HUMAN HEALTH AND NUTRITIONAL SCIENCES (HHNS)

HHNS*6000 Students Promoting Awareness of Research Knowledge Summer, Fall, and Winter [0.25]
This course will explore research communication through practical experience. The course will be part of the SPARK program in which students write, edit and coordinate a variety of news publications that highlight University of Guelph research activities for a wide range of audiences.
Restriction(s): Restricted to HHNS MSc coursework/MRP students.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6010 Seminar in Human Health and Nutritional Sciences Summer Only [0.50]
Students will develop their scientific communication skills by translating a specific body of knowledge on a chosen topic into a seminar. The class will also explore scientific process-oriented concepts and issues such as effective scientific communication and dissemination of results.
Restriction(s): Restricted to HHNS MSc coursework/MRP students.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6040 Research Fronts in Nutritional and Nutraceutical Sciences Fall Only [0.50]
Building on an information base in nutrition, biochemistry and physiology, the course comprises selected research topics pertaining to the importance of nutrition as a determinant of health throughout the life span. Distinction will be drawn between the metabolic basis of nutrient essentiality and the health protectant effects of nutraceuticals.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6130 Advanced Skeletal Muscle Metabolism in Humans Winter Only [0.50]
This course examines how the energy provision pathways in human skeletal muscle and associated organs meet the energy demands of the muscle cell during a variety of metabolically demanding situations.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6320 Advances in Human Health and Nutritional Sciences Research Summer, Fall, and Winter [0.50]
This course provides the student with an opportunity to study a topic of choice and involves literature research on a chosen topic. The course may stand alone (MSc thesis and PhD students) or provide the background information for an experimental approach to the topic (MSc course work and project students).
Restriction(s): Instructor consent required.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6400 Functional Foods and Nutraceuticals Fall Only [0.50]
This course considers the relation of nutraceuticals, functional foods, designer foods, medical foods and food additives to foods and drugs. The course emphasizes the development and commercialization of nutraceuticals.
Restriction(s): Restricted to Human Health & Nutritional Sciences students.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6410 Applied Functional Foods and Nutraceuticals Winter Only [1.00]
This course prepares students to develop an innovative product or service from conceptualization to market entry considering regulatory, product development, safety/efficacy and market readiness issues. The course applies and integrates the concepts defined in HHNS*6400
Prerequisite(s): HHNS*6400 - Minimum grade 065.
Restriction(s): Restricted to Human Health & Nutritional Sciences students.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6440 Nutrition, Gene Expression and Cell Signalling Winter Only [0.50]
This course emphasizes the role nutrients play as modulators of gene expression at the molecular level. The mechanisms by which nutrients modulate gene expression through specific cell signalling cascades are examined.
Offering(s): Annually
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6500 Cardiovascular and Respiratory Physiology Fall Only [0.50]
This course will use both review articles and the primary literature to build a broad base of understanding of the cardiovascular and respiratory systems as well as explore current research in specific areas in this knowledge paradigm. Further, this course will build research skills through by strengthening critical analysis skills and both oral and written communication skills through learning about the cardiovascular and respiratory system and how they integrate.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6700 Nutrition, Exercise and Metabolism Fall Only [0.50]
A discussion of recent concepts in the relationships among nutrition, exercise and metabolism. Information from the molecular to the whole-body level will be presented with a focus on understanding nutrition and exercise in the human. Emphasis is placed on the development and testing of experimental hypotheses in these areas of research.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6710 Advanced Topics in Nutrition and Exercise Fall Only [0.50]
Advanced topics will be presented to establish an in-depth understanding of current investigations in nutrition and exercise. Based on the integrated understanding of nutrition and exercise developed in HHNS*6700, the focus of this course will be to develop the student's ability to independently analyze original research investigations.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6800 Research Frontiers in Integrative Biomechanics and Neurophysiology Fall Only [0.50]
This course will provide students with a breadth of knowledge and understanding across the research frontiers pursued by the integrative biomechanics and neurophysiology group. Students will be given opportunity to practice and improve oral and written communication skills and provide constructive feedback to their peers. Additionally, this class will engage students in dialogue around topics pertinent to designing and conducting successful experiments such as hypothesis generation and ethical and practical considerations.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6810 Research Methods in Integrative Biomechanics and Neurophysiology I Fall Only [0.50]
This course develops a comprehensive understanding of methods and analysis related to research in biomechanics & neuroscience. Critical evaluation and application of basic signal to noise processing and electromyography is a priority. The course uses labs, assignments, and critical review of primary literature articles to develop a strong research foundation. Scientific writing and oral communication skills are emphasized via written reports and presentations, and numeracy throughout the course in data and lab assignments.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6820 Research Methods in Integrative Biomechanics and Neurophysiology II Winter Only [0.50]
This course develops a comprehensive understanding of methods and analysis related to research in biomechanics & neuroscience. Critical evaluation and application of 3D kinematics and programming/modelling is a priority. The course uses labs, assignments, and critical review of primary literature articles to develop a strong research foundation. Scientific writing and oral communication skills are emphasized via written reports and presentations, and numeracy throughout the course in data and lab assignments.
Prerequisite(s): HHNS*6810
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6910 Basic Research Techniques and Processes Summer, Fall, and Winter [0.50]
Working with a faculty advisor, students will gain experience in basic aspects of scientific research. This will be accomplished through experience of one or more components of the scientific method in a laboratory setting. Objective outcomes will be evaluated and will include documentation of the experience in a written report.
Restriction(s): Restricted to HHNS MSc coursework/project students.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6920 Applied Research Techniques and Processes Summer, Fall, and Winter [0.50]
Under the supervision of a faculty advisor, students will gain practical experience in discipline-specific aspects of research. This will be accomplished through experience in a pre-arranged practicum in an applied setting. Objective outcomes will be evaluated and will include documentation of the experience in a written report.
Restriction(s): Restricted to HHNS MSc coursework/MRP students.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph

HHNS*6930 Research Project Summer, Fall, and Winter [0.50]
Under the supervision of a faculty advisor and building on knowledge gained from Basic or Applied Research Techniques and Processes, students will carry out a specific research project to its completion. Results will be documented in a written report and communicated through a scientific poster.
Prerequisite(s): HHNS*6910 or HHNS*6920
Restriction(s): Restricted to HHNS MSc coursework/MRP students.
Department(s): Department of Human Health and Nutritional Sciences
Location(s): Guelph