

# KINESIOLOGY AND APPLIED HEALTH (KIN)

Updated March 14, 2013

The Department of Kinesiology and Applied Health, along with the Department of Athletics, is now part of the Faculty of Kinesiology.

**Note:** The department/program code KIN replaces the former code 88. Students cannot hold credit in KIN-xxxx and the former 88.xxxx having the same course number (e.g., KIN-2200(3) and 88.2200(3)).

**Chair: Associate Professor: D. Telles-Langdon;** Professors: G. Bergeron, D. Fitzpatrick; Associate Professors: M. Gregg, F. Gutoski; Assistant Professor: Nathan Hall; Lecturer: Robert Pryce; Instructors: A. Bedard, A. Hussain, G. McDonald, B. Trunzo; A. Janzen; D. Stringer Coaches: D. Crook, L. McKay.

## DEGREES/PROGRAMS OFFERED

3-Year BA  
4-Year BA  
4-Year BA (Sport Coaching)  
4-Year BSc (Exercise Science)  
4-Year BSc (Athletic Therapy)

## MISSION

Our mission is to provide an environment where students in Kinesiology and Applied Health can pursue their potential through our commitment to excellence in teaching, research, and community service.

## INTRODUCTION

Kinesiology and Applied Health at the University of Winnipeg is designed to develop an understanding of research and practice in physical activity, fitness, exercise, and sport. The courses focus on the what, why, and how of human physical activity in four main areas of concentration: Teaching, Kinesiology, Coaching, and Athletic Therapy.

The Bachelor of Arts or Bachelor of Science degrees with a major in Kinesiology focus on areas related to health and fitness, motor behaviour, sport science, sport and exercise psychology, sport management, or athletic therapy. The curriculum in Athletic Therapy is fully accredited by the Canadian Athletic Therapists' Association.

The Coaching area of concentration enables an intense study of a specific sport. This course of study will meet the knowledge requirements of the National Coaching Certification Program.

A Bachelor of Arts degree with a major in Kinesiology and a Bachelor of Education will prepare students to teach physical education at the early, middle, or senior years level, as well as provide them with an understanding of coaching in the school system.

Courses such as Exercise Physiology, Physical Growth and Motor Development, Biomechanics, Sport Injuries, Sport Psychology, Program Planning in Sport and Physical Activity, Principles of Coaching, and various activity courses provide the student with a balance of offerings.

An interdisciplinary approach of combining Kinesiology courses with those in other academic departments, such as Business and Administration or Developmental Studies, offers students flexibility in designing their own course of study.

Students pursuing a 4-year BSc in Kinesiology, including the Exercise Science and Athletic Therapy Streams, also have the opportunity to add a Business Stream (see the "Science with a Business Stream" section of this Course Calendar).

Graduates of Kinesiology and Applied Health are most likely to be employed in the school system, with amateur or professional sport organizations, in private business, with institutions and agencies, and in public community sport, fitness, and physical recreation programs, or child care settings. Additionally, upon completion of the initial degree, students may pursue graduate studies in areas related to Physical Education or Kinesiology at other universities.

## REQUIREMENTS FOR A 3-YEAR BA IN KINESIOLOGY AND APPLIED HEALTH

### ADMISSION REQUIREMENT

Students are advised to consult with a member of the Department in planning their course of study.

### GRADUATION REQUIREMENT

90 credit hours

### RESIDENCE REQUIREMENT

Degree: Minimum 30 credit hours  
Major: Minimum 18 credit hours

### GENERAL DEGREE REQUIREMENT

Humanities: 12 credit hours in Humanities  
Science: 6 credit hours in Science  
Writing: Minimum 3 credit hours of Academic Writing.  
Maximum Introductory Courses: Students may use a maximum of 42 credit hours at the 1000 level. Of these, a maximum of 6 credit hours may be below the 1000 level.  
Distribution: Minimum three (3) credit hours from each of five (5) different subjects.

### MAJOR REQUIREMENT

Single Major: Minimum 48 credit hours/Maximum 48 credit hours.  
Double Major: Minimum 48 credit hours in Kinesiology and Applied Health and specified number of credit hours in the other department/program.

## KINESIOLOGY MAJOR - General

### Required Courses:

**KIN-1101(3)** Introduction to Kinesiology  
**KIN-2105(3)** Sport Psychology  
**KIN-2200(3)** Issues in Sport **or** **KIN-2305(3)** Issues in Health  
**KIN-2301(3)** Human Anatomy

### 3 credit hours from:

**KIN-2202(3)** Prevention and Care of Sport Injuries  
**KIN-2204(3)** Introduction to Human Physiology

**KIN 2304(3)** Scientific Principles Fitness and Conditioning  
**KIN-2301(3)** Human Anatomy  
**KIN-2501(3)** Nutrition for Health and Wellness  
**KIN-3106(3)** Exercise Physiology  
**KIN-3201(3)** Biomechanics

### 9 credit hours from:

**KIN 2207(3)** Physical Growth and Motor Development  
**KIN 3103(3)** Adapted Physical Activity  
**KIN 3105(3)** Psychological Skills in Sport and Life  
**KIN 3208(3)** Physical Activity and Aging  
**KIN 3305(3)** Physical Activity: Promotion and Adherence  
**KIN 4207(3)** Motor Learning and Control

### 3 credit hours from:

**KIN-2111(3)** Coaching and Teaching Basketball 1  
**KIN-2112(3)** Coaching and Teaching Volleyball 1  
**KIN-2109(3)** Instructing Sport and Physical Activities  
**KIN-1302(3)** Teaching Individual Physical Activities  
**KIN-1303(3)** Teaching Team Physical Activities

Choose 21 additional credit hours from any course offerings in Kinesiology and Applied Health, for a total of 48 credit hours.

## BEEd TEACHING MAJOR AND MINORS IN KINESIOLOGY

### KINESIOLOGY MAJOR - Teaching Stream

#### Required courses:

<b>KIN-2202(3)</b>	Prevention and Care of Injuries
<b>KIN-2301(3)</b>	Human Anatomy
<b>KIN-2304(3)*</b>	Scientific Principles of Fitness and Conditioning
<b>KIN-2305(3)</b>	Issues in Health
<b>KIN-3103(3)</b>	Adapted Physical Activity
<b>KIN-3305(3)</b>	Physical Activity: Promotion and Adherence
<b>KIN-3105(3)</b>	Psychological Skills in Sport and Life <b>or</b>
<b>KIN-2105(3)</b>	Sport Psychology

#### minimum of 6 credit hours from:

<b>KIN-2206(3)</b>	Movement Education (early/middle years)
<b>KIN-2207(3)</b>	Physical Growth and Motor Development (all years)
<b>KIN-1302(3)</b>	Teaching Individual Physical Activities (middle/senior years)
<b>KIN-1303(3)</b>	Teaching Team Physical Activities (middle/senior years)
<b>KIN-2400(3)</b>	Teaching Games for Understanding (early/middle years)

#### minimum of 9 **additional** credit hours from:

<b>KIN-2112(3)</b>	Coaching and Teaching Basketball 1 (middle/senior years)
<b>KIN-2113(3)</b>	Coaching and Teaching Volleyball 1 (middle/senior years)
<b>KIN-2109(3)</b>	Instructing Sport and Physical Activities (middle/senior years)
<b>KIN-1200(3)</b>	Principles of Coaching (all years)
<b>KIN-2206(3)</b>	Movement Education (early/middle years)

<b>KIN-2207(3)</b>	Physical Growth and Motor Development (all years)
<b>KIN-13023</b>	Teaching Individual Physical Activities (middle/senior years)
<b>KIN-1303(3)</b>	Teaching Team Physical Activities (middle/senior years)
<b>KIN-2400(3)</b>	Teaching Games for Understanding (early/middle years)
<b>KIN-3304(3)</b>	Advanced Resistance Training (senior years)

12 additional credit hours from any course offerings in Kinesiology and Applied Health, for a total of 48 credit hours.

