

## Minor Program Adjustment

<b>Faculty:</b> Faculty of Health Sciences	<b>Date:</b> Nov 16, 2017
<b>Program:</b> Kinesiology	
<b>Undergraduate:</b> <input checked="" type="checkbox"/>	<b>Graduate:</b> <input type="checkbox"/>

*Minor Program Adjustments include: New required courses, Deletion of required courses, Other changes to degree requirements or program learning outcomes, New academic requirements or changes to existing requirements.*

**Motion:** That CPRC approve the replacement of HLSC 2110U Clinical & Exercise Biochemistry with HLSC 2480U Exercise Biochemistry in the Kinesiology Program maps.

### Proposal Brief

#### Summary of the proposed change

HLSC 2110 Clinical and Exercise Biochemistry is offered to Medical Lab Science, Human Health Science, and Kinesiology students separately; however, Kinesiology students do not require clinical biochemistry, and Medical Lab or Human Health Science students do not require exercise biochemistry. As such, a new course entitled HLSC 2480 Exercise Biochemistry has been created to replace this required course in the program maps. The existing HLSC 2110 has also been changed to Clinical Biochemistry.

#### Description of the ways in which the proposed change will enhance the program and/or opportunities for students

This change will allow for students to gain relevant foundational knowledge pertaining to exercise biochemistry while reducing the burden and stress that was previously associated with learning about clinical biochemistry. The new course will pair better with HLSC 3481 (Exercise Physiology) which is taken concurrently.

#### Process of consultation with other units if the change(s) involves students, staff, and/or faculty from other programs or courses

We have consulted with the Director of Health Sciences (Elita Partosoedarso) and Medical Laboratory Sciences (Holly Jones Taggart). Both welcome these changes as it allows them to enhance HLSC 2110.

#### Analysis of financial and enrolment implications

There are no implications since two sections of the course were already being offered.

#### Proposed Implementation Date (state term, e.g. Fall 2017)

Fall 2018

**Transition Plan (include a plan for all current students in the program, by year level)**

Since the course is currently offered in two sections, one that specifically caters to Kinesiology students, the change will not affect any students. They will simply enrol in the new course instead of HLSC 2110.

**Calendar Copy and/or Program Maps (highlight revisions to existing curriculum)**

*Attachments*

**APPROVAL DATES**

Program Committee approval	November 20, 2017
Curriculum Committee approval	November 23, 2017
Faculty Council approval	November 29, 2017
CPRC Approval	19 January 2018
Submission to Academic Council	27 February 2018

**NEW COURSE TEMPLATE**

*For changes to existing courses see Course Change Template*

Faculty: Health Sciences			
Full Course Title: Exercise Biochemistry			
Short Form Course Title (max 30 characters): Exercise Biochemistry			
Subject Code and Course number: HLSC 2480U	Cross-listings:	<input checked="" type="checkbox"/> Core <input type="checkbox"/> Elective	Credit weight: 3 cr
Contact hours (please indicate number of hours for each component):			
<input checked="" type="checkbox"/> Lecture _3____ <input type="checkbox"/> Lab _____ <input type="checkbox"/> Tutorial _____ <input type="checkbox"/> Other _____			

**PROGRAM(S) IMPACTED [For a core course, please list all impacted programs including any applicable fields or specializations here and include this form with a program adjustment/proposal; for an elective course being inserted anywhere other than the Course Description section of the Academic Calendar, please list all impacted programs including any applicable fields or specializations and place the Calendar copy for each here (e.g. in a list of electives tied to a specific program).]**

BHSc Kinesiology Program (General, Exercise Science, Health & Wellness, Rehabilitation, FHP Bridge)
Note: This course will be replacing HLSC 2110U which will be changing from “Foundations in Clinical and Exercise Biochemistry” to Foundations in Clinical Biochemistry”

**CALENDAR DESCRIPTION**

This course will provide a comprehensive study of human biochemistry which will introduce major biopolymers and biomolecules, metabolic pathways, mechanisms of control, and gene function. This course will present how the basic principles of biochemistry underlie the normal physiological functions in humans and the perturbations of exercise. Topics will include nucleic acids, protein structure and function, enzymes, membranes, and metabolism (lipid, nitrogen, and carbohydrate). This course will better prepare Kinesiology student with an understanding of foundational biochemistry underlying rest and exercise. The lecture component will be structured towards introductory exercise biochemistry. This foundational knowledge will serve as the intellectual basis for advanced courses in exercise physiology and prescription.

