

# HONOURS BSC HUMAN KINETICS

The Honours Bachelor of Science in Human Kinetics emphasizes the biophysical sciences of human kinetics, with a focus on the role that biological, anatomical, musculoskeletal, and neuro-motor systems have on motor performance, and the impact of sport and physical activity on the body. It provides the knowledge, skills and techniques required for you to play a leading role in developing and implementing evidence-based approaches that maintain and improve human movement, and lead to positive health outcomes for different populations in a variety of settings. While the program focuses on disciplines such as anatomy, biomechanics, exercise physiology, motor control and psychomotor behaviour, it also provides an understanding of how the social sciences contribute to human movement and performance. Students have the opportunity to do experiential education internships in a community venue, or do a research project supervised by faculty. This degree can lead to admission to graduate studies in human kinetics and advanced degrees in allied health and rehabilitation sciences such as physiotherapy and occupational therapy, medicine, or chiropractic studies. Potential additional certifications: College of Kinesiologists of Ontario (Registered Kinesiologist), Canadian Society for Exercise Physiology (Certified Personal Trainer, Certified Exercise Physiologist).

This program is offered in English and in French.

## Program Requirements

Co-operative education is available with this program.

The French immersion stream is available with this program.

Requirements for this program have been modified. Please consult the 2024-2025 calendars (<http://catalogue.uottawa.ca/en/archives/>) for the previous requirements.

### Compulsory Courses at the 1000 level

ANP 1105	Human Anatomy and Physiology I	3 Units
APA 1313	Musculoskeletal Anatomy	3 Units
BIO 1130	Introduction to Organismal Biology	3 Units
BIO 1140	Introduction to Cell and Molecular Biology	3 Units
CHM 1311	Principles of Chemistry	3 Units
CHM 1321	Organic Chemistry I	3 Units
MAT 1330	Calculus for the Life Sciences I	3 Units
PHY 1321	Principles of Physics I	3 Units

### Compulsory Courses at the 2000 level

APA 2114	Biomechanical Analysis of Human Movement	3 Units
APA 2120	Motor Control and Learning	3 Units
APA 2140	Introduction to Sport and Exercise Psychology	3 Units
APA 2180	Research Methods in Human Kinetics	3 Units
APA 2301	Exercise Physiology I	3 Units
APA 2314	Laboratory Techniques in Exercise Physiology and Biomechanics	3 Units

### Compulsory Courses at the 3000 level

APA 3120	Psychomotor Behavior Laboratory	3 Units
APA 3381	Measurement and Data Analysis in Human Kinetics	3 Units

### Optional courses

3 course units from: 3 Units

ENG 1100 Workshop in Essay Writing

ENG 1112 Technical Report Writing

3 course units from: 3 Units

ANP 1107 Human Anatomy and Physiology III

BIO 2110 Environmental Physiology

BIO 2133 Genetics

CHM 2120 Organic Chemistry II

6 course units from: 6 Units

APA 1122 Physical Activity in a Global Health Perspective

APA 1302 Sociology of Sport and Physical Activity in Canada

LSR 1100 Introduction to Leisure Studies

APA 2134 Administration of Leisure, Sport and Physical Activity Services

APA 2302 History of Sport and Physical Activity in Canada

6 course units from: <sup>1</sup> 6 Units

APA 4200 Research Project

APA 4211 Internship/Clinical Experience

21 optional course units at the 3000 or 4000 level from the list of optional courses 21 Units

### Elective courses

33 elective course units 33 Units

or 3 elective course units and a minor

**Total:** 120 Units

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Students admitted to co-operative education may replace these 6 course units with 6 optional course units in human kinetics (APA) at the 3000 or 4000 level from the list of optional courses.

## List of Optional Courses

APA 3111	Physical Education Methods: Intervention, Observation and Experimentation	3 Units
APA 3113	Management of Sporting Events and Festivals	3 Units
APA 3114	Exercise Physiology II	3 Units
APA 3118	Recreation, Sport and Community Development	3 Units
APA 3119	Coaching Training Methods	3 Units
APA 3121	Human Motor Skill Development	3 Units
APA 3122	Physical Activity and Health	3 Units
APA 3123	Hockey and Canadian Culture	3 Units
APA 3124	Diet and Physical Activity	3 Units
APA 3125	Prevention and Care of Athletic Injuries	3 Units
APA 3130	Motor Performance and Aging	3 Units
APA 3131	Physical Ergonomics	3 Units
APA 3142	Sociology of Health and Physical Activity in Canada	3 Units
APA 3146	Sport and Recreation Marketing	3 Units
APA 3150	Neural Control of Human Movement	3 Units

APA 3301	Ethics in Sport, Physical Activity and Health in Canada	3 Units
APA 3311	Musculoskeletal Biomechanics	3 Units
APA 3324	Techniques and Strategies in Sport	3 Units
APA 3325	Fitness Training Principles	3 Units
APA 4101	Anthropology of Sport and Leisure	3 Units
APA 4112	Political Economy of Sport and Physical Activity	3 Units
APA 4115	Sport and Identities	3 Units
APA 4116	Applied Sport and Performance Psychology	3 Units
APA 4117	Quality of Life: Theory, Research and Application	3 Units
APA 4118	Biomechanical Basis of Injury	3 Units
APA 4119	International Sport Management Perspectives	3 Units
APA 4120	Sport and Physical Activity in Aging Populations	3 Units
APA 4123	Physical Activity Counselling	3 Units
APA 4124	Interdisciplinary Cases and Professional Practice in Kinesiology	3 Units
APA 4125	Molecular Exercise Physiology	3 Units
APA 4131	Psychomotor Behavior: Current Trends	3 Units
APA 4150	Principles in Psychomotor Rehabilitation	3 Units
APA 4160	Fitness Testing and Exercise Prescription	3 Units
APA 4313	Exercise and Disease Prevention	3 Units
APA 4315	External Influences and Physical Activity	3 Units
APA 4318	Advanced Sports Analytics	3 Units
APA 4320	Advanced Coaching: Global Preparation in a Sport	3 Units
APA 4323	Selected Topics in Human Kinetics	3 Units
APA 4900	Directed Studies	3 Units