



MEDS20008 Advanced Musculoskeletal Ultrasound Upper Body

Term 1 - 2021

Profile information current as at 14/12/2025 12:44 pm

All details in this unit profile for MEDS20008 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 clinical practice in the field of musculoskeletal ultrasound of the upper body. You will deepen your knowledge and understanding of sonographic anatomy, pathophysiology and dynamic function of the musculoskeletal systems in the upper body. You will appreciate the role of ultrasound in clinical assessment, and patient management, including interventional procedures. To successfully complete this unit you will need access to musculoskeletal ultrasound examinations in the clinical context. This unit includes an optional residential school comprising practical training in advanced upper body musculoskeletal ultrasound.

Details

Career Level: *Postgraduate*

Unit Level: *Level 9*

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

- 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 Postgraduate 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: 50%

2. **Online Test**

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 Have your say.

Feedback

The volume of some lecture videos are low, but this can be rectified with headphones.

Recommendation

Some lectures provided by experts in the field are low on volume. These have been amplified by putting the lectures through camtasia and adjusting the volume. Consider amplifying the volume on these lectures some more.

Feedback from Have your say.

Feedback

Add some additional lectures on how to perform ultrasound examinations and include more discussion of ultrasound images and possibly clips.

Recommendation

Consider developing additional lectures to discuss how the examination is conducted (eg protocol) and associated sonographic images and discuss the structures demonstrated and explicitly point out areas of injury or pathology on sonographic images.

Feedback from Have your say.

Feedback

Break up lectures into normal sonographic appearances and then pathological appearances.

Recommendation

Consider reformatting lectures to discuss anatomy, sonographic protocol and normal sonographic appearances (static and dynamic) and then sonographic identification of pathology.

Unit Learning Outcomes

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

1. Analyse sonographic anatomy and appearances of normal and pathological musculoskeletal structures of the upper body
2. Research the role of ultrasound in the clinical assessment, diagnosis and treatment of a patient.

The Masters course does not lead to entry into the sonography profession but is rather provided to qualified practitioners to allow advanced practice. Therefore it does not require external accreditation. The Master of Medical Ultrasound qualifies as Continuing Professional Development (CPD) activity (activity code 10B - Australian Sonographers Accreditation Registry (ASAR)).

Alignment of Learning Outcomes, Assessment and Graduate Attributes

 N/A Level	 Introductory Level	 Intermediate Level	 Graduate Level	 Professional Level	 Advanced Level
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Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes	
	1	2
1 - Written Assessment - 50%		•
2 - Online Test - 50%	•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes	
	1	2
1 - Knowledge	○	○
2 - Communication	○	○
3 - Cognitive, technical and creative skills	○	○
4 - Research		○
5 - Self-management		○
6 - Ethical and Professional Responsibility		○
7 - Leadership		
8 - 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
1 - Written Assessment - 50%	○	○	○	○	○	○		
2 - Online Test - 50%	○	○	○					

Textbooks and Resources

Textbooks

MEDS20008

Prescribed

Ultrasound of the Musculoskeletal System

Edition: 1 (2007)

Authors: Stephano Bianchi and Carlo Martinoli

Springer-Verlag

Berlin Heidelberg , New York , USA

ISBN: 978-3-540-28163-4

Binding: eBook

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Web camera and microphone to join online sessions

Referencing Style

All submissions for this unit must use the referencing style: [Vancouver](#)
For further information, see the Assessment Tasks.

Teaching Contacts

Michelle Fenech Unit Coordinator
m.fenech@cqu.edu.au

Schedule

Week 1 - 08 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to unit, revision of basics of musculoskeletal (MSK) ultrasound and assessment task overview.	Chapters 1-5 As this unit covers content relating to advanced MSK ultrasound, some general knowledge of the basics of MSK ultrasound is assumed. These chapters from the prescribed text, Ultrasound of the Musculoskeletal System by Bianchi and Martinoli, are available to read to refresh your understanding of the basics. Lectures in this and following weeks.	

