

**Descriptions – History
of
Courses**

819. **Readings in Latin-American History**
Fall, Winter, Spring. 4 credits. Approval of department.
821. **Readings in Seventeenth and Eighteenth Century American History**
Fall, Winter, Spring. 4 credits. Approval of department.
822. **Readings in Nineteenth Century American History**
Fall, Winter, Spring. 4 credits.
823. **Readings in Twentieth Century American History**
Fall, Winter, Spring. 4 credits.
831. **Archives Administration**
Winter. 4(4-0) Graduate students.
Review of archives administration, past and present, study of archivist's functions in the archives of business, government, educational, and private agencies.
832. **Archives Operations**
Spring. 4(1-6) HST 831.
Practical work in processing and analyzing collections in University Archives and Historical Collections; reporting and critiques on archives operations.
833. **Archives Independent Study**
Fall, Winter, Spring, Summer. 4 credits. HST 832.
An advanced archives course in which the student works under supervision on one or more projects, e.g., processing, finding aids, and oral history.
- IDC. **Subsaharan Africa Seminar**
For course description, see *Interdisciplinary Courses*.
848. **Readings in English History**
Fall, Winter, Spring. 4 credits.
852. **Readings in Ancient History**
Fall, Winter, Spring. 4 credits.
853. **Readings in Medieval History**
Fall, Winter, Spring. 4 credits.
855. **The Industrial Revolution in Europe**
Winter of even-numbered years. 3(3-0) EC 318, EC 324. Interdepartmental with and administered by the Department of Economics. The preconditions that led to the momentous changes in agriculture and industry in Europe from 1700-1914.
857. **Readings in Renaissance and Reformation**
Fall, Winter, Spring. 4 credits.
863. **Readings in Early Modern European History**
Fall, Winter, Spring. 4 credits.
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

College 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.
201. **Fruits, Vegetables, and Ornamental Plants for Outdoor Home Plantings**
Spring. 4(3-2) Not open to students with credit in HRT 101.
Principles and practices used in producing fruits, vegetables, flowers, trees, shrubs and vines in small gardens, containers, and the home landscape. Indices for edible quality of home grown fruits and vegetables.

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 aesthetic 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**
(421.) Fall, Winter. 4(3-2) HRT 101.
Principles of plant propagation by seed, cutting, layerage, and graftage employed by nurseries; use of growth regulators and environmental treatments in plant propagation.
230. **Indoor Plants and Flowers**
(323.) Fall, Winter, Spring. 3(1-4) Horticulture majors will be required to learn scientific names of plants.
Identification, culture and propagation of plants; principles of flower arrangement, construction of dish gardens and hanging baskets, and the forcing of bulbs.
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.
324. **Mass Merchandising Ornamental Plants**
Spring. 2(1-2) HRT 101, HRT 211 or HRT 212.
History of merchandising ornamental plants; types of garden centers, impact of cultural information and labeling on consumer. The manager, advertiser, and buyer decision making process. One day field trip required.
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.
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**
Fall. 4(3-2) CEM 132, BOT 301.
Principles underlying weed control practices for horticultural crops. Factors involved in mechanical, chemical and biological control.
- 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**
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. Tree Crop Flower and Fruit Physiology**
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.
- 419. Small Fruit Production**
Winter. 3(3-0) HRT 101, BOT 205, BOT 301.
Commercial production culture, utilization and physiology of strawberries, grapes, blueberries and raspberries.
- 433. Greenhouse Cut Flower and Foliage Plant Production**
Spring of even-numbered years. 4(3-2) May reenroll for a maximum of 8 credits. 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. 1(0-2) HRT 452 or concurrently.
Identification of seeds and plants and factors affecting germination, sex expression, premature 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 department.
Orderly approach to problems of biological research in relation to basic principles of research.
- 807. Physiology of Horticultural Crops I**
Fall. 4(3-2) BOT 415.
Physiology and biochemistry of bulbous crops; morphological aspects and techniques of horticultural crops; sex expression and seed production.
- 808. Physiology of Horticultural Crops II**
Winter. 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.
- 809. Physiology of Horticultural Crops III**
Spring. 4(3-2) BOT 415.
Physiology of abscission, winter hardiness, water and nutrient relations, crop productivity and problems concerned with crop production.
- 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. Variable credit. 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.
- 951. Cytogenetics in Plant Breeding**
Winter of odd-numbered years. 3(3-0) BOT 427, BOT 828, or approval of department. Interdepartmental with and administered by the Department of Crop and Soil Sciences.
Application of cytogenetic principles to plant breeding. Significance of recombination, role of induced mutations, polyploid, chromosome substitution, and aneuploid analyses as they apply to the field of plant breeding.
- 999. Doctoral Dissertation Research**
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

HOTEL, RESTAURANT AND INSTITUTIONAL MANAGEMENT HRI

College of Business

- 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.