Prerequisites	
Co-requisites	
Credit restrictions	HLSC 2110U
Equivalency courses	
Grading scheme	<input checked="" type="checkbox"/> letter grade <input type="checkbox"/> pass/fail

**LEARNING OUTCOMES (this section is required)**

On successful completion of this course, students will be able to:

1. Identify the major functional groups present in biomolecules
2. Illustrate the connection between biomolecular functional groups to the molecular processes underlying health and exercise physiology.
3. Discuss the metabolism of carbohydrates, lipids, and proteins, and nitrogen containing compounds to body homeostasis essential to human health.

4. Describe how the metabolic pathways used in the generation and storage of cellular energy can be altered in various exercise states.
5. Differentiate between enzymatic function as biological catalysts for the maintenance of health and the perturbation of exercise.
6. Describe the composition and function of the cellular lipid bilayer, the roles of carrier proteins, protein transport channels, and the Na/K pump, and the alterations that occur with acute exercise and chronic exercise training.
7. Describe the nitrogen bases and ribose sugars and the primary and secondary structures that compose nucleic acids DNA and RNA.
8. Understand and describe the major cellular metabolic changes that occur with acute exposure to exercise and chronic exercise training, and the biochemical impact of changes to volume and intensity.

#### COURSE INSTRUCTIONAL METHOD

- (check all that may apply)  CLS (in-class)  HYB (in-class and online)
- IND (individual studies)  OFF (off-site)
- WB1 (synchronous online delivery)
- WEB (asynchronous online delivery)

#### TEACHING AND ASSESSMENT METHODS

Midterm 1, Midterm 2, Tutorial Workshops, Final Exam

#### CONSULTATION AND FINANCIAL IMPLICATIONS, WHERE APPROPRIATE

A kinesiology section is already running for this course. Therefore there are no financial implications to the requested change.

#### EFFECTIVE SEMESTER (Specify Term e.g. Fall 2017)

Fall 2018

#### APPROVAL DATES

Program Committee approval	October 25, 2017
Curriculum Committee approval	November 22, 2017
Faculty Council approval	November 29, 2017
Submission to CPRC/GSC	With MPA, January 2018

## Bachelor Of Health Science - Kinesiology - Fitness & Health Promotion Bridge 2018-2019

Year 1 (2016/17)					
Done	Semester 1	Prerequisite(s)	Done	Semester 2	Prerequisite(s)
	BIOL 1010U - Biology I			HLSC 2110U - Foundations in Clinical and Exercise-Biochemistry HLSC 2480U - Exercise Biochemistry	
	HLSC 1701U - Information Literacy and Written Communications for the Health Sciences			HLSC 3711U - Professional Ethics & Communication in Kinesiology	24 Credit Hours
	HLSC 1201U - Anatomy & Physiology II			HLSC 3475U - Intro to Injury Management	HLSC 3470U
	HLSC 2702U - Quantitative Reasoning in Kinesiology	HLSC 1200U		HLSC 3481U - Exercise Physiology	HLSC 1201U
	HLSC 2401U - Human Growth and Motor Development	Co-requisite: HLSC 1201U		HLSC 1812U - Socio-cultural Perspectives on Physical Activity & Health	HLSC 1701U
Year 2 (2017/18)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 3800U - Critical Appraisal of Statistics in Health Science	24 Credit Hours		HLSC 4412U - Exercise Rehabilitation I: Cardiac, Respiratory and Metabolic Conditions	HLSC 3480U, HLSC 3481U
	HLSC 3020U - Health and Exercise Psychology	PSYC 1000U		HLSC 4475U - Occupational Ergonomics	HLSC 4471U, Credit Restriction: HLSC 4472U
	HLSC 2400U - Intro to Movement Neuroscience	HLSC 1201U		HLSC 3910U - Research Methods for Health Care Professionals: Theory and Application	HLSC 3800U
	HLSC 2462U - Altered Physiology: Mechanisms of Disease I	HLSC 1201U		HLSC 3410U - Human Motor Control and Learning	HLSC 3470U
	HLSC 4471U - Kinesiology II: Musculoskeletal Biomechanics	HLSC 3470U, HLSC 2702U		Open Elective *	
Year 3 (2018/19)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 4482U - Advanced Exercise Assessment and Prescription	HLSC 3480U		HLSC 4460U - Selective Topics in Physical Activity and Health (Health & Wellness pathway) <b>OR</b> Open Elective (generalist pathway)	84 credit hours
	HLSC 4413U - Exercise Rehabilitation II: Integrated Case Studies	HLSC 3480U, HLSC 3481U		HLSC 4808U - Exploring Mental Health & Developmental Disabilities (Health & Wellness pathway) <b>OR</b> 3000/4000 level Health or Kinesiology Elective (generalist pathway)	54 credit hours
	HLSC 4994U - Research Applications for Kinesiology <b>OR</b> HLSC 4998U - Research Practicum I	HLSC 3910U <b>OR</b> HLSC 3910U and application acceptance		HLSC 4995U - Kinesiology Research to Practice <b>OR</b> HLSC 4999U - Research Practicum II	HLSC 4994U <b>OR</b> HLSC 4998U
	HLSC 3805U - Intro to Epidemiology (Health & Wellness pathway) or Open Elective (generalist pathway)	HLSC 3800U		Health or Kinesiology Elective (3000 or 4000 level)	
	3/4000 level Health or Kinesiology Elective				

\*If interested in being eligible to apply for AT internship for final year, students must take HLSC 3476 (Advanced Sport Injury Management) for their elective

## Bachelor Of Health Science - Kinesiology - Exercise Science 2017-2018

Year 1 (2017/18)					
Done	Semester 1	Prerequisite(s)	Done	Semester 2	Prerequisite(s)
	BIOL 1010U - Biology I			BIOL 1020U - Biology II	BIOL 1010U
	CHEM 1010U - Chemistry I			CHEM 1020U - Chemistry II	CHEM 1010U
	HLSC 1200U - Anatomy & Physiology I			HLSC 1201U - Anatomy & Physiology II	HLSC 1200U
	HLSC 1701U - Information Literacy and Written Communications for the Health Sciences			HLSC 1812U - Socio-cultural Perspectives on Physical Activity & Health	HLSC 1701U
	HLSC 1810U - Health Promotion & Healthy Active Living			PSYC 1000U - Introductory Psychology	
Year 2 (2018/19)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 2400U - Intro to Movement Neuroscience	HLSC 1201U		<del>HLSC 2110U - Foundations in Clinical and Exercise-Biochemistry</del> HLSC 2480U - Exercise Biochemistry	
	HLSC 2462U - Altered Physiology: Mechanisms of Disease I	HLSC 1201U; Credit Restriction: HLSC 2460U		HLSC 3800U - Critical Appraisal of Statistics in Health Sciences	24 credit hours
	HLSC 2401U - Human Growth and Motor Development	HLSC 1201U, PSYC 1000U		HLSC 3475U - Intro to Injury Management	HLSC 3470U
	HLSC 3470U - Kinesiology I: Anatomy of Human Movement	HLSC 1201U		HLSC 3481U - Exercise Physiology	HLSC 1201U
	HLSC 2702U - Quantitative Reasoning for Kinesiology	HLSC 1200U		Open Elective	
Year 3 (2019/20)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 3020U - Health & Exercise Psychology	PSYC 1000U		HLSC 3410U - Human Motor Control and Learning	HLSC 3470U
	HLSC 3480U - Principles of Fitness Assessment & Exercise Prescription	HLSC 3470U, HLSC 3481U		HLSC 3711U - Professional Ethics & Communication in Kinesiology	24 credit hours
	HLSC 3910U - Research Methods for Health Care Professionals: Theory and Application	HLSC 3800U		HLSC 4412U - Exercise Rehabilitation I: Cardiac, Respiratory and Metabolic Conditions	HLSC 3480U, HLSC 3481U
	HLSC 4471U - Kinesiology II: Musculoskeletal Biomechanics	HLSC 3470U, HLSC 2702U		HLSC 4475U - Occupational Ergonomics	HLSC 4471U, Credit Restriction. HLSC 4472U
	HLSC 2825U - Nutrition and Health	HLSC 1201U		Open Elective *	
Year 4 (2020/21)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 4413U - Exercise Rehabilitation II: Integrated Case Studies	HLSC 3480U, HLSC 3481U		Open Elective	
	HLSC 4414U - Advanced Topics in Neuromuscular Physiology and Pathophysiology	HLSC 3410U		HLSC 4476U - Clinical Biomechanics	HLSC 4475U, Credit Restriction: HLSC 4472U
	HLSC 4994U - Research Applications for Kinesiology <b>OR</b> HLSC 4998U - Research Practicum I	HLSC 3910U <b>OR</b> HLSC 3910U and application acceptance		HLSC 4995U - Kinesiology Research to Practice <b>OR</b> HLSC 4999U - Research Practicum II	HLSC 4994U <b>OR</b> HLSC 4998U
	HLSC 4482U - Advanced Exercise Assessment and Prescription	HLSC 3480U		Open Elective (2000 level or higher)	
	Kinesiology Elective (3000 - or 4000 Level)			Kinesiology Elective (3000 - or 4000 Level)	

