

536-201 Principles of Physiology

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: 36 lectures and 24 hours of computer-aided learning Total Time Commitment: 120 hours
Prerequisites:	Two pairs of subjects from: biology (650-141 and 650-142, or prior to 2004: 600-141 and 600-142); chemistry (610-141 and 610-142, or 610-121 and 610-122); physics (640-121 and 640-122, or 640-141 and 640-142; or 640-161 and 640-162); psychology (512-120 and 512-121); mathematics (two of 620-112, 620-113, 620-121, 620-122, 620-123, 620-141, 620-142, 620-143 and 620-160).
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
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. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.
Coordinator:	Prof D Williams; Dr S Gauci
Subject Overview:	Physiology is an integrative study of the control of normal body function. Following completion of this subject students should be able to comprehend how the body systems act and interact to maintain a constant internal environment (homeostasis). Students should also be able to describe and understand the function of cellular, subcellular and membrane structures and their importance in fluid distribution, functions of excitable cells (nerve and muscle), information transfer (electrical and hormonal) and metabolism. Students should also develop an understanding of basic cellular physiology as it pertains to all cell types as well as the properties and characteristics of specialised cells such as neurones and muscle cells. Students should also be able to comprehend how such cellular specialisation results in hormonal, neural and organ systems subserving specialised body functions. The specialised organ systems to be studied include the cardiovascular, respiratory, gastrointestinal and kidney systems. During this course students should also learn that physiology is an experimental science with many key concepts arising from the qualitative and quantitative observation and analysis of living organisms. The lectures will incorporate active interaction between students and lecturers using personal response system (PRS) clickers to answer questions during lectures. In the computer-aided learning sessions associated with this subject, students will work in groups on a variety of tasks which should help develop and enhance skills related to team work, analytical reading and the ability to communicate information both concisely and unambiguously (written and verbal).
Assessment:	Two 45-minute written examinations held mid-semester (each 15%); tasks related to computer-aided learning activities during the semester (10%); effective PRS participation and contributions (5%); a 2-hour written examination in the examination period (55%).
Prescribed Texts:	None
Breadth Options:	This subject is a level 2 or level 3 subject and is not available to new generation degree students as a breadth option in 2008. This subject or an equivalent will be available as breadth in the future. Breadth subjects are currently being developed and these existing subject details can be used as guide to the type of options that might be available. 2009 subjects to be offered as breadth will be finalised before re-enrolment for 2009 starts in early October.

Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Notes:	<p>Students enrolled in the BSc (pre-2008 BSc), BAsC or a combined BSc course will receive science credit for the completion of this subject.</p> <p>Not available for students enrolled in BBiomedSc.</p> <p>Students seeking a thorough understanding of physiology at second-year level, and seeking entry into third year physiology, will take this subject in combination with 536-211 Physiology:Control of Body Function in Semester 2. This lecture combination, together with the practical subject 536-222 Experimental Physiology, forms the basic requirements for selection into third year physiology.</p>
Related Course(s):	Graduate Diploma in Biotechnology