PHYS20002 Physiology (Optometry)

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 lectures, 15 hours practical work, 12 hours computer-aided learning Total Time Commitment: 120 hours
Prerequisites:	Enrolment into the second year of the Bachelor of Optometry course.
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 Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
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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).
Objectives:	Following completion of this subject, students should understand how hormonal, neural and organ systems subserve specialised body functions. Students should comprehend how the body systems act and interact to maintain a constant internal environment (homeostasis).
Assessment:	Tasks related to computer-aided learning activities during the semester (5%); two 45-minute written examinations held mid-semester (each 15%); ongoing assessment of practical work

	during the semester (10%); effective PRS participation and contributions (5%); a 2-hour written examination in the examination period (50%).
Prescribed Texts:	Silverthorn, D.U., Human Physiology: An Integrated Approach 4th Ed., 2007 - Prentice Hall.
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Students should develop and enhance skills related to problem solving, team work, analytical reading and the ability to communicate information both concisely and unambiguously (written and verbal).
Notes:	This subject is only available to students enrolled in the Bachelor of Optometry course. Experiments involving the use of animals are essential to this subject; exemption is not possible.
Related Course(s):	Bachelor of Optometry