#### **KINESIOLOGY TEACHABLE MINOR (Senior and Middle Years)**

Required courses:

<b>KIN 230193)</b>	Human Anatomy
<b>KIN-2305(3)</b>	Issues in Health
<b>KIN-3103(3)</b>	Adapted Physical Activity

6 credit hours from:

<b>KIN-13023</b>	Teaching Individual Physical Activities (middle/senior years)
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<b>KIN-1303(3)</b>	Teaching Team Physical Activities (middle/senior years)
<b>KIN-2400(3)</b>	Teaching Games for Understanding

3 credit hours from:

<b>KIN-2105(3)</b>	Sport Psychology
<b>KIN-3305(3)</b>	Physical Activity: Promotion and Adherence
<b>KIN-3105(3)</b>	Psychological Skills in Sport and Life

#### **KINESIOLOGY TEACHABLE MINOR (Early and Early/Middle Years)**

Required courses:

<b>KIN 2301(3)</b>	Human Anatomy
<b>KIN-3103(3)</b>	Adapted Physical Activity

9 credit hours from:

<b>KIN-2206(3)</b>	Movement Education
<b>KIN-2207(3)</b>	Physical Growth and Motor Development
<b>KIN-2305(3)</b>	Issues in Health
<b>KIN-2400(3)</b>	Teaching Games for Understanding

3 credit hours from:

<b>KIN-2105(3)</b>	Sport Psychology
<b>KIN-3305(3)</b>	Physical Activity: Promotion and Adherence
<b>KIN-3105(3)</b>	Psychological Skills in Sport and Life

## **REQUIREMENTS FOR A 4-YEAR BA IN KINESIOLOGY**

<b>ADMISSION REQUIREMENT</b>	Students are advised to consult with a member of the Department in planning their course of study.
<b>GRADUATION REQUIREMENT</b>	120 credit hours
<b>RESIDENCE REQUIREMENT</b>	
Degree:	Minimum 60 credit hours
Major:	Minimum 30 credit hours
<b>GENERAL DEGREE REQUIREMENT</b>	
Humanities:	12 credit hours in Humanities
Science:	6 credit hours in Science
Social Science:	12 credit hours
Writing:	Minimum 3 credit hours of Academic Writing.
Maximum Introductory Courses:	Students may use a maximum of 42 credit hours at the 1000 level. Of these, a maximum of 6 credit hours may be below the 1000 level.
Distribution:	Minimum three (3) credit hours from each of five (5) different subjects.
<b>MAJOR REQUIREMENT</b>	
Major:	Minimum 60 credit hours/Maximum 66 credit hours.
Cognate Courses:	Minimum 18 credit hours/Maximum 24 credit hours of ancillary courses Maximum total of cognate and major courses is 84 credit hours combined.
Required Courses:	
<b>KIN-1101(3)</b>	Introduction to Kinesiology
<b>KIN-2105(3)</b>	Sport Psychology
<b>KIN-2200(3)</b>	Issues in Sport <u>or</u> <b>KIN-2305(3)</b> Issues in Health
<b>KIN-2207(3)</b>	Physical Growth and Motor Development

<b>KIN-2204(3)*</b>	Human Physiology <b>or</b> <b>BIOL-1112(6)</b> Human Anatomy and Physiology
<b>KIN-2301(3)*</b>	Human Anatomy
<b>KIN-3208(3)</b>	Physical Activity and Aging
<b>KIN-3106(3)*</b>	Exercise Physiology <b>or</b> KIN-3201/3* Biomechanics <b>or</b> KIN-3304/3* Advanced Resistance Training
<b>KIN-3105(3)</b>	Psychological Skills in Sport and Life <b>or</b> <b>KIN-3305(3)</b> Physical Activity: Promotion and Adherence
<b>KIN-4207(3)</b>	Motor Learning and Control
3 credit hours from:	
<b>KIN-1200(3)</b>	Principles of Coaching
<b>KIN-1302(3)</b>	Teaching Individual Physical Activities
<b>KIN-1303(3)</b>	Teaching Team Physical Activities
3 credit hours from:	
<b>KIN-2111(3)</b>	Coaching and Teaching Basketball 1
<b>KIN-2112(3)</b>	Coaching and Teaching Volleyball 1
<b>KIN-2109(3)</b>	Instructing Sport and Physical Activities

\*any 2 will fulfill the science requirement within the Bachelor of Arts degree.

Choose a minimum of 24 additional credit hours from other Kinesiology courses, for a total of 60 credit hours from Kinesiology. A minimum of 18 total credit hours of Kinesiology courses must be at the 3000 or 4000 level.

#### Statistics Requirement

Choose 3 credit hours from:

<b>GEOG-2309(3)**</b>	Statistical Techniques in Environmental Analysis (prereq. GEOG-1102(3) or GEOG-1103(3) or GEOG-1201(3) or GEOG-1202(3) or permission)
<b>PSYC-2101(3)**</b>	Introduction to Data Analysis (prereq. PSYC-1000(6))
<b>SOC-2125(3)**</b>	Introduction to Quantitative Research Methods (prereq. SOC-1101(6) or permission of department chair)
<b>STAT 1302(3)**</b>	Statistical Analysis II (prereq. STAT 1301(3))
<b>STAT-1501(3)</b>	Elementary Biological Statistics I
<b>** Courses with prerequisites</b>	

#### Research Design and Methods Requirement

Choose 3 credit hours from:

<b>PSYC-2102(3)**</b>	Introduction to Research Methods (prereq. PSYC-1000(6), PSYC-2101(3))
<b>SOC-2126(3)**</b>	Introduction to Research Design and Qualitative Research (prereq. SOC-1101(6) or permission of department chair)
<b>IDS-3920(3)**</b>	Action Research Methods (prereq. IDS-1100(6) or CRS-1200(6) or permission)
<b>CJ-2101(3)**</b>	Research Method in Criminal Justice (prereq. CJS-1101(6))
<b>WGS-3200(6)**</b>	Feminist Research Methodologies Seminar (prereq. WOM-1232(6) or permission of Program Coordinator)
<b>** Courses with prerequisites</b>	

## REQUIREMENTS FOR A 4-YEAR BA IN KINESIOLOGY (SPORT COACHING)

<b>ADMISSION REQUIREMENT</b>	Students are advised to consult with a member of the Department in planning course of study.
<b>GRADUATION REQUIREMENT</b>	120 credit hours
<b>RESIDENCE REQUIREMENT</b>	
Degree:	Minimum 60 credit hours
Major:	Minimum 30 credit hours
<b>GENERAL DEGREE REQUIREMENT</b>	
Humanities:	12 credit hours in Humanities
Science:	6 credit hours in Science
Social Science:	12 credit hours in Social Science
Writing:	Minimum 3 credit hours of Academic Writing.
Maximum Introductory Courses:	Students may use a maximum of 42 credit hours at the 1000 level. Of these, a maximum of 6 credit hours may be below the 1000 level.
Distribution:	Minimum three (3) credit hours from each of five (5) different subjects.
<b>MAJOR REQUIREMENT</b>	
Major:	Minimum 60 credit hours/Maximum 66 credit hours.
Cognate Courses:	Minimum 18 credit hours/Maximum 24 credit hours of ancillary courses. Maximum total of cognate and major courses is 84 credit hours combined.
Required Courses:	
<b>KIN-1200(3)</b>	Principles of Coaching

<b>KIN-2100(3)</b>	Leadership in Sport: Emerging Perspectives
<b>KIN-2101(3)</b>	Program Planning in Sport
<b>KIN-2105(3)</b>	Sport Psychology
<b>KIN-2200(3)</b>	Issues in Sport
<b>KIN-2202(3)</b>	Prevention and Care of Sport Injuries
<b>KIN-2204(3)</b>	Introduction to Human Physiology <b>or</b>
<b>BIOL-1112(6)</b>	Human Anatomy and Physiology
<b>KIN-2301(3)</b>	Human Anatomy
<b>KIN-2304(3)</b>	Scientific Principles of Fitness and Conditioning
<b>KIN-2501(3)</b>	Nutrition for Health and Wellness
<b>KIN-3105(3)</b>	Psychological Skills in Sport and Life
<b>KIN-3106(3)</b>	Exercise Physiology
<b>KIN-3201(3)</b>	Biomechanics
<b>KIN-3304(3)</b>	Advanced Resistance Training
<b>KIN-4200(3)</b>	Advanced Seminar in Coaching
<b>KIN-4207(3)</b>	Motor Learning and Control
<b>KIN-4502(3)</b>	Drugs and Ergogenic Aids in Sport

In addition, choose a minimum of 9 additional credit hours from other Kinesiology courses, for a total of 60 credit hours from Kinesiology.

**COGNATE REQUIREMENT** 18 credits as approved by the Kinesiology Department. This 18 credit hours includes the following statistical and research requirements:

Statistics Requirement

Choose at least 3 credit hours from:

<b>GEOG-2309(3)**</b>	Statistical Techniques in Environmental Analysis (prereq. GEOG-1102(3) or GEOG-1103(3) or GEOG-1201(3) or GEOG-1202(3) or permission)
<b>PSYC-2101(3)**</b>	Introduction to Data Analysis (prereq. PSYC-1000(6))
<b>SOC-2125(3)**</b>	Introduction to Quantitative Research Methods (prereq. SOC-1101(6) or permission of department chair)
<b>STAT 1302(3)**</b>	Statistical Analysis II (prereq. STAT 1301(3))
<b>STAT-1501(3)</b>	Elementary Biological Statistics I

*\*\* Courses with prerequisites*

Research Design and Methods Requirement

Choose 3 credit hours from:

<b>PSYC-2102(3)**</b>	Introduction to Research Methods (prereq. PSYC-1000(6), PSYC-2101(3))
<b>SOC-2126(3)**</b>	Introduction to Research Design and Qualitative Research (prereq. SOC-1101(6) or permission of department chair)
<b>IDS-3920(3)**</b>	Action Research Methods (prereq. IDS-1100(6) or CRS-1200(6) or permission)
<b>CJ-2101(3)**</b>	Research Method in Criminal Justice (prereq. CJS-1101(6))
<b>WGS-3200(6)**</b>	Feminist Research Methodologies Seminar (prereq. WOM-1232(6) or permission of Program Coordinator)

*\*\*Courses with prerequisites*

## REQUIREMENTS FOR A 4-YEAR BSc IN KINESIOLOGY (EXERCISE SCIENCE)

<b>ADMISSION REQUIREMENT</b>	Students are advised to consult with a member of the Department in planning their course of study.
<b>GRADUATION REQUIREMENT</b>	120 credit hours
<b>RESIDENCE REQUIREMENT</b>	
Degree:	Minimum 60 credit hours
Major:	Minimum 30 credit hours
<b>GENERAL DEGREE REQUIREMENT</b>	
Humanities:	12 credit hours in Humanities
Writing:	Minimum 3 credit hours of Academic Writing.
Maximum Introductory Courses:	Students may use a maximum of 42 credit hours at the 1000 level. Of these, a maximum of 6 credit hours may be below the 1000 level.
Distribution:	Minimum three (3) credit hours from each of five (5) different subjects.
<b>MAJOR REQUIREMENT</b>	
Single Major:	Minimum 48 credit hours/Maximum 78 credit hours.
Double Major:	Minimum credit hours in Kinesiology and Applied Health and specified number of courses in other major.
Prerequisites:	Chemistry 40S and Pre-Calculus or Applied Mathematics 40S are required.

**Kinesiology Required Courses:**

<b>KIN-1101(3)</b>	Introduction to Kinesiology or <b>KIN-1200(3)</b> Principles of Coaching
<b>KIN-2200(3)</b>	Issues in Sport or <b>KIN-2305(3)</b> Issues in Health
<b>KIN-2202(3)</b>	Prevention and Care of Sport Injuries
<b>KIN-2301(3)</b>	Human Anatomy
<b>KIN-2304(3)</b>	Scientific Principles of Fitness and Conditioning
<b>KIN-2501(3)</b>	Nutrition for Health and Wellness
<b>KIN-3106(3)</b>	Exercise Physiology
<b>KIN-3201(3)</b>	Biomechanics
<b>KIN-4201(3)</b>	Ergonomics of the Musculoskeletal System or <b>KIN-4106(3)</b> Exercise Physiology in Chronic Disease
<b>KIN-4207(3)</b>	Motor Learning and Control
<b>KIN-2105(3)</b>	Sport Psychology or <b>KIN-3105(3)</b> Psychological Skills in Sport and Life or <b>KIN-3305(3)</b> Physical Activity: Promotion and Adherence

Choose a minimum of 6 additional credit hours from Kinesiology and Applied Health science courses:

<b>KIN-3304(3)</b>	Advanced Resistance Training
<b>KIN-3505(3)</b>	Pathology in Sport Medicine
<b>KIN-4106(3)</b>	Exercise Physiology in Chronic Disease
<b>KIN-4201(3)</b>	Ergonomics of the Musculoskeletal System
<b>KIN-4301(3)</b>	Applied Anatomy
<b>KIN-4502(3)</b>	Drugs and Ergogenic Aids in Sport

Choose an additional minimum 6 credit hours from any other Kinesiology and Applied Health course, for a minimum total of 48 credit hours from Kinesiology and Applied Health. Students may select up to an additional 30 credit hours in Kinesiology and Applied Health to a maximum of 78 credit hours. A minimum of 18 total credit hours of Kinesiology and Applied Health courses must be at the 3000 or 4000 level.

**Statistics Requirement**

Choose at least 3 credit hours from:

<b>GEOG-2309(3)**</b>	Statistical Techniques in Environmental Analysis (prereq. GEOG-1102(3) or GEOG-1103(3) or GEOG-1201(3) or GEOG-1202(3) or permission)
<b>PSYC-2101(3)**</b>	Introduction to Data Analysis (prereq. PSYC-1000(6))
<b>STAT 1302(3)**</b>	Statistical Analysis II (prereq. STAT 1301(3))
<b>STAT-1501(3)</b>	Elementary Biological Statistics I

**\*\* Courses with prerequisites**

**Research Design and Methods Requirement**

Choose 3 credit hours from:

<b>BIOL-3492(3)</b>	Quantitative and Theoretical Biology (prereq. BIOL-2301(3) and BIOL- 2403(3))
<b>PSYC-2102(3)</b>	Introduction to Research Methods (prereq. PSYC-2101(3) or STAT-1501(3))
<b>SOC-2126(3)</b>	Introduction to Research Design and Qualitative Research (prereq. SOC-1101(6) or permission of department chair)

**Science Course Requirement (Non-Kinesiology and Applied Health)**

Required:

<b>CHEM-1111(3)</b>	Introduction to Chemical Properties of Matter
<b>CHEM-1112(3)</b>	Basic Principles of Chemical Reactivity
<b>*BIOL-1115(3)</b>	Cells and Cell Processes and <b>BIOL-1116(3)</b> Evolution and Ecology and <b>KIN 2204(3)</b> Introduction to Human Physiology
	<b>or</b>
<b>*BIOL-1112(6)</b>	Human Anatomy and Physiology

Choose a minimum of 18 additional credits from non-Kinesiology and Applied Health science courses for a total of 30 credits of non-Kinesiology science. These can be selected from any course that fulfills the Science Requirement, with the exception of BIOL-1102(6), BIOL-1103(6), HIST-2900(6).

NOTE: The course choices for meeting the Statistics Requirement and the Research Design and Methods Requirement (as outlined above), with the EXCEPTION of GEOG 2309(3) and with the EXCEPTION of SOC 2126(3), may be used as part of this 18 credit hours.

\*Students wishing to double major in Biology or take other Biology courses are normally required to take BIOL-1115(3) and BIOL-1116(3). The Human Anatomy and Physiology course may only be used as a prerequisite for the following upper level courses in Biology:

<b>BIOL-2301(3)</b>	Genetics
<b>BIOL-3202(3)</b>	Histology
<b>BIOL-3221(3)</b>	Cell Biology
<b>BIOL-3303(3)</b>	Molecular Genetics and Genomics (prereq. BIOL-2301(3))
<b>BIOL-3602(3)</b>	Comparative Animal Physiology I
<b>BIOL-3603(3)</b>	Comparative Animal Physiology II(prereq. BIOL-3602(3))



<b>BIOL-3562(3)</b>	Human Reproductive Biology
<b>BIOL-3563(3)</b>	Human Embryology
<b>BIOL-4502(3)</b>	Molecular Cell Biology (prereq. BIOL-2301(3), BIOL-3221(3), CHEM-3502(3), CHEM-3503(3), coreq. BIOL-3303(3))
<b>BIOL-4601(3)</b>	Ecological Animal Physiology (prereq. CHEM-1111(3), CHEM-1112(3), and any one of BIOL-2111(6), BIOL-3602(3) and BIOL-3603(3), or CHEM-3502(3) and CHEM-3503(3))

## REQUIREMENTS FOR A 4-YEAR BSc IN KINESIOLOGY (ATHLETIC THERAPY)

**ADMISSION REQUIREMENT** Students are advised to consult with a member of the Department in planning their course of study.

**GRADUATION REQUIREMENT** 120 credit hours

### RESIDENCE REQUIREMENT

Degree: Minimum 60 credit hours  
Major: Minimum 30 credit hours

### GENERAL DEGREE REQUIREMENT

Humanities: 12 credit hours in Humanities  
Writing: Minimum 3 credit hours of Academic Writing.  
Maximum Introductory Courses: Students may use a maximum of 42 credit hours at the 1000 level. Of these, a maximum of 6 credit hours may be below the 1000 level.  
Distribution: Minimum three (3) credit hours from each of five (5) different subjects.

### MAJOR REQUIREMENT

Major: Minimum 75 credit hours/Maximum 78 credit hours.

#### Required Courses:

<b>KIN-1101(3)</b>	Introduction to Kinesiology
<b>BIOL-1112(6)</b>	Human Anatomy & Physiology
<b>PSY-1000(6)</b>	Introductory Psychology
<b>BUS-1201(3)</b>	Introduction to Business I
<b>KIN-2202(3)</b>	Prevention and Care of Sport Injuries
<b>KIN-2301(3)</b>	Human Anatomy
<b>KIN-2304(3)</b>	Scientific Principles of Fitness and Conditioning
<b>KIN-2500(3)</b>	Practicum I- AT: Field/Clinical
<b>KIN-2501(3)</b>	Nutrition for Health and Wellness
<b>KIN-2503(3)</b>	Athletic Taping & Splinting Techniques
<b>KIN-3106(3)</b>	Exercise Physiology
<b>KIN-3107(3)</b>	Therapeutic Modalities in Sport Medicine
<b>KIN-3201(3)</b>	Biomechanics
<b>KIN-3304(3)</b>	Advanced Resistance Training
<b>KIN-3500(6)</b>	Practicum II- AT: Field
<b>KIN-3501(3)</b>	Assessment of Upper and Lower Body Sport Injuries
<b>KIN-3502(3)</b>	Rehabilitation of Upper and Lower Body Sport Injuries
<b>KIN-3503(3)</b>	Massage Techniques in Sport
<b>KIN-3504(3)</b>	Sport First Responder
<b>KIN-3505(3)</b>	Pathology in Sport Medicine
<b>KIN-4301(3)</b>	Applied Anatomy
<b>KIN-4500(6)</b>	Practicum III - AT: Clinical
<b>KIN-4501(3)</b>	Sports Injuries of the Spine
<b>KIN-4502(3)</b>	Drugs and Ergogenic Aids in Sport

#### Additional Kinesiology electives:

At least one of:  
**KIN-2305(3)** Issues in Health  
**KIN-3105(3)** Psychological Skills in Sport and Life

At least one of:  
**KIN-3103(3)** Adapted Physical Activity  
**KIN-3208(3)** Physical Activity and Aging  
**KIN-4207(3)** Motor Learning and Control

The Canadian Athletic Therapists Association (CATA) requires all athletic therapy certification candidates to have completed 1200 hours of internship. The three Practicum courses (KIN-2500(3), KIN-3500(6), KIN-4500(6)) will account for approximately 600 internship hours.

Statistics Requirement  
Choose at least 3 credit hours from:  
**PSYC-2101(3)** Intro to Data Analysis (prereq. PSYC-1000(6))

<b>STAT 1302(3)**</b>	Statistical Analysis II (prereq. STAT 1301(3))
<b>STAT-1501(3)</b>	Elementary Biological Statistics I

#### Research Design and Methods Requirement

Choose at least 3 credit hours from:

<b>PSYC-2102(3)</b>	Introduction to Research Methods (prereq. PSYC-2101(3) or STAT-1501(3))
<b>SOC-2126(3)</b>	Introduction to Research Design and Qualitative Research (prereq. SOC-1101(6) or permission of department chair)

## REQUIREMENTS FOR THE 4-YEAR BSc IN KINESIOLOGY WITH A BUSINESS STREAM

Students must complete the requirements of the 4-year BSc in Kinesiology degree (see previous section) and the set of core courses indicated in the "Science with a Business Stream" section of the Calendar.

### GENERAL INFORMATION

Courses in the Department of Kinesiology and Applied Health are scheduled on a rotation basis. Since faculty members are responsible for multiple courses, a given course may not be scheduled annually. Every effort is made to offer all courses for timely access by students. Contact the Department to express interest in a particular course or in knowing when it will be next available.

## COURSE LISTINGS

KIN-1101(3) Introduction to Kinesiology  
KIN-1200(3) Principles of Coaching  
KIN/CLAS-2060(3) Sport in the Ancient World  
KIN-1302(3) Teaching Individual Physical Activity  
KIN-1303(3) Teaching Team Physical Activities  
KIN-2100(3) Leadership in Sport: Emerging Perspectives  
KIN-2101(3) Program Planning In Sport

KIN-2104(3) Outdoor Recreation and Education  
KIN-2105(3) Sport Psychology  
KIN-2108(3) Coaching & Teaching Volleyball II  
KIN-2109(3) Instructing Sport and Physical Activities  
KIN-2111(3) Coaching & Teaching Basketball I  
KIN-2112(3) Coaching & Teaching Volleyball I  
KIN-2200(3) Issues in Sport  
KIN-2202(3) Prevention and Care of Sport Injuries  
KIN-2203(3) Growth and Development Through Physical Activity  
KIN-2204(3) Introduction to Human Physiology  
KIN-2206(3) Movement Education  
KIN-2207(3) Physical Growth and Motor Development  
KIN-2301(3) Human Anatomy

KIN-2304(3) Scientific Principles of Fitness & Conditioning  
KIN-2305(3) Issues in Health  
KIN-2400(3) Teaching Games for Understanding  
KIN-2500(3) Practicum I: Field/Clinical  
KIN-2501(3) Nutrition for Health and Wellness  
KIN-2503(3) Athletic Taping and Splinting Techniques  
KIN-2511(3) Coaching & Teaching Basketball II  
KIN-2512(3) Coaching & Teaching Volleyball II  
KIN-3103(3) Adapted Physical Activity  
KIN-3105(3) Psychological Skills In Sport and Life  
KIN-3106(3) Exercise Physiology

KIN-3107(3) Therapeutic Modalities in Sport Medicine  
KIN-3201(3) Biomechanics  
KIN-3206(3) Directed Studies  
KIN-3208(3) Physical Activity and Aging  
KIN-3304(3) Advanced Resistance Training  
KIN-3305(3) Physical Activity: Promotion and Adherence  
KIN-3500(6) Practicum II: Field  
KIN-3501(3) Assessment of Upper and Lower Limb Sport Injuries  
KIN-3502(3) Rehabilitation of Upper And Lower Limb Sport Injuries  
KIN-3503(3) Massage Techniques in Sport  
KIN-3504(3) Sport First Responder  
KIN-3505(3) Pathology in Sport Medicine  
KIN-4104(3) Sport Ethics  
KIN-4200(3) Advanced Seminar in Coaching System  
KIN-4201(3) Ergonomics of the Musculoskeletal System  
KIN-4206(3) Directed Studies  
KIN-4207(3) Motor Learning and Control  
KIN-4301(3) Applied Human Anatomy  
KIN-4500(6) Practicum III: Clinical  
KIN-4501(3) Sports Injuries of the Spine  
KIN-4502(3) Drugs and Ergogenic Aids in Sport

### COURSES OFFERED IN OTHER DEPARTMENTS

GEOG-2407(3) Recreation Geography  
GEOG-4407(3) Advanced Tourism and Recreation Geography  
SOC-2000(3) Sociology Sport

### EXPERIMENTAL COURSES

KIN-2850(3) The Classical Roots of Medical Terminology  
KIN-3060(3) Health in Antiquity  
KIN-4106(3) Exercise Physiology in Chronic Disease



# COURSE DESCRIPTIONS

Students are advised to WebAdvisor or the Timetable on the website for courses to be offered during the current term.

**KIN-1101(3) INTRODUCTION TO KINESIOLOGY (Le3)** This course is an introduction to the study of human movements, considering knowledge, theory, and application related to physical activity and sport. Human movement is examined from various perspectives, including exercise physiology, biomechanics, motor learning, sport psychology, sport ethics, and sport sociology. This course also includes a review of kinesiology-based career options.

**KIN-1200(3) PRINCIPLES OF COACHING (Le3)** This course provides a thorough introduction to the coaching process emphasizing the theory and techniques of instruction, preparation and programming. This course will meet the knowledge requirements of the National Coaching Certification Program.

**KIN-1302(3) TEACHING INDIVIDUAL PHYSICAL ACTIVITIES (Le2, LaV)** This course is designed to develop basic knowledge in the instruction of selected individual and dual sports/activities, appropriate in middle and senior years youth physical education programs, in schools or other settings. Principles of instruction, skill development, basic rules, and strategies of play are studied. Information on growth and motor development, motor learning and control, exercise physiology, and biomechanics related to instruction are also examined.

**RESTRICTION:** Students with standing in the former KIN 2302(3) may not receive credit for KIN 1302(3).

**KIN-1303(3) TEACHING TEAM PHYSICAL ACTIVITIES (Le, La2)** This course is designed to develop basic knowledge in the instruction of selected team sports and activities, appropriate in middle and senior years youth physical education programs, in schools, or other settings. Principles of instruction, skill development, basic rules, and strategies of play will be studied. This course will also examine information on current organizational, administrative, management practices and trends as they relate to physical education curriculum, unit, and lesson planning will also be examined.

**RESTRICTION:** Students with standing in the former KIN 2303(3) may not receive credit for KIN 1303(3).

**KIN-2060(3) SPORT IN THE ANCIENT WORLD (Le3)** The course examines the origin and historical development of sport in Greece and Rome, its religious and political implications, and the nature of events and contests. Particular attention is given to intellectual and popular attitudes toward sport and the contribution made by Greece and Rome in this area to Western civilization.

**CROSS-LISTED:** Classics CLAS-2060(3).

**KIN-2100(3) LEADERSHIP IN SPORT: EMERGING PERSPECTIVES (Le3)** This course explores the origins and development of leadership theory and also discusses emerging contemporary leadership frameworks and their relevance to practitioners in sport. Conclusions about effective leadership are developed resulting from a review of the most recent research in sport and other related disciplines, and students generate a personal leadership framework enabling them to pursue their future leadership roles with clarity and confidence.

**KIN-2101(3) PROGRAM PLANNING IN SPORT (Le3, LaV)** This course examines the planning process as it relates to the delivery of sport programs. Special emphasis is given to needs assessment, program design, planning and periodization, risk management formative and summative

evaluation, effective sponsorship, fundraising, and program promotion.

**KIN-2104(3) OUTDOOR RECREATION AND EDUCATION (Le3, La1)** This course views the outdoors as a laboratory for multi-disciplinary approach to learning. The course focuses on the inter-relationships of skills and knowledge in the areas of recreation, education and the environment. Field trips and other outdoor experiences will be an important aspect of the course.

**KIN-2105(3) SPORT PSYCHOLOGY (Le3)** This course examines the latest research and practice in sport psychology. The psychological effects and contributing factors related to each issue/topic are examined to determine the implications for those involved in sport and related roles and fields. This course also explores the needs of individual participants and the nature of group processes, as well as issues relating to the enhancement of performance, health and well-being.

**KIN-2109(3) INSTRUCTING SPORT AND PHYSICAL ACTIVITIES (Le2)** This course focuses on knowledge and strategies for instructing sport and physical activity. The target sport or physical activity varies. Topics include terminology, rules, offensive and defensive strategies and tactics, and basic skills of selected sport or activity. Learning outcomes, lesson and unit planning, practice preparation, and skill instruction are covered. Students are expected to be physically active in class and conduct in-class peer teaching. This course may be repeated for credit when the topic varies.

**RESTRICTIONS:** Students with standing in the former KIN-2110: Soccer and KIN 1109:Soccer may not receive credit for KIN-2109: Soccer.

**KIN-2111(3) COACHING AND TEACHING BASKETBALL I (Le2)** This course offers an introduction to the coaching and teaching of fundamental and one-on-one basketball skills. Students will be given the opportunity for peer teaching and coaching. This course will meet the knowledge requirements of the National Coaching Certification Program.

**RESTRICTIONS:** Students with standing in the former KIN 1103 (3) may not receive credit for KIN -2111(3).

**KIN-2112(3) COACHING AND TEACHING VOLLEYBALL I (Le2)** This course offers an introduction to the coaching and teaching of basic volleyball skills and rules. Students will be given the opportunity for peer teaching and coaching. This course will meet the knowledge requirements of the National Coaching Certification Program.

**RESTRICTIONS:** Students with standing in former KIN 1108(3) may not receive credit for KIN 2112(3).

**KIN-2200(3) ISSUES IN SPORT (Le3)** This course focuses on political, ethical, social and cultural issues related to sport organization, implementation, or participation. Students are challenged to assess current issues such as fair play, drug abuse, human rights, etc. and develop perspectives and strategies based on an appreciation of historical, philosophical, and moral considerations.

**PREREQUISITES:** A minimum of 30 credit hours (1<sup>st</sup> year standing) including one of KIN-1101(3) or KIN-1200(3).

**KIN-2202(3) PREVENTION AND CARE OF SPORT INJURIES (Le3, La2)** This course examines techniques and strategies for the prevention and immediate care of athletic

injuries. As a requirement of the course, students must obtain certification in Standard First Aid and CPR Basic Rescuer. Students completing the course have the opportunity to certify in Level I and II of the Provincial Athletic First Aider Program. This course can be used toward the Science requirement.

**PREREQUISITES:** KIN-2301(3).

**KIN-2203(3) GROWTH AND DEVELOPMENT THROUGH PHYSICAL ACTIVITY (Le3, LaV)** This course involves the study of child growth and development through physical activity. Methods of optimizing the stimulus for affective, cognitive, perceptual-motor, and physical growth and development are explored. Leadership and programming issues in youth sports, schools, day-care, and recreational settings are discussed.

**KIN-2204(3) INTRODUCTION TO HUMAN PHYSIOLOGY (Le3, La2)** The purpose of this course is to acquaint the student with the fundamental mechanisms of human physiology. Biological control systems, cellular physiology and the integration of body functions form the main content of the course. Emphasis will be placed on the circulatory, respiratory, nervous, endocrine, muscular and digestive systems. This course can be used toward the Science requirement.

**RESTRICTIONS:** Students cannot receive credit for KIN-2204(3) and Biology BIOL-1103(6), or KIN-2204(3) and Biology BIOL-1112(6).

**Note:** This course is primarily intended for Kinesiology students pursuing a degree in Arts or Education.

**KIN-2206(3) MOVEMENT EDUCATION (Le3, LaV)** Movement Education is an approach to teaching physical education to elementary school children. It is characterized as a success-oriented, child-centred, noncompetitive teaching method that utilizes games, gymnastics and dance to foster children's development in all learning domains. Students study the theoretical concepts and acquire hands-on lesson planning and teaching experience working with their peers and elementary school children.

**KIN-2207(3) PHYSICAL GROWTH AND MOTOR DEVELOPMENT (Le3)** This course reviews knowledge and practice pertaining to physical growth, biological maturation, and motor development and their interrelationship in human performers. Particular emphasis is placed on the assessment and the development of basic movement skills through programming strategies for individuals and large groups.

**KIN-2301(3) HUMAN ANATOMY (Le3, La2)** This course involves a study of the human anatomical systems and their integration. Special emphasis is placed on the skeletal, articular and muscular systems. As well, the course investigates the analysis of movement. This course can be used toward the Science requirement.

**KIN-2304(3) SCIENTIFIC PRINCIPLES OF FITNESS AND CONDITIONING (Le3, La2)** In this course students understand and apply physiological principles to sport, fitness, physical activity, health, and physical education. Students also evaluate existing conditioning methods and develop skills in fitness assessment and exercise prescription. This course meets the knowledge requirement of the Manitoba Fitness Council's Fitness Theory Course. This course can be used toward the Science requirement.

**PREREQUISITE:** KIN-2301(3)

**KIN-2305(3) ISSUES IN HEALTH (Le3)** This course introduces the student to contemporary topics and issues in health and wellness. Issues are drawn from areas such as mental, emotional, physical, social, spiritual, and occupational health, for example, sexual health concerns,

body image and stress management. This course prepares students to participate in health promotion in the school or community by developing the knowledge necessary to make responsible health decisions.

**KIN-2400(3) TEACHING GAMES FOR UNDERSTANDING (Le3, LaV)** The Teaching Games for Understanding (TGfU) model is a teaching approach that gives school-aged children the opportunity to learn game strategies, tactics and skills in a logical and inviting way. The TGfU approach is learner centred and develops the skills and strategies necessary to be successful in games. This teacher-friendly course engages the participant in a sampling of activities and offers an opportunity to develop, internalize and integrate the concepts presented through participation and peer teaching.

**KIN-2500(3) PRACTICUM I FIELD/CLINICAL (V)** The purpose of this course is to provide the student with insights into field and clinical responsibilities of athletic therapy. The student is assigned as an assistant to a health care provider in both field and clinical settings. The student is introduced to the application of theoretical knowledge about the prevention and on-field and clinical management of sport injuries. This practicum provides approximately 100 internship hours toward certification by the Canadian Athletic Therapists Association. This course can be used toward the Science requirement.

**PREREQUISITES:** A minimum grade of B in KIN-2202(3) and permission of instructor.

**Co-REQUISITES:** KIN-2503(3) and KIN-3504(3) and permission of instructor. Students who have already completed KIN-2503 and KIN-3504 should inform registration staff that they have standing in the corequisite courses.

**KIN-2501(3) NUTRITION FOR HEALTH AND WELLNESS (Le3)** This course introduces the student to nutrition information, especially as it contributes to informed decision-making. Students develop an understanding of the importance of appropriate food choices by focusing on the role of nutrition in optimal health, physical activity and disease prevention. Topics include the major nutrients, Canadian nutritional standards and guidelines. This course is particularly useful for students who intend to become physical education teachers, coaches, and athletic therapists. This course can be used toward the Science requirement.

**KIN-2503(3) ATHLETIC TAPING AND SPLINTING TECHNIQUES (Le3, LaV)** In this course, the student studies the theoretical bases and learn the application of various taping and splinting techniques in sport. The student develops proficiency in the advanced techniques of taping the foot, ankle, knee, hip and upper limb. The student is also introduced to techniques in splinting and bracing including foot orthotics, knee braces, and specialized splints.

**PREREQUISITES:** A minimum grade of B in KIN-2202(3) and KIN-2301(3) or permission of instructor.

**KIN-2511(3) COACHING AND TEACHING BASKETBALL II (Le2)** This course focuses on the coaching and teaching of basketball team offensive and defensive skills. Game strategies, practice and game preparation will also be examined. Students will be given the opportunity to assist coaches in the public school setting as well as to participate in peer teaching and coaching. This course will meet the knowledge requirements of the National Coaching Certification Program.

**RESTRICTIONS:** Students with standing in the former KIN 2108(3) may not hold credit in KIN 2511(3)

**PREREQUISITES:** KIN-2111(3) or permission of instructor.

**KIN-2512(3) COACHING AND TEACHING VOLLEYBALL II (Le2)** This course focuses on the coaching and teaching of volleyball team offensive and defensive skills. Game strategies and practice preparation will also be examined. Students will be given the opportunity to participate in peer teaching and coaching. This course will meet the knowledge requirements of the National Coaching Certification Program.

**RESTRICTIONS:** Students with standing in the former KIN 2108 may not receive credit in KIN 2512(3).

**PREREQUISITES:** KIN-2112(3) or permission of instructor.

**KIN-3103(3) ADAPTED PHYSICAL ACTIVITY (Le2, LaV)**

This course discusses relevant topics such as diversity, adaptation, inclusion, and the interaction of person, task and environment variables in facilitating physical activity for persons with disabilities. While the focus is on school physical education programs, the course has application to other environments, such as fitness, recreation, sport, and institutional settings. Students are required to volunteer in an out-of-class physical activity program for people with disabilities (minimum of 8 hours) and submit a typed report their experiences.

**KIN-3105(3) PSYCHOLOGICAL SKILLS IN SPORT AND LIFE (Le3, LaV)**

This course involves the study of theories and practices pertaining to psychological skill assessment, development and monitoring. Modern mental preparation techniques will be analyzed and implications for performance and satisfaction enhancement in sport and life discussed.

**KIN-3106(3) EXERCISE PHYSIOLOGY (Le3, La3)** This course examines the physiological response of the human body to the stress of acute and chronic exercise. Emphasis is placed on the neuromuscular and cardio-respiratory systems with special attention to the application of physiological principles of training. Laboratory work will illustrate specific physiological effects of exercise stress. This course can be used toward the Science requirement.

**PREREQUISITES:** KIN-2204(3) or BIOL-1112(6) or permission of instructor.

**KIN-3107(3) THERAPEUTIC MODALITIES IN SPORT**

**MEDICINE (Le3)** This course involves a study of the principles of various modalities utilized in an athletic therapy clinic for the rehabilitation and reconditioning of sports injuries. It deals with the physiology of healing and how this process can be facilitated with the use of therapeutic modalities including ice, heat, muscle stimulation, ultrasound, and lasers. This course can be used toward the Science requirement.

**PREREQUISITES:** A minimum grade of B in KIN-2301(3), KIN-2202(3), and KIN-3505(3) or permission of the instructor.

**KIN-3201(3) BIOMECHANICS (Le3, La2)** This course employs mechanical and neuromuscular principles in the qualitative and quantitative analysis of human movement. Laboratory work examines two-dimensional kinematics and kinetics. This course can be used toward the Science requirement.

**PREREQUISITES:** KIN-2301(3).

**RESTRICTION:** Students may not hold credit for this course and the former KIN-2201(3).

**KIN-3206(3) DIRECTED STUDIES (D)** Students wishing to pursue topics of special interest at an advanced level may do so in consultation with and under the supervision of a faculty member.

**PREREQUISITES:** Permission of the Department.

**KIN-3208(3) PHYSICAL ACTIVITY AND AGING (Le3)** The course introduces students to various theories, concepts, topics, and issues associated with the effects of physical activity on adult development and aging. Course content includes a brief review of the nature of aging; physical activity

patterns and preferences of older adults; the impact of the aging process on selected systems of the body; the impact of physical activity on aging adults; the impact of physical activity on disease states in older adults; and physical activity program design and delivery for older populations. Students are required to participate in a community practicum experience related to adult development, aging and physical activity.

**KIN-3304(3) ADVANCED RESISTANCE TRAINING (Le3, LaV)**

This course examines the principles of resistance training from anatomical, biomechanical and physiological bases. Topics to be covered include: teaching specific exercise techniques, spotting and participant safety, program design, testing and monitoring, and physiological adaptations to training. The course has a large practical component, in which students are expected to acquire and demonstrate their expertise in the topic areas. This course will meet the knowledge requirement of the Manitoba Fitness Council's Resistance Training Course. This course can be used toward the Science requirement.

**PREREQUISITES:** KIN-2301(3) and KIN-2304(3).

**KIN-3305(3) PHYSICAL ACTIVITY: PROMOTION AND ADHERENCE (Le3)**

This course examines theory and practices that promote the adoption of physical activity and health behaviour, as well as strategies to foster adherence. Topics include effective individual and community intervention design, counselling in the fitness profession and the dose-response relationship to adherence of physical activity. Issues related to obesity, exercise addiction and physical activity across the lifespan are also discussed.

**PREREQUISITES:** A minimum of 30 credit hours successfully completed.

**KIN-3500(6) PRACTICUM II: FIELD (V)** The purpose of this course is to provide on-field experience in athletic therapy under the supervision of a certified athletic therapist or approved health professional. The student will learn to apply the theoretical knowledge of injury prevention, pre-game preparation, trauma management, injury assessment, treatment and rehabilitation in a field setting. The practicum will provide approximately 250 internship hours toward certification by the Canadian Athletic Therapists Association. This course can be used toward the Science requirement.

**PREREQUISITES:** Minimum Grade of B in KIN-2500(3), KIN-2503(3), KIN-3504(3) **AND** permission of instructor

**KIN-3501(3) ASSESSMENT OF UPPER AND LOWER**

**LIBB SPORT INJURIES (Le3, La2)** This course presents the theoretical and practical knowledge necessary for the recognition of athletic injuries to the appendicular skeleton. Students will study orthopaedic assessment techniques as well as history taking, record keeping, and assessment protocols. This course can be used toward the Science requirement.

**PREREQUISITES:** A minimum grade of B in KIN-2301(3) and KIN-2202(3) or permission of instructor.

**KIN-3502(3) REHABILITATION OF UPPER AND LOWER**

**LIBB SPORT INJURIES (Le3, La2)** This course presents the theoretical and practical knowledge necessary for the treatment of athletic injuries to the appendicular skeleton. Students will study rehabilitation protocols, including pain and inflammation management, range of motion, strength and reintegration to physical activity. This course can be used toward the Science requirement.

**PREREQUISITES:** A minimum grade of B in KIN-2304(3), KIN-3201(3) and KIN-3501(3) or permission of instructor.

**KIN-3503(3) MASSAGE TECHNIQUES IN SPORT (Le3, LaV)** In this course the student learns the theoretical basis

and technical application of sport massage. The course examines the basic components of sport massage, pre- and post- event massage techniques, and the role of massage in the rehabilitation of athletic injuries.

**PREREQUISITES:** A minimum grade of B in both KIN-2301(3) and KIN-2202 (3) or permission of instructor.

**KIN-3504(3) SPORT FIRST RESPONDER (Le3, LaV)** In this course, students study the essentials of emergency care and develop the skills required to effectively respond to a medical emergency, particularly as it relates to the sport environment. Topics include field evaluation of traumatic injuries, primary and secondary survey, airway management, and neurological, internal and orthopaedic injuries.

