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 Only  (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.  
Restriction(s): Registration in BASC.KIN program.  
Department(s): Kinesiology  
Location(s): Guelph-Humber Campus

KIN*1060  Human Physiology I  Winter Only  (LEC: 3)  [0.50]  
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 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 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*1310 Group Strength and Athletic Training Winter Only (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 Winter Only (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 Winter Only (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 Winter Only (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 Winter Only (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 Winter Only (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 Winter Only (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 Winter Only (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*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 Fall Only (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 Fall 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*3090  
**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*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.  
**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)  [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 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, as is approval of the program head.

**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