

HUMAN NUTRITION AND FOODS HNF

Department of Food Science and Human Nutrition College of Agriculture and Natural Resources

150 Introduction to Human Nutrition

Fall, Spring, Summer. 3(3-0)

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.

180 Preview of Nutritional Sciences

Spring. 1(1-1) R: Open only to freshmen or sophomores.

Overview of nutritional sciences as a preprofessional major. Introduces students to faculty nutrition research projects, enables students to participate in a directed research experience, and exposes students to various career opportunities.

300 Experimental Approaches to Foods

Fall, Spring. 4(2-4) P:M: Completion of Tier I writing requirement. RB: (CEM 143) R: Open only to juniors or seniors in the Department of Food Science and Human Nutrition.

Effects of preparation methods and ingredient substitutions on chemical and physical properties of food constituents. Effects of changes in chemical and physical properties on functional and sensory attributes of foods.

311 Principles of Human Nutrition

Spring. 3(3-0) P:M: BMB 200 or BMB 401 or BMB 461 or PSL 250 or PSL 431

Identification, function and food sources of nutrients required by humans. Normal metabolism. Effects of deficiencies or excesses of specific nutrients on metabolism.

320 Basic Skills in Dietetic Practice

Spring, Summer. 3(2-2) P:M: HNF 150 or HNF 311 R: Open to sophomores or juniors or seniors in the Dietetics, Nutritional Sciences or Food Science majors. SA: HNF 220

Nutrient composition of foods to meet nutritional needs for meal planning. Sources of reliable food and nutrition information. Evaluation and communication of scientific and consumer information. Concepts in nutritional epidemiology.

375 Community Nutrition

Fall. 3(3-0) P:M: HNF 150 or HNF 311 R: Open to students in the Dietetics major or in the Nursing major or in the Nutritional Sciences major.

Human ecological approach to dietary and anthropometric assessment, intervention and evaluation of population groups. Policies, programs, and resources available to address community nutritional needs.

400 Art and Science of Food Preparation

Spring. 2(1-3) RB: HNF 300 or concurrently R: Open only to seniors in the Dietetics or Nutritional Sciences major or to graduate students in the Human Nutrition major.

Art and science of food preparation in relation to cost, health, and historical, regional, ethnic, and religious customs. Product evaluation using sensory techniques. Lecture offered full semester; laboratory offered half of semester.

406 Sociocultural Aspects of Food

Spring. 3(3-0) P:M: HNF 150 or concurrently RB: ISS course or concurrently. R: Open to juniors or seniors.

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, religion, and food-related health problems.

410 Sensory Assessment of Foods

Spring. 2(1-2) RB: (HNF 300 or FSC 401) and (STT 200 or STT 201 or STT 315 or STT 421 or STT 464) R: Open only to majors in the Department of Food Science and Human Nutrition.

Discriminative, consumer and descriptive methods used to evoke, measure, analyze, and interpret sensory reactions to food characteristics.

440 Foodservice Operations

Fall. 4(4-0) P:M: FSC 342 or concurrently RB: HNF 150 R: Open only to juniors or seniors in the Dietetics or Nutritional Sciences major or to graduate students in the Human Nutrition major. SA: HNF 441

Principles, processes and control strategies in foodservice operations. Menu planning, procurement, and on-premise storage and issuance. Purchasing, budgets, human resources, control management, ethics, marketing, production, safety and sanitation.

444 Computerized Foodservice Management Laboratory

Fall, Spring. 2(1-2) P:M: HNF 440 or concurrently RB: Competency in computer spreadsheet applications. R: Open only to juniors or seniors in the Dietetics or Nutritional Sciences major or to graduate students in the Human Nutrition major.

Use of prototype management computer software for inventory management, recipe adjustment, recipe and menu precosting, nutrient analysis, cost analysis, accounting procedures, and other foodservice applications.

445 Foodservice Management Experience

Fall, Spring. 2 credits. P:M: HNF 440 or concurrently RB: MMG 205 R: Open only to seniors in the Dietetics or Nutritional Sciences major or graduate students in the Human Nutrition major. Approval of department.

