corsages, terraria, tropical planters, and home, hospital and novelty arrangements.

402. Principles of Weed Control for Horticultural Crops

Spring, 4(3-2) CEM 143, BOT 301.

Principles underlying weed control practices for horticultural crops. Weed biology and factors involved in biological, cultural, mechanical and chemical control. Collection of 40 weed species required.

408. Principles of Plant Breeding

Winter. 4(3-2) CSS 250. Interdepartmental with and administered by the Department of Crop and Soil Sciences.

Application of genetics and other sciences to breeding and improvement of agronomic and horticultural crops.

410. Fruit Tree Physiology I

Winter of even-numbered years. 4(4-0) Juniors, BOT 301, HRT 101.

Physiological effects of nutrition, moisture, light, temperature and culture as related to tree fruit crops.

412. Fruit Tree Physiology II

Winter of odd-numbered years. 3(3-0) Juniors, HRT 101, BOT 301.

Physiology of flowering and fruit development in woody plants with special reference to chemical and cultural methods of manipulation.

416. Handling and Storage of Horticultural Crops

Spring. 4(3-2) Juniors.

Biological principles involving physical movement of fresh products from farm to consumer; physiological processes affecting maturity, quality and condition; selection and use of handling, storage, and transport facilities.

417. Controlled Plant Environment Fall. 3(3-0) HRT 101, BOT 301 or BOT

414.

Control of greenhouse environment and its effect on growth and production of horticultural crops.

418. Controlled Plant Environment Laboratory

Fall. 2(1-2) HRT 417 or concurrently. Experiments in the morphology and physiology of greenhouse crops. Crop production and the use of greenhouse equipment.

433. Greenhouse Cut Flower and Foliage Plant Production

Spring of even-numbered years. 4(3-2) HRT 418 or approval of department.

Principles of cut flower and foliage plant physiology; emphasizes production management.

434. Greenhouse Container-Grown Plant Production

Winter. 4(3-2) HRT 418 or approval of department.

Principles of flower crop physiology; management of container-grown plant production.

435. Commercial Bedding Plant Production

Spring of odd-numbered years. 4(3-2) HRT 417, HRT 418, HRT 434.

Production and marketing of bedding plants. Includes germination, soils, transplanting, environmental factors, production practices, major species, structures, equipment, systems, problems, economics and marketing. One field trip required.

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, I(0-2) HRT 452 or concur-

rently.

Identification of seeds and plants and factors affecting germination, sex expression, permature 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.

801. Research Procedures in Plant Science

Winter, 4(3-2) Approval of depart-

ment.

Orderly approach to problems of biological research in relation to basic principles of research.

808. Physiology of Horticultural Crops

Winter of even-numbered years. 4(3-2)

Wint 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.

810. 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 reenroll for a maximum of 12 credits. Approval of department.

831. Selected Topics

Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll 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.

899. Master's Thesis Research

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

999. Doctoral Dissertation Research

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

HOTEL, RESTAURANT AND INSTITUTIONAL HRI

College of Business and Graduate School of Business Administration

102. Introduction to the Service Industries

Fall. 3(3-0) Not open to Seniors.

Management careers and opportunities in hotel, motel, food service, health facilities, club, recreational centers, tourism and other public hospitality businesses. Includes front office practice. Local field trip required.

203. Service Industry Accounting

(303) Fall, Spring. 4(4-0) AFA 202; not open to Seniors.

Principles of accounting applied to service industries. Financial statement analysis and cash flow concepts. Managerial accounting emphasized.

237. Management of Lodging Facilities

Fall, Winter, Spring. 4(4-0) Sophomore majors.

An analysis of the guest cycle through examination of various operating departments within a hotel. Functions of revenue and nonrevenue departments with emphasis on managing departmental interrelationships.

245. Food Production Science

Fall, Spring. 4(4-0) HNF 100.

Interrelationships of the physical, biological and chemical principles relevant to the food service industry.

252. Professional Experience I

Fall, Winter, Spring, Summer. 1 credit. Approval of school.

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

261. Dimensions of Tourism

Fall, Winter. Summer of oddnumbered 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

Fall, Spring. 4(4-0) HRI 245.

Interrelationships of the environmental, microbiological and physiological principles relevant to the food service industry.

307. Supervision in the Hospitality Industry

Fall, Winter, Spring. Summer of even-numbered years. 4(4-0) HRI 237, MGT 302.

The direction of people at work in the hospitality industry. Special applications of supervisory management skills in hotels, restaurants and other hospitality industry establishments.

335. Service Industries Equipment and Utilities

(235.) Fall, Winter. Summer of evennumbered years. 4(4-0) MTH 108 or MTH 111; HRI 237.

Engineering in food and lodging industry, emphasizing utilities, machinery characteristics and environment.

337. Management Systems for the Hospitality Industry

Winter, Spring. Summer of evennumbered years. 4(4-0) CPS 110, EC 200.

Evaluation and appraisal of management systems currently in use and the development of new management systems for the hospitality industry.

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 prior 400 hours of approved professional work experience in the hospitality industry.

375. Marketing of Hospitality and Travel Services

Fall, Winter, Spring, Summer. 4(4-0)

Applications of marketing concepts, methods and techniques in the hospitality and travel sector. Uses and limitations of various promotional forces such as advertising, field selling, merchandising, sales promotion, and in-house selling.

392. Managerial Finance for the Hospitality Industry

Fall, Winter, Spring. 4(4-0) AFA 391,

HRI 203.

Basic financial concepts applied to the hospitality management industry. Methods of expansion; franchises, condominiums, leases and management contracts. Financial aspects of feasibility studies. Financial ratios specific to the hospitality industry.

405. Food and Beverage Management

Winter, Spring. Summer of evennumbered years. 4(4-0) HRI 265, HRI 203.

Duties and responsibilities of the manager in restaurant and catering operations. Management methods in goal setting, forecasting, controlling quality and costs; establishing policies to create favorable acceptance and profitable operations.

435. Food Production Systems

Fall, Winter, Spring. Summer of even-numbered years. 6(4-6) FSC 242, HRI 405. Recognition and achievement of quality in development of systematic relationships between menu items, time, labor, equipment and costs in quantity food production. Quality procurement policies for food, beverages and related items. Field trips required.

455A. Food Evaluation

Spring. 4(4-0) Approval of school.

History of foods and related physiological and psychological theories and their application to quality consideration.