

512-350 Brain, Cognition and Behaviour 3

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| 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: Twenty-four hours of lectures, 12 hours of practical classes. [Estimated total time commitment of 120 hours.] Total Time Commitment: 120 hours |
| Prerequisites: | 512-222 or 512-224 (or equivalent) |
| Corequisites: | 512-220 (or equivalent) |
| 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. 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. |
| Coordinator: | Assoc Prof Michael Elmo Richard Nicholls |
| Subject Overview: | <p>This subject comprises three units. Only two units will be offered in any one year.</p> <p><i>Cognitive Neuropsychology.</i> Cognitive neuropsychologists attempt to understand normal cognitive processes by examining the different ways that these processes can be impaired following brain injury. This unit examines how the cognitive neuropsychological approach has been used to develop and modify models of cognitive processing in a range of domains, including attention, object recognition, face recognition, reading, writing and memory. Case study data are drawn from extensively and students observe videos of subjects with particular patterns of neuropsychological impairment.</p> <p><i>Laterality, Brain and Behaviour</i> introduces some of the issues associated with human laterality research. Laterality is discussed in relation to asymmetries in lateral preference (handedness) and functional asymmetries between the cerebral hemispheres. Students become familiar with neuropsychological research and gain insight into the functional properties of the two cerebral hemispheres and how these relate to behaviour. Topics will be selected from the evolution of laterality in humans; laterality in other species; measuring lateral preference; the causes and development of handedness; handedness and its relation to other psychological functions; methods of research into cerebral laterality; clinical research; cerebral asymmetries for language and spatial processing; alternative descriptions of cerebral laterality; attention and laterality.</p> <p><i>Human Amnesia: Neuroimaging and Clinical Perspectives.</i> The human memory system has been studied at a number of levels, including gross anatomy, cellular physiology, neuropathology, and neuropsychology. This unit integrates information at these various levels by examining, among other things, the contributions of structural and functional neuroimaging, connectionist modelling, and clinical case studies. Students are provided with an in-depth appreciation of the human memory system, and a framework for evaluating the contribution of recent neuroscientific advances to our knowledge of human memory disorders.</p> |
| Objectives: | . |
| Assessment: | Two laboratory reports each weighted at 20% and a two-hour examination weighted at 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. |

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| Prescribed Texts: | None |
| 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 |
| Notes: | <p>Students enrolled in the BSc (pre-2008), BAsc or a combined BSc course may receive science credit for the completion of this subject.</p> <p>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 Science Faculty if they would like psychology to count toward the science requirement of their BAsc or BA/BSc course.</p> |
| Related Majors/Minors/ Specialisations: | Neuroscience (Behavioural Neuroscience specialisation) Psychology Major |