MEDI90046 3-D Echocardiography & New Technologies

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught online/distance. Semester 2, Parkville - Taught online/distance. This subject will be taught off-campus (on-line) Course materials will be distributed via mail to students. Administration is via e-mail. The course is 1 semester full-time or 2 semesters part-time via distance education. A semester duration is 12 weeks. For students completing full-time there will be four subjects per semester, and for part-time, two subjects per semester. Subjects must be taken in sequence.
Time Commitment:	Contact Hours: An estimated 30 hours of contact time for online study is required Total Time Commitment: 170 hours per 12.5 credit point subject
Prerequisites:	

Subject	Study Period Commencement:	Credit Points:
MEDI90056 Advanced Anatomy and Doppler Analysis	Semester 1, Semester 2	12.50
MEDI90057 Advanced Valve and Aortic Pathology	Semester 1, Semester 2	12.50
MEDI90058 Applications of Echocardiography	Semester 1, Semester 2	12.50
MEDI90059 Advanced Echocardiography Interpretation	Semester 1, Semester 2	12.50

Corequisites:	Nil
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
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:	Faculty of Medicine, Dentistry and Health Sciences. Ultrasound Education Group Department of Surgery Level 6 Centre for Medical Research The Royal Melbourne Hospital Parkville, VIC 3050 **E: support@heartweb.com (mailto:support@heartweb.com)** T: +61 3 8344 5673 Website : **www.heartweb.com.au (www.heartweb.com.au)**
Subject Overview:	This subject will provide advanced knowledge for the performance and interpretation of 3-Dimensional echocardiography, as well as introducing new technologies and novel applications of clinical ultrasound.

	Topics include: 1 Transducer design and method of 3-D reconstruction 2 How to perform 3-D transthoracic examination 3 How to perform 3-D transoesophageal examination 4 Understanding cropping and manipulation of recorded images 5 Reporting 3-D examinations
Learning Outcomes:	The completion of the subject, students should: 1 Learn techniques to optimise 3-D echocardiography acquisition 2 Learn how to perform complex 3-D modelling of the mitral valve 3 Learn how to quantify 3-D ventricular volumes 4 Learn how to assess actual and ventricular septal defects, and role of 3-D imaging during percutaneous closure. 5 Interpret 25 3-D echocardiography case studies 6 Understand myocardial tissue stress and strain imaging 7 Understand contrast echocardiography 8 Understand the use of TOE for lung imaging 9 Learn the use of ultrasound for examination of joints 10 Learn the use of ultrasound for chronic pain blocks 11 Understand diagnostic algorithms incorporating heart and lung ultrasound for emergency medicine 12 Learn about abdominal blood flow imaging 13 Learn about the use of echocardiography for percutaneous catheter-based procedures.
Assessment:	1. 50% of assessment: one open-book multiple-choice examination of 50 questions which takes 100 minutes, during exam week. 2. 20% of assessment: completion of multiple choice questions following each tutorial (10 MCQ takes 20 minutes for each of 10 tutorials (200 minutes total). 3. 30% Case studies. Interpretation of 25 case studies, during semester, assessed by structured questions pertaining to each case (5 MCQ per case). Total time is 250 minutes.
Prescribed Texts:	All course materials will be provided during the course.
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:	# Improve critical evaluation skills # Evaluate the safety and practice of ultrasound in clinical practice. # Improve Problem solving skills # Improve understanding of diagnostic algorithms # Enhance information literacy
Links to further information:	http://www.heartweb.com.au
Notes:	This subject is available to part-time and full-time students This subject is not available to Commonwealth Supported students. Administration is via e-mail.
Related Course(s):	Master of Clinical Ultrasound