



MEDS12002 *Abdominal Ultrasound*

Term 1 - 2024

Profile information current as at 18/07/2024 02:39 am

All details in this unit profile for MEDS12002 have been officially approved by CQU University 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 explores the abdomen, specifically normal and pathological ultrasound examinations. Online lectures and interactive Zoom tutorials are used to lay the foundation for this knowledge. Sonography images and scanning videos, both of normal and abnormal abdominal organs, are used to familiarise you with how things appear on ultrasound. This unit prepares you for not only MEDS12004 Sonographic Skills Development 1 where you will scan normal abdomens, but also for clinical placement, where patients' pathologies need to be detected by the sonographer. This unit will also allow you to develop the skills required to read and understand patient request forms, including what clinical tests have been done on the presenting patient, and what these tests and results are indicating in terms of areas of concern the referring doctor is looking for in the patient.

Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisite MEDS11001 Fundamentals of Sonographic Practice AND Prerequisite MEDS11002 Relational Anatomy and Image Recognition

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 - 2024

- Online

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. **Online Quiz(zes)**

Weighting: 20%

2. **Online Test**

Weighting: 30%

3. **Examination**

Weighting: 50%

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 SUTE, UC reflection

Feedback

Some students asked for more worksheet completion activities

Recommendation

More worksheet questions and answers will be included in tutorials to allow students more practise in completing worksheets. This will improve their efficiency in completing them before clinical placement.

Feedback from SUTE, UC reflection

Feedback

Students stated that the feedback given by the unit coordinator really helped them to understand where they could improve throughout the term, especially the individual Zoom feedback sessions provided following online tests.

Recommendation

Feedback and feedforward will continue to be delivered throughout the unit. Opportunities for one-on-one Zoom feedback sessions will continue to ensure students have every opportunity for success in this unit.

Unit Learning Outcomes

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

1. Describe anatomical structures and commonly encountered pathologies on sonographic images and videos of the abdomen, using appropriate anatomical and sonographic terminology
2. Differentiate the clinical indications, sonographic appearance, and aetiology of abdominal pathologies
3. Explain the relevance of laboratory data in relation to sonographic imaging of the abdomen
4. Analyse clinical scenarios to provide a pathological differential diagnosis and to produce a sonographic report

The learning outcomes for this unit relate to the requirements of the Australasian Sonographer's Association Competency Standards for the Entry Level Sonographer.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Online Quiz(zes) - 20%	•	•	•	
2 - Online Test - 30%	•	•		•
3 - Examination - 50%	•	•	•	•

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				

Textbooks and Resources

Textbooks

MEDS12002

Prescribed

Diagnostic Medical Sonography: Abdomen and Superficial Structures

Edition: 5th (2023)

Authors: Diane M. Kawamura & Tanya D. Nolan

Lippincott, Williams & Wilkins

Philadelphia , Pennsylvan , USA

ISBN: 9781975174972

Binding: Hardcover

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Supplementary

Sonography Exam Review: Physics, Abdomen, Obstetrics and Gynecology

Edition: 3rd (2019)

Authors: Susanna Ovel

Elsevier

St. Louis , Missouri , USA

ISBN: 9780323582285

Binding: Paperback

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Supplementary

Workbook for Diagnostic Medical Sonography: A Guide to Clinical Practice, Abdomen and Superficial Structures

Edition: 5th (2023)

Authors: Diane M. Kawamura & Tanya D. Nolan

Lippincott, Williams & Wilkins

Philadelphia , Pennsylvan , USA

ISBN: 9781975177089

Binding: Hardcover

[View textbooks at the CQUniversity Bookshop](#)

IT Resources

You will need access to the following IT resources:

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

Referencing Style

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

For further information, see the Assessment Tasks.

