



MEDS13001 *Obstetric and Breast Ultrasound*

Term 1 - 2021

Profile information current as at 04/05/2024 05:54 am

All details in this unit profile for MEDS13001 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

This unit advances your study of obstetric ultrasound from MEDS12006 into the second trimester as well as building on breast ultrasound foundations which were created in MEDS12003. You will explore the sonographic assessment of normal and pathological obstetric ultrasound and breast ultrasound cases. You will participate in simulated scanning sessions to facilitate the identification of normal sonographic appearance of the second trimester fetus as well as basic breast scanning techniques and lesion localisation. Clinical scenarios are used to engage you in the sonographic decision-making process which culminates in the creation of sonographer reports.

Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisite: MEDS12003 Superficial Structures in Ultrasound and MEDS12006 Ultrasound in Obstetrics and Gynaecology 1

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

Offerings For Term 1 - 2021

- Brisbane
- Mackay
- Melbourne
- Perth
- Sydney

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

[Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

[Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Practical and Written Assessment**

Weighting: 40%

2. **In-class Test(s)**

Weighting: 40%

3. **Online Quiz(zes)**

Weighting: 20%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the [CQUniversity Policy site](#).

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Student communication and unit evaluation surveys

Feedback

Students enjoyed the interactive tutorials and quizzes with increased emphasis on image interpretation.

Recommendation

Continue utilising the interactive tutorial content and incorporation of image interpretation throughout the unit.

Feedback from Student communication and unit evaluation surveys

Feedback

Students enjoyed the different teaching styles including videos, games, image bank and 'clock-wheel' for breast localisation.

Recommendation

Continue to utilise a variety of teaching styles to allow all students to connect with content and support their learning style.

Feedback from Unit evaluation survey

Feedback

Students felt alternate assessment of online test had inadequate time to allow them to consider an answer and fully respond.

Recommendation

Consider testing the timing to ensure students have adequate time to respond and demonstrate their level of knowledge.

Feedback from Unit evaluation survey

Feedback

Students liked prompt and regular responses to their queries using email, News Forum, Q&A and zoom tutorials.

Recommendation

Continue prompt communication with students through all mediums to ensure queries are answered.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Analyse normal and abnormal obstetric ultrasound findings with reference to embryology, clinical presentation, sonographic appearance and aetiology
2. Analyse normal and abnormal breast ultrasound findings with reference to anatomy, clinical presentation, sonographic appearance, aetiology and correlation with other breast imaging modalities
3. Analyse clinical scenarios to provide a differential diagnosis and produce sonographic reports
4. Formulate strategies for the provision of safe and ethical patient care
5. Apply sonographic techniques and diagnostic criteria, appropriate to obstetric and breast ultrasound respectively, to produce and analyse limited examinations in a simulated environment.

The learning outcomes for this unit relate to the requirements of the Australian Sonographers Association Competency Standards for the Entry Level Sonographer as listed here.

Unit 1-3, 7 & 10.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Practical and Written Assessment - 40%				•	•
2 - In-class Test(s) - 40%	•	•	•	•	
3 - Online Quiz(zes) - 20%	•	•			

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	
2 - Problem Solving	•	•	•		•
3 - Critical Thinking					•
4 - Information Literacy	•	•	•		
5 - Team Work					
6 - Information Technology Competence					•
7 - Cross Cultural Competence				•	
8 - Ethical practice			•	•	
9 - Social Innovation					
10 - Aboriginal and Torres Strait Islander Cultures					

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Practical and Written Assessment - 40%	•	•	•	•		•		•		
2 - In-class Test(s) - 40%	•	•					•	•		
3 - Online Quiz(zes) - 20%	•	•	•							

Textbooks and Resources

Textbooks

MEDS13001

Supplementary

Callen's Ultrasonography in OB/GYN

Edition: 6th (2017)

Authors: Callen edited by Norton, scutt and Feldstein

Elsevier

Philadelphia , PA , USA

ISBN: 978-0-323-32834-0

Binding: eBook

Additional Textbook Information

All course material will be supplied but this text may supplement your learning.

