

## Human Nutrition and Foods—HNF

- 461 Advanced Human Nutrition: Carbohydrates, Lipids and Proteins**  
Fall. 3(3-0) P:M: (BMB 200 or BMB 401 or BMB 461) and (PSL 250 or PSL 432) SA: HNF 460  
Energetics and metabolism of carbohydrates, proteins, and lipids as related to dietary requirements and disease processes in humans. Recommended dietary allowances. Food sources of nutrients.
- 462 Advanced Human Nutrition: Vitamins and Minerals**  
Fall. 3(3-0) P:M: (HNF 461 or concurrently) SA: HNF 460  
Metabolism of vitamins and minerals in relation to dietary requirements and disease processes in humans. Food sources of nutrients. Nutrient interrelationships. Factors affecting bioavailability and stability of nutrients.
- 465 Nutritional Pathophysiology**  
Fall. 4(4-0) P:M: (HNF 461 or concurrently) and (ANTR 350 or PSL 432) SA: HNF 473  
Effects of specific pathophysiologic states on the function of target organs. Assessment of nutritional and medical status using laboratory tests. Putative mechanisms of action, efficacy, and safety of relevant alternative and complementary therapies.
- 466 Medical Nutrition Therapy**  
Spring. 4(3-2) P:M: (HNF 461 and HNF 462) and (HNF 465 or PSL 432) and completion of Tier I writing requirement. R: Open only to juniors or seniors. SA: HNF 470  
Anatomical, physiological and biochemical changes associated with diseases. Nutritional assessment. Use of modified diets as adjuncts to other therapies.
- 467 Outcome Measurement and Documentation in Medical Nutrition Therapy**  
Spring. 1(0-2) P:M: (HNF 461 and HNF 462 and HNF 465) RB: Senior dietetic majors. SA: HNF 379 C: HNF 466 concurrently.  
Planning, implementation, outcome measurement, and documentation in medical nutrition therapy (MNT). Clinical, behavioral and functional outcomes resulting from interventions in clinical and outpatient settings.
- 474 Drug-Nutrient Interactions**  
Spring. 2(2-0) RB: (HNF 461 and HNF 462) R: Open to juniors or seniors 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.
- 475 Community Nutrition Applications**  
Spring. 1(0-2) P:M: (HNF 375) R: Open to juniors or seniors.  
Practice and evaluation of dietary and anthropometric nutritional assessment. Apply communication, advocacy and problem solving skills by identifying and addressing the nutrition needs and wants of a target population.
- 480 Concepts of Human Nutrition Research Methods**  
Spring. 2(1-3) P:M: (HNF 461 and HNF 462) and completion of Tier I writing requirement. RB: (FSC 455)  
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 or 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: Open to juniors or seniors. Open only to honors students. Approval of department.  
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 the Department of Food Science and Human Nutrition. Approval of department.  
Professional experience in selected settings and organizations under faculty supervision.

## INFORMATION TECHNOLOGY MANAGEMENT

ITM

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

- 309 Business Information Systems and Technology**  
Fall, Spring, Summer. 3(3-0) P:M: (CSE 101 or concurrently) R: Open only to juniors or seniors in The Eli Broad College of Business. Not open to students in The School of Hospitality Business. SA: BUS 309  
Role of information technology in shaping and supporting business processes in a global marketplace. Effects on organizations and individuals.
- 311 Systems Analysis and Design**  
Spring. 3(3-0) P:M: (BUS 309) R: Open only to students in The Eli Broad College of Business. SA: BUS 311  
Structured analysis and design of information systems. Use of computer aided software engineering tools. Consulting issues associated with the design and implementation of information systems.
- 412 Marketing Technology and E-Commerce**  
Fall, Spring. 3(3-0) Interdepartmental with Marketing and Supply Chain Management. Administered by Department of Marketing and Supply Chain Management. P:M: (MSC 300 and MSC 317 and ITM 309) R: Open only to juniors or seniors in The Eli Broad College of Business, and to students in programs in which MSC 412 is a catalog-listed requirement.  
Enabler technologies and their role in creating marketing opportunities, efficiencies, and innovations. Tools, applications, platforms, and infrastructures. Determination of business configurations that foster value creation from enabler technologies.

- 413 Fundamentals of Database Information Systems**  
Fall, Spring. 3(3-0) R: Open only to Juniors or seniors in The Eli Broad College of Business. Not open to students in The School of Hospitality Business. C: ITM 311 concurrently.  
Semantic and syntactic modeling of business requirements for databases. Specificational and navigational processing of databases. Database design parameters for business use.
- 414 Enterprise Resource Planning Systems**  
Spring. 3(3-0) P:M: (ITM 311 and BUS 309) R: Open only to students in The Eli Broad College of Business.  
Analysis, design and use of enterprise systems. Importance of enterprise system fit and re-engineering of the enterprise. Implementation risks and organizational returns. Use of enterprise software.
- 444 Information Technology Project Management**  
Spring. 3(3-0) Interdepartmental with Computer Science and Engineering; Telecommunication. P:M: (ITM 311) R: Open only to seniors in the Specialization in Information Technology.  
Practical training and experiences in design, testing, and launch of new information technologies and systems.
- 490 Independent Study in Information Technology**  
Fall, Spring, Summer. 1 to 4 credits. P:M: (BUS 309) R: Open only to students in The Eli Broad College of Business.  
Directed study in information technology under faculty supervision.
- 491 Special Topics in Information Technology**  
Fall, Spring. 1 to 4 credits. P:M: (BUS 309) R: Open only to students in The Eli Broad College of Business.  
Current topics in information technology.

## INTEGRATIVE STUDIES IN ARTS AND HUMANITIES

IAH

### Center for Integrative Studies in Arts and Humanities College of Arts and Letters

- 201 United States and the World (D)**  
Fall, Spring. 4(4-0) P:M: Completion of Tier I writing requirement. RB: Designated score on English placement test. R: Concurrent registration in AL 201 (Writing Tutorial) required for students receiving 1.0 or 1.5 in Tier I writing course. Not open to students with credit in IAH 202 or IAH 206.  
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.