

# NUTRITION (NUTR)

## **NUTR\*1010 Introduction to Nutrition Fall and Winter (LEC: 3) [0.50]**

This course is an introduction to human nutrition, with major emphasis on nutrients and their dietary sources, functions, and relationships to health. Topics will include the energy-containing nutrients, selected vitamins and minerals and weight management. We will also explore current popular topics and emerging diet-disease relationships.

**Offering(s):** Also offered through Distance Education format.

**Restriction(s):** This is a Priority Access Course for BASC and some restrictions may apply during some time periods. Please see the departmental website for more information.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

## **NUTR\*1020 Professional Practice in Applied Nutrition Winter Only (LEC: 3) [0.50]**

Through lectures, readings, group activities, and case studies students will explore the key knowledge and skills needed for a successful professional career in applied nutrition in Canada. Critical thinking, regulatory and ethical issues as applied in business, health care, public health and social services contexts are emphasized.

**Restriction(s):** Restricted to students in BASC.AHN major.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

## **NUTR\*2050 Nutrition Through the Life Cycle Fall Only (LEC: 3) [0.50]**

This course explores how individual, family, community and societal factors influence nutritional needs and dietary intake from infancy through older adulthood. Implications for nutrition care and community-level programs are discussed.

**Offering(s):** Also offered through Distance Education format.

**Prerequisite(s):** NUTR\*1010

**Restriction(s):** This is a Priority Access Course. Some restrictions may apply during some time periods. Please see the departmental website for more information.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

## **NUTR\*2150 Introduction to Nutritional and Food Sciences Fall Only (LEC: 3) [0.50]**

This interdisciplinary course provides an introduction to the Food and Nutritional Sciences from both historical and modern perspectives. Major themes are the nutritional and functional properties of food, nutrient assimilation, food preservation and safety, and the interactions between food processing, diets and health. (Also listed as FOOD\*2150.)

**Prerequisite(s):** (BIOL\*1040 or BIOL\*1080), CHEM\*1040

**Equate(s):** FOOD\*2150

**Restriction(s):** FOOD\*2010, FOOD\*3090. Not available to students registered in BASC. AHN major.

**Department(s):** Department of Food Science

**Location(s):** Guelph

## **NUTR\*2500 Introduction to Food Systems Fall Only (LEC: 3) [0.50]**

This course will explore the complexity and interconnectedness of our local, regional, and global food systems through six main themes: Economic, Environment/Ecology, Personal Health, Political, Culture, and Technology. By introducing students to the structure of the food system from field to fork, students will examine and reflect on how these themes relate to food production, processing, distribution, and consumption.

**Prerequisite(s):** 4.00 credits

**Restriction(s):** This is a Priority Access Course. Enrolment may be restricted to particular programs or specializations or semester levels during certain periods. Please see departmental website for more information.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

## **NUTR\*3070 Nutrition and Physical Activity Interventions Winter Only (LEC: 3) [0.50]**

This course examines the development, implementation, and evaluation of: a) integrated interventions to improve both nutrition and physical activity behaviours; and, b) interventions to improve physical activity behaviours of people of different ages in various settings. Various theories and models used to develop nutrition and physical activity interventions will be examined.

**Prerequisite(s):** FRHD\*3070, NUTR\*2050

**Restriction(s):** This is a Priority Access Course. Enrolment may be restricted to particular programs or specializations or semester levels during certain periods. See departmental website for more information.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

## **NUTR\*3090 Clinical Nutrition I Winter Only (LEC: 3, LAB: 3) [1.00]**

The epidemiology, pathophysiology, and role of nutrition will be considered in the prevention and management of several major chronic conditions including cardiovascular diseases, disorders of energy balance and diabetes mellitus. There is an emphasis on developing the skills for high risk individual management approaches.

**Prerequisite(s):** (BIOM\*2000 or BIOM\*3200), FRHD\*3070, NUTR\*2050, (NUTR\*3190 or NUTR\*3210), STAT\*2080

**Co-requisite(s):** FRHD\*3400

**Restriction(s):** Registration is limited to students registered in the BASC.AHN major.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

## **NUTR\*3110 Food Security Winter Only (LEC: 3) [0.50]**

The prevalence of food insecurity in Canada and selected industrialized and non-industrialized countries is examined. The course will review environmental, social, and other factors associated with food insecurity and take critical look at the effectiveness of programs and policies designed to improve food security.

**Prerequisite(s):** 9.50 credits including NUTR\*2050

**Restriction(s):** Registration is limited to students registered in the BASC.AHN major.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*3150 Aging and Nutrition Winter Only (LEC: 3) [0.50]**

This course provides an in-depth study of the determinants of food intake and nutrient recommendations for aging adults. Specific consideration will be given to eating environments and physiological changes that influence access, preparation, and consumption of food by older adults living in the community and in facilities. An emphasis will be placed on chronic disease prevention and management.