Teaching Contacts

Celia Tinetti Unit Coordinator

c.tinetti@cqu.edu.au

Schedule

Week 1 - 04 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Abdominal Vascular Structures How to present your sonographic scan findings	<ul style="list-style-type: none"> Chapter 6 in Abdomen & Superficial Structures, 5th Ed: p 89-106, 108-115, 117-120, 125-126; chapter 4 in Abdomen & Superficial Structures, 4th Ed: p 59-79, 87-97 Chapter 13 in Sonography Exam Review: p 184-198 	<ul style="list-style-type: none"> Zoom Session: Wednesday 3pm BNE & MKY / 4pm MEL & SYD

Week 2 - 11 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Pancreas	<ul style="list-style-type: none"> Chapter 9 in Abdomen & Superficial Structures, 5th Ed: p 243-257; chapter 7 in Abdomen & Superficial Structures, 4th Ed: p 213-227 Chapter 9 in Sonography Exam Review: p 123-135 	<ul style="list-style-type: none"> Zoom Session: Wednesday 3pm BNE & MKY / 4pm MEL & SYD Online Quiz #1 - open 9am AEST Wednesday and closes 5pm AEST Thursday (MEL, SYD add one hour for local times); content from weeks 1 - 2

Week 3 - 18 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Gallbladder & Biliary System	<ul style="list-style-type: none"> Chapter 8 in Abdomen & Superficial Structures, 5th Ed: p 203-241; chapter 6 in Abdomen & Superficial Structures, 4th Ed: p 171-209 Chapter 8 in Sonography Exam Review: p 105-122 	<ul style="list-style-type: none"> Zoom Session: Wednesday 3pm BNE & MKY / 4pm MEL & SYD

Week 4 - 25 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Liver	<ul style="list-style-type: none"> Chapter 7 in Abdomen & Superficial Structures, 5th Ed: p 131-200; chapter 5 in Abdomen & Superficial Structures, 4th Ed: p 101-169 Chapter 7 in Sonography Exam Review: p 86-104 	<ul style="list-style-type: none"> Zoom Session: Wednesday 3pm BNE & MKY / 4pm MEL & SYD Online Quiz #2 - open 9am AEST Wednesday and closes 5pm AEST Thursday (MEL, SYD add one hour for local times); content from weeks 3 - 4

Week 5 - 01 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Kidneys (Omitting vascular disorders of the kidneys)	<ul style="list-style-type: none"> Chapter 12 in Abdomen & Superficial Structures, 5th Ed: p 309-401; chapter 10 in Abdomen & Superficial Structures, 4th Ed: p 271-333 Chapter 10 in Sonography Exam Review: p 136-146 	<ul style="list-style-type: none"> ONLINE TEST PART A - this test goes for 1 hour, from 12 - 1pm AEST on Wednesday. Content from weeks 1 - 4.

Vacation Week - 08 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 15 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
No new content this week		<ul style="list-style-type: none"> Zoom Session: Wednesday 3pm AEST Online Quiz #3 - open 9am AEST Wednesday and closes 5pm AEST Thursday; content from week 5

Week 7 - 22 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic

Spleen	<ul style="list-style-type: none"> • Chapter 10 in Abdomen & Superficial Structures, 5th Ed: p 259-275; chapter 8 in Abdomen & Superficial Structures, 4th Ed: p 229-245 • Chapter 11 in Sonography Exam Review: p 158-169 	<ul style="list-style-type: none"> • Zoom Session: Wednesday 3pm AEST
Week 8 - 29 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Lower Urinary System	<ul style="list-style-type: none"> • Chapter 13 in Abdomen & Superficial Structures, 5th Ed: p 405-428; chapter 11 in Abdomen & Superficial Structures, 4th Ed: p 335-356 • Chapter 10 in Sonography Exam Review: p 148-149 	<ul style="list-style-type: none"> • Zoom Session: Wednesday 3pm AEST • Online Quiz #4 - open 9am AEST Wednesday and closes 5pm AEST Thursday; content from weeks 7 - 8
Week 9 - 06 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Prostate	<ul style="list-style-type: none"> • Chapter 14 in Abdomen & Superficial Structures, 5th Ed: p 429-449; chapter 12 in Abdomen & Superficial Structures, 4th Ed: p 357-375 • Chapter 16 in Sonography Exam Review: p 229-238 (Prostate components only) 	<ul style="list-style-type: none"> • Zoom Session: Wednesday 3pm AEST
Week 10 - 13 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Adrenal Glands	<ul style="list-style-type: none"> • Chapter 15 in Abdomen & Superficial Structures, 5th Ed: p 451-476; chapter 13 in Abdomen & Superficial Structures, 4th Ed: p 377-402 • Chapter 12 in Sonography Exam Review: p 170-175 	<ul style="list-style-type: none"> • ONLINE TEST PART B - this test goes for 1 hour from 12 - 1pm AEST on Wednesday. Content from weeks 5 - 9.
Week 11 - 20 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Putting it all together		<ul style="list-style-type: none"> • Zoom Session: Wednesday 3pm AEST • Online Quiz #5 - open 9am AEST Wednesday and closes 5pm AEST Thursday; content from weeks 9 - 10
Week 12 - 27 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Revision Week		<ul style="list-style-type: none"> • Zoom Session: Wednesday 3pm AEST
Review/Exam Week - 03 Jun 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Revision/Exam Week		<ul style="list-style-type: none"> • Last minute Q&A Zoom Session before the Invigilated Examination which will take place in Exam Week: Wednesday 3pm AEST
Exam Week - 10 Jun 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Exam Week		

