

PHRM90013 Principles of Echocardiography

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2010. Distance
Time Commitment:	Contact Hours: n/a Total Time Commitment: It is estimated that distance education students will be required to spend approximately 120 hours through a combination of studying course materials, reading nominated texts, journal review, practice worksheets, assessment assignments, and in identifying and integrating the information within their clinical practice.
Prerequisites:	Nil
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:	Melbourne Consulting and Custom Programs Level 3, 442 Auburn Rd Hawthorn VIC 3122 Email: mccp.enquiries@mccp.unimelb.edu.au (mailto:mccp.enquiries@mccp.unimelb.edu.au)
Subject Overview:	This course is no longer taking new enrolments. The last intake into this program was Semester 2, 2009. This introductory subject examines the basic physics and mechanisms of ultrasound generation, and how the information is manipulated by commercial ultrasound machines in order to produce real-time image generation. The subject will explore different types of ultrasound imaging including one, two, and three-dimensional imaging; and Doppler imaging and colour flow imaging. It is important students understand how the process of ultrasound generation can influence discrimination between objects, but also the creation of artefact. Because the primary focus of this course relates to transoesophageal echocardiography, the issues of safety, probe handling, cleaning and disinfection, and complications of the procedure will be examined in detail.
Objectives:	Subject Objectives: o on completion of this subject, students should; o understand the physics related to ultrasound generation o understand the different modes of ultrasound, including M- mode, two-dimensional imaging, three-dimensional imaging, Doppler ultrasound and colour flow mapping o understand transducer design principles o understand image processing by ultrasound machines o understand the basis of artefact generation o understand the basis of optimising ultrasound images o understand the principles of cleaning, and disinfecting ultrasound probes o understand safety and complication issues associated with transoesophageal echocardiography
Assessment:	Open book multiple choice question exam 50 questions per subject (80%). Self assessment modules in the workbooks (20%). The University reserves the right to review these worksheets

	if there are any doubts about the authenticity of the students work, or to monitor student progress.
Prescribed Texts:	o Sidebotham D, Merry A, Legget M. Practical perioperative transoesophageal echocardiography. Butterwoth Heinemann.o George L and colleagues. West Mead anaesthetic department transoesophageal echocardiography training manual.
Recommended Texts:	Other materials will be provided as a package of readings, PowerPoint presentations, case studies and assessment tasks
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:	This subject encompasses particular generic skills. On completion of the subject, students should be able to: <ul style="list-style-type: none"> # Evaluate the safety and practice of echocardiography within an institution. # Enhance time utilisation. # Improve written skills and problem solving skills.
Links to further information:	http://www.pharmacology.unimelb.edu.au/echocourse/
Related Course(s):	Postgraduate Diploma in Perioperative and Critical Care Echocardiography