



# MEDS20012 Musculoskeletal Ultrasound (Lower Body)

## Term 3 - 2021

Profile information current as at 01/05/2024 08:11 am

All details in this unit profile for MEDS20012 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 (lower 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, or science graduates interested in lower body musculoskeletal imaging. You will develop knowledge of lower 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-requisites 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 - 2021

No offerings for MEDS20012

### 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 anatomy, biomechanics and pathophysiology specific to the musculoskeletal system of the lower body
2. Differentiate normal from abnormal ultrasound appearance of the musculoskeletal system of the lower body
3. Apply safe ultrasound techniques to generate and optimise diagnostic images of the musculoskeletal system of the lower 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

MEDS20012

#### 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)

## 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 - 08 Nov 2021

Module/Topic	Chapter	Events and Submissions/Topic
Revision of sonographic musculoskeletal tissue types and classification of injuries seen sonographically	Chapters 3 and 4 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 - 15 Nov 2021

Module/Topic	Chapter	Events and Submissions/Topic
Hip sonography part 1: Paediatric hip	Chapter 19 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

### Week 3 - 22 Nov 2021

Module/Topic	Chapter	Events and Submissions/Topic
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Hip sonography part 2: Adult hip, Chapter 12 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.

**Week 4 - 29 Nov 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Anterior and posterior thigh sonography	Chapter 13 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

**Vacation Week - 06 Dec 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**Week 5 - 13 Dec 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Knee sonography	Chapter 14 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

**Week 6 - 20 Dec 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Ankle sonography	Chapter 16 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

**Vacation Week - 27 Dec 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**Week 7 - 03 Jan 2022**

Module/Topic	Chapter	Events and Submissions/Topic
Foot sonography	Chapter 17 of prescribed text available from the library (digital copy). Additional readings and lectures on Moodle site.	

**Week 8 - 10 Jan 2022**

Module/Topic	Chapter	Events and Submissions/Topic
Abdominal wall sonography.	Readings and lectures on Moodle site.	

**Week 9 - 17 Jan 2022**

Module/Topic	Chapter	Events and Submissions/Topic
catch up week		

**Week 10 - 24 Jan 2022**

Module/Topic	Chapter	Events and Submissions/Topic
Gluteal sonography.	Readings and lectures on Moodle site.	

**Week 11 - 31 Jan 2022**

Module/Topic	Chapter	Events and Submissions/Topic
Lower limb interventional techniques: Indications, applications and efficacy.	Readings and lectures on Moodle site.	

**Week 12 - 07 Feb 2022**

Module/Topic	Chapter	Events and Submissions/Topic
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## Test Week - 14 Feb 2022

Module/Topic	Chapter	Events and Submissions/Topic
		<b>E-poster</b> Due: Exam Week Friday (18 Feb 2022) 11:59 pm AEST <b>Online Test</b> Due: Exam Week Friday (18 Feb 2022) 11:59 pm AEST

## Term Specific Information

The unit coordinator for this unit is Dr Michelle Fenech. You can contact her via email: [m.fenech@cqu.edu.au](mailto:m.fenech@cqu.edu.au) or phone: 07 3295 1180.

## Assessment Tasks

### 1 E-poster

#### Assessment Type

Written Assessment

#### Task Description

You are required to develop an educational e-poster that clearly presents the use of ultrasound to demonstrate and examine a specific musculoskeletal (MSK) structure or pathology of the lower body.

The presentation 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 e-poster should be written at a level suitable for presentation at a conference to your professional peers.

The poster will consist of:

Slide 1: Title slide - containing the title of the presentation, your name and qualifications.

8 content slides: Each content slide is required to have a clear heading. The e-poster must be organized in a cohesive and coherent manner, and use images to help reader interpretation. Your choice of topic will need to be specific to allow you to provide an in-depth discussion. The anatomy, sonographic appearance of a normal structure, will need to be discussed and you may outline a specific pathology or injury that can be sonographically demonstrated and diagnosed. You will need to research, critically analyse and synthesize current medical literature from peer reviewed sources to assist you to complete this e-poster. A clear take home message should be provided at the conclusion of your poster.

Final slide: Reference slide.

Slides are required to be submitted in 'landscape' format.

#### Assessment Due Date

Exam Week Friday (18 Feb 2022) 11:59 pm AEST

#### Return Date to Students

#### Weighting

Pass/Fail

#### Minimum mark or grade

50%

#### Assessment Criteria

The e-poster should contain organized, logical and coherent content with a clear and concise message with accurate spelling, grammar and sonographic and medical terminology suitable for the target audience.

Figures should support the text to enhance readability. The purpose of the poster should be clear and relevant to the field of musculoskeletal sonography.

In-text references and the reference list must be accurate, complete and high quality and appropriate sources utilized to support statements.

The marking rubric is available on the unit Moodle site.

#### Referencing Style

- [Vancouver](#)

#### Submission

Online

## Learning Outcomes Assessed

- Apply safe ultrasound techniques to generate and optimise diagnostic images of the musculoskeletal system of the lower body
- Interpret ultrasound images to provide a differential diagnosis, including reference to safety and the diagnostic limitations of ultrasound

## Graduate Attributes

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

## 2 Online Test

### Assessment Type

Online Test

### Task Description

An online test will be completed to demonstrate your knowledge and deep understanding of content discussed in this unit.

It will be accessed through the assessment tab on the MEDS20012 Moodle page, and will consist of 10 questions (worth 10 marks each) requiring written responses.

It will be completed in a 90 minute time frame (allowing 9 minutes per question) (total 100 marks). The test will be open for one week and you will need to ensure that you complete it within the week it is open.

You will need to allocate a 90 minute period throughout the time the test is open in order to complete the test.

Only ONE attempt of the test is allowed. Once started, the test cannot be paused, stopped, re-started or re-taken.

Image viewing questions will be included, and you are required to be familiar with normal and pathological sonographic imaging appearances of the areas discussed in this unit.

This assessment is to be undertaken as an individual.

### Assessment Due Date

Exam Week Friday (18 Feb 2022) 11:59 pm AEST

### Return Date to Students

### Weighting

Pass/Fail

### Minimum mark or grade

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

### Assessment Criteria

Typed responses to a series of questions will be required to demonstrate your depth of understanding.

Responses will be assessed according to:

- The use of appropriate terminology and descriptors, as well as a correct response and the relevance of the response and competence in addressing all elements of the question
- The answer is required to be of adequate depth to demonstrate you have appropriately interpreted sonographic images and can succinctly communicate a response with justification of your answer.

### Referencing Style

- [Vancouver](#)

### Submission

Online

## Learning Outcomes Assessed

- Describe anatomy, biomechanics and pathophysiology specific to the musculoskeletal system of the lower body
- Differentiate normal from abnormal ultrasound appearance of the musculoskeletal system of the lower 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