

HUMAN MEDICINE

691*. **Research Clerkship**
 Fall, Spring, Summer. 2 to 6 credits in increments of 2 credits. May reenroll for a maximum of 6 credits.
 P: HM 690 or approval of community research director R: Grad Prof Students in College of Human Medicine
 Students will be engaged in basic, behavioral or clinical research projects with a written outcome
 QP: HM 690 QA: HM 690

HUMAN NUTRITION AND FOODS HNF

150. **Introduction to Nutrition and Food Science**
 Fall, Summer. 3(3-0)
 Interdepartmental with the Department(s) of Food Science.

Nutrition needs in life stages from a human ecological perspective. Domestic and international factors affecting the availability of a safe, nutritious food supply. Relationships of food choices to health and disease.
 QA: HNF 102 FSC 101

200. **Physical and Chemical Properties of Foods**
 Fall. 3(2-2)
 P: CEM 141 or concurrently. R: NONE
 NONE NONE NONE
 Interrelationships between basic physical and chemical principles and food preparation: composition, methods of preparation, meal planning, evaluation, quality standards and comparative analysis.
 QP: CEM 141 QA: HNF 200

220*. **Basic Skills in Dietetic Practice**
 Spring. 2(1-2)
 P: CPS 100 or CPS 130 or CPS 131; HNF 150 or HNF 311; STT 200 or C: STT 201 or R: Not open to freshmen. Open only to students in the Department of Food Science and Human Nutrition.
 Evaluation and communication of scientific and consumer information. Sources of reliable food and nutrition information. Statistics. Nutritional epidemiology, nutrient composition, and computer diet analysis.
 QP: HNF 102 ORHNF 200ORFSC 101 QA: HNF 290

300*. **Experimental Approaches to Foods**
 Spring. 3(2-3)
 P: HNF 200, CEM 143. R: Open only to students with credit in FSC 401.
 Effects of various treatments on chemical and physical properties of carbohydrates, proteins, lipids and other constituents of foods. Effects of changes in chemical and physical properties on functional and sensory attributes of foods.
 QP: HNF 200 CEM 143 QA: HNF 300

311*. **Principles of Human Nutrition**
 Spring. 3(3-0)
 P: BCH 200. R: None None None None
 A human ecological approach to identification, function and food sources of nutrients required by humans. Normal metabolism. Effects of deficiencies or excesses of specific nutrients on metabolism.
 QP: BCH 200 QA: HNF 411

350*. **Food and the Consumer**
 Fall. 3(3-0)
 P: HNF 200; EC 200 or EC 201; MTA 302 or concurrently.
 Introduction to consumer behavior relative to food and food services. Food consumption and expenditure trends. Factors influencing food consumption and expenditures. Consumer advocacy and consumerism.
 QP: HNF 200 EC 201MTA 302ORCONCURRE

375*. **Community Nutrition**
 Spring. 3(3-0)
 P: HNF 150 or HNF 311.
 Dietary and anthropometric assessment of population groups. Policies, programs and resources available to address community nutritional needs.
 QP: HNF 102 QA: HNF 375

379*. **Basic Nutritional Counseling**
 Spring. 3(2-3)
 P: HNF 150 or HNF 311. R: Not open to freshmen. Open only to students in Department of Food Science and Human Nutrition.
 Interviewing. Medical records and dietary history. Assessment of nutritional status. Planning, implementing, and evaluating nutritional programs. Quality assurance. Professional ethics.
 QP: HNF 102 ORHNF 411 QA: HNF 379

400*. **Art and Science of Food Preparation**
 Spring. 1(1-3)
 P: HNF 200.
 Art and science of food preparation in relation to cost, health, and historical, regional, ethnic, and religious customs. Product evaluation using sensory techniques.
 QP: HNF 200 QA: HNF 406L

404*. **Food Product Development**
 Fall. 4(3-3)
 P: FSC 401 or HNF 300. R: Not open to freshmen and sophomores.
 Functions of proteins, carbohydrates, and fats, and their interactions with other food ingredients. Objective and sensory food evaluation techniques.
 QP: HNF 300 ORFSC 333 QA: HNF 403 HNF 404

406*. **Sociocultural Aspects of Food**
 Spring. 3(3-0)
 R: Not open to freshmen and sophomores.
 One ISS "B" course option or concurrently.
 Factors impacting food consumption from a human ecological perspective. International and national food consumption patterns. Geographic, political, and economic aspects of food consumption. Food availability and distribution. Family structure, taboos, r
 QA: HNF 406

410*. **Sensory Assessment of Foods**
 Spring. 2(1-2)
 P: STT 201 or STT 315 or STT 464; HNF 200 or FSC 401. R: Open only to majors in Department of Food Science and Human Nutrition.
 Discriminative, consumer and descriptive methods used to evoke, measure, analyze, and interpret sensory reactions to food characteristics.
 QP: STT 201 ORSTT 315ORSTT422 QA: HNF 310

440*. **Foodservice Operations**
 Fall. 3(3-0)
 P: HNF 150 or HNF 311; HNF 200. R: Not open to freshmen and sophomores.
 Principles, processes and control strategies in food-service operations. Menu planning, procurement, and on-premise storage and issue. Production, consumer distribution, safety and sanitation.
 QP: HNF 200 ORHNF 102ORHNF 411 QA: HNF 440

441*. **Management of Foodservice Operations**
 Spring. 2(2-0)
 P: HNF 440 R: Juniors and above None
 None None
 Human-and-material-resources fiscal management using manual and electronic data processing strategies in foodservice operations.
 QP: HNF 440 QA: HNF 441

444*. **Computerized Foodservice Management Laboratory**
 Fall. 1(0-3)
 P: CPS 100 or CPS 130; HNF 441. R: Open only to majors in Dietetics, Foods: Technology and Management, Human Nutrition, and Nutritional Sciences.
 Use of prototype foodservice management software for inventory management, recipe adjustment, recipe and menu precasting, nutrient analysis, cost analysis, and other foodservice applications.
 QP: HNF 440 QA: HNF 441

445*. **Foodservice Management Experience**
 Spring. 2(1-4)
 P: HNF 441, MPH 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.
 QP: HNF 440 MPH 200ORMPH 301 QA: HNF 440P

450*. **Contemporary Cases from the Food Industry**
 Spring. 3(3-0)
 P: HNF 350, MTA 300, MTA 302. R: Open only to seniors and graduate students in the College of Agriculture and Natural Resources, College of Business, and College of Human Ecology.
 Analysis and interpretation of the consumer environment. Development of effective strategies and policies for the food industry. Case study approach.
 QP: MTA 300 MTA 302 QA: HNF 415

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.
 QP: BCH 200 PSL 241ORPSL 432 QA: HNF 461 HNF 462

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.
 QP: HNF 462 QA: HNF 463

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.
 Anatomical, physiological and biochemical changes associated with diseases. Nutritional assessment. Use of modified diets as adjuncts to other therapies.
 QP: HNF 462 QA: HNF 470 HNF 470P

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.
 QP: HNF 462 QA: HNF 473

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. Approval of department.
 Issues and techniques involved in nutrition research with humans and animals. Guided laboratory experience plus independent project.

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QP: HNF 411 ORHNF 461HNF 462FSC 455

490*. **Independent Study**
 Fall, Spring, Summer. 1 to 10 credits.
 May reenroll for a maximum of 10 credits.
 R: Open only to junior and seniors in Department of Food Science and Human Nutrition. Approval of department.
 Individual study of selected topics in foods, foodservice management or nutrition.
 QA: HNF 495

490H*. **Honors Independent Study**
 Fall, Spring, Summer. 1 to 10 credits.
 May reenroll for a maximum of 10 credits.
 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.
 QA: HNF 400H

494*. **Practicum**
 Fall, Spring, Summer. 1 to 10 credits.
 May reenroll for a maximum of 10 credits.
 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.
 QA: HNF 498

840*. **Human Nutrition and Chronic Diseases**
 Fall of odd-numbered years. 3(3-0)
 P: BCH 401, HNF 460. R: Open only to graduate students.
 Dietary intervention and treatment of chronic diseases: obesity, cardiovascular disease, diabetes, gastrointestinal disorders and cancer.
 QP: HNF 462 ANDBCH 401

843*. **Community Nutritional Assessment**
 Summer of even-numbered years. 3(2-2)
 P: HNF 460, CEP 932 or approval of department R: 6 and above
 Nutritional assessment of population groups in community settings; interpretation of national and international health data.
 QP: HNF 462 CEP 905OR DEPT. APPROVAL

890*. **Supervised Individual Study**
 Fall, Spring, Summer. 1 to 3 credits.
 May reenroll for a maximum of 6 credits.
 P: HNF 460. R: Open only to graduate students. 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.
 QP: HNF 462 QA: HNF 813A HNF 813B HNF 813C

891*. **Topics in Human Nutrition(MTC)**
 Fall, Spring, Summer. 1 to 3 credits.
 May reenroll for a maximum of 12 credits.
 R: 6 and above
 Topics of current interest and importance in applied and basic human nutrition.
 QA: HNF 840

891A*. **Topics in Human Nutrition: Current Trends in the Food Industry**
 . 2(2-0) May reenroll for a maximum of 4 credits.
 R: 6 and above
 In-depth analysis of selected current global trends related to food science and human nutrition from a managerial, technological and environmental perspective.

892*. **Nutrition Seminar**
 Spring. 1(1-0) May reenroll for a maximum of 6 credits.
 R: Open only to graduate students.
 Presentations by students on current topics in nutrition.
 QA: HNF 800

894*. **Human Nutrition Practicum**
 Fall, Spring, Summer. 1 to 6 credits.
 May reenroll for a maximum of 6 credits.
 P: HNF 460. R: Open only to graduate students. 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.
 QP: HNF 462

899*. **Master's Thesis Research**
 Fall, Spring, Summer. 1 to 10 credits.
 May reenroll for a maximum of 20 credits.
 R: Open only to masters students in Human Nutrition and Foods.
 QA: HNF 899

935*. **Nutrition: Lipid and Carbohydrate Metabolism**
 Fall of even-numbered years. 3(3-0)
 Interdepartmental with the Department(s) of Animal Science., P: HNF 460 or ANS 313, and BCH 462
 R: 6 and above
 Regulatory aspects of lipid and carbohydrate metabolism as influenced by nutritional status.
 QP: BCH 452 HNF 462ORANS 313A QA: HNF 935

938*. **Nutrition: Metabolism and Function of Vitamins**
 Spring of odd-numbered years. 3(3-0)
 Interdepartmental with the Department(s) of Animal Science., P: HNF 460 or ANS 313; BCH 462 R: 6 and above
 Metabolic and functional aspects of vitamins; regulatory roles at cellular and molecular level.
 QP: BCH 453 ANS 313AORHNF 462 QA: HNF 938

999*. **Doctoral Dissertation Research**
 Fall, Spring, Summer. 1 to 24 credits.
 May reenroll for a maximum of 50 credits.
 R: Open only to doctoral students in Human Nutrition and Foods.
 QA: HNF 999

INTEGRATIVE STUDIES IN ARTS AND HUMANITIES IAH

201*. **United States and the World (D)**
 Fall, Spring, Summer. 4(4-0)
 R: Designated score on English placement test or completion of a Tier 1 writing course. Concurrent registration in writing tutorial required for students receiving 1.0 or 1.5 in Tier 1 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.
 QP: ATL XX2 ORENG 101ORMC 112 QA: HST 122 HST 133

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.
 QA: HUM 295

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.
 QA: HUM 296 HUM 297 HUM 298

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

211D*. **Area Studies and Multicultural Civilizations: The Middle East (I)**
 Fall. 4(4-0)
 P: IAH 201.
 Arts and humanities of the Middle East: literature, visual arts, music, religion and philosophy presented in historical context. Themes variable by term.
 QA: HUM 294

221A*. **Great Ages: The Ancient World (I)**
 Fall, Spring. 4(4-0)
 P: IAH 201.
 Arts and humanities of the ancient world examined through the frame of urban and intellectual life. Literature, visual arts, music, religion and philosophy presented in historical context. Selected regions and themes, variable by term.
 QA: HUM 201 HUM 202

221B*. **Great Ages: The European Renaissance**
 Fall of odd-numbered years. 4(4-0)
 P: IAH 201.
 Arts and humanities of Renaissance Europe: literature, visual arts, music, religion and philosophy presented in historical context. Selected themes, variable by term.

221C*. **Great Ages: The Modern World (I)**
 Fall, Spring. 4(4-0)
 P: IAH 201.
 Arts and humanities of the modern world, examined through the frame of urban and intellectual life. Literature, visual arts, music, religion and philosophy presented in historical context. Selected regions and themes. Variable by term.
 QA: HUM 203 HUM 204

231A*. **Themes and Issues: Human Values and the Arts and Humanities**
 Fall, Spring. 4(4-0)
 P: IAH 201.
 Values of individualism, responsibility, love, community, and rationality. Students are introduced to diverse methods and materials from the arts and humanities.

231B*. **Themes and Issues: Moral Issues and the Arts and Humanities**
 Fall, Spring. 4(4-0)
 P: IAH 201.
 Human conflict and moral dilemmas, addressed through diverse methods and materials from the arts and humanities.