Term Specific Information

Unit Coordinator Information:

Your unit coordinator for 2024 is Celia Tinetti. Celia is based at the Melbourne campus and can be reached via email: c.tinetti@cqu.edu.au or telephone: 03 9616 0528. Please note, all staff emails end in ".cqu.edu.au" - Celia also has a student account but this is not monitored; emails sent to this incorrect account will not be responded to.

Unit Details:

MEDS12002 is a 6-credit point unit and is a prerequisite for MEDS12004 Sonographic Skills Development 1 (SSD1), which is run in term two of second year. This unit has been designed to ensure your learning is aligned with what is required of you in SSD1, where you will be performing actual ultrasound examinations on the abdomen. This term you will be looking at normal and pathological images and surveys of the abdomen. This will help prepare you for next term when you are performing ultrasound examinations.

The teachings of 'Abdominal Ultrasound' will be regularly revisited throughout your studies in both skills and clinical units, and in your future career as an accredited sonographer. I encourage you to carefully study the unit profile and to be active in the unit's online discussion forums. It is recommended that you commit to 12.5 hours of study each week, therefore a total of 150 study hours upon completion of this unit.

This is the first unit where you will need to incorporate information from previous units, in particular MEDS11002 Relational Anatomy and Image Recognition, and MEDS11001 Fundamentals of Ultrasound Practice. Please refresh this information before and throughout this unit to ensure you are well prepared and can keep up to date with the weekly content.

Zoom Tutorial Sessions:

Zoom tutorial sessions will be conducted throughout the term on Wednesdays at 3pm AEST - please see Unit Outline for exact dates and times. These are recorded for later review, however tutorials are designed for live teacher-student interaction, so attendance in realtime is highly recommended. Case study scenarios and sonographic image interpretation (both normal and pathological) will be used to teach correct sonographer worksheet completion and reporting of findings. Tutorial material may be included in any of the assessment components.

Assessment Tasks

1 Online Quizzes

Assessment Type

Online Quiz(zes)

Task Description

There will be 5 online quizzes which will be held in weeks 2, 4, 6, 8, and 11. Each quiz will be accessible over a 32-hour period (i.e. open at 9am AEST on Wednesday and close Thursday at 5pm AEST) and will go for 10 minutes. Once started, the quiz cannot be paused or restarted. The content of these quizzes will be related to information on patient referrals including but not limited to laboratory data and clinical history, as well as sonographer worksheet documentation.

Questions will be in a multiple-choice question (MCQ) or short answer format. The purpose of these quizzes is to assist you to evaluate where your learning is at each fortnight and to identify specific areas you may need to improve upon.

These are open book tests, so you have the opportunity to consult your notes, lecture slides, textbooks, and the unit Moodle page.

You are allowed one attempt at each quiz so please ensure you are prepared beforehand. Quiz dates are available on the unit Moodle page.

Number of Quizzes

5

Frequency of Quizzes

Other

Assessment Due Date

Quiz 1 due Thursday (14/3/24) 5pm AEST; Quiz 2 due Thursday (28/3/24) 5pm AEST; Quiz 3 due Thursday (18/4/24) 5pm AEST; Quiz 4 due Thursday (2/5/24) 5pm AEST; Quiz 5 due Thursday (23/5/24) 5pm AEST.

Return Date to Students

Results will be released within a week of the quiz or once all students have completed the individual quizzes, whichever is the latter

Weighting

20%

Assessment Criteria

The MCQ are automatically marked as right or wrong. Short answer must use correct anatomical and sonographic terms and demonstrate knowledge of pathology, clinical presentations, and sonographic appearances. The cumulative mark from these quizzes makes up 20% of the unit total, so each quiz equates to 4% of the unit total.

