

## Faculty of Kinesiology

# BSc Biomechanics Major

UCID #:

*This is a guide to help you navigate your program but does not supersede the Academic Calendar. It is the responsibility of the student to ensure graduation requirements are met per the [Academic Calendar](#)*

<u>UNITS</u>	<u>CORE REQUIREMENTS (54 UNITS)</u> <i>Prerequisites follow the title in blue italics</i>	
3 _____	KNES 201	Activity: Essence and Experience ( <i>Bio 30</i> )
3 _____	KNES 203	Activity: Health, Fitness, and Performance ( <i>Bio 30 &amp; Chem 30</i> )
3 _____	KNES 213	Introduction to Research in Kinesiology ( <i>Bio 30, Chem 30 &amp; Math 30-1</i> )
3 _____	KNES 244	Sociology of Movement Cultures <i>NA</i>
3 _____	KNES 251	Introduction to Motor Control and Learning ( <i>Bio 30</i> )
3 _____	KNES 253	Introduction to Exercise and Sport <i>NA</i>
3 _____	KNES 259	Psychology Human Anatomy and Physiology I ( <i>Bio 30, Chem 30 &amp; Math 30-1</i> )
3 _____	KNES 260	Human Anatomy and Physiology II ( <i>KNES 259</i> )
3 _____	KNES 263	Quantitative Biomechanics ( <i>Bio 30, Chem 30 &amp; Math 30-1</i> )
3 _____	KNES 323	Integrative Human Physiology ( <i>KNES 260</i> )
3 _____	KNES 337	Introduction to Nutrition (formerly 237) ( <i>KNES 259</i> )
3 _____	KNES 344	Gender, Sexuality, and Sport ( <i>KNES 244</i> )
3 _____	<b>One of:</b> _____	KNES 351 Foundations of Neural Control of Movement ( <i>KNES 251 &amp; 260</i> ), _____ KNES 397 Health and Exercise Psychology ( <i>KNES 253</i> ), or _____ KNES 399 Psychology of Sport ( <i>KNES 253</i> )
3 _____	KNES 355	Human Growth and Development ( <i>KNES 260 &amp; Pre or Co-requisite KNES 323</i> )
3 _____	KNES 363	Biomechanics of Biological Materials ( <i>KNES 263 &amp; STAT 205 or 213</i> )
3 _____	KNES 372	Foundations of Sport Medicine ( <i>KNES 260</i> )
3 _____	KNES 373	Exercise Physiology ( <i>KNES 203, 213 &amp; 323</i> )
3 _____	<b>One of:</b> _____	STAT 205 Intro to Statistical Inquiry or _____ STAT 213 Intro to Statistics I

### BIOMECHANICS MAJOR REQUIREMENTS (36 UNITS)

3 _____	MATH 211	Linear Methods I
3 _____	MATH 275	Calculus for Engineers and Scientists
3 _____	MATH 277	Multivariable Calculus for Engineers and Scientists
3 _____	ENGG 212	Fundamentals of Fluid Behaviour (previously ENGG 201)
3 _____	ENGG 202	Engineering Statics
3 _____	ENGG 311	Engineering Thermodynamics
3 _____	ENME 317	Mechanics of Deformable Solids I
3 _____	ENGG 349	Dynamics
3 _____	KNES 396	Research Seminar (previously KNES 393 + 395) ( <i>KNES 213 &amp; 263</i> )
3 _____	KNES 463	Advanced Techniques in Biomechanics ( <i>KNES 363</i> )

6 \_\_\_\_\_ **One of:** \_\_\_\_\_ KNES 566A&B Biomechanics Research Project or \_\_\_\_\_ KNES 590A&B Honours Project  
(Students must be admitted to the [Honours program](#) to enroll in KNES 590).

### SENIOR KINESIOLOGY OPTIONS (12 UNITS)

3 \_\_\_\_\_ 3 \_\_\_\_\_ 3 \_\_\_\_\_ 3 \_\_\_\_\_

### OPEN OPTIONS – Kinesiology or non-Kinesiology, Junior or Senior (18 UNITS)

3 \_\_\_\_\_ 3 \_\_\_\_\_ 3 \_\_\_\_\_ 3 \_\_\_\_\_ 3 \_\_\_\_\_ 3 \_\_\_\_\_

### IMPORTANT DEGREE CHECKS

- A minimum of 60 units (20 courses) at the senior level are required; this means a max of 60 units (20 courses) at the 200 level are permitted.
- A maximum of 60 transfer units may be applied to the degree; of those, a max of 27 units may be core courses.
- A total of 120 units are required to complete the Kinesiology degree.