**Prerequisite(s):** 1 of NUTR\*1010, NUTR\*2150, NUTR\*3210

**Restriction(s):** NUTR\*2070

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*3210 Fundamentals of Nutrition Summer, Fall, and Winter (LEC: 3) [0.50]**

This is the foundation course for the study of nutrition. The occurrence, uptake and metabolic role of nutrients will be discussed in relation to growth, reproduction and longevity in human subjects, domestic animals and other species.

**Offering(s):** Also offered through Distance Education format.

**Prerequisite(s):** BIOC\*2580

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

**NUTR\*3330 Micronutrients, Phytochemicals and Health Fall Only (LEC: 3) [0.50]**

The course emphasizes the biochemical basis for the dietary essentiality of vitamins and minerals. The course extends the fundamentals of nutrition to include conditional essentiality of micronutrients, biochemical individuality and the use of micronutrient supplementation to promote human and animal health. Both plant and animal sources of nutrients are discussed.

**Prerequisite(s):** NUTR\*3210

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

**NUTR\*3360 Lifestyle Genomics Fall Only (LEC: 3) [0.50]**

This course explores how genes and lifestyle choices (in particular diet and exercise) interact to affect cell and tissue function, and impact human health. These concepts will be examined through in-depth discussions of common metabolic diseases. The course is designed to highlight the integrative and inter-connected cellular, molecular, and physiological mechanisms underlying these conditions.

**Prerequisite(s):** BIOC\*2580, BIOL\*1080, MBG\*2040

**Restriction(s):** Registration in BSCH.HK and BSCH.NANS (major or minor).

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

**NUTR\*3390 Applied Nutritional and Nutraceutical Sciences I Fall Only (LEC: 3, LAB: 3) [0.75]**

This course will introduce and develop key concepts of the applied aspects of the Nutritional and Nutraceutical Sciences. Enrichment of foods with health protectant chemicals, establishing biomarkers and risk indicators of disease, testing of bioavailability/efficacy to support basic health claims, health assessment and nutrigenomic analysis as adjuvants in the effective use of functional foods and nutraceuticals, and regulatory and marketing/consumer issues are topics that will be addressed.

**Prerequisite(s):** NUTR\*3210

**Restriction(s):** Registration in the BSC.NANS major or minor and the BSC.FFAN minor.

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

**NUTR\*3500 Research Internship in AHN Summer, Fall, and Winter (LAB: 6) [0.50]**

This course will give students a direct, initial experience in conducting research in applied human nutrition. The internship focuses on familiarizing students with the research process and building research skills through active engagement in research under the direct guidance of a faculty member.

**Prerequisite(s):** FRHD\*3070, STAT\*2090

**Restriction(s):** Instructor consent required.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*4010 Nutritional Assessment Fall Only (LEC: 3) [0.50]**

This course examines the principles and methods used in nutritional assessment of individuals and populations in health and disease states. Dietary, anthropometric and biochemical techniques will be primary components. Nutritional screening, advanced techniques for body composition assessment, physical exam and clinical indicators will also be addressed. Significant independent learning will be required.

**Prerequisite(s):** 14.50 credits including NUTR\*2050, NUTR\*3210

**Restriction(s):** Registration in the BASC.AHN major.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*4040 Clinical Nutrition II Fall Only (LEC: 3) [0.50]**

This lecture based course is concerned with the application of nutrition to clinical conditions. Methods and content of medical nutrition therapy in prevention and treatment of gastrointestinal, renal, hepatic diseases and catabolic states will be emphasized. Ethical issues in nutrition management of disease and health professional practice will be addressed.

**Prerequisite(s):** 14.50 credits including NUTR\*3090, (BIOM\*2000 or BIOM\*3200)

**Restriction(s):** Registration in the BASC.AHN major.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*4070 Nutrition Communication and Knowledge Translation Fall Only (LEC: 3) [0.50]**

This course covers methods and approaches in nutrition communication and knowledge translation. Students will learn best practices for translating evidence-based nutrition into informative, engaging, and effective communication tools and approaches for successfully disseminating these tools. This course will also explore strategies for advocacy and tailoring communications for various community populations.

**Prerequisite(s):** FRHD\*3400, NUTR\*2050

**Restriction(s):** This is a Priority Access Course. Enrolment may be restricted to particular programs or specializations or semester levels during certain periods. Please see departmental website for more information.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*4090 Functional Foods and Nutraceuticals Winter Only (LEC: 3) [0.50]**

The course examines the relation of functional foods and nutraceuticals (FFN) to foods and drugs. The safety and efficacy of individual FFN products, and the regulatory issues that influence the development and commercialization of FFN in global markets are emphasized. (Also listed as FOOD\*4090.)

