



MEDS11001 *Fundamentals of Ultrasound*

Practice

Term 1 - 2021

Profile information current as at 14/12/2025 04:09 pm

All details in this unit profile for MEDS11001 have been officially approved by CQUUniversity 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 provides an insight into medical ultrasound by exploring the role and global scope of practice of the medical sonographer and the use of ultrasound in medical imaging, the types of examinations available and the provision of safe patient care as an allied health professional. The aim of this unit is to provide introductory knowledge and skills that will support your learning throughout the Medical Sonography course. Simulation exercises will enable you to apply theory to practice.

Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

There are no requisites for this unit.

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

- Mixed Mode

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. **Written Assessment**

Weighting: 40%

2. **Practical Assessment**

Weighting: Pass/Fail

3. **Online Test**

Weighting: 60%

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 Have Your Say

Feedback

Students were unfamiliar with the standard required for a university level written assessment.

Recommendation

Consider splitting the written assessment into two scaffolded tasks to enable students the opportunity for feedback after the first task along with enhanced support from ALC.

Feedback from Have Your Say, Tutorials and Virtual Workshop feedback

Feedback

Students appreciated the opportunity for revision with Kahoot! The "gameified" revision engaged the students extremely well.

Recommendation

Kahoot! was provided free of charge due to COVID-19 restrictions. Hopefully this will continue so it can be provided in 2021. If not, it would be worth requesting a license or investigating alternatives the university may already provide.

Feedback from Have Your Say and Virtual Workshop feedback.

Feedback

The students appreciated support from the UC, especially during uncertain times in term 1. They appreciated being able to connect with fellow students during a period when distance was the reality.

Recommendation

Continue careful pastoral care of students who can be vulnerable in first year. Continue and also look at other alternatives for opportunities for students to connect with each other and sonography staff.

Unit Learning Outcomes

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

1. Discuss the role and scope of practice of the medical sonographer, including professional and legal frameworks
2. Apply knowledge of ultrasound equipment, transducer / patient positioning and sonographic image appearance using appropriate medical and sonographic terminology
3. Discuss the role of diagnostic medical ultrasound and how it relates to other diagnostic imaging modalities and picture archiving communication systems
4. Demonstrate sonographic manual skill development in a simulated environment.

This unit will be one of the core units in the Medical Sonography Course which is externally accredited by the Australian Sonographers Accreditation Registry, an external professional regulatory body. This unit introduces students to the foundational knowledge and skills of medical sonography and enables an appreciation of the use of ultrasound in a national and international context and in the context of the other diagnostic imaging technologies available. The professional body entry level competencies of the accredited sonographer include consideration of safe practice and professional behaviour.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Written Assessment - 40%	•		•	
2 - Practical Assessment - 0%		•		•
3 - Online Test - 60%	•	•	•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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 - Written Assessment - 40%	•	•	•	•			•	•		
2 - Practical Assessment - 0%	•	•	•			•				
3 - Online Test - 60%	•	•						•		

Textbooks and Resources

Textbooks

There are no required textbooks.

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

Kathleen Sweeney Unit Coordinator
k.sweeney@cqu.edu.au

Schedule

Week 1 - 08 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• Introduction to the Medical Imaging Department• The history of ultrasound• The Australian Health Care system		Zoom tutorial Tuesday 1pm AEST

Week 2 - 15 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• Infection control• Vital signs		Zoom tutorial Tuesday 1pm AEST

Week 3 - 22 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• Communication• Cultural awareness		Zoom tutorial Tuesday 1pm AEST

Week 4 - 29 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• Sonographic & medical terminology		Zoom tutorial Tuesday 1pm AEST

Week 5 - 05 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• Patient positioning in sonography• Scan planes in sonography		Zoom tutorial Tuesday 1pm AEST

Vacation Week - 12 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none">• No lectures or new information.		No zoom tutorial.

Week 6 - 19 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> Introduction to the basic principles of ultrasound. 		<p>Written Assessment Task due: Wednesday 4pm AEST</p> <p>Zoom tutorial Tuesday 1pm AEST</p> <p>Develop a marketing brochure for sonography Due: Week 6 Wednesday (21 Apr 2021) 4:00 pm AEST</p>

Week 7 - 26 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> The ultrasound machine and examination. 		<p>Zoom tutorial Tuesday 1pm AEST</p>

Week 8 - 03 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> Keeping you and your patient safe. 		<p>Zoom tutorial Tuesday 1pm AEST</p>

Week 9 - 10 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
<p>Residential School (compulsory) Tuesday and Wednesday. For Covid-19 safe practice, students must attend campus for one day Residential School and attend a zoom session on the other day. Students must be available to be on campus for both days of the Residential School.</p>		<p>Online Induction quiz to be completed prior to Residential school.</p> <p>Practical assessment task completed at Residential school.</p> <p>No zoom tutorial.</p> <p>Part A) Residential School Practical Assessment. Part B) Reflection on being a patient and a sonographer Due: Week 9 Monday (10 May 2021) 11:45 pm AEST</p>

Week 10 - 17 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> Introduction to basic sonographic examinations 		<p>Assessment task from Residential School due Wednesday 2pm AEST</p> <p>Zoom tutorial Tuesday 1pm AEST</p>

Week 11 - 24 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> Medico-legal issues in health care 		<p>Zoom tutorial Tuesday 1pm AEST</p>

Week 12 - 31 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> Revision Exam preparation 		<p>Zoom tutorial Tuesday 1pm AEST</p>

Review/Exam Week - 07 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> Online test 		<p>Complete a 2hr online test on Wednesday 1pm AEST</p> <p>Examination Due: Review/Exam Week Wednesday (9 June 2021) 1:00 pm AEST</p>

Exam Week - 14 Jun 2021

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

The unit coordinator is Kathleen Sweeney, based in Sydney. The best way to contact Kathleen is via email at: k.sweeney@cqu.edu.au

Assisting with the unit as unit co-coordinator is Kirsty Mills, based in Mackay. Kirsty can be contacted by email at: k.mills@cqu.edu.au

It is important to check your student email regularly as updates about the unit will be sent from the unit coordinator by email. Please ensure that your email correspondence is done via your CQU student email.

Kathleen is on campus on Tuesdays, Wednesdays and Fridays and will endeavour to respond to emails within 24 hours. If you would like a phone conversation then please email to organise a time for this.

Recorded lectures are provided by Kathleen Sweeney, Kirsty Mills, Jane Wardle, Paula Kinnane and Elaine Wang.

This unit is a 6 credit point unit which requires you to allocate around 12 hours per week for study.

This time includes:

- watching recorded lectures and attending tutorials,
- creating study notes to meet weekly learning objectives using lectures and readings,
- using additional resources via the eReading list to supplement your learning,
- attending weekly zoom tutorials or watch the recorded tutorials that will be available on the unit Moodle site to supplement your learning,
- researching and working on your assessments,
- completing formative and mock test questions.

The unit is graded. There are four assessment items. Please refer to the assessment information for more details.

Tutorials will be offered to discuss the course content and assessment preparation. You will be able to ask questions and gain feedback. They will be recorded for later viewing if you are unable to attend.

Break week is between weeks five and six (12-18 April 2021).

Assessment Tasks

1 Develop a marketing brochure for sonography

Assessment Type

Written Assessment

Task Description

You are required to complete a written assessment based on lecture material, tutorials and relevant material provided on the unit Moodle site. In addition to the unit materials provided, you must research and use current literature to discuss and respond to the assessment topic below. On the unit Moodle page, an assessment task document will be supplied detailing the information needed to complete this assessment.

Topic:

Develop a marketing brochure for sonography.

Presentation:

This assessment will fit on 2 A4 pages. An inherent requirement is that it is written in appropriate academic language, and free of grammatical and spelling errors. Your assessment should be submitted as a Word document with 1.5 line spacing in 12 point Arial font.

References are to be submitted on a separate word document.

Referenced figures are essential.

Referencing:

The information in your brochure must be supported by references. You are expected to research the topic and to use references that have, and have not, been provided to you. A reference list must be provided and the CQU Sonography Vancouver referencing style must be used throughout your assessment. Ensure that your assessment is accurately referenced. References should clearly show where your information was obtained. Refer to the unit Moodle page and the CQU general website for further information. A minimum of 6 contemporary journal articles (less than 10 years old) must be used as references (additional to those provided on the unit Moodle page) for this assessment.

Only reference list in CQU Sonography Vancouver format should be provided for the whole assessment.

Assessment Due Date

Week 6 Wednesday (21 Apr 2021) 4:00 pm AEST

Online submission

Return Date to Students

Week 8 Monday (3 May 2021)

Weighting

40%

Assessment Criteria

You will be assessed on the following criteria:

Overall presentation of assignment including structure of assignment; accuracy of spelling and grammar; correct use of medical and sonographic terminology; appropriateness of literature reviewed; correct and accurate referencing; academic writing and expression. Clear and concise responses to each specific question/topic, including relevant and appropriate discussion and analysis of each topic with reference to current literature.

A detailed marking rubric/criteria will be made available on the unit Moodle site.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

Online

Learning Outcomes Assessed

- Discuss the role and scope of practice of the medical sonographer, including professional and legal frameworks
- Discuss the role of diagnostic medical ultrasound and how it relates to other diagnostic imaging modalities and picture archiving communication systems

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Cross Cultural Competence
- Ethical practice

2 Part A) Residential School Practical Assessment. Part B) Reflection on being a patient and a sonographer

Assessment Type

Practical Assessment

Task Description

During your attendance at the compulsory residential school you will participate in practical activities, where you will observe, learn and practice techniques and skills relating to the sonography profession.

