Kinesiology:

The New PE

GUIDE TO KINESIOLOGY IN UNIVERSITY:

REQUIREMENTS, RECOMMENDATIONS & RESOURCES

This will be a guide to assist you when choosing your academic path in Kinesiology at some universities in Ontario.

You have been provided with a list of schools and their list of prerequisites, grades, and recommendations needed for admission into their Kinesiology programs.

Each school offers a slightly different way to approach Kinesiology. It is in your best interests to find out more about programs before you choose!

Western Kinesiology

In the Western Kinesiology program you can receive a degree in Bachelor of Arts (BA) or a Bachelor of Science (BSc)

Prerequisites, Requirements & Grades Needed For Admission

- The prerequisites needed are a ENG4U and a SBI4U. A 4U Math and a 3U or 4U Physics are highly recommended. It is also recommended that if interested in a BSc degree to take an additional Science course from: SCH4U (strongly recommended), MCV4U, MHF4U, SPH4U
- There are also requirements from the Ontario grade 12 curriculum that must be completed. These include completing a secondary school diploma, completing six 4U and/or 4M level courses (excluding co-op), a 4U English (ENG4U), Prerequisites for your program as specified by Western which are listed above, and an admission average, including all program prerequisite courses as specified by Western.
- The grades needed to get into Western Kin are of the mid 80s to high 80s

First Year Courses

- When entering your first year in Western Kinesiology, there are some recommended classes that you can take depending on your desired degree (some of them are half credits/ 4 months

Kinesiology BA:

- Human Physiology
- Psychology of Human Movement Science
- Psychomotor Behaviour
- Electives (3.0)

Clinical Kinesiology BA::

- Human Physiology
- Psychology of Human Movement Science
- Psychomotor Behaviour
- Statistics
- Electives (2.5)

Sports Management BA:

- Human Physiology
- Psychology of Human Movement Science
- Psychomotor Behaviour
- Business Administration
- Electives (2.0)

Courses in 2nd, 3rd, and 4th year (some are mandatory):

Second Year:

- Physical Activity and Health
- Research Design in Human Movement Science
- Introductory Exercise Physiology
- Functional Human Gross Anatomy
- Introduction to Athletic Injuries
- Biomechanics
- Social Foundations of Sport & Physical Activity
- Canadian Sport History
- Critical Thinking and Ethics in Kinesiology
- Introduction to Management in Kinesiology
- Psychology of Exercise

*half courses are the norm

Third Year:

- Anatomy of the Human Body: A Description of Systemic Structure & Function
- Leadership in Physical Activity
- An Introduction to Practical Aspects of Athletic Injuries
- Exercise Nutrition
- Biomechanical Analysis of Physical Activity
- Physical Growth and Motor Development
- Exercise Biochemistry
- The Psychology of Sport
- Managing People in Sport and Recreation Organizations

Fourth Year:

- Entrepreneurship and Technology in Professional Kinesiology
- Neuromuscular Physiology
- Physiology of Exercise
- Physiology of Exercise Training
- Medical Issues in Exercise & Sport
- Ergonomics and Aging
- Social Theory of Sport and Exercise
- Exercise, Nutrition & Wellness
- International Sport Management
- Clinical Biomechanics
- Advanced Topics in Musculoskeletal Rehabilitation

UNIVERSITY OF WATERLOO

Waterloo Kinesiology

The degree avaliable in the Waterloo Kinesiology program is a Bachelor of Science (BSc)

Prerequisites, Requirements, & Grades Needed For Addmission

- The prerequisites needed to get into Waterloo Kinesiology is any 4U English course, a MHF4U course, a SCH4U course, 1 of SBI4U or SPH4U and a minimum of 2 additional 4U/M courses. At least a 70% is required for each of these courses.
- Some basic requirements needed to gain admission are at least six Grade 12 U or M courses, including the required courses for the program to which you have applied to that are listed above.
- The typical average to get into this program is mid 80s.

First Year Courses

- First year Kinesiology consists of 10 required half courses and two required labs which the school will enroll you in as well as create your schedule for you

Fall Term:

- Fundamentals of Kinesiology
- Fundamentals of Kinesiology Lab
- Sociology of Activity, Health, and Well-being
- Introductory Cell Biology
- Physical and Chemical Properties of Matter
- Calculus and Vector Algebra for Kinesiology

Winter Term:

- Human Anatomy: Limbs and Trunk
- Human Anatomy Lab
- Introduction to Human Nutrition
- Principles of Human Physiology
- Introductory Psychology
- Physics 1

Second, Third, & Fourth Year Classes

Second Year:

