

# KINESIOLOGY (KIN)

## **KIN\*1010 Introduction to Health and Wellness Fall Only (LEC: 3) [0.50]**

This course presents the dimensions and determinants of health and wellness, and encourages students towards adopting healthy lifestyle choices. Topics such as stress management, disease management, alcohol, tobacco and drug use, living in a healthy environment, and Canada's health care system are also discussed.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

## **KIN\*1030 Human Anatomy I Fall Only (LEC: 3, LAB: 2) [0.50]**

First part of a two-semester lecture- and laboratory-based course in human anatomy, studied using a regional approach. This course includes detailed study of the skeleton, upper and lower limbs, thorax, abdomen, pelvis, perineum, head, neck and central nervous system.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

## **KIN\*1040 Human Anatomy II Winter and Summer (LEC: 3, LAB: 2) [0.50]**

Second part of a two-semester lecture- and laboratory-based course in human anatomy, studied using a regional approach. This course includes detailed study of the skeleton, upper and lower limbs, thorax, abdomen, pelvis, perineum, head, neck and central nervous system.

**Prerequisite(s):** KIN\*1030

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

## **KIN\*1060 Human Physiology I Winter Only (LEC: 3) [0.40]**

This course is the first of two courses to provide a scientific foundation for understanding the mechanisms by which the body functions. Topics covered include: overview of tissue organization, and physiology of the nervous, muscular and endocrine systems.

**Restriction(s):** This is a Priority Access Course. Enrolment may be restricted to particular programs or specializations. See Guelph-Humber Registrarial Services website for more information.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

## **KIN\*1070 Biochemistry and Metabolism I Winter and Summer (LEC: 4, LAB: 2) [0.50]**

This two course sequence provides the biochemical foundation for the study of human nutrition, exercise and metabolism. This course covers aspects of general chemistry and organic chemistry that are critical to understanding the fundamentals of human biochemistry and metabolism.

**Prerequisite(s):** SCMA\*1120

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

## **KIN\*1210 Athletic Coaching Techniques Fall and Winter (LAB: 2) [0.00]**

This practicum course will provide students insight into athletic coaching/teaching theories and methodologies. Students will gain competencies in effective coaching techniques, practice design and athletic development. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

## **KIN\*1220 Forensic Kinesiology Fall and Winter (LAB: 2) [0.00]**

This practicum course introduces students to the concepts of forensic kinesiology and some of the assessments and approaches to accident causation related to human movement. Students will learn to examine accident scenarios and deconstruct the adverse event relative to the human movement elements in order to determine root causation. A pass/fail grade will be assigned upon completion of the course.

**Prerequisite(s):** 5.00 credits

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

## **KIN\*1230 Health and Wellness Coaching Fall and Winter (LAB: 2) [0.00]**

This practicum course examines the process of making a healthy behaviour change with a focus on behaviour change techniques. Throughout the course students will actively examine the theoretical, psychological, and physiological principles of behaviour change. Students will identify, discuss, and practice various methods of behaviour change. The theoretical principles will be applied to the student's own lives to make a healthy behaviour change. In addition, theories and research will be applied to assist another individual with their attempt to undergo a specific, self-identified behaviour change. A pass/fail grade will be assigned upon completion of the course.

**Prerequisite(s):** AHSS\*1310

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

## **KIN\*1240 Martial Arts for Group Fitness Training Fall and Winter (LAB: 2) [0.00]**

This practicum course develops the necessary skills required to plan and instruct a group exercise class focused on boxing, kickboxing and other martial arts techniques for health and fitness. Furthermore, these areas of fitness training will be discussed in the context of their history, emergence as fitness trends, and the benefits and risks of these types of training. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1250 Stress Management, Meditation and Relaxation Fall and Winter (LAB: 2) [0.00]**

Throughout this course students will learn the physiological and psychological impact of stress and related stress management techniques. The principles of stress management will be covered, and the students will have the opportunity to practice several techniques that can be used to manage or mediate stress including meditation and relaxation. This practicum course will place an emphasis on practicing these techniques and identifying ways to promote and support their use with others. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1310 Group Strength and Athletic Training Fall and Winter (LAB: 2) [0.00]**

This physical activity course develops the necessary skills required to plan and instruct a group exercise class. Topics covered include class formats, use of music, choreography, cueing, monitoring techniques and successful instruction techniques. Students will gain competencies in the instruction of group strength training, athletic training, and kick box classes. Students will learn the skills by practice teaching sessions and by peer and instructor evaluations. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1320 Step, Stability Ball and BOSU Ball Training Fall and Winter (LAB: 2) [0.00]**

This physical activity practicum course develops the necessary skills required to plan and instruct a group exercise class. Students will gain competencies in the instruction of group warm-ups, step training, stability ball training and BOSU ball training. Students will learn the skills by practice teaching sessions and by peer and instructor evaluations. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1330 Traditional Group Exercise and Group Cycle Training Fall and Winter (LAB: 2) [0.00]**

This physical activity practicum course develops the necessary skills required to plan and instruct a group exercise class. Students will gain competencies in the instruction of traditional group exercise and group cycle classes. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1340 Flexibility, Yoga and Pilates Training Fall and Winter (LAB: 2) [0.00]**

This physical activity practicum course develops the necessary skills required to plan and instruct a group exercise class. Students will gain competencies in the instruction of flexibility training, yoga and Pilates classes. Students will learn the skills by practice teaching sessions and by peer and instructor evaluations. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1350 Athletic Bandaging and Taping Techniques Fall and Winter (LAB: 2) [0.00]**

This physical activity practicum course will provide an introduction to the management of athletic injuries through athletic taping and bandaging techniques. This course will provide students with the opportunity to practice taping techniques for a variety of body parts and injuries. All course components must be fulfilled for successful completion of the course. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1410 Therapeutic Exercise of Musculoskeletal Disorders Fall and Winter (LAB: 2) [0.00]**

This physical activity practicum course will introduce students to theories and guidelines for prescribing rehabilitation exercises for common musculoskeletal injuries. The focus of this course will be teaching students proper exercise technique and progression of rehabilitation programs. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1430 Functional Ability Evaluation Fall and Winter (LAB: 2) [0.00]**

In this physical activity practicum course students will learn to conduct perceived work capacity evaluations and functional capacity evaluations with human subjects. A pass/fail grade will be assigned upon completion of the course.

**Prerequisite(s):** 7.50 credits

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1440 Ergonomic Assessment and Physical Demands Analysis Fall and Winter (LAB: 2) [0.00]**

This physical activity practicum course will provide an introduction to musculoskeletal disorder hazards in the workplace; how to identify them and how to reduce their incidence. The course will provide students with the opportunity to perform physical demands and ergonomic assessment using appropriate assessment tools. A pass/fail grade will be assigned upon completion of the course.

**Prerequisite(s):** 7.50 credits

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1470 Diversity in Health, Fitness and Sport Summer, Fall, and Winter (LEC: 0, LAB: 2) [0.00]**

This practicum course will delve into the many dimensions of diversity and how health, fitness and sport professionals prepare and program for individuals that they encounter. Students will explore mental and physical ability, gender expression and identity, personality, age, ethnicity, culture, educational background, communication style and geographic location to prepare themselves as professional practitioners and leaders. This course will explore how various factors can influence health and performance, and how to measure this impact. A pass/fail grade will be assigned upon completion of the course.

**Prerequisite(s):** 4.00 credits

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1480 Orthopedic Assessment and Return to Play Summer, Fall, and Winter (LEC: 0, LAB: 2) [0.00]**

In this practicum course, students will learn and practice orthopedic assessments of injuries of the skeletal system and the associated muscles and connective tissues. Lower body and upper body injuries, including concussions, as well as the mechanisms of these injuries, will be explored. After completion of this course, students will be able to assess injuries using evidence-based hands-on techniques and provide appropriate individualized return to play recommendations. A pass/fail grade will be assigned upon completion of the course.

**Prerequisite(s):** 4.00 credits

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1490 Leadership and Entrepreneurship Summer, Fall, and Winter (LEC: 0, LAB: 2) [0.00]**

In this practicum course, students will enhance their interpersonal leadership skills through the application of information gathering, conflict management and communication techniques. Entrepreneurial skills, such as, idea and concept development, project organization, management, finance, branding, and promotion for a business associated with sport, fitness or wellness will be a focus. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1500 Digitizing Health and Society Summer, Fall, and Winter (LEC: 0, LAB: 2) [0.00]**

In this course, students will examine how virtual platforms, wearable devices, phone and computer applications, instant and remote access to medical advice, information sharing and more, are affecting behaviour and health. The future of the delivery of healthcare and the process of and ability to measure the impact on patient well-being will be the focus of this course. A pass/fail grade will be assigned upon completion of the course.

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*1510 Considerations for Healthy Aging Summer, Fall, and Winter (LEC: 0, LAB: 2) [0.00]**

Students will gain practical knowledge and understanding of the unique needs, opportunities, and challenges of an aging population in Canada and around the world. Both normative and non-normative age-related changes will be examined in the context of personal (physical, emotional, psychological, etc.) and social (education, income, housing, social networks, etc.) determinants of health. Policies and advocacy will also be critically analyzed and applied while conceptualizing future health and wellness opportunities in the field of aging. A pass/fail grade will be assigned upon completion of the course.