**PREREQUISITES:** A minimum grade of B in KIN-2202(3) or permission of instructor.

**KIN-3505(3) PATHOLOGY IN SPORT MEDICINE (Le3)** This course introduces the student to pathological manifestations occurring during illness and injury. Topics include the cellular and vascular events that occur after an injury, the inflammatory and healing process, as well as the many systemic and organically based illnesses and injuries that may be complicating factors when treating athletic injuries. This course can be used toward the Science requirement.

**PREREQUISITES:** BIOL-1112(6) or KIN-2204(3) and KIN-2301(3) or permission of instructor.

**KIN-4104(3) SPORT ETHICS (Le3)** Using such philosophical concepts as deontology, teleology and existentialism, this course provides an inquiry into ethics and morality as they apply to sport and physical education. The course challenges students' understanding of theories and frameworks, develops skills using methods in moral reasoning and critical reflection, and examines issues of professionalism and professional conduct. The role of organizations in promoting ethical values and social responsibilities in sport and physical education is also examined and critically evaluated. This course may be used in partial fulfillment of the U of W Humanities requirement.

**PREREQUISITES:** One of KIN-2200 (3) or KIN-2305 (3), or permission of the instructor.

**RESTRICTIONS:** Students may not hold credit for this course and the former KIN-3104(3).

**KIN-4200(3) ADVANCED SEMINAR IN COACHING (Le3, LaV)** This course is designed to integrate the theoretical and technical components of coaching. Students will discuss and prepare annual and quadrennial plans for their sport.

**PREREQUISITES:** KIN-1200(3), KIN-2101(3), KIN-2105(3), KIN-2501(3), KIN-3106(3), KIN-3201(3) and KIN-3304(3).

**Co-REQUISITES:** KIN-4207(3).

**RESTRICTIONS:** Students may not hold credit for this course and the former 88.3200(3).

**KIN-4201(3) ERGONOMICS OF THE MUSCULOSKELETAL SYSTEM (Le3)** This course focuses on the applied biomechanics of the musculoskeletal system, with specific emphasis on the role that effective and efficient ergonomics can play in the prevention of both acute and chronic injuries of the musculoskeletal system that occur as a result of abnormal, altered, or inefficient anatomical biomechanics. This course can be used toward the Science requirement.

**PREREQUISITES:** KIN-4301(3).

**KIN-4206(3) DIRECTED STUDIES (D)** Students pursue topics of special interest at an advanced level in consultation with, and under the supervision of a faculty member. Content and approach vary depending upon instructor and student interests.

**PREREQUISITES:** Permission of the Department.

### **KIN-4207(3) MOTOR LEARNING AND CONTROL (Le3)**

This course investigates contemporary theories, topics and issues in motor learning and motor control. Relevant theoretical concepts are applied to teaching, coaching and other physical activity settings. Various theories of motor learning and control are studied with an emphasis on Dynamic Systems Theory. The course studies the conditions and underlying processes associated with motor skill learning. Specific topics include the nature of motor learning and control; measurement and motor performance; structuring a practice environment; effective instructional conditions; transfer of learning; feedback; the controversy over abilities; and underlying neuromuscular processes in motor skill learning. This course can be used toward the Science requirement.

**PREREQUISITES:** Must have successfully completed a minimum of 45 credit hours before registering.

**RESTRICTIONS:** Students may not hold credit for this course and the former KIN-3207(3).

### **KIN-4301(3) APPLIED HUMAN ANATOMY (Le3)**

The course focuses on the functional aspects of human anatomy. Topics include applied neuroanatomy surface anatomy, arthrokinematics, muscular synergies in movement and palpatory skills. The course is particularly useful for students interested in Athletic Therapy, personal fitness training and other related medical fields. This course can be used toward the Science requirement.

**PREREQUISITES:** KIN-2301(3), KIN-3201(3) AND KIN-2204(3) or BIO-1112(6).

**KIN-4500(6) PRACTICUM III: CLINICAL (V)** The purpose of this course is to gain advanced clinical experience in athletic therapy under the direct supervision of a certified athletic therapist or approved health professional. The student applies the theoretical knowledge of trauma management, injury assessment, treatment and rehabilitation in clinical settings. This practicum provides approximately 250 internship hours toward certification by the Canadian Athletic Therapists Association. This course can be used toward the Science requirement.

**PREREQUISITES:** Minimum Grade of B in KIN-2500(3), KIN-3502(3) **AND** permission of instructor.

**KIN-4501(3) SPORTS INJURIES OF THE SPINE (Le3, La2)** The student studies injuries incurred to the cervical, thoracic and lumbar spine including joints, ligaments, discs and surrounding musculature. The brain and skull are also studied. Topics include anatomy, mechanisms of injury, signs and symptoms, assessment techniques, treatment and rehabilitation. This course can be used toward the Science requirement.

**PREREQUISITES:** A minimum grade of B in KIN-3501(3) and KIN-3502(3) or permission of instructor.

### **KIN-4502(3) DRUGS AND ERGOGENIC AIDS IN SPORT (Le3)**

This course examines the historical and contemporary issues and the physiological effects of the use and abuse of drugs and ergogenic aids in sport. Topics include the physiological effects of performance enhancing drugs such as anabolic steroids, stimulants, beta blockers, herbal supplements, creatine, and blood doping. The student is introduced to national and international guidelines for banned substances and testing protocols. Discussion also includes the common prescription and non-prescription drugs used in sport. The moral and ethical aspects of drugs and ergogenic aids in sport are emphasized throughout the course. This course can be used toward the Science requirement.

**PREREQUISITES:** KIN-3106(3)



## EXPERIMENTAL COURSES

Experimental Courses are new courses offered on a trial basis to gauge interest in various topics. Students who successfully complete any experimental course receive credit as indicated.

**KIN-2850(3) THE CLASSICAL ROOTS OF MEDICAL TERMINOLOGY (Le3)** This course considers several of the most important ancient medical writers (Soranus, Celsus, and Galen, among others), their historical works, and contributions to ancient and modern medicine and medical terminology. Knowledge of medical terminology equips students for a variety of fields. This course also lays out the most important Greek and Latin roots of the vocabulary of contemporary medicine and demonstrates the predictable patterns by which these roots combine, introducing students to the concept of building language using root words, prefixes and suffixes. Students learn to define new compounds and phrases by analysis of their parts.

**CROSS-LISTED:** CLAS-2850(3)

**RESTRICTIONS::** Students with credit in CLAS-2800(3) Greek and Latin in Today's English may not receive credit in this course.

**KIN-3060(3) HEALTH IN ANTIQUITY (LeS3)** This course explores health, disease, and medicine in the Greek and Roman world. It draws upon evidence from the ancient textual sources (especially Galen and Hippocrates), social history, and archaeology (the latter including all manner of finds—architecture, art, artifacts, environmental materials, and skeletal remains) to examine how residents of the Greek and Roman world perceived and experienced health and disease, and how they sought to combat illness and to promote healing.

**CROSS-LISTED:** ANTH-3262(3), CLAS-3060(3)

**KIN-4106(3) EXERCISE PHYSIOLOGY IN CHRONIC DISEASE (Le3)** In developed nations, chronic diseases comprise the major causes of morbidity and mortality. This course examines the pathophysiology of selected chronic diseases and how each affects exercise performance. Exercise prescription for these higher risk populations is also examined. The chronic diseases discussed include, but are not limited to: cardiovascular disease, diabetes, arthritis, osteoporosis.

**PREREQUISITES:** KIN-3106 and KIN-3505. In the absence of prerequisites, permission of instructor.