**JCV3062H ~~ Advanced Topics in Cardiovascular Sciences: Heart Function**

**Course Director: Dr. Robert Bentley**

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**Day/Time: Fridays, 10:00-12:00pm**

This course is one of a set of seven advanced seminar half-credit courses dealing with current areas in the cardiovascular system. Specifically, JCV3062H covers all aspects of heart function from ultra structure and gene regulation to whole organ and response to various environmental and disease states.

Areas that may be covered include:

* Mechanisms of right heart failure
* Endoplasmic reticulum: ultra structure and protein composition of Ca++ storage/release sites in cardiac muscle
* Sarcoplasmic reticulum, calcium and its regulation in cardiac function
* Phospholamban in the regulation of cardiac kinetics
* Anemia as a model for cv adaptation and oxygen homeostasis
* Integrative approach to the regulation of cardiac function
* Heart failure and sleep apnea
* Cardiac and vascular response to exercise
* Cardiac function in adverse environments
* Aging and the cardiovascular response
* Mechanical heart assist

**Prerequisites:** None

**Maximum Enrolment:** 12

**Minimum Enrolment:** 6

**Enrolment:** Graduate students interested in heart research. Preference will be given to students enrolled in the Cardiovascular Sciences Collaborative Specialization.

**Grading:** 40% written essay

30% student oral presentation

10% student seminar

10% essay outline

10% participation