Week 2 - 15 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Ultrasound of the brachial plexus and muscles that stabilise the shoulder.	Chapter 6 Lectures are available.	

Week 3 - 22 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
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Ultrasound of the shoulder and axilla. Chapter 6
Lectures are available.

Week 4 - 29 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Ultrasound of the upper arm (brachium).	Chapter 7 Lectures are available.	

Week 5 - 05 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Ultrasound of the elbow.	Chapter 8 Lectures are available.	

Vacation Week - 12 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Enjoy the break this week.		

Week 6 - 19 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Ultrasound of the forearm.	Chapter 9 Lectures are available.	Written paper - Sonographic assessment of an upper body musculoskeletal structure Due: Week 6 Wednesday (21 Apr 2021) 9:00 am AEST

Week 7 - 26 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Ultrasound of the wrist.	Chapter 10 Lectures are available.	

Week 8 - 03 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Ultrasound of the hand.	Chapter 11 Lectures are available.	

Week 9 - 10 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Ultrasound of the fingers and thumb.	Chapter 11 Lectures are available.	

Week 10 - 17 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Interventional techniques, revision and consolidation.	Lectures are available.	

Week 11 - 24 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Revision and consolidation.	Additional revision in preparation for online test.	

Week 12 - 31 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Online test opens this week.		Online test opens Wednesday 2nd June, 2021 at 9 am (AEST) and will remain open for one week for you to complete at some stage during this week.

Review/Exam Week - 07 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic

Online test closes this week.

Online Test Due: Review/Exam Week
Wednesday (9 June 2021) 9:00 am
AEST

Exam Week - 14 Jun 2021

Module/Topic

Chapter

Events and Submissions/Topic

Term Specific Information

Your unit coordinator for this unit is Dr Daniel Walkley (d.walkely@cqu.edu.au). This unit is content heavy, so it is important that you keep up to date with each week. It is recommended that you set aside about 12 hours per week to dedicate to this unit. There are pre-recorded lectures available on Moodle for you to watch in your own time and there will be regular tutorials offered throughout the term. The time schedules of these will be announced at the start of term. Attendance at tutorials is recommended, but if you cannot attend, recordings of these will be made available on Moodle. It is important that you take note of the assessment tasks within this unit. There is a written assessment (due in week 6) and an online test at the end of the term (opens week 12). In order to complete the written assessment task, you will need to be able to obtain musculoskeletal images of your own (particularly normal sonographic images) to include in your paper. As the written paper is due in week 6 of the term, it is important that you start work on this as early as possible. There is no residential school provided for this unit.

Assessment Tasks

1 Written paper - Sonographic assessment of an upper body musculoskeletal structure

Assessment Type

Written Assessment

Task Description

You are required to develop and submit a written paper which discusses the advanced sonographic assessment of an upper body musculoskeletal structure. Your topic needs to be of clinical relevance and enhance the current knowledge of the sonographic profession.

Your paper should be written and structured in an academic fashion and you are required to research, analyse, critically reflect on and synthesise current peer reviewed scientific, medical and allied health literature related to your selected topic. You will need to discuss the current knowledge regarding the detailed anatomy of your chosen structure of interest and its relational anatomy (to allow an in-depth sonographic assessment of this structure). The sonographic technique to assess this structure must be well articulated. The normal sonographic appearances of this structure must also be well outlined and discussed, including suggested static and dynamic imaging required to adequately assess the chosen structure. Relevant pathophysiology must be discussed including the sonographic appearances of pathophysiologic changes encountered, and you are required to discuss how such changes can be demonstrated sonographically. Gaps in research related to your selected topic and suggestions for future research should be identified. You need to demonstrate that you have clearly cross-referenced all statements within the paper. Anatomical figures and sonographic images used to enhance your text, should be referred to within the text and also clearly indicate whether they are original or you have gained permission to re-use them (and evidence of this will be supplied in the appendix). Vancouver style referencing is to be used. An unstructured abstract is required to be submitted in addition to your written paper.