[View textbooks at the CQUniversity Bookshop](#)

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing style: [Vancouver](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Paula Kinnane Unit Coordinator

p.kinnane@cqu.edu.au

Schedule

Week 1 - 08 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• Breast Anatomy• Ultrasound (US) Appearance of Normal Breast Tissue	Content provided in lectures and reading items on Moodle page.	COMPULSORY Online Safety Induction to be completed prior to 9 March 2021. Zoom tutorial Thursday 10 am AEST.

Week 2 - 15 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• US Appearance of Breast Pathology• Correlation of Breast US with Other Imaging Modalities	Content provided in lectures and reading items on Moodle page.	Zoom tutorial Thursday 10 am AEST.

Week 3 - 22 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• Fetal Environment	Content provided in lectures and reading items on Moodle page.	Formative Moodle Quiz. Lab #1 Wednesday 24/03/2021. Zoom tutorial Thursday 10 am AEST.

Week 4 - 29 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
• Fetal Biometry	Content provided in lectures and reading items on Moodle page.	Zoom tutorial Thursday 10 am AEST.

Week 5 - 05 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
• Fetal Heart	Content provided in lectures and reading items on Moodle page.	Formative Moodle Quiz. Zoom tutorial Thursday 10 am AEST.

Vacation Week - 12 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 19 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
• Fetal Heart continued	Content provided in lectures and reading items on Moodle page.	Mock Test. Lab #2 Wednesday 21/04/2021. Zoom tutorial Thursday 10 am AEST.

Week 7 - 26 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
• Fetal Neural Tube Structures	Content provided in lectures and reading items on Moodle page.	Lab #3 Wednesday 28/04/2021. Zoom tutorial Thursday 10 am AEST.

Week 8 - 03 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
• Fetal face, neck and chest	Content provided in lectures and reading items on Moodle page.	Zoom tutorial Thursday 10 am AEST. Acquisition and discussion of ultrasound images Due: Week 8 Thursday (6 May 2021) 4:00 pm AEST

Week 9 - 10 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
• Fetal gastrointestinal, genitourinary and musculo-skeletal systems	Content provided in lectures and reading items on Moodle page.	Formative Moodle Quiz. Zoom tutorial Thursday 10 am AEST.

Week 10 - 17 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
• Multiple pregnancies	Content provided in lectures and reading items on Moodle page.	

Week 11 - 24 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
• Fetal anomalies and disorders	Content provided in lectures and reading items on Moodle page.	Formative Moodle quiz. Zoom tutorial Thursday 10 am AEST.

Week 12 - 31 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Review week.		Zoom tutorial Thursday 10 am AEST.

Review/Exam Week - 07 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 14 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic
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Term Specific Information

My name is Paula Kinnane, and I am the unit coordinator for MEDS13001. Following on from a background in radiography, I have been a qualified sonographer for over 20 years and worked in several environments (both specialised and general) in both public and private settings. Since 2006, I have been a specialist sonographer in women's and newborn imaging where I performed both routine and tertiary scans for gynaecological, breast and obstetrics imaging, including multiple pregnancies and fetal echocardiography. I have been employed at CQU since 2015. I am involved in various voluntary roles with the Australasian Sonographer's Association (ASA) and present at many conferences. I was recently awarded an Associate Fellowship by the ASA, in recognition of my achievements and service to the profession.

I am based on Brisbane campus and my contact details are:

email- p.kinnane@cqu.edu.au

Ph- 07 3023 4146

Please keep in mind that whilst I am full time, I do spend time in the labs.

I am usually very responsive by email and can coordinate meetings if necessary.

As this is a 6 credit point unit, you are expected to spend on average 12.5 hours each week on study activities for this unit.

