

**ASAR**Australian Sonographer
Accreditation RegistryAustralian Sonographer Accreditation Registry Limited
(02) 8850 1144, registry@asar.com.au, www.asar.com.au

Appendix 4 – Subject Outline

Name of Subject/Unit **Subject/Unit Code**

(Use a separate template for each subject/unit in the course)

Section 1: General Information

1.1 Core or elective subject/unit Indicate if the subject/unit is a:☐ core subject/unit☒ elective subject/unit☐ other (please specify): **1.2 Subject/unit weighting**

If applicable, indicate, the weighting of this subject/unit and the total course points (eg 10 credit points for the subject/unit and 320 credit points for the course).

 Subject/Unit Credit Points (eg 10 credit points) **Total Course Credit Points** (eg 320 credit points)**1.3 Student workload**

Indicate below, the expected student workload per week for this subject/unit:

 Number timetabled hours/week* Number personal study hours/week** Number clinical placement hour/week*** Total workload hours/week****

* Total time spent per week at lectures, tutorials, etc

** Total time students are expected to spend per week in studying, completing assignments, etc

*** Total time spent per week on clinical placements

**** That is, * + ** + *** = workload hours.



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1.4 Mode of Delivery

Indicate if this subject/unit is delivered (You may tick more than one box).

☐

face to face

☒

online

☐

independent learning module/untimetabled study

☐

by a combination of modes (please specify)

☐

through a practicum

☐

other

Other (please specify)

1.5 Pre-requisites and / or assumed knowledge

Are students required to have undertaken a prerequisite/co-requisite subject/unit(s) for this subject/unit?

☒

Yes

☐

No

If **yes**, provide details of the prerequisite/co-requisite or assumed knowledge requirements below:

Students must have completed all level 1 & 2 courses in the program, or provide a copy of their registration as an Accredited Medical Sonographer

1.6 Resource requirements

Do students require access to specialist facilities and/or equipment for this subject/unit (eg specialist facilities, computer access, equipment, particular case / scan types, libraries)?

☒

Yes

☐

No

If **yes**, provide details of the requirements below. Please attach floor plans and photographs or videos showing the facilities and equipment that will be used for the course.

Students need to access the learnonline (moodle) website for this subject. The website provides resource, assessment portals & discussion boards. Students also can access the library and a number of online texts.



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Section 2 – Academic Details

2.1 Student learning outcomes/objectives

List the clinical and academic learning outcomes / objectives students would be expected to attain by successfully completing this subject/unit (link to assessment tasks (refer to 2.4 below)):

- a)

Revise the embryology of the developing fetal heart and circulatory system.

- b)

Using a knowledge of ultrasound instrumentation, and image optimisation select optimal scan settings for a fetal echocardiography examination.
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- c)

Evaluate the general scanning principles and pitfalls and construct optimal scanning techniques.
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- d)

Relate a knowledge of the sonographic features underlying various structural and functional anomalies.
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- e)

Demonstrate an ability to appraise sonographic appearances to recognise normal and abnormal fetal cardiac electrophysiology and fetal arrhythmias on fetal echocardiography.
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- f)

Evaluate the role of recent advances in imaging techniques and technology in fetal echocardiography including its role in fetal cardiac interventional procedures.
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- g)

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- h)

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- i)

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- j)

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2.2 Subject/unit content and structure

Provide details in the table below, about the subject/unit content and how it is structured, including practical components such as laboratory, studio and work-based placements. **NOTE:** Please attach course materials where available

At this point in the program, the students undertaking this course will be Accredited Medical Sonographers and it is expected that much of the student's learning will be self-directed. The topics pertaining to this course have been broken down into 9 modules, with each module covering approximately one to two weeks' work over the whole study period. These modules are presented in an order that provides the optimum learning process for this course. The content has been tailored to be as clinically relevant to practicing sonographers and the pathologies contained within the notes for each module are those more commonly encountered in Fetal Echocardiography. Students will complete activities via interactive web based simulation programs.

The following lists the content covered:

Module 1 - Fetal Cardiovascular Embryology and Physiology
Module 2 - Fetal Echo: Technical Aspects
Module 3 - Fetal Echo: Scanning Protocol
Module 4 - Structural Cardiac Anomalies
Module 5 - Functional Abnormalities of the Fetal Heart
Module 6 - Fetal Echo: Recent Advanced in Fetal Cardiac Ultrasound Imaging
Module 7 - Fetal Echo: Prenatal Intervention in Fetus with Cardiac Disease
Module 8 - Moral, Legal and Ethical Considerations in Ultrasound
Module 9 - Fetal Cardiac Research: New Frontiers

2.3 Teaching methods/strategies

Briefly describe below, the teaching methods/strategies (face to face lectures, online tutorial) used in this subject/unit:

The course is online and modularised, with students advised to attend to each module in a time frame documented on the study calendar. There is a two week teaching break mid semester along with two revision weeks are provided at the end of each study period. Discussion forums are available online for students to ask their lecturer questions and to engage with their fellow students. Introductory information includes an outline of the course, outline of the assessments and general resources including an electronic copy of the study guide, links to relevant websites and learning activities.

2.4 Student assessment:

Provide, in table format as shown below, a schedule of formal clinical and academic assessment tasks and major examinations for the subject/unit

Assessment Type (eg Assignment – 2000 word essay (specify topic), Examination (specify length))	When Assessed (eg Week 5)	Weighting (eg 10% of Total subject/unit marks)	Learning Outcomes Assessed (link to 2.1 above eg (a), (b))
Assignment (Literature review) - 1500 words	week 7	30	all
Online Quiz x 5	ongoing	30	all
e-Portfolio	ongoing	40	all

2.5 Prescribed and recommended readings:

Provide below, in formal reference format, a list of the prescribed and recommended readings:

Drose, J 2009, Fetal Echocardiography, 2nd, Saunders Elsevier

Practical Guide to Fetal Echocardiography, A: Normal and Abnormal Hearts

Echocardiographic anatomy in the fetus

Fetal cardiology: Embryology, Genetics, Physiology, Echocardiographic Evaluation, Diagnosis, and Perinatal Management of Cardiac Diseases

Congenital diseases in the right heart

How the heart develops: a visual approach

Innovations in neonatal-perinatal medicine

2.6 Required Attachments:

Please provide the following materials for each subject:

1. The learning materials for the student
2. The teaching materials
3. The assessment tasks (academic and clinical)
4. Any materials provided to workplace supervisors.