\*If interested in being eligible to apply for AT internship for final year, students must take HLSC 3476 (Advanced Sport Injury Management) for their elective

## Bachelor Of Health Science - Kinesiology - Generalist 2018-2019

Year 1 (2017/18)					
Done	Semester 1	Prerequisite(s)	Done	Semester 2	Prerequisite(s)
	BIOL 1010U - Biology I			HLSC 1201U - Anatomy & Physiology II	HLSC 1200U
	HLSC 1200U - Anatomy & Physiology I			HLSC 1812U - Socio-cultural Perspectives on Physical Activity & Health	HLSC 1702U or HLSC 1701U
	HLSC 1701U - Information Literacy and Written Communications for the Health Sciences			PSYC 1000U - Introductory Psychology	
	HLSC 1810U - Health Promotion & Healthy Active Living			Open Elective	
	Open Elective			Open Elective	
Year 2 (2018/19)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 2400U - Intro to Movement Neuroscience	HLSC 1201U		HLSC 2110U - Foundations in Clinical and Exercise-Biochemistry HLSC 2480U - Exercise Biochemistry	Credit Restriction BIOL 2040U
	HLSC 2462U - Altered Physiology: Mechanisms of Disease I	HLSC 1201U; Credit Restriction: HLSC 2460U		HLSC 3800U - Critical Appraisal of Statistics in Health Science	24 Credit Hours
	HLSC 2401U - Human Growth and Motor Development	HLSC 1201U, PSYC 1000U		HLSC 3475U - Intro to Injury Management	HLSC 3470U
	HLSC 3470U - Kinesiology I: Anatomy of Human Movement	HLSC 1201U		HLSC 3481U - Exercise Physiology	HLSC 1201U
	HLSC 2702U - Quantitative Reasoning for Kinesiology	HLSC 1200U		Open Elective	
Year 3 (2019/20)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 3020U - Health & Exercise Psychology	PSYC 1000U		HLSC 3410U - Human Motor Control & Learning	HLSC 3470U
	HLSC 3480U - Principles of Fitness Assessment & Exercise Prescription	HLSC 3470U, HLSC 3481U		HLSC 3711U - Professional Ethics & Communication in Kinesiology	24 credit hours
	HLSC 3910U - Research Methods for Health Care Professionals: Theory and Application	HLSC 3800U		HLSC 4412U - Exercise Rehabilitation I: Cardiac, Respiratory and Metabolic Conditions	HLSC 3480U, HLSC 3481U
	HLSC 4471U - Kinesiology II: Musculoskeletal Biomechanics	HLSC 3470U, HLSC 2702U		HLSC 4475U - Occupational Ergonomics	HLSC 4471U, Credit Restriction. HLSC 4472U
	Open Elective			Open Elective *	
Year 4 (2020/21)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 4994U - Research Applications for Kinesiology <b>OR</b> HLSC 4998U - Research Practicum I	HLSC 3910U <b>OR</b> HLSC 3910U and application acceptance		HLSC 4995U - Kinesiology Research to Practice <b>OR</b> HLSC 4999U - Research Practicum II	HLSC 4994U <b>OR</b> HLSC 4998U
	HLSC 2825U - Nutrition and Health	HLSC 1201U		Kinesiology Elective (3000 - or 4000 Level)	
	HLSC 4413U - Exercise Rehabilitation II: Integrated Case Studies	HLSC 3480U, HLSC 3481U		Kinesiology Elective (3000 - or 4000 Level)	
	HLSC 4482U - Advanced Exercise Assessment and Prescription	HLSC 3480U		Open Elective (2000 level or higher)	
	Open Elective			Open Elective (2000 level or higher)	

