

## 512-222 Behavioural Neuroscience 2

<b>Credit Points:</b>	12.500
<b>Level:</b>	Undergraduate
<b>Dates &amp; Locations:</b>	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus.
<b>Time Commitment:</b>	Contact Hours: Twenty-four hours of lectures, 12 hours of laboratory classes. [Estimated total time commitment of 120 hours.] Total Time Commitment: 120 hours
<b>Prerequisites:</b>	512-120 and 512-121 (or equivalent).
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	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.
<b>Coordinator:</b>	Associate Professor Michael Saling
<b>Subject Overview:</b>	This subject studies the relationship between brain mechanisms and behaviour. Its major aim is to develop an appreciation of the neurobiological basis of psychological function and dysfunction. Two approaches to the study of the relation between the brain and behaviour are covered. The first emphasises a bottom-up approach and includes topics such as brain development, neurones and neural circuits, neurotransmission and neurotransmitter substances, and the structurofunctional properties of selected brain regions. Neurobiological principles are illustrated with examples of abnormal neuronal function in conditions 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 substrate. The techniques of neuroscientific research and what these techniques can reveal about psychological function are particularly emphasised. These techniques are presented within an historical context, beginning with ventricular models (eg. 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 a more detailed insight into neuropsychological research and its findings.
<b>Assessment:</b>	Two laboratory reports, each of no more than 1500 words (40%), and a two-hour examination (60%). Each piece of assessment must be completed (hurdle requirement). Attendance at 80% or more of the laboratory classes is a hurdle requirement. In case of failure to meet the hurdle requirement, additional work will be required before a passing grade can be awarded.
<b>Prescribed Texts:</b>	None
<b>Recommended Texts:</b>	Information Not Available
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	Students will develop skills related to the ability to research an area, analyse the information critically and to arrange it in a report that is clearly expressed and lucid.

<b>Notes:</b>	Students enrolled in the BSc (pre-2008), BAsc or a combined BSc course may receive science credit for the completion of this subject. Students undertaking psychology subjects can receive credit toward <i>either</i> the science <i>or</i> arts requirement of the BAsc or BA/BSc course. Credit for psychology cannot be split between the two components. Students should advise the Faculty of Science if they would like psychology to count toward the science requirement of their BAsc or BA/BSc course.
<b>Related Course(s):</b>	Bachelor of Arts Bachelor of Arts and Bachelor of Science Bachelor of Arts and Sciences Bachelor of Science