Physiology

Year and Campus:	2012
Coordinator:	Professor David WilliamsDepartment of Physiology
Contact:	Email: **d.williams@unimelb.edu.au (mailto:d.williams@unimelb.edu.au)**
Overview:	The Physiology major will teach students how the body works. Students will learn about the ways in which cells, organs and the whole body function in an integrated way. By understanding normal function, students will investigate disturbances in whole body systems such as those relating to the endocrine, cardiovascular, musculoskeletal, developmental and neural control systems. The experimental bases of physiology are emphasized and students will use contemporary techniques to examine questions in physiology. Discoveries in physiology have a broad impact upon health and medicine, environmental science, industry, nutrition, exercise and reproductive biology. Many of the discoveries from the human genome project rely on physiology to understand their impact on the human body.
Objectives:	Students completing this major should have: # understood how the functional properties of cells and tissues determine the integrated responses of human organ systems including musculoskeletal, cardiovascular, nervous and reproductive systems; # developed an understanding of the process of designing and conducting biomedical research, including the generation of experimental hypotheses, and analysis and interpretation of data derived from experiments; # gained experience in the critical evaluation and appreciation of the scientific literature; and # learned how physiology is able to provide functional and "real life" significance to on-going discoveries of genetic and molecular biological research.
Structure & Available Subjects:	Completion of 50 points of study at Level 3.
Subject Options:	Core subject

Subject	Study Period Commencement:	Credit Points:
PHYS30008 Frontiers in Physiology	Semester 2	12.50

Plus one of

Subject	Study Period Commencement:	Credit Points:
PHYS30001 Cardiovascular Health: Genes & Hormones	Semester 2	12.50
NEUR30002 Neurophysiology: Neurons and Circuits	Semester 1	12.50
PHYS30005 Muscle and Exercise Physiology	Semester 1	12.50

Plus two electives selected from

Subject	Study Period Commencement:	Credit Points:
ANAT30007 Human Locomotor Systems	Semester 1	12.50
ANAT30008 Viscera and Visceral Systems	Semester 2	12.50
BIOL30001 Reproduction	Semester 2	12.50
NEUR30002 Neurophysiology: Neurons and Circuits	Semester 1	12.50
NEUR30003 Principles of Neuroscience	Semester 1	12.50
NEUR30004 Sensation Movement and Complex Functions	Semester 2	12.50

	<table><tr><td>PHYS30001 Cardiovascular Health: Genes & Hormones</td><td>Semester 2</td><td>12.50</td></tr><tr><td>PHYS30005 Muscle and Exercise Physiology</td><td>Semester 1</td><td>12.50</td></tr></table> An elective may also be selected from the range of biomedical science subjects (requires approval of the major coordinator)
Notes:	This major is available to new generation Bachelor of Science students (B-SCI) and Bachelor of Biomedicine students. It is also available to Bachelor of Science students who commenced prior to 2008. The published structure of this major includes subjects available in the current year. Pre-2008 Bachelor of Science students who completed one or more Level 3 science subjects towards this major prior to 2010 should contact the EPSC for advice on appropriate subjects to complete this major.
Related Course(s):	Bachelor of Arts and Bachelor of Science Bachelor of Arts and Sciences Bachelor of Biomedicine Bachelor of Commerce and Bachelor of Science Bachelor of Science Bachelor of Science Bachelor of Science and Bachelor of Information Systems