512-225 Biological Psychology

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus. Lectures and Laboratories
Time Commitment:	Contact Hours: 24 hours of lectures and 12 hours of laboratories Total Time Commitment: 36 contact hours, estimated total time commitment 120 hours
Prerequisites:	None
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 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
Coordinator:	Prof Michael Martin Saling
Subject Overview:	This subject studies the relationship between brain mechanisms and behaviour. Its major aim is to develp an appreciation of the neurobiological basis of psychological function and dysfunction via two approaches. The first emphasizes a bottom-up approach including the topics of brain development, neurons and neural circuits, neurotransmission and neurotransmitter substances, and the structurofunctional properties of selected brain regions. Neurobiological principles are illustrated using conditions with abnormal neuronal function such as Alzheimer's disease, epilepsy and memory and speech disorders. The second approach emphasises a top-down approach that links psychological functions to their biological substrates. Neuroscientific research techniques and what they can reveal about psychological function are emphasized. These tequniques are presented within an historical context, beginning with ventricular models (e.g., Descartes) and finishing with functional magnetic resonance imaging. Specific areas of research, such as brain lateralisation, individual differences in brain structure, and clinical brain disorders, are used to gain insight into neuropsychological research and its findings. A quantitative methods component will be integrated into the lecture, tutorial and assessment structure of this subject. The aim is to provide an understanding of, and practical experience with, the appropriate experimental design and statistical analysis techniques used to evaluate theories in Biological Psychology.
Objectives:	1 To provide students with an integrated understanding of the way in which the brain regulates complex forms of human behaviour, as a basis for future studies in the behavioural neurosciences. 2 To provide students with an appreciation of the various methodologies for investigating brain and behaviour relationships. 3 To provide students with the opportunity for engaging in critical evaluation of competing theories with the field.
Assessment:	Two written laboratory/tutorial reports of 1,000 words each (20% each = 40%) (due week 7 and first week of examination period).An end-of-semester examination of two hours (60%).

Prescribed Texts:	Calson, NR. Physiology of Behaviour. 9th Edition.Pearson International.
Recommended Texts:	Kandel, E et at. *Essentials of Neuroscience and Behaviour*. McGraw Hill.
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 will develop skills related to the ability to research an area, analyze the information critically and to arrange it in a report that is clearly expressed and lucid.
Notes:	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. Mind, Brain & Behaviour 1 and 2 provide foundation knowledge for this second year subject. A breadth sequence in Biological Psychology could include: Biological Psychology (PSYC20006), Neuroscience & the Mind*, Psychology of Sleep & Emotions*, Psychology & Everyday Life*, Development of the Thinking Child*, & The Unconcious Mind* Students undertaking this subject will be expected to be familiar with the use of Statistical software oackages such as SPSS. Students will be expected to access an internet enabled computer on a regular basis. * New subjects offered in 2010
Related Majors/Minors/ Specialisations:	Psychology Psychology Major