- Physiological and Metabolic Responses and Adaptations to Exercise
- Movement Assessment and Exercise Prescription
- Human Biochemistry
- Advanced Biomechanics of Human Movement
- Research Design and Statistics in Kinesiology
- Fundamentals of Neuroscience

Third Year:

- Human Anatomy of the Central Nervous System
- Methods in Physiological Research
- Development, Aging and Health
- Forensic Biomechanics
- Trauma Biomechanics
- Musculoskeletal Injuries in Work and Sport
- Nutrition and Aging
- Human Nutrition and Metabolism
- Sociology of Aging
- Psychology of Physical Activity

Fourth Year:

- Exercise Management
- Physiology of Muscle Aging and Disease
- Cardiovascular Physiology and Pathophysiology
- Cases in Clinical Exercise Physiology
- Physical Activity and Aging
- Biomechanical Modelling of Human Movement
- Bone and Joint Health
- Sport Injury Management Seminar
- Physiological and Biochemical Aspects of Nutrition and Health
- Applied Sport Psychology
- Social Neuroscience I: Physical Health

University of Windsor

Windsor Kinesiology

The degree available is a Bachelor of Human Kinetics (BHK)

Prerequisites, Requirements, & Grades Needed For Admission:

- The prerequisites needed to get into Windsor Kinesiology is a ENG4U course, and one of SBI4U, SCH4U or SPH4U. A minimum grade of 70% is required for each. An additional 4 U or M credits are required.
- A grade of at least a 80% is needed for admission

First Year Classes (some are half credit):

For first year students Windsor has some required courses to begin.

- Health and Wellness
- Principles of Mental Skills Training
- Functional Anatomy
- Fundamental and Mechanics of Human Motion
- Non-Kin-MS Option
- Ethics in Sport and Physical Activity
- Human Performance
- Functional Anatomy II
- Non-Kin-MS Option
- Non-Kin-MS Option

Second, Third, & Fourth Year Classes (most are half credits):

Second Year:

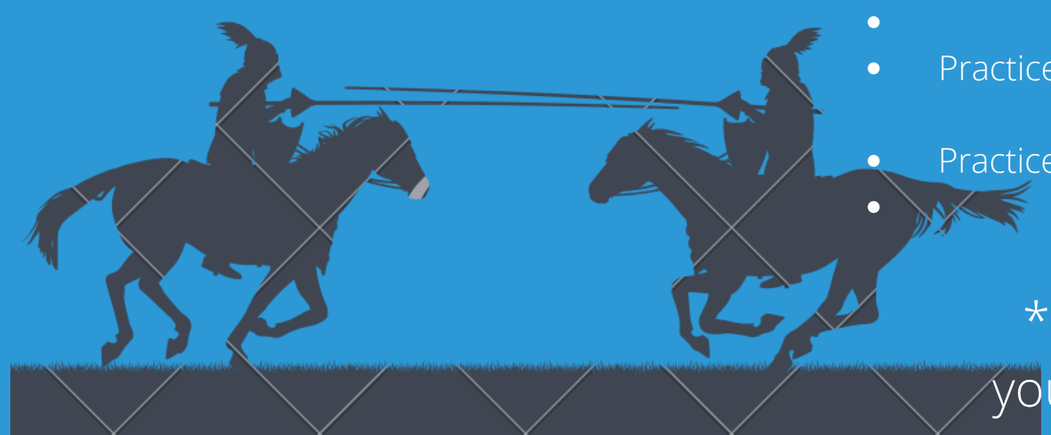
- Introduction to Leisure
- Introduction to Occupational Biomechanics/Ergonomics
- Ethics in Sport and Physical Activity
- Sociology of Sport and Physical Activities
- Historical Perspectives on Physical Activity and Sport in Western Civilization
- Physiology of Human Performance
- Measurement and Evaluation
- Human Growth and Development
- Co-op Work Experience I

Third Year:

- Exercise and Fitness Psychology
- Imagery Effects on Performance
- Sport Nutrition
- Obesity and Eating Disorders
- Motor Learning and Control
- Applied Sport Psychology
- Sport Marketing
- Strategic Planning of Sport Events
- Sport Finance
- Socio-Economic Aspects of Sport and Leisure
- Physiology of Exercise and Respiration
- Musculoskeletal Physiology
- Human Factors and Performance
- Scientific Basis of Conditioning
- Practice, Theory, and Analysis of Urban Outdoor Recreation
- Practice, Theory, and Analysis of Physical Fitness
- Co-op Work Experience II

Forth Year:

