

# KINESIOLOGY (KIN)

## KIN 2200 Basic Trauma and Life Support 3 cr

(Lab required) Assessment and management of medical emergencies common to sports. Topics will include on-field primary and secondary surveys, airway management, assessment and management of head, spinal, chest, abdominal and extremity trauma. Open only to Athletic Therapy students or with permission of the instructor. May not be held with the former KIN 3200 or the former PHED 3200.

**Mutually Exclusive:** KIN 3200, PHED 3200

## KIN 2610 Health and Physical Aspects of Aging 3 cr

An introduction to health, well-being and aging. Emphasis on health as multidimensional including physical, social and mental health. Integration of theory and research in examining selected issues related to health and physical aspects of aging. This is an Option in Aging course and may not be held for credit with PHED 2610 or NURS 2610.

**Equiv To:** NURS 2610, PHED 2610

## KIN 2750 Athletic Therapy Skills 3 cr

This course will focus upon the theoretical study and practical application of massage therapy (basic and advanced) and sport specific taping, splinting and bracing techniques. The intent of this course is to help prepare students for their future in the profession of Athletic Therapy. May not hold for credit with PHED 2020 or PHED 3180. Open to Athletic Therapy students only.

**Mutually Exclusive:** PHED 2020, PHED 3180

## KIN 3160 Pathology and Sport Medicine 3 cr

(Lab required) Analysis of types of injuries and emergency procedures, and practical experience in first aid, taping and wrapping, massage, and various preventive techniques. May not be held with the former PHED 3160 or the former PHED 3060.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KPER 2320 (or the former KIN 2320 or the former PHED 2320).

**Equiv To:** PHED 3060, PHED 3160

## KIN 3320 Advanced Human Anatomy 3 cr

(Lab Required) This course will concentrate on the structure and function of the human body's various tissues, organs and systems with particular emphasis upon basic histology, function and gross anatomy. This course will help prepare students who are interested in pursuing careers in Athletic Therapy and Kinesiology. Note: A fieldwork fee is attached to the course.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KPER 2320 (or the former KIN 2320 or the former PHED 2320).

## KIN 3330 Functional Assessment and Restoration A 3 cr

(Lab required) General principles of assessment and restoration; assessment of acute and chronic musculo-skeletal injuries of the lower extremity; rehabilitation techniques to ensure full restoration of function. May not be held with KIN 3300 (PHED 3300).

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KIN 3320. Corequisite: KIN 3912 or permission of instructor.

**Mutually Exclusive:** KIN 3300, PHED 3300

## KIN 3332 Functional Assessment and Restoration B 3 cr

(Lab required) Assessment of acute and chronic musculo-skeletal injuries of the upper extremity and spine; rehabilitation techniques to ensure full restoration of function. May not be held with KIN 3300 (PHED 3300).

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KIN 3330.

**Mutually Exclusive:** KIN 3300, PHED 3300

## KIN 3400 Therapeutic Modalities 3 cr

(Lab required) This course will concentrate on the use of therapeutic modalities commonly utilized in the profession of Athletic Therapy.

It will introduce the student to various thermal mechanical, and electromagnetic agents used for therapeutic purposes. May not be held with the former PT 2720.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KIN 3320 or permission of instructor.

**Equiv To:** PT 2720

## KIN 3510 Physical Activity and Aging 3 cr

The study of the aging process and the effects of exercise and lifestyle factors on the health and fitness of the aging adult. This is an Option in Aging course. May not be held with the former KIN 4500 or the former PHED 4500.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisites: KPER 3470 (or the former KIN 3470, or the former PHED 3470, or the former PHED 3430), or permission of the instructor.

**Equiv To:** KIN 4500, PHED 4500

## KIN 3700 Advanced Motor Control and Learning 3 cr

This course focuses on the fundamentals of the nervous system as they relate to human movement and the application to motor control and learning. Emphasis is placed on an advanced understanding and application of theories and models of motor control and learning, including the introduction to how different components of the central and peripheral nervous systems contribute to movement.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KPER 2700 (or the former KIN 3450 or the former PHED 3450).

