360-844 Neuroimaging for Clinical Research

Credit Points:	12.500
Level:	Graduate/Postgraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus. Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: 24 hours of lectures/seminars/workshops Total Time Commitment: Not available
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
Subject Overview:	Topics covered include: Expert briefings on the current research questions in dementias, movement disorders, schizophrenia and bipolar disorders. Major emphasis on cutting-edge human imaging techniques Cognitive functioning Research techniques in clinical neurophysiology Introduction to neuroimaging techniques Principles of magnetic resonance imaging (MRI) Practical demonstration of language functional MRI Structural MR imaging and clinical research applications Functional MR imaging and clinical research applications Analysis of MR imaging Magnetic resonance spectroscopy and research applications New frontiers in multi-disciplinary clinical neuroscience research
Assessment:	A 2 hour examination that assesses the learning from the entire subject (40%), a comprehensive clinical neuroscience project proposal formatted as a grant submission, including potential multi-disciplinary collaborations and drawing on the course contents (and previous professional experience if relevant) (2,500 words) (60%).
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
Generic Skills:	Students who successfully complete this subject will: Demonstrate a high level of understanding of various advanced clinical research techniques that have broad application to many areas of neuroscience Understand clinical research applications of brain imaging techniques Understand the need for multi-disciplinary integration in clinical research and be able to establish appropriate collaborations across disciplines

	Have gained insights into current research applications of these techniques across the various neuroscience disciplines Be able to develop innovative strategies to investigate clinical neuroscience research questions to pursue in response to particular neurological problems Have achieved a level of competency enabling them to create and conduct high quality clinical neuroscience research projects from the original concept through to submission of competitive research proposals
Related Course(s):	Graduate Diploma in Clinical Research Master of Clinical Research Specialist Certificate in Clinical Research (Neuroscience)