445. Foodservice Management Experience
Spring. 2 credits.
P: HNF 441 or concurrently; MIC 205. R: Open only to seniors in Dietetics and graduate students in Human Nutrition. Approval of department.
Receipt, storage, preparation and service of foods. Safety and sanitation. Design, layout, and care of equipment. Costing. Meal tickets required. Offered half of semester.

450. Contemporary Cases from the Food Industry
Spring. 3(3-0)
P: HNF 350. R: Open only to seniors in the Department of Food Science and Human Nutrition.
Analysis and interpretation of the consumer environment. Development of effective strategies and policies for the food industry. Case study approach.

460. Advanced Human Nutrition
Fall. 5(5-0)
P: BCH 200 or BCH 401; HNF 150 or HNF 311; PSL 250.
Metabolism of carbohydrates, proteins, fats, vitamins, and minerals as related to dietary requirements and disease processes in humans. Recommended dietary allowances of nutrients. Metabolism of nutrients. Food sources of nutrients.

463. Nutrition and Human Development
Fall. 3(3-0)
P: HNF 460 or concurrently.
Role of nutrients in anatomical, physiological, and biochemical processes as related to human growth and development. Nutrition throughout the life cycle. Nutritional assessment and programs.

470. Clinical Nutrition and Dietetics
Spring. 4(3-2)
P: BCH 200 or BCH 401; HNF 460; PSL 250 or PSL 431. R: Not open to freshmen and sophomores. Completion of Tier I writing requirement.
Anatomical, physiological and biochemical changes associated with diseases. Nutritional assessment. Use of modified diets as adjuncts to other therapies.

473. Interpretation of Clinical Laboratory Tests in Dietetics
Fall. 3(3-0)
P: HNF 460 or concurrently.
Principles, procedures and interpretation of clinical laboratory tests. Interrelationships of nutrition and the biological sciences. Relationships of test results to total nutritional care.

474. Drug-Nutrient Interactions
Spring. 2(2-0)
P: HNF 460, one PSL course, one BCH course. R: Open only to juniors, seniors, and graduate students in the Department of Food Science and Human Nutrition.
Reciprocal effects of foods, nutrients, and dietary constituents and pharmacologic agents. Drug-nutrient interactions in high risk groups including the elderly. Drug-nutrient counseling.

480. Concepts of Human Nutrition Research Methods
Spring. 2(1-3)
P: HNF 311 or HNF 460; FSC 455. R: Open only to seniors and graduate students. Completion of Tier I writing requirement. Approval of department.
Issues and techniques involved in nutrition research with humans and animals. Guided laboratory experience plus independent project.

490. Independent Study
Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
R: Open only to juniors and seniors. Approval of department.
Individual study of selected topics in foods, foodservice management or nutrition.

490H. Honors Independent Study
Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
R: Not open to freshmen and sophomores. Open only to honors students. Approval of instructor.
Individual study of selected topics in foods, foodservice management or nutrition.

494. Practicum
Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
R: Open only to majors in Department of Food Science and Human Nutrition. Approval of department.
Professional experience in selected settings and organizations under faculty supervision.

840. Human Nutrition and Chronic Diseases
Fall of odd-numbered years. 3(3-0)
R: Open only to graduate students in Food Science, Human Nutrition, and Nursing.
Dietary intervention and treatment of chronic diseases: obesity, cardiovascular disease, diabetes, gastrointestinal disorders and cancer.

843. Community Nutritional Assessment
Spring. 3(2-2)
R: Open only to graduate students in Food Science, Human Nutrition, and Nursing.
Nutritional assessment of population groups in community settings. Interpretation of national and international health data.

890. Supervised Individual Study
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in Food Science and Human Nutrition. Students are limited to a combined total of 10 credits in HNF 890 and HNF 894.
Faculty supervised study of nutrition areas of individual interest.

891. Topics in Human Nutrition (MTC)
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course.
R: Open only to graduate students.
Current topics in applied and basic human nutrition.

892. Nutrition Seminar
Fall, Spring. 1(1-0) A student may earn a maximum of 6 credits in all enrollments for this course.
Presentations by students on current topics in nutrition.

894. Human Nutrition Practicum
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open only to graduate students in Food Science and Human Nutrition. Students are limited to a combined total of 10 credits in HNF 890 and HNF 894. Approval of department.
Experience in agencies or offices related to Human Nutrition. Field experience required.

899. Master's Thesis Research
Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 20 credits in all enrollments for this course.
R: Open only to masters students in Human Nutrition and Foods.

