654-218 Comparative Animal Physiology

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus. Lectures, tutorials and laboratory based practical work.
Time Commitment:	Contact Hours: Two 1-hour lectures per week; three 1-hour tutorials during the semester; six 3-hour practicals during the semester. Total 45 hours. Total Time Commitment: 120 hours total time commitment.
Prerequisites:	*Biology of Cells and Organisms* and *Genetics and the Evolution of Life,* or equivalent.
Corequisites:	None
Recommended Background Knowledge:	First year level chemistry or statistics subjects are recommended.
Non Allowed Subjects:	Students who have received credit for 654-203 (prior to 2009) are excluded from taking this subject for credit.
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. This subject requires all students to actively and safely participate in laboratory activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the subject coordinator and the Disability Liaison Unit. Experiments involving animals are an essential part of this subject. Exemption is not possible.
Coordinator:	Laura Parry
Subject Overview:	This lecture and laboratory based subject aims to give students a solid foundation in basic physiological processes in animals, with a focus on the different ways in which animals adapt to their environments. Particular emphasis will be placed on marine and desert animals, and the integrative mechanisms involved in the regulation of important organ systems. Topics include endocrine feedback, neural integration, water and salt balance; cardiovascular systems, thermoregulation; respiration and reproduction.
Objectives:	Upon completion of this subject, students should have a solid understanding of basic physiological processes in animals; and an understanding of how animals adapt to diverse and challenging environments. In the laboratory components students should develop first hand experience in designing and conducting physiological experiments and learn how to interpret data and write scientific reports.
Assessment:	Three laboratory reports totalling up to 30 pages (30%) and five task sheets totalling up to 5 pages (10%) due during the semester; a 2-hour written examination in the examination period (60%).
Prescribed Texts:	Moyes and Schulte, Principles of Animal Physiology, Pearson Press
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 Commerce (https://handbook.unimelb.edu.au/view/2009/F04)** # **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:	The subject builds upon generic skills developed in first year level subjects, including the ability critically assess and assimilate new knowledge. Students should learn how to use these skills to solve practical problems in physiology. They should learn how to design physiological experiments and then collect scientific data as a team. This subject also enables students to gain experience in evaluating and interpreting data and writing scientific reports.
Notes:	Students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course will receive science credit for the completion of this subject.