## KIN 3912 Athletic Therapy Practicum 4 cr

To provide clinical and on-field internship experiences on campus and in the community for prospective Athletic Therapy candidates. This course is evaluated on a pass/fail basis. May not hold for credit with the former PHED 3910 or the former KIN 3910.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: [KIN 2750 (or the former PHED 2020 or the former PHED 3180)] and [KIN 2200 (or the former KIN 3200 or the former PHED 3200)].

Co-requisite: KIN 3330 or permission of instructor.

**Mutually Exclusive:** KIN 3910, PHED 3910

## KIN 3914 Clinical Block Placement 2 cr

Clinical internship experiences on campus and in the community for prospective Athletic Therapy candidates. This course is evaluated on a pass/fail basis. May not be held for credit with KIN 3910 (PHED 3910).

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisites: (KIN 3332, KIN 3400, and KIN 3912) or permission of instructor.

**KIN 4040 Advanced Exercise and Health Psychology 3 cr**

This course provides students with an advanced understanding of research, theory and contemporary issues in exercise and health psychology. Using a variety of methods, such as case studies, narrative, and research articles, students will learn to critically read and evaluate research in the field. Students will also explain and apply influential theories and models. Contemporary research topics covered in this class include psychological influences on health behaviours, including exercise, as well as the psychological outcomes of these health behaviours.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KPER 2540 (or the former KIN 2540 or the former PHED 2540) or permission of instructor.

**KIN 4060 Drugs and Ergogenic Aids in Sport 3 cr**

A multidisciplinary examination of drugs, hormones, dietary supplement and methods used by athletes in attempting to enhance athletic performance. Ethical concerns and mechanisms of action will be examined for steroids, stimulants, masking agents, blood doping, and hormonal and dietary supplements among others. May not hold for credit with PHED 4060. Recommended prerequisite BIOL 1412 (ZOOL 1330) or BIOL 2420 (ZOOL 2540).

**Equiv To:** PHED 4060

**KIN 4070 Development and Movement Disorders 3 cr**

This course is designed to provide the student with an understanding of neuroscience as it relates to motor control and learning through consideration of foundational content in how the central and peripheral nervous systems contribute to movement control and the contributions of sensory feedback. The role of the nervous system for motor function will be explored through an understanding of a selection of developmental and acquired neurological disorders. Students will have an opportunity to examine the application of a selection of the content and theories to the study of a sample of neurological and/or developmental disorders. May not be held with the former PERS 4200 when titled "Developmental and Movement Disorders."

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KPER 2700, or the former KIN 3450, or permission of the instructor.

**Mutually Exclusive:** PERS 4200

**KIN 4160 Advanced Pathology and Sport Medicine 3 cr**

Basic principles of pathology and clinical manifestations of cardiac respiratory, and neurologic disorders. Preventative measures, assessments and treatment methods employed in care of patients with these disorders will also be examined. May not be held for credit with PHED 4050.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisites: [KIN 3160 (or the former PHED 3160, or the former PHED 3060)] and [KIN 3320] and [KPER 3470 (or the former KIN 3470, or the former PHED 3470, or the former PHED 3430)].

**Equiv To:** PHED 4050

**KIN 4260 Human Factors and Ergonomics 3 cr**

This course reviews principles of human factors and ergonomics and explores the systematic application of human capabilities, limitations and behaviours with regard to the design of usable elements within specific environments. Emphasis is placed on the interactive nature of human-machine systems, the development of ergonomic models, and the techniques used to assess the design of modern work and living environments.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KPER 2700 (or the former KIN 3450 or the former PHED 3450).

**KIN 4330 Advanced Biomechanics 3 cr**

(Lab required) A biomechanical analysis of the skills and techniques of the major sports, games, and exercises. May not be held with the former PHED 4360.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KPER 2330 (or the former KIN 2330 or the former PHED 2330 or the former PHED 2310).

**Equiv To:** PHED 4360

**KIN 4370 Physiology of Exercise in Extreme Environments 3 cr**

Learn how humans exercise and work under five environmental extremes: heat, cold, hypobaria (altitude), hyperbaria (under water) and microgravity (space). After learning how each environment limits exercise and poses health risks, students will then apply knowledge of exercise physiology to determine how training and acclimatization can mitigate these limitations to maximize performance. Knowledge attained in this course will be valuable professionally (e.g., providing training for athletes in heat and cold), for personal recreation (e.g., mountaineering, SCUBA diving), or research (e.g., microgravity). May not be held with KPER 4000 or the former PERS 4200 when titled "Physiology of Exercise in Extreme Environments."

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KIN 3470.

**Mutually Exclusive:** PERS 4200

**KIN 4400 Therapeutic Exercise Rehabilitation 3 cr**

This course will concentrate on therapeutic exercise for the upper and lower extremities, torso and spine. Content will focus upon using exercise and basic therapy techniques to restore function by addressing deficiencies in range of motion, flexibility, strength, power, endurance, proprioception, coordination, agility and speed.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisites: [KIN 3160 (or the former PHED 3160 or the former PHED 3060)] and [KPER 3512 (or the former KIN 3512, or the former KIN 3090, or the former PHED 3090)] and [KIN 3332] or permission of instructor.

**KIN 4460 Fitness Appraisal and Lifestyle Counselling 3 cr**

(Lab required) Theoretical knowledge and practical training related to physical activity, fitness and lifestyle appraisal and counselling. Note: This course prepares students for certification as a Certified Personal Trainer (CPT) by the Canadian Society for Exercise Physiology. B.Kin. students who wish to prepare for certification as a Certified Exercise Physiologist (CEP) by the Canadian Society for Exercise Physiology, should consult the Undergraduate Program Administrator for information. May not be held for credit with PHED 4460.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisites: KPER 3470 (or the former KIN 3470 or the former PHED 3470 or the former PHED 3430). Pre- or Co-requisites: [KPER 1200 (or the former PERS 1200 or the former PHED 1200)] and [KIN 3512 (or the former KIN 3090 or the former PHED 3090)]. Requires an active Recreation Services Membership.

**Equiv To:** PHED 4460

**KIN 4470 Advanced Exercise Physiology 3 cr**

An advanced examination of the physiological factors that affect human performance during physical activity. This will include exposure to related research and the development of techniques for its critical assessment. May not be held with PHED 4410.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisites: KPER 3470 (or the former KIN 3470, or the former PHED 3470, or the former PHED 3430).

**Equiv To:** PHED 4410

**KIN 4540 Advanced Topics in Sport Psychology 3 cr**

This course will provide the student with a deeper understanding of psychological variables affecting individuals within sport contexts, including an exploration of various research methods and theories/ research related to motivation, youth, and applied work in sport psychology. May not hold with the former PHED 4540.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KPER 2540 (or the former KIN 2540 or the former PHED 2540).

**Equiv To:** PHED 4540

**KIN 4560 Advanced Fitness Appraisal and Lifestyle Counselling 3 cr**

(Lab required) Advanced theoretical knowledge and experiential learning related to physical activity, fitness and lifestyle assessment, counselling, and exercise prescription for apparently healthy and clinical populations. Prepares students for certification as a Certified Exercise Physiologist (CEP) by the Canadian Society of Exercise Physiology. Requires an active Recreation Services membership. May not be held with the former PHED 4350.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisites: [KIN 4460 (or the former PHED 4460)] and [KPER 3512 (or the former KIN 3512, or the former KIN 3090, or the former PHED 3090)].

**Equiv To:** PHED 4350

**KIN 4910 Athletic Therapy Practicum 6 cr**

To provide clinical and on-field internship experiences on campus and in the community for prospective Athletic Therapy candidates. May not be held for credit with PHED 4910. Evaluated pass/fail.

**PR/CR: A minimum grade of C is required unless otherwise indicated.**

Prerequisite: KIN 3914 (KIN 3910, PHED 3910) and KIN 3400 and KIN 3320.

**Mutually Exclusive:** PHED 4910