325. Ornamental Plant Management
Spring. 4(3-2) 211 or 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 12 credits. May re-enroll for a maximum of 18 credits. Approval of department.
Principly independent study: culture of horticulture crops indoors and outdoors; plant propagation and breeding; plant growth and development; flower store management, floral design. Library research, working with plants, teaching, field trips or seminars.

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 plaaters, and home, hospital and novelty arrangements.

402. Principles of Weed Control
Fall. 3(2-2) 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
Winter. 4(3-2) CSC 250. Interdepartmental and administered by 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(4-0) 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. 3(3-0) BOT 301 or 414.
Control of greenhouse environment and its effect on growth and production of horticultural crops.

418. Controlled Plant Environment Laboratory
Fall. 1(0-2) 417 or concurrently.
Experiments in the morphology and physiology of greenhouse crops. Crop production and the use of greenhouse equipment.

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, cutting, layering, and grafting; action 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 formulation and application; pesticide and growth regulating chemicals, their use in the growing of horticultural crops, and influence on the physiology of the plant.

425. Post Harvest Physiology
Spring. 4(3-2) 245; HNF 100.
Biochemical and biophysical changes associated with the maturation, ripening and senescence of harvested horticultural plants.

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

999. Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.
Application of cyto genetic principles to plant breeding. Significance of recombination, role of induced mutations, polyplody, chromosomes substitution, and anaglyd analyses as they apply to the field of plant breeding.
303. Service Industry Accounting
(203A, 203.) Fall, Spring. 4(4-0)
AFA 302, 391
Principles of accounting applied to service indus­
tries. Financial statement analysis and cash flow concepts. Managerial accounting empha­
sized.

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

306. Lodging Management II
Winter, Spring. Summer of even-num­
bered 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.

337. Management Systems for the Hospitality Industry
Fall, Spring. Summer of even num­
erated 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
Fall, Winter. Summer of odd-num­
erated 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 and Travel Services
Fall, 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.

405. Food and Beverage Management
(447.) Winter, Spring. Summer of even-num­
erated years. 4(4-0) 302, 396.
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 operation.

435. Food Production Systems
Fall, Winter, Spring. Summer of even-num­
erated years. 6(4-0) 405, 472.
Recognition and achievement of quality in develop­
ment 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) MTA 300 or HRU 375.
Interdepartmental with and administered by the Department of Marketing and Transpor­
tation Administration.
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 ex­
pansion 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
Fall. 4(4-0) Approval of school.
History of beverages and related physiological and psychological theories and their application to quality considerations.

462. Tourism Management
Winter. 4(4-0)
Tourism organizations, functions, and policy determination, tour wholesaling and retail travel agency management. Field trip required.

466. Tourism Planning and Development
Fall, Spring. 4(4-0) 281 or 375 or
448.
Tourism resource characteristics, location, and market demands, conditions. Analysis of de­
velopment potential, planning processes and pro­
cedures, capital and personnel requirements, and tourism destination developments.

472. Design and Layout
Winter, Spring. 4(4-0)
Conceptualization, design, layout and specification of service industry facilities.

473. Operations Research in the Service Industries
Fall, Spring. Summer of odd-num­
erated years. 4(4-0) 305; MTA 316.
Application of marketing and operational re­
search techniques to service industry manage­
ment problems, emphasizing quantitative and analytical decision models designed for specific operations in this field.

490. Educational Management
Fall, Spring. 4(4-0) 306; Seniors.
Advanced management concepts, leading to an understanding of decision theory as applied to directed investigation into specific hospitality operations.

499. Independent Study
Spring. 4(4-0) 499.
In-depth study of a significant problem in this field.

508. Educational Administration
Fall, Winter, Spring. 4(4-0) 508.
Supervision and administration of instruction in a field of his choice that will result in a positive contribution to the field.

598. Financial Management for the Service Industries
Winter. 4(4-0) AFA 840.
Covers leasing, franchising, tax considerations, planning to meet financial needs from internal sources or from capital markets, management of current and capital assets, including inventories and operational equipment.

599. Special Problems
Fall, Winter, Spring, Summer. 1 to 15 credits. Approval of school.
Opportunity for the outstanding student to engage in depth analysis of a service industry area of his choice that will result in a positive contribution to the field.

605. Special Problems in Hospitality Industry
Winter. 4(4-0) 898 or concurrently.
Formulation of plans based on analysis of situations and trends applying general business principles. Discussion of actual cases with leaders in service industries.

606. Facilities Programming
Fall. 4(4-0)
Application of principles and concepts drawn from many related disciplines to planning and operation of housing and food production systems, utilizing optimum physical and human resources.

HUMAN DEVELOPMENT    H D

College of Human Medicine

520. Genetics Clinic
Fall, Winter, Spring, Summer. 1 to 3 credits.
May re-enroll for a maximum of 9 credits.
Students will interview and examine patients with inheritable disorders, perform related laboratory diagnostic procedures, and participate in genetics counseling conferences and discussions.

590. Special Problems in Human Development
Fall, Winter, Spring, Summer. 1 to 8 credits.
May re-enroll for a maximum of 12 credits. Human Medicine students or approval of department.
Each student will work under direction of a staff member on an experimental, theoretical or applied problem.

606. Pediatric Specialty Clerkship
Fall, Winter, Spring, Summer. 1 to 17 credits.
May re-enroll for a maximum of 43 credits. 609, primary clerkship.
Clinical experience with pediatric patients under the direction of members of the faculty of the Department of Human Development and community pediatricians. Fall, Saginaw Winter, Lansing. Spring. Grand Rapids. Summer, Flint.

609. Human Development and Pediatric Sub-Specialties
Fall, Winter, Spring, Summer. 1 to 17 credits. May re-enroll for a maximum of 34 credits. H M 609.
Selected experiences in selected clinical and basic sciences related to pediatrics and human development.