100% attendance for the residential school is mandatory. For Covid-19 safe practice, one day of the Residential School will be on campus and the other will be on-line. You must attend the residential school at your enrolled campus only. You will be automatically allocated to this campus, and appropriate staffing/resource arrangements will be made at that location.

You must pass the practical assessment to pass the unit. Failure to attend the full residential school will mean that you will not pass this unit.

Following participation in these activities,

A) You will be assessed on your ability to perform practical sonographic tasks relating to:

- 1) Patient care and communication; and
- 2) Body planes, ultrasound scanning planes and associated image recognition.

One re-sit of the practical assessment will be permitted.

B) You will be required to complete a 'Reflection on being a patient and a sonographer' worksheet.

After attending the Residential School, you will answer the worksheet questions, reflecting on your experiences at the Residential School on being scanned and scanning your fellow students.

This is a pass/fail task. You must submit the **completed** worksheet to pass this unit.

Detailed information and a marking criteria will be made available on the unit Moodle site.

As per the Assessment Policy and Procedure (Higher Education Coursework), Section 4: Assessment Procedure: Item

4.59, this assessment is considered a professional assessment task and has an absolute submission date. This assessment (part A) must be completed at the residential school in the absence of an approved extension. Assessment (part B) will be required to be submitted 1 week after the Residential School.

Assessment Due Date

Week 9 Monday (10 May 2021) 11:45 pm AEST

A) To be completed on the campus Residential School day. B) Reflection worksheet to be submitted by Wednesday week 10 (19 May 2021 2pm AEST)

Return Date to Students**Weighting**

Pass/Fail

Minimum mark or grade

50%

Assessment Criteria

A) The practical assessment will be conducted by a sonography lecturer or tutor, who will observe and assess your ability to

carry out practical skills relating to:

- 1) Patient care and communication; and
- 2) Body planes, ultrasound scanning planes and associated image recognition.

Assessment of each task will be relative to the practical assessment marking criteria, which will be made available on the unit Moodle site.

You must pass the practical skills test to pass the practical assessment.

B) The reflection worksheet will assess your ability to critical evaluate:

- 1) Suitability to a sonographer role (including strengths and weaknesses).
- 2) Understanding of the role of a sonographer.
- 3) Understanding of what a patient experiences during an ultrasound examination.

Assessment of each task will be relative to the practical/written assessment marking criteria, which will be made available on the unit Moodle site.

Referencing Style

- [Vancouver](#)

Submission

Online

Learning Outcomes Assessed

- Apply knowledge of ultrasound equipment, transducer / patient positioning and sonographic image appearance using appropriate medical and sonographic terminology
- Demonstrate sonographic manual skill development in a simulated environment.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Technology Competence

3 Examination

Assessment Type

Online Test

Task Description

The end of term online test will assess you on content covered in the whole unit (weeks 1 to 12). This includes material covered in lectures, tutorials and any additional resources supplied during the term.

A good, stable internet connection is required for the online test.

The questions will involve a combination of question types, including short and long answer questions which require typed answers and multiple-choice questions.

Ensure you read the questions properly before beginning to formulate your answers and ensure you are using appropriate terminology at all times.

The end of term online test will be available on Moodle and two hours working time will be allocated. The test cannot be paused once started, or reattempted once finished.

This is an individual task. The online test must be completed by you, without assistance or collusion with others. Any evidence of collusion will be dealt with in adherence with the CQU student academic integrity policy and procedure.

Assessment Due Date

Review/Exam Week Wednesday (9 June 2021) 1:00 pm AEST

Online

Return Date to Students**Weighting**

60%

Minimum mark or grade

50%

Assessment Criteria

Multiple choice questions (1 mark) will be automatically marked correct or incorrect.

Written response questions will vary in mark allocation. Each question will have the maximum marks allocated displayed next to the question.

Short and long answers will require:

- use of correct anatomic names of structures (including spelling) and recognition of their normal and abnormal sonographic appearances
- use of correct sonographic terminology (including spelling)
- evaluation of clinical information
- detail to demonstrate depth of understanding and critical thinking
- identification of sonographic imaging planes, protocols and conventions as relevant
- explanation of pre and post scanning requirements, including medico legal aspects and infection control standards

Referencing Style

- [Vancouver](#)

Submission

Online

Learning Outcomes Assessed

- Discuss the role and scope of practice of the medical sonographer, including professional and legal frameworks
- Apply knowledge of ultrasound equipment, transducer / patient positioning and sonographic image appearance using appropriate medical and sonographic terminology
- Discuss the role of diagnostic medical ultrasound and how it relates to other diagnostic imaging modalities and picture archiving communication systems

Graduate Attributes

- Communication
- Problem Solving
- Ethical practice

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