208-326 Exercise and Environmental Physiology

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: Twenty-four lectures; six hours tutorials; 18 hours practical work to be undertaken at Parkville and Werribee Total Time Commitment: Not available
Prerequisites:	208-202 Animal Physiology
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:	Assoc Prof Brian Leury
Subject Overview:	The aim of this subject is to enable students of animal science to develop skills and knowledge in exercise, environmental and stress physiology in domestic and companion animals and to be able to apply this knowledge in management of the environment for improved animal performance and welfare. The content includes a comparative overview of basic physiological processes important in exercise physiology and environmental adaptation such as circulation; gas exchange; electrolytes and water balance; heat production and thermoregulation; physiological and metabolic adaptations during exercise and training, including environmental effects on training management; diversity in environments and the nature of stress, including physical, psychological and nutritional factors; physiological regulation and response to stress, including key role of nervous system and hormones; metabolic adaptation; behavioural adaptation; and management of the environment including aspects of housing. At the completion of this subject students should: # understand how different animals cope with changing and diverse environments; # understand the nature of stress and stressful environments; # understand the nature of physiological regulation and adaptation; # understand how management can influence the animal-environment interaction and have developed experimental skills to study animal-environment interactions; # understand the biomechanics of, and the physiological and metabolic adaptations occurring during training and exercise; and # understand the effects of environment on training management.
Assessment:	Problem-based learning tutorials and practicals with five reports each of 1000 words (each 10% of final marks), one 3-hour written essay or short-answer style examination (50% of final marks).

Prescribed Texts:	None
Recommended Texts:	Recommended Texts: # **Eckert Animal Physiology: Mechanisms and Adaptations** (D Randall, W Burggren and K French), 4th edn, W H Freeman and Co., 1997
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2009/D09)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Information Not Available
Notes:	This subject involves the use of animals. Students should be aware this is an essential part of the course and exemption from this is not possible
Related Course(s):	Bachelor of Animal Science and Management