

Faculty of Kinesiology **BIOMECHANICS (BSc)**

It is the responsibility of the student to ensure graduation requirements are met per the [Academic Calendar](#)

UNITS CORE REQUIREMENTS (54 UNITS)

3	KNES 201	Activity: Essence and Experience
3	KNES 203	Activity: Health, Fitness, and Performance
3	KNES 213	Introduction to Research in Kinesiology
3	KNES 237	Introduction to Nutrition
3	KNES 244	Introduction to Socio-Cultural Aspects of Sport
3	KNES 251	Introduction to Motor Control and Learning
3	KNES 253	Introduction to Exercise and Sport Psychology
3	KNES 259	Human Anatomy and Physiology I
3	KNES 260	Human Anatomy and Physiology II
3	KNES 263	Quantitative Biomechanics
3	KNES 323	Integrative Human Physiology
3	KNES 344	Gender, Sexuality and Sport
3	One of:	KNES 351 Foundations of Neural Control of Movement, KNES 397 Health and Exercise Psychology, or KNES 399 Sport Psychology
3	KNES 355	Human Growth and Development
3	KNES 363	Biomechanics of Biological Materials
3	KNES 372	Foundations of Sport Medicine
3	KNES 373	Exercise Physiology
3	One of:	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 201	Behaviours of Liquids, Gases, and Solids
3	ENGG 202	Engineering Statics
3	ENGG 311	Engineering Thermodynamics
3	One of	ENGG 317 Mechanics of Solids or ENME 317 Mechanics of Deformable Solids I
3	ENGG 349	Dynamics
1.5	KNES 393	Research Seminar I
1.5	KNES 395	Research Seminar II
3	KNES 463	Advanced Techniques in Biomechanics
6	One of	KNES 466A&B Biomechanics Research Project or KNES 490A&B Honours Project

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 at the senior level are required
- A maximum of 60 transfer units may be applied to the degree; a max of 27 units may be applied towards the core.
- A total of 120 units are required to complete the Kinesiology degree.

Note for Biomechanics Students:

To ensure proper degree progression, the following key courses should be taken according to the pattern below. Unlisted requirements can be taken with greater flexibility.

First Year	
Fall	Winter
KNES 259	KNES 260
MATH 211	KNES 263
MATH 275	MATH 277
PHYS 211* OR KNES 201**/203	KNES 201**/203
STAT 205/213	ENGG 201/202
* Students <u>without</u> Physics 30 must enroll in PHYS 211 for Fall. Students <u>with</u> Physics 30 do not need to take PHYS 211. ** Students must take KNES 201 in Fall or Winter of their first year	

Second Year	
Fall	Winter
KNES 363	ENGG 311
ENGG 201/202	
Notes: <ul style="list-style-type: none">- All 200-level KNES courses should be completed by the end of 2nd year.- KNES 323 should be completed in 2nd or 3rd year	

Third Year	
Fall	Winter
KNES 393	KNES 395
ENGG 349	ENGG 317/ENME 317
	KNES 463
Notes: <ul style="list-style-type: none">- KNES 323 should be completed in 2nd or 3rd year- KNES 373 should be completed by the end of 3rd year	

Fourth Year	
Fall	Winter
KNES 466A	KNES 466B