These assessment tasks must be completed on or before the due dates. No late submissions are permitted after the test has closed, so please ensure adequate time for completion, with additional time for computer mishaps. If you have computer / test access difficulties, you need to contact TaSAC as soon as possible for assistance, and the unit coordinator (after you've contacted TaSAC) if you cannot complete the test in the allocated time before the end of the test (Thursday 5pm AEST).

These assessment tasks are to be undertaken as an individual. Colluding with other students on non-group work tasks is considered academic misconduct and will be reported to the Academic Integrity Unit.

Referencing Style

- [Vancouver](#)

Submission

Online

Learning Outcomes Assessed

- Describe anatomical structures and commonly encountered pathologies on sonographic images and videos of the abdomen, using appropriate anatomical and sonographic terminology
- Differentiate the clinical indications, sonographic appearance, and aetiology of abdominal pathologies
- Explain the relevance of laboratory data in relation to sonographic imaging of the abdomen

2 Online Tests

Assessment Type

Online Test

Task Description

In these two online tests, you will be demonstrating your critical thinking skills to answer the questions. This may include:

- using information from clinical and ultrasound image presentations to arrive at diagnoses;
- using a diagnosis and working backwards to describe the expected sonographic presentation;
- other combinations of clinical presentation, sonographic presentation, and diagnoses; and
- extending the ultrasound examination if appropriate.

To do this, you will evaluate clinical case studies, images, and clinical presentation information. Questions will be in the format of short answer, medium length answer, and multiple choice questions (MCQs).

The online tests will be available at the following dates and times:

Part A - Week 5, Wednesday 3/4/24, 12-1pm AEST - on content from weeks 1 to 4

Part B - Week 10, Wednesday 15/5/24, 12-1pm AEST - on content from weeks 5 to 9

The length of the tests is 1 hour so please ensure you start as soon as the test becomes available to allow adequate time to complete it. At 1pm AEST, all attempts will be automatically submitted for both tests.

Assessment Due Date

Online Test 1 due Wednesday (3/4/24) 1pm AEST; Online Test 2 due Wednesday (15/5/24) 1pm AEST

Return Date to Students

Results will be released within 2 weeks or once all students have completed the test, whichever is the latter.

Weighting

30%

Minimum mark or grade

50%

Assessment Criteria

You will be assessed on your critical thinking ability by evaluating clinical information including sonographic images, clinical presentation information, ultrasound findings, and how to extend your ultrasound examination. Answers require critical thinking and may include:

- Explaining what has been demonstrated in the images using appropriate sonographic terminology, including: anatomical features, differential diagnoses, a provisional diagnosis and how to extend the ultrasound examination;
- Working backward using provided images to provide possible clinical presentations of the case.

In the event that the cumulative mark for both tests has not achieved 50%, a supplementary assessment may be available if all criteria are met according to the Assessment Policy and Procedure (Higher Education Coursework). A supplementary assessment for this assessment item will include content from weeks 1 to 9 inclusive.

This assessment is to be undertaken as an individual. Colluding with other students on non-group work tasks is considered academic misconduct and will be reported to the Academic Integrity Unit.

This assessment task must be completed on the due dates listed above. No late submissions are permitted after the tests have closed, so please ensure adequate time for completion, with additional time in case of computer mishaps. If you have computer / test access difficulties, you need to contact TaSAC as soon as possible for assistance, and the unit coordinator (after you've contacted TaSAC) if you cannot complete either of the tests in the allocated time before the end of the test.

Referencing Style

- [Vancouver](#)

Submission

Online

Learning Outcomes Assessed

- Describe anatomical structures and commonly encountered pathologies on sonographic images and videos of the abdomen, using appropriate anatomical and sonographic terminology
- Differentiate the clinical indications, sonographic appearance, and aetiology of abdominal pathologies
- Analyse clinical scenarios to provide a pathological differential diagnosis and to produce a sonographic report

Examination

Outline

Complete an invigilated examination.

Date

During the examination period at a CQUniversity examination centre.

Weighting

50%

Length

120 minutes

Minimum mark or grade

50

Exam Conditions

Closed Book.

Materials

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).
No calculators permitted

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