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## Bachelor Of Health Science - Kinesiology - Health & Wellness 2018-2019

Year 1 (2017/18)					
Done	Semester 1	Prerequisite(s)	Done	Semester 2	Prerequisite(s)
	BIOL 1010U - Biology I			HLSC 1201U - Anatomy & Physiology II	HLSC 1200U
	HLSC 1200U - Anatomy & Physiology I			HLSC 1812U - Socio-cultural Perspectives on Physical Activity & Health	HLSC 1701U
	HLSC 1701U - Information Literacy and Written Communications for the Health Sciences			PSYC 1000U - Introductory Psychology	
	HLSC 1810U - Health Promotion & Healthy Active Living			Open Elective	
	Open Elective			Open Elective	
Year 2 (2018/19)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 2400U - Intro to Movement Neuroscience	HLSC 1201U		<del>HLSC 2110U - Foundations in Clinical and Exercise Biochemistry</del> HLSC 2480U - Exercise Biochemistry	Credit Restriction BIOL 2040U
	HLSC 2462U - Altered Physiology: Mechanisms of Disease I	HLSC 1201U; Credit Restriction: HLSC 2460U		HLSC 3800U - Critical Appraisal of Statistics in Health Science	24 Credit Hours
	HLSC 2401U - Human Growth and Motor Development	HLSC 1201U, PSYC 1000U		HLSC 3475U - Intro to Injury Management	HLSC 3470U
	HLSC 3470U - Kinesiology I: Anatomy of Human Movement	HLSC 1201U		HLSC 3481U - Exercise Physiology	HLSC 1201U
	HLSC 2702U - Quantitative Reasoning for Kinesiology	HLSC 1200U		Open Elective	
Year 3 (2019/20)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 3020U - Health & Exercise Psychology	PSYC 1000U		HLSC 3410U - Human Motor Control & Learning	HLSC 3470U
	HLSC 3480U - Principles of Fitness Assessment & Exercise Prescription	HLSC 3470U, HLSC 3481U		HLSC 3711U - Professional Ethics & Communication in Kinesiology	24 credit hours
	HLSC 3910U - Research Methods for Health Care Professionals: Theory and Application	HLSC 3800U		HLSC 4412U - Exercise Rehabilitation I: Cardiac, Respiratory and Metabolic Conditions	HLSC 3480U, HLSC 3481U
	HLSC 4471U - Kinesiology II: Musculoskeletal Biomechanics	HLSC 3470U, HLSC 2702U		HLSC 4475U - Occupational Ergonomics	HLSC 4471U, Credit Restriction. HLSC 4472U
	HLSC 2825U - Nutrition and Health	HLSC 1201U		Open Elective *	
Year 4 (2020/21)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 4413U - Exercise Rehabilitation II: Integrated Case Studies	HLSC 3480U, HLSC 3481U		HLSC 4460U - Selective Topics in Physical Activity and Health	84 Credit Hours
	HLSC 3805U - Introduction to Epidemiology	HLSC 3800U		HLSC 4808U - Exploring Mental Health & Developmental Disabilities	84 credit hours
	HLSC 4994U - Research Applications for Kinesiology <b>OR</b> HLSC 4998U - Research Practicum I	HLSC 3910U <b>OR</b> HLSC 3910U and application acceptance		HLSC 4995U - Kinesiology Research to Practice <b>OR</b> HLSC 4999U - Research Practicum II	HLSC 4994U <b>OR</b> HLSC 4998U
	HLSC 4482U - Advanced Exercise Assessment and Prescription	HLSC 3480U		Open Elective (2000 level or higher)	
	Kinesiology Elective (3000 - or 4000 Level)			Kinesiology Elective (3000 - or 4000 Level)	