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

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*2010 Health Promotion Winter Only (LEC: 3) [0.50]**

This course reviews the concepts of health and well-being, as well as the determinants of health. An overview of the strategies used in the practice of health promotion will be presented. There will be a particular emphasis on providing students with the knowledge and skills in health promotion program planning, implementation and evaluation.

**Prerequisite(s):** AHSS\*1310, KIN\*1010

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*2020 Fundamentals of Nutrition: Pharmacology and Toxicology Winter Only (LEC: 3) [0.50]**

This course defines the principles of nutrition, pharmacology and toxicology as they relate to human health and fitness. The course goes beyond the role of foods as sources of essential nutrients and energy; the use of foods, nutritional supplements and natural health products as medicines is examined.

**Prerequisite(s):** KIN\*2060, KIN\*2070

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*2060 Human Physiology II Summer and Fall (LEC: 3) [0.50]**

This course is the second of two courses to provide a scientific foundation for understanding the mechanisms by which the body functions. Topics covered include: physiology of the cardiovascular, respiratory, and urinary systems.

**Prerequisite(s):** KIN\*1060

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*2070 Biochemistry and Metabolism II Fall Only (LEC: 4, LAB: 2) [0.50]**

This two course sequence provides the biochemical foundation for the study of human nutrition, exercise and metabolism. This course covers aspects of biochemistry and metabolism that are critical to understanding human health and fitness.

**Prerequisite(s):** KIN\*1070

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*2100 Fundamentals of Fitness Testing Fall Only (LEC: 3, LAB: 2) [0.50]**

This course will introduce the student to fitness and lifestyle assessment methodologies and techniques. Components of fitness assessment addressed include body composition, muscular strength and endurance, cardiorespiratory abilities, flexibility, posture, and performance related components of fitness. Students will also explore occupational fitness testing protocols. The laboratory component of this course provides the student with significant opportunity to practice conducting these protocols.

**Prerequisite(s):** KIN\*1010, KIN\*1040, KIN\*1060

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*2200 Exercise Techniques and Prescription Fall Only (LEC: 3, LAB: 2) [0.50]**

This course will introduce the student to exercise prescription methodologies and techniques. Components of exercise prescription that will be addressed include: principles of effective exercise training, design considerations for an exercise program, and creating safe aerobic, resistance and flexibility programs. The laboratory component of this course provides the student with significant opportunity to learn how to perform and instruct/demonstrate various exercises.

**Prerequisite(s):** KIN\*1040, KIN\*1060

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*2210 Advanced Exercise Prescription Winter Only (LEC: 3, LAB: 2) [0.50]**

This course is the second of four exercise prescription courses. Students will advance their study of exercise prescription programming by applying more complex and adaptive exercise methodologies and techniques. Components of exercise prescription that will be addressed include: ethics and professional conduct, the consultation process, recording and tracking client progress, an examination of advanced training and flexibility techniques, weight management, overreaching, assessing posture, low back health, overtraining, detraining, concurrent training, the use of technology in training, and current training trends. Effective learning strategies to be employed with clients will be emphasized. The laboratory component of this course provides the student with significant opportunity to practice these advanced exercise prescription skills techniques, and client-centred exercise support.

**Prerequisite(s):** KIN\*2060, KIN\*2200

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*3010 Exercise Physiology Fall Only (LEC: 3, LAB: 2) [0.50]**

This course examines the physiological mechanisms during and as a result of physical activity. The adaptations and responses of the cardiovascular, respiratory, neuromuscular, metabolic, and endocrine systems will be explored.

**Prerequisite(s):** KIN\*2060

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*3020 Injuries and Exercise Contraindications Fall Only (LEC: 3) [0.50]**

In this course students study concepts specific to the prevention of acute and chronic activity-related injury. Strategies to prevent injury that will be examined include: anatomical variations that may predispose an individual to an injury, appropriate physical conditioning programs, proper technique and skill sets, and the use of protective equipment. This discussion will be followed by an examination of injuries that are common to fitness and sports programs. In addition, legal considerations affecting fitness professionals and the physiology of the injury process will be studied.

**Prerequisite(s):** KIN\*1040, KIN\*2200

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*3030 Nutrition: Exercise and Metabolism Winter Only (LEC: 3) [0.50]**

This course defines the principles of nutrition, exercise and metabolism as they relate to human health and fitness. In addition to covering the energy and nutrient requirements of exercising humans, the course covers the metabolic basis of muscle and whole body fatigue, muscle growth and repair and genetic and epigenetic factors which influence muscle metabolism and performance of physical activity.

