510-210 Cardio-respiratory & Locomotor Systems

Credit Points:	37.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: Seventy hours of lectures; 28 2-hour problem-based learning tutorials; 56 hours of practical classes. Estimated non-contact time commitment: an average of at least 15 hours per week Total Time Commitment: Not available
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Dr J. Ziogas, Dr J. Hayes
Subject Overview:	This subject has two components, the cardio-respiratory system and the locomotor system. The objectives of the cardiorespiratory system component are to gain an understanding of the integrated function of the cardio-respiratory system, the mechanisms and control of gas exchange and acid-base metabolism, cardio-respiratory homeostatic and adaptive mechanisms in humans and the mechanisms of pathological processes leading to disease of the cardiorespiratory system. Major topics covered are normal anatomy and development of the cardiovascular and respiratory systems, anatomy of the thorax, electrophysiology of the heart, measurement and assessment of cardiac and respiratory function, the principles of physics relating to blood flow, respiration and cardio-respiratory investigations, the mechanisms of ventilation, gas exchange and oxygen carriage in the lungs, periphery and a cellular level, acid-base homeostasis, mechanisms of action of endogenous messengers and drugs on the cardiac and respiratory systems, and mechanisms of blood pressure control and its disturbance. The objectives of the locomotor system component are to understand the structure/function relationships of bone, muscle and joints, the pathologic processes affecting these and the processes of repair and healing. Content areas include the anatomy of the limbs and back, the structure, functions and metabolism of the skeleton, muscles and related connective tissue, and pathologic processes affecting the musculoskeletal system.
Assessment:	Mid-semester test(s) (15%); PBL tutor assessment (10%); practical examination (15%); two end-of-semester examinations (total of five hours) (60%). Hurdle requirement: 75% attendance at lectures, tutorials and practical classes and 100% attendance at clinical placements and field visits.
Prescribed Texts:	None
Recommended Texts:	Information Not Available

Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Critical thinking and problem solving; Systematic evaluation of scientific evidence; Effective collaboration in small groups; Written and oral communication skills.