516-209 Introductory Neuroscience

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: 36 lectures (three 1-hour lectures per week) plus six two-hour tutorials Total Time Commitment: 120 hours
Prerequisites:	Life science package, or any first-year biology, chemistry, physics or mathematics subject. Prerequisites may be waived by the Head of Department.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	This subject is not available to students enrolled in any of the new generation degrees.
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:	Dr Peter Kitchener
Subject Overview:	This subject provides a broad introduction to neuroscience. The topics covered range from the molecular and cellular mechanisms underlying neural function to an introduction to complex behaviours such as thought and language. It forms an ideal grounding for the more specialist third-year neuroscience subjects and should be taken by all students looking to major in neuroscience. Because of its broad nature, it is also suitable for students who wish to learn something about neuroscience without majoring in the topic. The subject aims to provide the student with: # an appreciation of how human behaviour, including complex functions like thought and emotion, is mediated by the brain; # an understanding of how neurons form the building blocks of the nervous system, how they transmit information by electrical impulses, how they communicate with each other, how they are connected to form elementary circuits, how they store information; # insight into the molecular and cellular mechanisms fundamental to neural function; # a picture of the interrelationships of the various parts of the nervous system; the brain, spinal cord, peripheral nervous system, automatic nervous system; # an appreciation of the fundamentals of systems underlying sensory perception, including the transduction of sensory stimuli (for example light and sound) and the processing of sensory information by neuronal populations leading, ultimately to perception; # an understanding, at an elementary level, of how the nervous system initiates and controls movements of the body; and # an appreciation of the plasticity of the nervous system, how it adapts to changing environments, how it ages, how nerve injuries may be repaired or may lead to irreversible damage.
Assessment:	A 50-minute written examination held mid-semester (30%); a 2-hour written examination in the examination period (70%).

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:	This subject is not available to students enrolled in any of the new generation degrees. Students enrolled in the BSc (pre-2008 BSc), BASc or a combined BSc course will receive science credit for the completion of this subject. This subject is taught jointly by the Department of Anatomy and Cell Biology and the Department of Physiology.