**Prerequisite(s):** KIN\*2020, KIN\*2060, KIN\*3010

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*3060 Human Development and Aging Fall Only (LEC: 3) [0.50]**

This course will consider how an individual's capacity for exercise, as well as one's nutritional needs change during the growth, development and normal aging process.

**Prerequisite(s):** KIN\*3010, KIN\*3030

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*3090 Field Placement I Winter Only (LEC: 2, LAB: 6) [1.00]**

Field Placement I is the first of two field placements in the B.A.Sc. program. This first field placement will provide students with the opportunity to practice and develop their skills in the key elements of fitness assessment, exercise prescription and counseling. Students will also complete a one day per week internship in a community based setting such as a clinic, hospital, training/fitness facility, school or health promotion organization. The internship is based upon the individual interests of each student.

**Prerequisite(s):** KIN\*3100

**Restriction(s):** Registration in BASC.KIN program with a minimum cumulative average of 60%.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*3100 Fitness and Lifestyle Assessment Fall Only (LEC: 3, LAB: 2) [0.50]**

The focus of this course is to provide students with the tools and skills required to assess a client's current fitness level. It covers a systematic approach for the appraisal and counselling of apparently healthy individuals, emphasizing the health benefits of physical activity. Students will administer a variety of fitness tests and health and lifestyle questionnaires and instruments. The laboratory component of this course provides the student with significant opportunity to practice conducting these protocols.

**Prerequisite(s):** AHSS\*1310, KIN\*2020, KIN\*2060, KIN\*2100, KIN\*2210

**Co-requisite(s):** KIN\*3010

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus



**KIN\*3110 Advanced Fitness Assessment Fall Only (LEC: 3, LAB: 2) [0.50]**

The focus of this course is to provide students with the tools and skills required to select, administer, and interpret established testing protocols. It also covers screening for physical activity and exercise, proper use of testing equipment, fitness assessment outcomes, and normative data. The laboratory component of this course provides the student with significant opportunity to practice conducting these protocols.

**Prerequisite(s):** AHSS\*1310, KIN\*3100, KIN\*3200

**Restriction(s):** Registration in B.A.Sc. (KIN) program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*3190 Field Placement II Fall Only (LEC: 2, LAB: 14) [1.00]**

Field Placement II is the second of two field placements in the B.A.Sc. program. Students will complete a two day per week internship in a community based setting such as a clinic, hospital, training/fitness facility, school or health promotion organization. The internship is based upon the individual interests of each student. Additionally, students will participate in weekly seminars aimed at reviewing industry certification requirements and preparing them for their Independent Research Study course.

**Prerequisite(s):** KIN\*3090

**Restriction(s):** Registration in BASC.KIN program with a minimum cumulative average of 60%.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*3200 Performance-Related Exercise Winter Only (LEC: 3, LAB: 2) [0.50]**

This course will build upon the previous exercise prescription courses by focusing on training methods for the development of athletic and occupational performance. Topics include: needs analysis, periodization, and training to develop power, maximal strength, speed, balance and agility. In the laboratory component students will learn exercises to support athletic development and how to coach clients through the specific exercises. Students will also learn how to adapt an exercise prescription for occupational physical demands. Historical perspectives as well as current training trends within the context of athletic and performance-related exercise training will be discussed. The laboratory component of this course provides the student with significant opportunity to practice these performance-related exercise prescription skills and techniques.

**Prerequisite(s):** KIN\*2210, KIN\*3010

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*3250 Natural Health Products and Physical Activity Fall Only (LEC: 3) [0.50]**

This course defines the beneficial physiological and psychological effects that can occur by the appropriate use of natural health products and regular physical activity throughout the life cycle. The course focuses on drug-free management of the risk of chronic degenerative diseases and on the enhancement of performance in daily living.

**Prerequisite(s):** KIN\*2060, KIN\*3030

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*4030 Motor Learning and Neural Control Fall Only (LEC: 3) [0.50]**

This course introduces students to human motor control. The neural components and cognitive processes that underlie human movement will be examined. Additionally, the process of learning motor skills will be explored.

**Prerequisite(s):** KIN\*1040, KIN\*2060

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*4040 Functional Anatomy Winter Only (LEC: 3, LAB: 2) [0.50]**

This course provides students with the opportunity to gain a deeper understanding of the structural and functional organization of the human body as well as whole body movement and manual dexterity. Students will develop this understanding by examining the impact that injuries to various levels of the spinal cord and/or peripheral nerves have on an individual's capacity to perform daily tasks. Cadaver and computer-based laboratory exploration of the relevant anatomy will provide the critical foundational knowledge upon which functional and applied concepts of human anatomy are built.