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## Bachelor Of Health Science - OTA/PTA Pathway to Kinesiology 2018-2019

Year 1 (2017/18)					
Done	Semester 1	Prerequisite(s)	Done	Semester 2	Prerequisite(s)
	BIOL 1010U - Biology I			HLSC 2110U - Foundations in Clinical and Exercise-Biochemistry HLSC 2480U - Exercise Biochemistry	BIOL 1010U
	HLSC 1701U - Information Literacy and Written Communications for the Health Sciences			HLSC 3475U - Intro to Injury Management	HLSC 3470U
	HLSC 2400U - Intro to Movement Neuroscience	HLSC 1201U		HLSC 3800U - Critical Appraisal of Statistics in Health Sciences	24 Credit Hours
	HLSC 2702U - Quantitative Reasoning for Kinesiology	HLSC 1200U		HLSC 3481U - Exercise Physiology	HLSC 1201U
	HLSC 2462U - Altered Physiology: Mechanisms of Disease I	HLSC 1201U		Open Elective	
Year 2 (2018/19)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 3020U - Health and Exercise Psychology	PSYC 1000U		HLSC 3410U - Human Motor Control and Learning	HLSC 3470U
	HLSC 3480U - Principles of Fitness Assessment & Exercise Prescription	HLSC 3470U		HLSC 3711U - Professional Ethics & Communication in Kinesiology	24 Credit Hours
	HLSC 3910U - Research Methods for Health Care Professionals: Theory & Application	HLSC 3800U		HLSC 4412U - Exercise Rehabilitation I: Cardiac, Respiratory and Metabolic Conditions	HLSC 3480U, HLSC 3481U
	HLSC 4471U - Kinesiology II: Musculoskeletal Biomechanics	HLSC 3470U, HLSC 2702U		HLSC 4475U - Occupational Ergonomics	HLSC 4471U
	HLSC 2825U - Nutrition & Health	HLSC 1201U		Open Elective *	
Year 3 (2019/20)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 4413U - Exercise Rehabilitation II: Integrated Case Studies	HLSC 3480U, HLSC 3481U		HLSC 4995U - Kinesiology Research to Practice <b>OR</b> HLSC 4999U - Research Practicum II	HLSC 4994U <b>OR</b> HLSC 4998U
	HLSC 4994U - Research Applications for Kinesiology <b>OR</b> HLSC 4998U - Research Practicum I	HLSC 3910U, HLSC 3711U <b>OR</b> HLSC 3910U and application acceptance		Kinesiology Elective (3000 level or higher)	
	HLSC 4482U - Advanced Exercise Assessment and Prescription	HLSC 3480U		Kinesiology Elective (3000 level or higher)	
	Open Elective			Open Elective (2000 level or higher)	
	Open Elective			Open Elective (2000 level or higher)	

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## Bachelor Of Health Science - Kinesiology - Rehabilitation 2018-2019

Year 1 (2017/18) - Follow map for Exercise Science or Health & Wellness					
Done	Semester 1	Prerequisite(s)	Done	Semester 2	Prerequisite(s)
	BIOL 1010U - Biology I			BIOL 1020U - Biology II or Open Elective	BIOL 1010U
	CHEM 1010U - Chemistry I or Open elective			CHEM 1020U - Chemistry II or Open Elective	CHEM 1010U
	HLSC 1200U - Anatomy & Physiology I			HLSC 1201U - Anatomy & Physiology II	HLSC 1200U
	HLSC 1701U - Information Literacy and Written Communications for the Health Sciences			HLSC 1812U - Socio-cultural Perspectives on Physical Activity & Health	HLSC 1701U
	HLSC 1810U - Health Promotion & Healthy Active Living			PSYC 1000U - Introductory Psychology	
Year 2 (2018/19)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 2400U - Intro to Movement Neuroscience	HLSC 1201U		<del>HLSC 2110U - Foundations in Clinical and Exercise- Biochemistry</del> HLSC 2480U - Exercise Biochemistry	Credit Restriction BIOL 2040U
	HLSC 2462U - Altered Physiology: Mechanisms of Disease I	HLSC 1201U		HLSC 3800U - Critical Appraisal of Statistics in Health Sciences	24 credit hours
	HLSC 2401U - Human Growth and Motor Development	HLSC 1201U, PSYC 1000U		HLSC 3475U - Intro to Injury Management	HLSC 3470U
	HLSC 3470U - Kinesiology I: Anatomy of Human Movement	HLSC 1201U CoReq: HLSC 2400U		HLSC 3481U - Exercise Physiology	HLSC 1201U
	HLSC 2702U - Quantitative Reasoning for Kinesiology	HLSC 1200U		Open Elective	
Year 3 (2019/20)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 3020U - Health & Exercise Psychology	PSYC 1000U		HLSC 3410U - Human Motor Control and Learning	HLSC 3470U
	HLSC 3480U - Principles of Fitness Assessment & Exercise Prescription	HLSC 3470U, HLSC 3481U		HLSC 3711U - Professional Ethics & Communication in Kinesiology	24 credit hours
	HLSC 3910U - Research Methods for Health Care Professionals: Theory and Application	HLSC 3800U		HLSC 4412U - Exercise Rehabilitation I: Cardiac, Respiratory and Metabolic Conditions	HLSC 3480U, HLSC 3481U
	HLSC 4471U - Kinesiology II: Musculoskeletal Biomechanics	HLSC 3470U, HLSC 2702U		HLSC 4475U - Occupational Ergonomics	HLSC 4471U, Credit Rest. HLSC 4472U
	HLSC 4473U - Practical Human Anatomy I: Back and Lower Limbs	HLSC 3470U		HLSC 4474U - Practical Human Anatomy II: Head, Neck and Upper Limbs	HLSC 3470U
Year 4 - Begin 1st year (of 4) at CMCC or If student changes his/her mind, or they do not receive final admission offer from CMCC, student may complete their final year for UOIT degree below:					
Year 4 (2020/21)					
	Semester 1	Prerequisite(s)		Semester 2	Prerequisite(s)
	HLSC 4413U - Exercise Rehabilitation II: Integrated Case Studies	HLSC 3480U, HLSC 3481U		Open Elective	
	HLSC 4414U - Advanced Topics in Neuromuscular Physiology and Pathophysiology	HLSC 3410U		HLSC 4476U - Clinical Biomechanics	HLSC 4475U, Credit Rest. HLSC 4472U
	HLSC 4994U - Research Applications for Kinesiology <b>OR</b> HLSC 4998U - Research Practicum I	HLSC 3910U <b>OR</b> HLSC 3910U and application acceptance		HLSC 4995U - Kinesiology Research to Practice <b>OR</b> HLSC 4999U - Research Practicum II	HLSC 4994U <b>OR</b> HLSC 4998U
	HLSC 4482U - Advanced Exercise Assessment and Prescription	HLSC 3480U		Open Elective (2000 level or higher)	
	HLSC 2825U - Nutrition and Health			Kinesiology Elective (3000 - or 4000 Level)	