This time includes:

- Watching recorded lectures and attending tutorials
- Creating study notes to meet weekly learning objectives using lectures and readings
- Additional resources via the eReading list to supplement your learning
- Researching and working on your assessment
- Completing formative and mock test questions

Lab time is made available (weeks 3, 6 and 7) to obtain images to complete the written assessment.

Attendance at tutorials is recommended (recordings of these will be made available on Moodle).

Discussions about unit content and assessment are provided in the tutorials. Tutorials are held on Thursdays at 10 am AEST. The schedule is available on Moodle.

Assessment Tasks

1 Acquisition and discussion of ultrasound images

Assessment Type

Practical and Written Assessment

Task Description

Practical component - Acquisition of images

Part A

Using the 2nd trimester obstetric phantoms in the CQU sonography lab, you will personally acquire the following relevant and appropriately optimised images:

1. Placental location / cord insertion
2. Fetal situs and presentation (split screen)
3. Bi-parietal diameter (BPD) / head circumference (HC) (with appropriate measurements)
4. Abdominal circumference (AC) (with appropriate measurement)
5. Femoral length (FL) (with appropriate measurement)
6. 4 Chamber Heart (4CH)
7. Aortic root / left ventricular outflow tract (LVOT)
8. Pulmonary artery root / right ventricular outflow tract (RVOT)

ONE image only from each of 1 - 8 above are submitted.

Multiple measurements of parameters (minimum of 2 each) should be performed and this will be evident in the report page data (use long report).

Report pages and graphs (as relevant to the above listed images) are to be included.

Part B

Using the breast phantoms in the CQU sonography lab, you will personally acquire the following:

1. A short video with audio (using smart phone or similar) demonstrating how to perform the cross hatch survey scanning technique
2. A short video with audio demonstrating how to perform radial and anti-radial survey scanning technique
3. 4 x o'clock US images taken at 12, 3, 6 and 9 positions, appropriately optimised, annotated, and with body marker correctly used

4. Choose ONE lesion within the breast phantom and image it with appropriate optimisation, measurement, annotation and body marker in TWO orthogonal planes

Written component - Discussion of image series

You will provide a reflective discussion on your imaging series from Part A and B (2000 words total). Include citations/referencing as required.

Part A

For each image submitted:

- justify the clinical purpose or importance of each image and/or measurement. (Why do we take the image/measurement? How is the information used clinically?)
- discuss the key factors of image optimisation for each individual image. Do you do anything special to ensure this image is optimised? Do you need to adjust technical parameters?
- critique the image quality (specifically any aspects needing improvement)
- reflect on any difficulties encountered (If it was challenging, why? Do you think it would be different on a patient compared to the phantom? Would there be different challenges on a live fetus?)
- provide suggestions for future improvement when you next attempt this in a clinical setting (be specific and reflective in your thoughts).

Part B

For the images of your chosen lesion ONLY:

- critique the image quality (specifically any aspects needing improvement)
- describe the lesion using appropriate sonographic terminology (appearance, size, location, etc)
- based on the appearances of the lesion you have chosen, determine the BIRADS

Assessment Due Date

Week 8 Thursday (6 May 2021) 4:00 pm AEST

Return Date to Students

Week 10 Thursday (20 May 2021)

Weighting

40%

Minimum mark or grade

50%

Assessment Criteria

Practical component - Acquisition of images

Your images will be assessed for:

- optimisation
- scan plane
- accurate measurement/s
- annotation
- use of ultrasound machine features (zoom, chroma maps, split screen, etc)

Written component - Discussion of image series

Your discussion will be assessed on:

- spelling, grammar, academic writing
- relevant, accurate and complete referencing
- adherence to word count (word count marks not allocated if too brief or too lengthy; additional words will not be assessed)

As well as the following:

Part A

- justification of clinical relevance of images/reports/graphs
- quality of critique on image quality
- reflection of difficulties encountered in the acquisition process
- suggestions for improvement in a clinical setting

Part B

- correct demonstration of scanning technique
- quality of critique on image quality
- accuracy of description
- knowledge of basic lesion characterisation

The following assessment supports can be found on the unit Moodle site

- Marking rubric
- Assessment Video
- Vancouver referencing information

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

Submit in Word.doc format to allow marker comments to be added

Learning Outcomes Assessed

- Formulate strategies for the provision of safe and ethical patient care
- Apply sonographic techniques and diagnostic criteria, appropriate to obstetric and breast ultrasound respectively, to produce and analyse limited examinations in a simulated environment.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Ethical practice

2 On campus in-class test

Assessment Type

In-class Test(s)

Task Description

An in-class test will be conducted and completed in week ten (10) at your campus of enrolment.

