CLRS90017 Neuroimaging for Clinical Research

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2013. Intensive mode
Time Commitment:	Contact Hours: 36 hours (4 day intensive block) Total Time Commitment: Students should expect to undertake a minimum of 120 hours lectures, research, reading, writing etc to complete this subject successfully.
Prerequisites:	To sartisfy the requirements of this subject, students must firstly complete this subject:

Subject	Study Period Commencement:	Credit Points:
CLRS90016 Clinical Neuroscience Research	June	12.50

Corequisites:	nil
Recommended Background Knowledge:	nil
Non Allowed Subjects:	nil
Core Participation Requirements:	For the purposes of considering requests for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Contact:	School of Melbourne Custom Programs Level 3, 442 Auburn Rd Hawthorn VIC 3122 Phone: 9810 3245 Email: **clinicalresearch@commercial.unimelb.edu.au** **(mailto:clinicalresearch@commercial.unimelb.edu.au)**
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
Objectives:	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
Assessment:	A short oral presentation of a proposed research plan (30 percent), 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) (3000 words) (70 percent).
Prescribed Texts:	Students will be provided with articles and references that support the teaching program as part of their course materials
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
Links to further information:	http://www.mccp.unimelb.edu.au/subjects/clinical-neuroscience-research-part2
Related Course(s):	Graduate Diploma in Clinical Research Master of Clinical Research Specialist Certificate in Clinical Research (Neuroscience)