



# MEDS20011 Musculoskeletal Ultrasound (Upper Body)

## Term 3 - 2020

Profile information current as at 28/04/2024 07:31 am

All details in this unit profile for MEDS20011 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 is designed to cover the theory and practice of basic soft tissue ultrasound imaging (upper body) and is appropriate for science graduates and allied health professionals wishing to use ultrasound as a focused diagnostic tool at the point of care. The unit will interest students engaged in managing soft tissue injury and pathology, and also science graduates interested in upper body musculoskeletal imaging. You will develop knowledge of upper body musculoskeletal ultrasound with emphasis on interpretation of anatomical structures, biomechanics, and pathology. You will differentiate musculoskeletal pathology from that of other body structures. You will apply techniques for obtaining, interpreting and assessing optimised ultrasound images in the university ultrasound scanning facilities.

### Details

Career Level: *Postgraduate*

Unit Level: *Level 8*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

Co-requisite: MEDS20009 Science and Instrumentation of Ultrasound

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 3 - 2020

- 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).

### Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

### 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: Pass/Fail

#### 2. **Online Test**

Weighting: Pass/Fail

### Assessment Grading

This is a pass/fail (non-graded) unit. To pass the unit, you must pass all of the individual assessment tasks shown in the table above.

## 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](#).

## Unit Learning Outcomes

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

1. Describe the anatomy, biomechanics and pathophysiology of the musculoskeletal system of the upper body
2. Differentiate normal from abnormal ultrasound appearance of the musculoskeletal system of the upper body
3. Apply safe ultrasound techniques to generate and optimise diagnostic images of the musculoskeletal system of the upper body
4. Interpret ultrasound images to provide a differential diagnosis, including reference to safety and the diagnostic limitations of ultrasound
5. Recommend appropriate management decisions based on the clinical situation, clinical knowledge and ultrasound findings.

The unit will not require external accreditation but will apply to appropriate profession specific bodies for recognition for Continuing Professional Development (CPD) related to Basic Soft Tissue Ultrasound.

## 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 - Online Test - 0%	•	•		•	•
2 - Written Assessment - 0%			•		

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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 - Online Test - 0%	○	○	○	○	○	○	○	
2 - Written Assessment - 0%	○	○	○		○	○		

## Textbooks and Resources

### Textbooks

MEDS20011

#### Prescribed

#### Ultrasound of the Musculoskeletal System

Edition: First (2007)

Authors: Stefano Bianchi and Carlo Martinoli

Springer-Verlag

New York , 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)
- Camera and microphone for attending Zoom tutorials

## 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](mailto:m.fenech@cqu.edu.au)

## Schedule

### Week 1 - 09 Nov 2020

Module/Topic	Chapter	Events and Submissions/Topic
Review of sonographic physics and techniques related to upper body musculoskeletal ultrasound.	Chapter 1 of prescribed text available from the library (digital copy) as a free download. <b>Prescribed Textbook</b> Ultrasound of the Musculoskeletal System (2007) Authors: Stefano Bianchi and Carlo Martinoli	Additional readings and lectures on Moodle site.

### Week 2 - 16 Nov 2020

Module/Topic	Chapter	Events and Submissions/Topic
Shoulder sonography Part 1: Indications, Limitations and Routine	Chapter 6 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

### Week 3 - 23 Nov 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Shoulder sonography Part 2: Sonographic Pathology

Chapter 6 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.

#### Week 4 - 30 Nov 2020

Module/Topic	Chapter	Events and Submissions/Topic
Elbow sonography Part 1: Indications, Limitations and Routine.	Chapter 8 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

#### Vacation Week - 07 Dec 2020

Module/Topic	Chapter	Events and Submissions/Topic
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#### Week 5 - 14 Dec 2020

Module/Topic	Chapter	Events and Submissions/Topic
Elbow sonography Part 2: Sonographic Pathology.	Chapter 8 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

#### Week 6 - 21 Dec 2020

Module/Topic	Chapter	Events and Submissions/Topic
Wrist sonography Part 1: Indications, Limitations and Routine.	Chapter 10 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

#### Vacation Week - 28 Dec 2020

Module/Topic	Chapter	Events and Submissions/Topic
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#### Week 7 - 04 Jan 2021

Module/Topic	Chapter	Events and Submissions/Topic
Wrist sonography Part 2: Sonographic Pathology	Chapter 10 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

#### Week 8 - 11 Jan 2021

Module/Topic	Chapter	Events and Submissions/Topic
Finger sonography.	Chapter 11 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

#### Week 9 - 18 Jan 2021

Module/Topic	Chapter	Events and Submissions/Topic
Upper Limb Interventional Techniques: Indications, Applications and Efficacy.	Lectures and additional readings on Moodle site.	<b>E-Poster</b> Due: Week 9 Wednesday (20 Jan 2021) 9:00 am AEST

#### Week 10 - 25 Jan 2021

Module/Topic	Chapter	Events and Submissions/Topic
Elastography	Lectures and additional readings on Moodle site.	

#### Week 11 - 01 Feb 2021

Module/Topic	Chapter	Events and Submissions/Topic
Revision Week	Revise weekly Moodle site material.	

## Week 12 - 08 Feb 2021

Module/Topic	Chapter	Events and Submissions/Topic
Online test week		<b>Online test:</b> Opens Wednesday 10th February, 2021 at 9 am (AEST).

## Test Week - 15 Feb 2021

Module/Topic	Chapter	Events and Submissions/Topic
		Online test: Shuts Wednesday 17th February, 2021 at 9 am (AEST)
		<b>Online Test Due:</b> Exam Week Wednesday (17 Feb 2021) 9:00 am AEST

## Term Specific Information

The unit coordinator for this unit is Michelle Fenech (m.fenech@cqu.edu.au).  
This unit is being run via distance now due to covid-19.  
Tutorials will be scheduled in the first week of term and will try to fit in with student and tutor availability.

## Assessment Tasks

### 1 E-Poster

#### Assessment Type

Written Assessment

#### Task Description

Within your scope of practice as a health practitioner, you will integrate the knowledge and skills learnt in this unit into your clinical decision making.

In this assessment task you will develop an educational e-poster related to the use of sonography of a specific component (structure or pathology/injury) of the upper limb.

The poster is limited to eight (8) slides excluding the title and reference slides. An abstract is required to accompany the e-poster, but not included within the poster.

The title slide will be the first slide, and contain the title of the presentation, your name, qualifications and your intended audience.

The eight content slides will have clear headings and be presented in a logical, clear and visually appealing fashion and discuss clinically relevant literature and tips to enhance practice of upper limb musculoskeletal sonography for your peers.

The anatomy, sonographic appearance of normal structures should be discussed.

You will research, analyse, critically reflect on and synthesize current medical literature from peer reviewed sources.

A clear take-home message should be provided at the conclusion of your poster.

Please note all slides are required to be in 'landscape' format.

#### Assessment Due Date

Week 9 Wednesday (20 Jan 2021) 9:00 am AEST

#### Return Date to Students

Week 11 Wednesday (3 Feb 2021)

Results will be available in the unit Moodle site with feedback.

#### Weighting

Pass/Fail

#### Minimum mark or grade

50%

#### Assessment Criteria

The written component of your e-poster will be assessed on academic writing quality and should address the following points;

The e-poster should contain organized, logical and coherent content with a clear and concise message.

Your poster will be assessed on the accurate use of spelling, grammar and terminology suitable for the target audience.

The purpose of the poster should be clear and relevant to the field of musculoskeletal sonography  
The anatomy, sonographic appearance and pathophysiology of a particular structure or tissue should be presented with diagrams and images used to support the discussion  
Evidence based content must be used.  
The e-poster should be suitable for presentation and the subject matter relevant to the selected audience. In-text references and the reference list must be all accurate, complete and high quality and appropriate sources utilized.

### **Referencing Style**

- [Vancouver](#)

### **Submission**

Online

### **Learning Outcomes Assessed**

- Apply safe ultrasound techniques to generate and optimise diagnostic images of the musculoskeletal system of the upper body

### **Graduate Attributes**

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

## **2 Online Test**

### **Assessment Type**

Online Test

### **Task Description**

Health professionals are required to possess a body of knowledge that is relevant to their scope of practice whereby fundamental knowledge is required to be understood and then be built upon clinically. To demonstrate your understanding and knowledge of this unit you are required to complete an online test.

- This test must be accessed through the assessment tab on Moodle and will comprise 10 questions requiring written responses to be completed in a 90 minute time frame.
- The test will be open from Monday of Week 12 at 9 am (AEST) and will close the following Monday at 9 am (AEST).
- You will need to allocate a 90 minute period throughout the time the test is open in order to complete the test.
- The test will be open for 90 minutes (allowing 9 minutes per question) with only ONE attempt being allowed
- Once started the test cannot be paused, stopped, re-started or re-taken
- Questions will be drawn from a pool of questions to allow each student test to be unique whilst addressing the same learning outcomes for each student. Image viewing questions may be included and you are required to be familiar with normal and pathological sonographic imaging of the areas discussed in this unit

This assessment is to be undertaken as an individual.

### **Assessment Due Date**

Exam Week Wednesday (17 Feb 2021) 9:00 am AEST

### **Return Date to Students**

Results will be available in the unit Moodle site with feedback.

### **Weighting**

Pass/Fail

### **Minimum mark or grade**

While this is a pass/fail unit a minimum standard of 50% of the available marks is required in order to pass the unit.

### **Assessment Criteria**

Image interpretation questions will be included and you are required to be familiar with normal and pathological sonographic imaging of the regions discussed in this unit.

The test will be marked out of 100 marks and you will need to achieve a score of greater than or equal to 50% of the total available marks in order to successfully pass the test.

**Referencing Style**

- [Vancouver](#)

**Submission**

Online

**Learning Outcomes Assessed**

- Describe the anatomy, biomechanics and pathophysiology of the musculoskeletal system of the upper body
- Differentiate normal from abnormal ultrasound appearance of the musculoskeletal system of the upper body
- Interpret ultrasound images to provide a differential diagnosis, including reference to safety and the diagnostic limitations of ultrasound
- Recommend appropriate management decisions based on the clinical situation, clinical knowledge and ultrasound findings.

**Graduate Attributes**

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



## 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