#### JCV1060H - Developmental Cardiovascular Physiology

**Course Director: Dr. Vitor Guerra**

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**Day/Time: Thursdays, 11:00-1:00pm**

This course covers the development of the cardiovascular system from conception to adulthood with particular emphasis on the progressive maturational changes from fetus to adult, age related differences and developmental problems. Topics include:

* Embryology and fetal development (cardiac and pulmonary development; fetal cardiac metabolism; fetal cardiac regulation; fetal circulation; fetal hemoglobin; maternal/fetal interaction and its implications; congenital anomalies)
* Post-natal changes at birth (pressure changes; circulatory changes; unique aspects of newborn circulation; blood; metabolism; neonatal cardiac/vascular regulation; congenital anomalies-effects and treatment)
* Maturational changes in the cardiopulmonary system from infancy to adulthood (structural; functional; metabolic; regulatory mechanisms)

This course is intended for students particularly interested in issues in developmental cardiovascular physiology including age related problems in maternal/fetal interaction, newborn and infant through to adult. (Graduate students are welcome to attend the optional lectures on the topics being given by the faculty as part of the undergraduate PSL470 series if they feel it would be of help: Location: Medical Sciences Bldg, Thursday 9:00-11:00am)

**Prerequisites**: None

**Maximum Enrolment:** 8

**Minimum Enrolment:** 4

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

**Grading: 10% weekly** Journal clubs

20% debates

5% essay outline

25% student presentation: oral presentation on final term paper

30% final essay - subject dealing with one of the developmental lecture

topics

10% attendance/participation during final orals