CRSS 453  **Principles in Cardiorespiratory Science I**  **Units:** 3.00
An advanced organ systems approach to the physiological principles underlying cardiac function and oxygen delivery using lectures, seminars, and selected readings. Topics include mechanics and regulation of heart function as well as perturbations in cardiac function. Oxygen delivery and utilization will be examined at the levels of the lung, blood, and tissue. The responses to alterations in oxygen demand and/or supply will also be addressed. Obstructive sleep apnea will be used as a model of a pathological cardiorespiratory system interactions.

**NOTE** Priority given to students in the CRSS Sub-Plan.

**Requirements:** Prerequisite Minimum 4th year (Level 4) standing, registration in a LISC/BHSc Major or SSP, a GPA of 2.5, and one of [(PHGY 215 and PHGY 216); PHGY 214/6.0; PHGY 212/6.0].

**Offering Faculty:** Faculty of Health Sciences

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CRSS 454  **Cardiovascular Sciences**  **Units:** 3.00
A study of the physiology, pharmacology and anatomy of the cardiovascular system. Topics include integrative mechanisms of control and pharmacotherapy involved in short-term and long-term control of the circulation in health and disease.

**NOTE** Also offered online. Consult the Bachelor of Health Sciences program office.

**Learning Hours:** 138 (18 Lecture, 10 Seminar, 10 Group Learning, 100 Private Study)

**Requirements:** Minimum 4th year (Level 4) standing and (registration in a LISC or BCHM MAJ or SSP Plan or BHSc program) and a GPA of 2.50. Exclusion LISC 454.

**Course Equivalencies:** CRSS454; LISC454

**Offering Faculty:** Faculty of Health Sciences

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CRSS 456  **Molecular and Cellular Basis of Cardiovascular Disease**  **Units:** 3.00
An intensive course surveying the molecular and cellular mechanisms underlying the pathophysiology of the major cardiovascular diseases, and the current and emerging tolls used in their diagnosis and treatment. Alterations in signalling, metabolism, and structure and function will be discussed to present an integrative view of how cardiovascular diseases develop and progress.

**NOTE** Priority given to students in the CRSS Sub-Plan.

**Requirements:** Prerequisite (Level 4 and registration in a LISC Specialization or Major, or BHSc program and a minimum GPA of 2.5 and ([PHGY 215 and PHGY 216] or PHGY 214 or PHGY 212 or PHGY 210).  

**Offering Faculty:** Faculty of Health Sciences

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CRSS 498  **Cardiorespiratory Rounds**  **Units:** 3.00
An advanced course in which students attend cardiology and respirology rounds in the Department of Medicine and prepare written and oral reports based on the material presented. The course will provide students with an in-depth exposure to topics in clinical cardiorespiratory science. The course will be offered in alternate years.

**NOTE** Priority given to students in the CRSS Sub-Plan.

**Requirements:** Prerequisite Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and ([PHGY 215 and PHGY 216] or PHGY 214 or PHGY 212 or PHGY 210).

**Offering Faculty:** Faculty of Health Sciences