

PHYS20009 Research-Based Physiology

Credit Points:	12.50		
Level:	2 (Undergraduate)		
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.		
Time Commitment:	Contact Hours: one x 1 hour lecture and one x 3 hour practical per week Total Time Commitment: 48 contact hours with an estimated total time commitment of 120 hours (including non-contact time)		
Prerequisites:	2 semesters of 1st year Biology and 1 semester of any 1st year quantitative science subject eg: Chemistry, physics, maths, psychology		
Corequisites:	None		
Recommended Background Knowledge:	Strongly recommended:		
	Subject	Study Period Commencement:	Credit Points:
	PHYS20008 Integrative Human Physiology	Semester 1, Semester 2	12.50
Non Allowed Subjects:	Non allowed subjects:		
	Subject	Study Period Commencement:	Credit Points:
	BIOM20002 Integrated Human Structure and Function	Semester 2	25
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: http://www.services.unimelb.edu.au/disability/		
Coordinator:	Assoc Prof Graham Barrett, Ms Arianne Dantas		
Contact:	Assoc Prof Graham Barrett: mailto:dhornery@unimelb.edu.au grahamlb@unimelb.edu.au mailto:grahamlb@unimelb.edu.au Ms Arianne Dantas: a.dantas@unimelb.edu.au (mailto:a.dantas@unimelb.edu.au) Administrative Coordinator: lesleyr@unimelb.edu.au (mailto:lesleyr@unimelb.edu.au)		
Subject Overview:	Students will undertake a research project completed over several weeks, which will require them to identify a physiological problem, formulate a suitable hypothesis, select and test suitable techniques, design appropriate experimental protocols to test their hypothesis, collect and analyse their data, and write a scientific report on their findings. The aim is to prepare students for critical analysis and writing of research-based literature reviews and scientific reports in their future studies and career as well as to expose students to basic physiological concepts in a practical setting. It also aims to develop research skills for an enquiring graduate and investigative skills for lifelong learning. The lectures will incorporate active interaction between students and lecturers using personal response system (PRS) clickers to answer questions during lectures.		

Objectives:	This subject is very skills-orientated. Development of critical thinking, problem solving and research skills, including devising experimental physiological methods, data collection, recording and analysis, interpreting and discussing data, writing clear and concise reports, and developing physiological laboratory practices (including safety, ethics) and skills (in tissues or whole organisms) are integral to the subject. Group skills include working collaboratively, group communication and information presentation.
Assessment:	Written reports of up to 1500 words each due during the semester (20%); Class participation during the semester (5%); Effective PRS participation and contributions (5%), A research-project and written report of up to 2000 words due during semester (30%); Ongoing assessment of e-Learning activities(10%); A 2-hour written examination in the examination period (30%)
Prescribed Texts:	Silverthorn, D.U, Human Physiology: An Integrated Approach 5th Ed, 2009 - Prentice Hall
Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2010/B-ARTS) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2010/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2010/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2010/B-MUS) <p>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.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Critical thinking, creative thinking, self-managed learning, adaptability, problem solving, communication skills, interpersonal skills, group work and computer literacy.
Notes:	<p>This subject is available for science credit to students enrolled in the BSc (both pre-2008 and new degrees), BAsc or a combined BSc course.</p> <p>This subject is not available to Bachelor of Biomedicine students.</p> <p>Students undertaking this subject will be expected to regularly access an internet-enabled computer.</p> <p>LMS including e-learning, Lectopia recordings, lecture notes, handouts, lab manual.</p>
Related Course(s):	Bachelor of Science