The in-class test will be conducted as an online test via Moodle and will assess your understanding and learning of the content of this unit, and your ability to complete an ultrasound worksheet. Content assessed will include content covered in lectures, tutorials, and readings from weeks 1-9.

The questions will involve a combination of short and long answer style questions which require typed answers. You will also be provided with a worksheet which will need to be completed and handed to supervisors at the conclusion of the test.

The test will last 140 minutes (2 hours 20 minutes). It will be closed book and supervised, and you will be required to adhere to test conditions. You will complete the test in computer labs on campus.

Any evidence of students not adhering to test conditions will be dealt with as per the CQUniversity academic misconduct procedure document.

You must know your student login to allow you to access university computers.

Assessment Due Date

Week 10 Thursday 10AM (local time)

Return Date to Students

Week 12 Friday (4 June 2021)

Weighting

40%

Minimum mark or grade

50%

Assessment Criteria

Responses to test questions will be assessed according to:

- Use of appropriate sonographic terminology and descriptors.
- Relevance of response to the question asked to appropriately identify normal and abnormal ultrasound findings with reference to anatomy, clinical presentation, sonographic appearance, and aetiology.
- Adequate detail provided in answer to demonstrate clinical awareness and critical thinking.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

Test will be conducted and submitted via Moodle

Learning Outcomes Assessed

- Analyse normal and abnormal obstetric ultrasound findings with reference to embryology, clinical presentation, sonographic appearance and aetiology
- Analyse normal and abnormal breast ultrasound findings with reference to anatomy, clinical presentation, sonographic appearance, aetiology and correlation with other breast imaging modalities
- Analyse clinical scenarios to provide a differential diagnosis and produce sonographic reports
- Formulate strategies for the provision of safe and ethical patient care

Graduate Attributes

- Communication
- Problem Solving
- Cross Cultural Competence
- Ethical practice

3 Online quiz

Assessment Type

Online Quiz(zes)

Task Description

You will complete an online quiz to assess your understanding of the concepts delivered in MEDS13001. The quiz can be accessed through the assessment tab on Moodle.

It will comprise of short answer/multiple choice questions. Students will need to note opening and closing times to complete the quiz during this time period.

The quiz will be open for 60 mins and only ONE attempt is allowed. Once started, the quiz cannot be paused or restarted.

All unit content for MEDS13001 may be examined.

Questions will be drawn from a pool of questions to allow tests to be different for each student.

This assessment is to be undertaken as an individual. As with all other university assessment, colluding with other students on non group work tasks is considered academic misconduct, and may lead to action being taken.

Number of Quizzes

1

Frequency of Quizzes

Other

Assessment Due Date

Quiz will open and close within exam week. Time and Date will be announced once schedule is confirmed.

Return Date to Students

Marks will be available two weeks after all students have completed the quiz

Weighting

20%

Minimum mark or grade

50%

Assessment Criteria

Answers will be either correct or incorrect and tabulated by the unit's online Moodle system.

Students must achieve a minimum mark of 50% to pass this assessment.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

Quiz will be conducted and submitted via Moodle

Learning Outcomes Assessed

- Analyse normal and abnormal obstetric ultrasound findings with reference to embryology, clinical presentation, sonographic appearance and aetiology
- Analyse normal and abnormal breast ultrasound findings with reference to anatomy, clinical presentation, sonographic appearance, aetiology and correlation with other breast imaging modalities

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?



Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem