923. Seminar in Twentieth Century American History  
Fall, Winter, Spring. 5 credits.

924. Seminar in American Constitutional History  
Fall, Winter, Spring. 5 credits.

925. Seminar in American Social and Intellectual History  
Fall, Winter, Spring. 5 credits.

926. Seminar in American Social and Economic History  
Fall, Winter, Spring. 5 credits.

927. Seminar in American Foreign Policy  
Fall, Winter, Spring. 5 credits.

929. Seminar in Afro-American History  
Fall, Winter, Spring. 5 credits.

930. Seminar in American Urban History  
Fall, Winter, Spring. 5 credits.

932. Seminar in Ancient History  
Fall, Winter, Spring. 5 credits.

934. Seminar in the Renaissance  
Fall, Winter, Spring. 5 credits.

935. Seminar in the French Revolution and Napoleon  
Fall, Winter, Spring. 5 credits.

937. Seminar in Russian History Before 1800  
Fall, Winter, Spring. 5 credits.

938. Seminar in Modern Russian History  
Fall, Winter, Spring. 5 credits.

939. Seminar in East European History  
Fall, Winter, Spring. 5 credits.

940. Seminar in English History to 1888  
Fall, Winter, Spring. 5 credits.

941. Seminar in Modern British History  
Fall, Winter, Spring. 5 credits.

942. Seminar in Early Modern European History  
Fall, Winter, Spring. 5 credits.

943. Seminar in Modern European History  
Fall, Winter, Spring. 5 credits.

944. Seminar in Modern European Intellectual History  
Fall, Winter, Spring. 5 credits.

945. Seminar in Modern French History  
Fall, Winter, Spring. 5 credits.

946. Seminar in Modern German History  
Fall, Winter, Spring. 5 credits.

947. Seminar in European International Relations  
Fall, Winter, Spring. 5 credits.

948. Seminar in West African History  
Fall, Winter, Spring. 5 credits.

959. Seminar in East African History  
Fall, Winter, Spring. 5 credits.

960. Seminar in China in the Traditional Period  
Fall, Winter, Spring. 5 credits.

961. Seminar in Modern China  
Fall, Winter, Spring. 5 credits.

966. Historical Interpretation  
Fall, Winter, Spring. 1 credit. May re-enroll for a maximum of 9 credits. Approval of department. Open only to teaching assistants in history. Supervised direction in preparation and conduct of a teaching assignment required of all doctoral candidates. Student will work under the direction of a regular faculty member. Doctoral candidates must enroll in three terms of this course while fulfilling required teaching assignment.

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

HISTORY OF ART  
See Art

HORTICULTURE  
HRT

College of Agriculture and Natural Resources

201. Fruits and Vegetables for Home and Garden  
Spring. 3(2-2)  
Principles and practices used in producing fruits and vegetables for the home in small gardens and containers; guidance in how to determine the edible quality of fresh fruits and vegetables.

211. Landscape Plants I  
Fall. 4(1-6)  
Adaptation, identification, and evaluation of narrow-leaved evergreens, deciduous shrubs and trees, and woody vines, as they are used in the landscape. Emphasis is placed on the seasonal interest of the plants studied.

212. Landscape Plants II  
Spring. 4(1-6)  
Continuation of 211. Additional emphasis on the flowering characteristics of both deciduous and broad-leaved evergreen shrubs, trees and vines.

320. Commercial Fruit Production  
Fall. 4(3-2) Juniors.  
Commercial production of principal tree fruit crops of Michigan with emphasis on planting, soil management, fertilization, pruning, thinning, and grafting.

323. Indoor Plants and Flowers  
Fall, Winter, Spring. 3(1-4) Not open to horticulture Majors.  
Identification, culture, propagation and use of plants for homes, schools, offices and public buildings; principles of flower arrangement, construction of dish gardens and hanging baskets, and the forcing of bulbs.

325. Outdoor Plants and Flowers  
Spring. 4(3-2)  
Identification, use and landscape maintenance of flowering annuals, perennials, roses, trees, shrubs and evergreens. The Horticulture gardens are utilized as an outdoor laboratory.

330. Special Topics in Horticulture  
Fall, Winter, Spring, Summer. 1 to 9 credits. May re-enroll for a maximum of 18 credits. Approval of department. Special studies in fields not covered in other horticulture courses; primarily independent study.

402. Principles of Weed Control  
Fall. 3(2-3) Juniors. Interdepartmental and administered jointly with Crop Science.  
Comprehensive study of principles underlying weed control practices, and factors involved in both mechanical and chemical control.

408. Principles of Plant Breeding  
Spring. 4(3-2) CSC 250. Interdepartmental and administered jointly with Crop Science.  
Application of genetics and other sciences to breeding and improvement of agronomic and horticultural crops.

411. Fruit and Landscape Crop Physiology I  
Fall. 4(3-2) Juniors.  
Physiological effects of moisture and nutritional environments related to fruit crops and woody perennial plants.

412. Fruit and Landscape Crop Physiology II  
Winter of odd-numbered years. 4(3-2) Juniors.  
Physiology of flowering and fruit development in woody plants.

416. Handling and Storage of Horticultural Crops  
Winter. 4(1-0) 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. 4(2-4) BOT 301 or 414.  
Control of greenhouse environment and its effect on growth and production of horticultural crops.

419. Small Fruits  
Winter. 3(3-0) Juniors.  
Production, culture, utilization and physiology of strawberries, grapes, blueberries and raspberries.

421. Principles of Plant Propagation  
Winter. 4(3-2) Juniors.  
Principles of plant propagation by seed, cuttings, layerage, and graftage; selection and stock relationship; stocks for fruit and ornamental plants; practices employed by nurseries in propagation of plants.

424. Pesticide and Growth Regulating Chemicals for Horticultural Crops  
Spring. 3(2-2) Juniors.  
Spray and dust equipment and application; pesticide and growth regulating chemicals, their use in the growing of horticultural crops, and influence on the physiology of the plant.

432. Vegetable Crop Physiology  
Spring. 4(3-2) May re-enroll for a maximum of 8 credits. Juniors.  
Physiological principles involved in and related to the production of high quality vegetables.
433. Greenhouse Cut Flower Production
Winter of even-numbered years. 4(3-2)
May re-enroll for a maximum of 8 credits.
Principles of flower crop physiology; includes control of environmental conditions, and emphasizes the management of cut flower production.

434. Greenhouse Container-Grown Plant Production
Winter of odd-numbered years. 4(3-2)
417 or approval of department.
Principles of flower crop physiology, includes control of environmental conditions and emphasizes the management of container-grown plant production.

440. Nursery Management
Fall of even-numbered years. 3(2-2)
Management practices employed by wholesale, retail and landscape nurseries. Field trips to nurseries required.

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.

505. Growth and Development
Winter. 4(3-2) BOT 301 or 414; 415.
Effects of environment and treatment with growth regulating chemicals on morphology and physiology of horticultural plants, and the roles of endogenous growth regulators in plant development.

809. Water and Nutritional Requirements
Fall. 4(3-2)
Factors affecting nutrition and methods and techniques for evaluating nutrient requirements for crop production.

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

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

830. Advanced Horticultural Studies
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

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

931. Cytogenetics in Plant Breeding
Winter of odd-numbered years. 3(3-0)
BOT 627, 628, or approval of department. Interdepartmental with and administered by Crop Science.
Application of cytogenetic principles to plant breeding. Significance of recombination, role of induced mutations, polyplid, chromosome substitution, and aneuploid analyses as they apply to the field of plant breeding.

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

**HOTEL, RESTAURANT AND INSTITUTIONAL MANAGEMENT**

**College of Business**

102. Introduction to the Service Industries
Fall. 3(3-0)
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.

235. Service Industries Equipment and Utilities
(315) Fall, Winter. Summer of even-numbered years. 4(4-0) MTH 105.
Engineering in food and lodging industry, emphasizing utilities, machinery characteristics and environment.

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.

261. Dimensions of Tourism
Fall, Winter. Summer of odd-numbered years. 4(4-0) EC 291.
Forces which influence the international and domestic hospitality, leisure, travel and recreation industries. Social-economic models and measurement of regional impact, demand and supply.

265. Food Production Standards
Fall, Spring. 4(4-0) 245; HNF 100.
Interrelationships of the environmental, microbiological and physiological principles relevant to the food service industry.

303. Service Industry Accounting
(203A., 203.) Fall, Winter. 4(4-0) AFA 207, 208.

305. Lodging Management I
Fall, Winter. Summer of even-numbered years. 4(4-0) MGT 302.
Ethics and policies. Organization and manpower planning and development. Employee compensation and benefits as they apply to hospitality organization.

306. Lodging Management II
Winter, Spring. Summer of even-numbered years. 4(4-0) 305.
Continuation of 305. Supervision and activation of employees with emphasis on human relations, collective bargaining-negotiations and operating under the contract.

323. Health Facilities Internship
Fall, Winter, Spring, Summer. Zero credit. 12 credits, approval of health facilities management coordinator.
At least 800 hours of actual experience in senior-junior year, in a health care facility or related organization. Application of theoretical concepts to practical situations.

337. Management Systems for the Hospitality Industry
Winter, Spring. Summer of even-numbered years. 4(4-0) MGT 302 and Juniors.
Evaluation and appraisal of management systems currently in use and the development of new management systems for the hospitality industry.

350. Work Analysis and Design
(350A.) Fall, Winter. Summer of odd-numbered years. 4(4-0).
Work methods and layout. Includes flow analysis, time and motion study, work simplification, data processing and setting of standards.

375. Marketing of Hospitality Service
(375A., 375B.) Fall, Spring, Summer.
4(4-0)
Applications of marketing concepts and techniques to businesses in the hospitality sector. Uses and limitations of various promotional forces such as advertising, field selling, merchandising, sales promotion, and in-house selling.

400H. Honors Work
Fall, Winter, Spring, Summer. Variable credit. Approval of school.

405. Food and Beverage Management
Fall, Winter. 4(4-0) 255, 263, 309.
Duties and responsibilities of the manager in restaurant and catering operations. Management methods in goal setting, forecasting, cost controlling quality and costs; establishing policies to create favorable acceptance and profitable operation.

435. Food Production Systems
(345.) Fall, Spring. Summer of even-numbered years. 6(4-4) 465, 472.
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.

445. Passenger Transportation Systems
Winter. 4(4-0) Interdepartmental with and administered by the Marketing and Transportation Administration Department.
Composition and objectives of principal passenger travel markets: Analysis of carrier service, pricing and promotional practices and problems, competitive and cooperative relations. Review of major proposals for change and expansion of service systems.

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.

455B. Beverage Evaluation
Winter. 4(4-0) Approval of school.
History of beverages and related physiological and psychological theories and their application to quality considerations.

481. Tourism Planning and Development
Winter. Summer of odd-numbered years. 4(4-0) EC 200 or 201.
Evolution of tourism as an industry, correlation theory of tourism, tourism organizations, planning and development. Field trip required.

486. Tourism Planning and Development
Fall, Spring. 4(4-0) 261 or 491 or 448.
Tourism resource characteristics, location, and market demand considerations. Analysis of development potential, planning processes and procedures, capital and personnel requirements, and tourism destination developments.

1See page A-5 Item 3