935. Nutrition: Lipid and Carbohydrate Metabolism
Fall of even-numbered years. 3(3-0) Interdepartmental with Animal Science.
R: Open only to graduate students in Food Science, Human Nutrition, Animal Science, and Nursing, and to graduate-professional students.
Regulatory aspects of lipid and carbohydrate metabolism as influenced by nutritional status.

936. Protein Nutrition and Metabolism
Spring of even-numbered years. 3(3-0) Interdepartmental with Animal Science. Administered by Animal Science.
Nutritional and endocrine regulation of protein synthesis and degradation, protein quality assessment, protein status, protein-energy malnutrition. Protein metabolism during exercise. Metabolism, digestion, and absorption of amino acids and proteins.

937. Mineral Nutrition and Metabolism
Fall of even-numbered years. 3(3-0) Interdepartmental with Animal Science. Administered by Animal Science.
Forms and locations of mineral elements in the body, metabolic functions, deficiencies, and toxicities, interrelationships and quantitative requirements.

938. Nutrition: Metabolism and Function of Vitamins
Spring of odd-numbered years. 3(3-0) Interdepartmental with Animal Science.
R: Open only to graduate students in Food Science, Human Nutrition, Animal Science, and Nursing, and to graduate-professional students.
Regulatory roles of vitamins at cellular and molecular levels.

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 doctoral students in Human Nutrition and Foods.

INTEGRATIVE MANAGEMENT — PIM

The Eli Broad College of Business and The Eli Broad Graduate School of Management

800. Managerial Skills
Summer. 1.5(1.5-0)
R: Open only to MBA students in the Program in Integrative Management.
Approaches to effective group management in business organizations. Creating, maintaining, and leading work groups.

801. Firm Analysis
Fall. 1 credit.
R: Open only to MBA students in the Program in Integrative Management.
Faculty supervised analysis of the student's employing organization. Organization and financial structure. Information, accounting, operating, and marketing systems.

802. Environmental Analysis
Spring. 1 credit.
R: Open only to MBA students in the Program in Integrative Management.
Faculty supervised analysis of the student's employing organization. Customer and competitor analysis. Legal and financial environment. Human resource issues.

803. Strategic Analysis
Fall. 1 credit.
R: Open only to MBA students in the Program in Integrative Management.
Faculty supervised analysis of the student's employing organization. Strategy formulation and policy integration.

811. Financial Accounting Concepts
Summer. 2(2-0)
R: Open only to MBA students in the Program in Integrative Management.
Financial reporting issues from a user's perspective. Measurement, valuation, and reporting concepts and issues. Analysis and use of financial accounting information for decision making.

812. Managerial Accounting Concepts
Fall. 1.5(1.5-0)
P: PIM 811. R: Open only to MBA students in the Program in Integrative Management.
Accounting information for decision making and control: cost behavior patterns, activity-based costing, cost allocations, budgeting, transfer pricing, and accounting controls. Application of course concepts to work environment.

813. Information Systems
Fall. 1.5(1.5-0)
R: Open only to MBA students in the Program in Integrative Management.
Information, process, and technology architectures of corporate information systems. Role of information in organizational control and decision making. Methods for evaluating effectiveness of information systems. Application of course concepts to the work environment.

821. Managerial Economics
Summer. 2(2-0)
R: Open only to MBA students in the Program in Integrative Management.
Analysis of the firm: demand and revenues, optimal production, cost minimization, profitability and pricing, and market structures.

831. Managerial Legal Environment
Spring. 1.5(1.5-0)
R: Open only to MBA students in the Program in Integrative Management.
The U.S. legal system. The interrelationship of law and ethics. Regulation of business by courts, state and federal statutes, and governments. Applications of course concepts to work environment.

841. Corporate Finance
Fall. 1.5(1.5-0)
P: PIM 811. R: Open only to MBA students in the Program in Integrative Management.
Valuation techniques for bonds and stocks. Investment decisions by firms. The relation between risk and return. Pricing models for risk. U.S. capital markets. Application of course concepts to work environment.

842. Managerial Finance
Spring. 1.5(1.5-0)
P: PIM 811, PIM 841. R: Open only to MBA students in the Program in Integrative Management.
Market efficiency, capital budgeting, security issues, dividend policy, capital structure, and bankruptcy costs. Agency problems between different stakeholders and option pricing. Application of course concepts to work environment.

