PHYS30008 Frontiers in Physiology

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	This subject is not offered in 2014.
Time Commitment:	Contact Hours: 3 x one hour lectures per week plus 1 x three hour workshops (research) per fortnight (total contact hours: 54) Total Time Commitment: 120 hours
Prerequisites:	**Bachelor of Science (2009 onwards)** **Subject** | **Study Period Commencement:** | **Credit Points:** PHYS20008 Human Physiology | Semester 1, Semester 2 | 12.50 plus one of: **Subject** | **Study Period Commencement:** | **Credit Points:** PHYS20009 Research-Based Physiology | Semester 1, Semester 2 | 12.50 ZOOL20006 Comparative Animal Physiology | Semester 2 | 12.50 **Bachelor of Biomedicine** **Subject** | **Study Period Commencement:** | **Credit Points:** BIOM20002 Human Structure and Function | Semester 2 | 25 **Bachelor of Science (prior to 2009)** 536-201 Principles of Physiology 536-211 Physiology: Control of Body Function 536-222 Experimental Physiology All Students: At least one other level 3 Physiology subject (this can also be taken concurrently).
Corequisites:	See Prerequisites
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
Contact:	Subject Coordinators Prof David Alan Williams **d.williams@unimelb.edu.au (mailto:d.williams@unimelb.edu.au)**

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Subject Overview:	The subject will provide a detailed understanding of some of the most recent advances in select areas of physiology presented as key note lectures attended by all students in this subject. Students then select, as guided by their interest, from a number of areas of study that reflect the dynamic nature of physiology and research focuses of the department. These currently encompass i) Cardiovascular Health, ii) Muscle and Exercise Physiology and iii) Neurophysiology. Students develop theoretical background in part using graduate skills in planning, qualitative and quantitative critical analysis, and communication of molecular, biological, biochemical and physiological approaches to investigate physiological processes. Students will be introduced to new technologies that enable the understanding of selected areas of study. A research-focused assignment will bring together elements of both theoretical and practical Physiology and is designed to extend teamwork experiences, the ability to read critically, and to evaluate and communicate physiological information.
Learning Outcomes:	To develop an understanding of Physiology as a modern, research-intensive scientific discipline.
Assessment:	One mid-semester written report on Keynote lectures (20%); One mid-semester written report on an online group (wiki) research project (40%); One two hour end of semester examination (40%)
Prescribed Texts:	None
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/2014/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2014/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2014/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2014/B-MUS)** 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:	# To develop knowledge of Physiology as a research-intensive multidisciplinary science. # To develop and apply skills of critical evaluation of scientific literature, physiological data and experimental design. # To develop the capacity to understand practical skills and technologies in the solution of scientific problems. # To develop the skills to communicate the results of Physiological study in both written and oral form. # To have an appreciation of the historical background and evolution of scientific concepts. # To foster a sense of intellectual curiosity and a desire for lifelong learning, and a capacity to be creative and innovative.
Notes:	This subject is available to students enrolled in the New Generation BSc, BBioMed, pre-2008 BSc or BBiomedSc.
Related Majors/Minors/ Specialisations:	Animal Disease Biotechnology (specialisation of Animal Health and Disease major) Human Structure and Function Physiology Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses

	Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED