536-303 The Brain: Neurophysiology of Behaviour

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: 36 lectures Total Time Commitment: 120 hours
Prerequisites:	Physiology 536-201, 536-211 and 536-222, or the Anatomy/Physiology subject 516-209.BBiomedSc students: 521-213 and 536-250.Students who do not have a background in physiology, but who have strong background in psychology or zoology, may seek exemption by writing to the Head of Physiology.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	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. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.
Coordinator:	Prof Joel Bornstein
Subject Overview:	On completion of this subject, students should understand the theoretical and functional mechanisms involved in the formation and recall of memory. Students should also have explored the mechanisms underlying at least one other major brain function, which may include the neurophysiology of music, the neurophysiology of exercise, addictive behaviour, appetite, colour vision, neurological disease or pain. Students should comprehend the relationships between membrane events, neuronal architecture, neural circuits and final behaviours; as well as the methods used to study them (eg. functional imaging, electrophysiology and psychophysics). In the course of a short library-based research project, students should develop skills in working in groups to integrate data from original scientific papers to understand a specific mechanism in depth. Students should develop skills in critical analysis of the data and conclusions presented in original articles and in identifying differences in approaches, results and interpretation within the literature. Students will also develop oral communication skills in discussions with their project group members and written skills in writing their final reports. Students should be able to evaluate original scientific material, to justify opinions on the basis of this and to detect where current information is unable to provide definitive conclusions about how the brain controls behaviour.
Assessment:	A 3000-word project report due during the semester (50%); two 300-word journal article summaries due during the semester (10% each); a 45-minute written examination held mid-semester (20%); ongoing assessment of participation and communication in group activities throughout the semester (10%).
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/2009/D09)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)**

	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
Notes:	Students enrolled in the BSc (pre-2008 BSc), BASc or a combined BSc course will receive science credit for the completion of this subject.
Related Course(s):	Bachelor of Biomedical Science
Related Majors/Minors/ Specialisations:	Neuroscience Neuroscience (Behavioural Neuroscience specialisation) Physiology