850. Analysis and Decision Models
Summer. 2(1.8-.4)
P: STT 315. R: Open only to MBA students in the Program in Integrative Management.
Models to support decision making: applications of regression analysis, decision analysis, simulation, forecasting, and project management.

852. Organization Design
Fall. 1.5(1.5-0)
R: Open only to MBA students in the Program in Integrative Management.
Assessing tasks, environments, and technology to organize and implement corporate and business unit strategies. Assessing distinctive competencies in organizations to deal with dynamic environments. Application of course concepts to work environment.

853. Human Resource Management
Spring. 1.5(1.5-0)
R: Open only to MBA students in the Program in Integrative Management.
Strategic organizational issues associated with managing the labor market to acquire, develop, and compensate human resources. Application of course concepts to work environment.

861. Marketing Systems
Fall. 1.5(1.5-0)
R: Open only to MBA students in the Program in Integrative Management.
Marketing decision making within global, customer, economic, ecological, and competitive environments. Gathering and analyzing information. Developing strategies as guides for the organization. Developing operational marketing plans. Application of course concepts to work environment.

862. Customer and Competitor Analysis
Spring. 1.5(1.5-0)
P: PIM 861. R: Open only to MBA students in the Program in Integrative Management.
Assessment of consumer and organizational buying behavior processes and competitive environments. Competitive strategies and customers' needs, wants, motivations, and behaviors throughout the value-added chain. Application of course concepts to work environment.

870. Materials and Logistics Management
Fall. 1.5(1.5-0)
R: Open only to MBA students in the Program in Integrative Management.
Development of strategies within the supply chain. Interrelationships among purchasing, manufacturing, operations, and logistics management to enhance economic competitiveness. Application of course concepts to work environment.

871. Change and Innovation
Summer. 4.5(3.6-1.8)
R: Open only to MBA students in the Program in Integrative Management.
Analytic, decision making, and planning concepts and tools for development of new innovative products and services. Management of technology within changing processes and global environments.

872. Strategy in a Global Environment
Fall. 6(6-0)
R: Open only to MBA students in the Program in Integrative Management.
Strategies and operations within the firm's global political, economic, cultural, and competitive environment. Identifying, evaluating, and assessing business environments. Managing integrated operations to achieve and maintain competitive advantage. Application of course concepts to work environment.

873. Cross-Functional Management Issues
Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.
R: Open only to MBA students in the Program in Integrative Management.
A cross-functional analysis of a topic in business such as total quality management, quality of work life, global management, or impacts of new manufacturing.

887. Describing the Healthcare Industry
Spring. 3(3-0)
R: Open only to MBA students in the Program in Integrative Management.
The healthcare industry's unique economics, legal aspects, industry structure, market forces, and management challenges. Evolving concepts of products and quality. Social vs market forces. Managing organizations constituted of diverse, often competing, often quasi-autonomous stakeholder groups.

888. Change and Innovation in the Healthcare Industry
Summer. 3(3-0)
R: Open only to MBA students in the Program in Integrative Management.
Current forces driving change in the healthcare industry: economic, social, regulatory, and competitive. Predicting change and impacts on the industry. "Managed care" as a generic market restructuring strategy. Roles of technology and systems innovation in the industry.

889. Strategic Positioning in the Healthcare Industry
Fall. 3(3-0)
R: Open only to MBA students in the Program in Integrative Management.
Charting a firm's future in the healthcare industry. Finding and implementing the firm's fit with the market. Gaining competitive advantage in the industry. The scope of the firm's market. The roles of alliances and acquisitions.

INTEGRATIVE STUDIES IN ARTS AND HUMANITIES IAH

College of Arts and Letters

201. United States and the World (D)
Fall, Spring. 4(4-0)
R: Designated score on English placement test or completion of a Tier I writing course. Concurrent registration in writing tutorial required for students receiving 1.0 or 1.5 in Tier I writing course.
Major issues in development of US society and culture, presented in international and comparative context. Influences from native Americans, Europeans, Africans, and Asians. Organized historically, with thematic emphasis on literature and the arts.

211A. Area Studies and Multicultural Civilizations: Africa (I)
Spring. 4(4-0)
P: IAH 201.
Arts and humanities of Africa: literature, art, music, religion and philosophy presented in historical context. Selected regions, cultures, and themes. Variable by term.

211B. Area Studies and Multicultural Civilizations: Asia (I)
Fall, Spring. 4(4-0)
P: IAH 201.
Arts and humanities of Asia: literature, visual arts, music, religion and philosophy presented in historical context. Selected regions, cultures, and themes. Variable by term.