- Human Movement and Aging
- Population Health
- Gender Issues in Sport
- Selected Topics in Sport Leadership
- Sport and the Law
- Perceptual-Motor Development
- Sport Communication
- The Endocrine System in Sport, Exercise and Health
- Cardiovascular Physiology
- Chronic Disease and Exercise Rehabilitation
- Applied Neurophysiology
- The Pathophysiology of Pain
- .Ergonomics and Injury-Prevention
- Cardiac Rehabilitation
- Physiological Basis of Sports Therapy
- Principles of Coaching
- Undergraduate Thesis
- Group Dynamics in Sport
- Laboratory Experiences in Human and Exercise Physiology
- Co-op Work Experience III



*Choose your courses on your strengths and interests

Brock University

Brock Kinesiology

The degree avalible from Brock Kinesiology is a Bachelor of Science in Kinesiology (BSc(Kin))

Prerequisites, Requirements, & Grades Needed for Admission

- The prerequisites needed for admission into Brock Kinesiology is a ENG4U course, a MFH4U course with a minimum of 70%, and a SBI4U course. You can also take subjects SPH4U, PSE4U, SCH4U or PSK4U which is strongly recommended
- Some basic requirments needed for admission into Brock Kin are a completed high school diploma, and six 4U/M courses
- Grades required for admission are low 80s

First Year Classes

- Some classes avaliable to first year students are:
- Human Systems Anatomy
- Musculoskeletal Anatomy
- Foundations of Human Anatomy and Physiology
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Second, Third, & Fourth Year Classes

Second Year:

- Fundamental Movement Skills
- Foundations of Motor Behaviour
- Research Design and Evaluation
- Human Physiology
- Coaching Theory
- Introduction to Nutrition
- Health Promotion and Policy
- Aging and Health
- Human Growth and Development
- Psychology of Health Behaviours
- Social History of Physical Education and Sport
- Sport Psychology
- Muscle Physiology and Exercise Metabolism

Third Year:

- Fitness Assessment and Exercise Prescription Across the Lifespan
- Motor Learning
- Quantitative Analysis
- Biomechanics
- Qualitative Approaches to Inquiry
- Movement Activities for Physical Education in the School
- Communications in Health
- Sociology of Sport I
- Care and Prevention of Injuries
- Exercise Psychology
- Cardiorespiratory and Environmental Exercise Physiology
- Functional Anatomy
- Special Studies in Physical Education and Kinesiology

Fourth Year:

- Laboratory or Experience Based Research
- Occupational Ergonomics
- Cognitive Ergonomics
- Nutritional Implications for Sport and Human Performance
- Clinical Biomechanics
- Sport Ethics
- Reflective Practice in Physical Education
- Cultural Studies of Sport and Leisure
- Sport, Development and Sustainability
- Physical Activity Counselling for Kinesiologists
- Sociology of Sport II
- High Performance Athletic Assessment and Training
- Regulation of Human Metabolism

McMaster Kinesiology

The degree available from McMaster Kinesiology is a Bachelor of Science in Kinesiology (BSc(Kin))

Prerequisites, Requirements, & Grades Needed For Admission

- The prerequisites needed for admission into McMaster Kinesiology is a ENG4U course, a MCV4U course, and a SBI4U course.
- Some basic requirements needed for admission into McMaster Kin is you must present 6 midterms or 3 finals at the 4U/M level. You must also have six 4U/M courses, completed or in progress, including program-specific requirements. Co-op courses are not included. Each program requires a completion of English (ENG4U).
- Grades must be in the high 80s to low 90s for admission (87%-90%)

First Year Classes

- The typical first year kin courses for McMaster as follows
- Human Anatomy and Physiology I
- Human Anatomy and Physiology II
- Motor Control and Learning
- Human Nutrition and Health
- Foundations in Kinesiology
- 15 units of electives

Second, Third, & Fourth Year Classes

Second Year:

- Biomechanics
- Neuromuscular Exercise Physiology
- Cardiorespiratory and Metabolic Exercise Physiology
- Musculoskeletal Anatomy
- Growth, Maturation and Physical Activity in Children and Youth
- Health Psychology

Third Year:

- Biomechanics II
- Neural Control of Human Movement
- Exercise Psychology
- Human Neurophysiology
- Sports Injuries
- Ergonomics I: Workplace Injury Risk Assessment
- Motor Development Across the Lifespan
- Kinesiology Research Practicum
- Cardiovascular Physiology of Exercise
- Sport Psychology
- Neuromuscular Plasticity in Health and Disease
- Human Nutrition and Metabolism

Fourth Year:

- Advanced/Applied Biomechanics
- Professional Placement in Kinesiology
- Psychophysiology of Health, Active Living
- Integrative Physiology of Human Performance
- Cognitive Neuroscience of Exercise
- Physical Activity in Chronic Health Impairments
- Functional Anatomy
- Physical Activity Behaviour Change
- Clinical Biomechanics