**Prerequisite(s):** NUTR\*3210

**Equate(s):** FOOD\*4090

**Department(s):** Department of Human Health and Nutritional Sciences, Department of Food Science

**Location(s):** Guelph

**NUTR\*4120 Applied Clinical Skills Winter Only (LAB: 3) [0.50]**

This is a laboratory-based course which will enable students to gain skills in independently completing nutrition assessments and care plans of individuals and groups as they would be expected to do as nutrition professionals. Students will comprehensively assess nutritional status, apply knowledge of human physiology, pathophysiology, medical terminology and nutritional assessment to diagnose nutritional problems/issues and formulate, implement and evaluate a nutrition intervention.

**Prerequisite(s):** NUTR\*4010, NUTR\*4040

**Restriction(s):** NUTR\*4850. Restricted to students in BASC.AHN with at least 75% cumulative average in all completed NUTR and FRHD courses.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*4210 Nutrition, Exercise and Energy Metabolism Fall Only (LEC: 3) [0.50]**

In this course energy metabolism will be considered under the headings: thermodynamic principles, energy deposition and hormonal control of metabolism; nutrition, exercise and environmental influences on energy balance and enzyme adaptation; nutrition and exercise in the control of body composition.

**Prerequisite(s):** NUTR\*3210, (1 of BIOM\*3200, HK\*3810)

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

**NUTR\*4320 Nutrition and Metabolic Control of Disease Winter Only (LEC: 3) [0.50]**

This course provides a discussion of disorders of metabolism, either inherited or acquired, in which nutrition plays a major role in the etiology, pathogenesis, or treatment. The nutritional control of the affected metabolic pathways and the interaction of nutrition with exercise, drugs and gene therapy will be presented.

**Prerequisite(s):** NUTR\*3210, (1 of BIOM\*3200, HK\*3810, ZOO\*3210, ZOO\*3620)

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

**NUTR\*4330 Applied Nutritional and Nutraceutical Sciences II Winter Only (LEC: 3, LAB: 3) [0.75]**

In this course laboratory and other investigational techniques are covered, together with their underlying concepts. The course is designed to enhance understanding of the design and use of nutraceuticals for human and animal health.

**Prerequisite(s):** NUTR\*3330, NUTR\*3390, HK\*3810

**Restriction(s):** Registration in BSC. NANS major or minor.

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

**NUTR\*4360 Current Issues in Nutrigenomics Winter Only (LEC: 3) [0.50]**

This course discusses controversial and/or emerging topics in Human Health and Nutritional and Nutraceutical Sciences as it relates to nutrigenomics.

**Prerequisite(s):** NUTR\*3210, (BIOM\*3200 or HK\*3810)

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

**NUTR\*4510 Toxicology, Nutrition and Food Fall Only (LEC: 3) [0.50]**

This course examines the role of foods, herbals and nutraceuticals as sources of antinutrients, natural toxins and environmental contaminants. The impact of toxic exposures on nutritional status, the impact of nutritional status on safe metabolism of toxins, and the use of this knowledge in the design of functional foods are also examined. Assessing the risk of genetically modified foods and radioactive contamination of a food supply.

**Prerequisite(s):** NUTR\*3210

**Department(s):** Department of Human Health and Nutritional Sciences

**Location(s):** Guelph

**NUTR\*4810 Applied Human Nutrition Thesis I Unspecified (LEC: 3) [0.50]**

Planning, developing and writing a research proposal under individual faculty supervision. Topic to be decided by the student in consultation with the supervisory faculty member before course selection or registration period.

**Prerequisite(s):** FRHD\*3070, NUTR\*2050, NUTR\*3090

**Restriction(s):** Instructor consent required.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*4850 Field Experience in Nutrition Education Winter Only (LEC: 2, LAB: 4) [0.50]**

This course offers a supervised experience in nutrition education and a seminar. Students will apply principles of program planning, nutrition education theory and professional behaviour in a community setting. Placements may be arranged in institutional or community health settings, educational facilities, social services, or food industry. Seminar topics include professional ethics, exploring values, and issues management.

**Prerequisite(s):** FRHD\*3400, NUTR\*3090, NUTR\*4070

**Restriction(s):** NUTR\*4120. Instructor consent required.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*4900 Selected Topics in Human Nutrition Winter Only (LEC: 3) [0.50]**

This course involves readings and discussion about research in selected areas in applied human nutrition. Assessment includes oral presentations and term papers.

**Prerequisite(s):** FRHD\*3070, NUTR\*3090, NUTR\*4010

**Restriction(s):** Registration in BASC.AHN major.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph

**NUTR\*4910 Applied Human Nutrition Thesis II Unspecified (LEC: 6) [1.00]**

The student will conduct and write an undergraduate thesis under the direction of a faculty member.

**Prerequisite(s):** NUTR\*4810

**Restriction(s):** Instructor consent required.

**Department(s):** Department of Family Relations and Applied Nutrition

**Location(s):** Guelph