**Prerequisite(s):** KIN\*1040, SCMA\*3100

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*4050 Special Populations: Understanding Disease Winter Only (LEC: 3) [0.50]**

This course will provide students with a greater understanding of human disease processes including how the disease manifests and the progression of the primary and secondary effects. This course will assist the student in understanding injury/disease states. The course will focus on selected pathophysiological states that are commonly confronted in practice and is designed to promote an understanding of the decisions related to assessment and initiation of therapeutic treatments.

**Prerequisite(s):** KIN\*3060, KIN\*3250

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*4070 Sports Nutrition Winter Only (LEC: 3) [0.50]**

This course will investigate the critical role that nutrition plays in optimizing human athletic performance. The focus will be on high performance athletes, although consideration may be given to recreationally active individuals. The course will cover adaptations at the cellular, tissue and whole body level and use this information to develop practical recommendations for athletes before, during, and after competition. Students will have the opportunity to critically analyze current dietary practices and gain a better understanding for the complex interplay between nutrition and exercise.

**Prerequisite(s):** KIN\*3030, KIN\*3110

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*4150 Professional Skills for Kinesiologists Winter Only (LEC: 3, LAB: 1) [0.50]**

This course introduces students to important concepts in the profession of Kinesiology. Topics include career opportunities in Kinesiology, the legal and ethical implications working as a regulated health professional, core competencies and the scope of practice as defined by the College of Kinesiologists of Ontario. Students will be exposed to clinical screens/assessments, special orthopaedic tests and therapeutic exercise for a variety of conditions. An emphasis will be placed on preparing students to enter the profession of Kinesiology.

**Prerequisite(s):** KIN\*3020, KIN\*3110, KIN\*4030

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*4200 Exercise Prescription for Clinical Populations Winter Only (LEC: 3, LAB: 2) [0.50]**

This course will provide students with the tools and skills required to identify functional limitations and prescribe exercise from a therapeutic/corrective perspective. Students will learn to identify musculoskeletal limitations via manual muscle testing and the analysis of posture, gait and basic movement patterns. Building upon the assessment of functional limitations, students will learn appropriate corrective strategies and progressions. Students will also learn therapeutic exercise progressions for pre and post operative orthopaedic patients and strategies to transition clients from a rehabilitative program into a general fitness program.

**Prerequisite(s):** KIN\*3200

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*4300 Kinesiology Thesis I Summer, Fall, and Winter (LEC: 3) [1.00]**

This is the first of two courses intended to facilitate completion of an undergraduate thesis project and the development of research-related skills. The major goals of this course are to increase knowledge and applied research skillsets in a specific area of kinesiology, enhance the understanding of research principles and project coordination, increase understanding of the ethical issues in a research context, and enhance scientific writing and presentation skills. Under the supervision of a faculty member, the student will develop a research proposal and make a formal presentation describing their proposal to the class.

**Prerequisite(s):** KIN\*3090, (SCMA\*2110, SCMA\*3080). Minimum cumulative average of 70%

**Restriction(s):** Registration in BASC.KIN program. Program Head consent required.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*4310 Kinesiology Thesis II Summer, Fall, and Winter (LEC: 3) [1.00]**

This is the second of two courses intended to facilitate completion of an undergraduate thesis project and the development of research-related skills. The major goals of this course are to increase knowledge and applied research skillsets in a specific area of research in kinesiology, enhance understanding of how a research principles and project coordination, increase understanding of statistical analysis and management/interpretation of data, and enhance research writing and presentation skills. Under the supervision of a faculty member, the student will carry out a research project and present their findings through a poster presentation to the class and in the writing of a thesis.

**Prerequisite(s):** KIN\*4300, minimum cumulative average of 70%

**Restriction(s):** Registration in BASC.KIN program. Program Head consent required.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus

**KIN\*4400 Independent Research Study in Kinesiology Winter Only (LEC: 3) [1.00]**

The independent study course is designed to provide senior undergraduate students with an opportunity to pursue library or field research under faculty supervision and to prepare a research report or literature review. Formal agreement between the student and the faculty supervisor is required.

**Prerequisite(s):** 10.00 credits including SCMA\*2110, SCMA\*3080

**Restriction(s):** Registration in BASC.KIN program.

**Department(s):** Kinesiology

**Location(s):** Guelph-Humber Campus