Assessment Due Date

Week 6 Wednesday (21 Apr 2021) 9:00 am AEST

Submitted through the assessment tab on Moodle.

Return Date to Students

Week 8 Wednesday (5 May 2021)

Returned via Moodle.

Weighting

50%

Minimum mark or grade

50%

Assessment Criteria

A high level of communication skills is required to be utilized to convey a clear and concise message in your paper. You will need to include a clear and relevant unstructured abstract, aim, introduction, body of the paper, and conclusion. Your paper must be written in a systematic manner to allow an easy-to-follow format for the reader.

Your paper should deliver a clear, concise and correct message, at an appropriate length, and appropriate and relevant content is to be well organised, with the paper written in a coherent and cohesive manner. The paper should be proof-read and edited with accurate spelling, grammar and vocabulary appropriate for the sonographic discipline. Your paper should allow you to demonstrate a depth of understanding of your chosen topic and an ability to clearly explain the topic well from simple to complex. In-text references and the reference list must be accurate, complete and show evidence of cross-referencing and include relevant key literature. The word limit is 2000 words excluding references and the abstract. The required font is Arial or Calibri, size 12 with 1.5 spacing. A cover page should be included specifying; unit code and name, paper title, your name and student number, unit coordinator and word count. The marking rubric to be used is available on Moodle. You need to obtain a minimum mark of 50% in this written assessment to allow a pass grade in this unit. There are presentations provided on Moodle which outline expectations of writing at a postgraduate level for written assessments. It is highly recommended that you utilise these.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

Submit via Moodle under the assessment tab.

Learning Outcomes Assessed

- Research the role of ultrasound in the clinical assessment, diagnosis and treatment of a patient.

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Self-management
- Ethical and Professional Responsibility

2 Online Test

Assessment Type

Online Test

Task Description

An online test will be conducted to assess your understanding of the content in this unit and its clinical application. The test will be accessed through the assessment tab on Moodle. It will comprise of 10 questions which will require you to provide typed written answers. Each question will be worth 10 marks. The test will be open for 1.5 hours which will allow nine (9) minutes per question and only one attempt of the test is allowed. Once the test is commenced, it cannot be paused, stopped or re-started and once you have completed the test, it cannot be re-taken. You will need to allocate a 90 minute period throughout the week that the test is open where you have a reliable internet connection to allow the test to be completed. The questions for this online test will be drawn from a pool of questions to allow tests to be different for each student undertaking this unit. You must commence the test at least 90 minutes prior to the closing time of the test. If you have not completed the test by this time, your test will be closed automatically (so you may not allow yourself the full 1.5 hours to complete the test).

Assessment Due Date

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

This online test will be open for one week from 9:00 am Wednesday 2nd June until 9:00 am Wednesday 9th June. The test must be undertaken at some stage during the week it is open.

Return Date to Students

Exam Week Wednesday (16 June 2021)

Results will be made available via Moodle.

Weighting

50%

Minimum mark or grade

50%

Assessment Criteria

Image viewing questions may be included. You will need to be familiar with normal and pathological sonographic imaging of the upper body and the associated anatomy which has been discussed in this unit.

Your answers may require you to describe sonographic appearances of structures and determine if they appear sonographically normal or not. You may be required to discuss a particular pathophysiology or injury.

You may be asked how a sonographic examination may be extended to demonstrate an area further to confirm a diagnosis and what sonographic techniques may need to be employed to demonstrate a structure.

You will need to outline the detailed anatomy of a structure that needs to be sonographically assessed.

Your answers need to be detailed enough to allow you to gain 10 marks for each answer you provide.

You need to obtain a minimum score of 50% of the available marks in this online test to allow you to pass this unit.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

You need to access the test through the assessment tab on Moodle and will need to maintain internet access for 90 minutes to complete the test.

Learning Outcomes Assessed

- Analyse sonographic anatomy and appearances of normal and pathological musculoskeletal structures of the upper body

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills

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