Receipt, storage, preparation and service of foods. Safety and sanitation. Design, layout, and care of equipment. Costing. Meal tickets required.

453 Nutrition and Human Development

Spring. 3(3-0) P:M: (HNF 150) and (PSL 250 or concurrently or PSL 431 or concurrently) SA: HNF 463, HNF 376

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.

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 completion of Tier I writing requirement) and (HNF 465 or PSL 432) 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.

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.

Human Nutrition and Foods—HNF

- 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.
- 51 Medical Nutrition Therapy Practicum**
Fall. 3 credits. R: Approval of department. Application of medical nutrition therapy in hospitals and long-term care settings. Practice-related learning experiences with supervised practice in nutritional assessment. Planning and implementation of nutrition care plans in diverse populations.
- 552 Community Nutrition Practicum**
Spring. 2 credits. P:M: HNF 551 R: Approval of department.
Application in supervised practice setting of methodologies for the dietary and anthropometric assessment of population groups.
- 553 Food Service Management Business Practicum**
Spring. 2 credits. P:M: HNF 551 R: Approval of department.
Supervised practice in the procurement, production, quality assurance, sanitation and fiscal implications of foodservice management in a variety of settings.
- 811 Integrated Nutrient Metabolism**
Fall of odd years. 3(3-0) Interdepartmental with Animal Science. Administered by Animal Science. RB: (BMB 200 or BMB 401) or approval of department.
Comparative physiology of the absorption and metabolism of carbohydrates, lipids, protein, minerals, and vitamins and their regulation and integration. Basis for applied nutrition of humans, livestock and companion animals.
- 840 Human Nutrition and Chronic Diseases**
Fall of odd years. 3(3-0)
Dietary intervention and treatment of chronic diseases: obesity, cardiovascular disease, diabetes, gastrointestinal disorders and cancer.
- 843 Community Nutritional Assessment**
Spring of odd years. 3(2-2)
Nutritional assessment of population groups in community settings. Interpretation of national and international health data.
- 850 Advanced Clinical Nutrition and Professional Issues in Dietetic Practice**
Fall, Spring, Summer. 1 to 3 credits. R: Approval of department.
Practice of dietetics and nutrition in foodservice, community and clinical settings. Integration of the American Dietetic Association's codes of ethics and standards of professional practice.
- 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. A student may earn a maximum of 10 credits. Students are limited to a combined total of 10 credits in HNF 890 and HNF 894. R: Open only to graduate students in the Department of Food Science and Human Nutrition.
Faculty supervised study of nutrition areas of individual interest.
- 891 Topics in Human Nutrition**
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. A student may earn a maximum of 10 credits. Students are limited to a combined total of 10 credits in HNF 890 and HNF 894. Approval of department. R: Open only to graduate students in the Department of Food Science and Human Nutrition.
Experience in agencies or offices related to Human Nutrition. Field experience required.
- 898 Master's Project**
Fall, Spring, Summer. 1 to 5 credits. R: Open only to master's students in the Human Nutrition major.
Directed scholarly participation in support of Plan B master's degree requirements in human nutrition.
- 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.
Master's thesis research.
- 935 Nutrition: Lipid and Carbohydrate Metabolism**
Fall of even years. 3(3-0) Interdepartmental with Animal Science. Administered by Human Nutrition and Foods.
Regulatory aspects of lipid and carbohydrate metabolism as influenced by nutritional status.
- 936 Protein Nutrition and Metabolism**
Spring of odd 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, and protein-energy malnutrition. Protein metabolism during exercise. Metabolism, digestion, and absorption of amino acids and proteins.
- 937 Mineral and Vitamin Nutrition and Metabolism**
Spring of even years. 3(3-0) Interdepartmental with Animal Science. Administered by Animal Science. P:M: BMB 461 and BMB 462
Forms and locations of mineral elements in the body, metabolic functions, deficiencies, and toxicities, interrelationships and quantitative requirements. Significant vitamins and mineral interrelationships relative to bone metabolism, antioxidant health and erythropoiesis.
- 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 the Human Nutrition and Foods major.
Doctoral dissertation research.