



MEDS20006 *Advanced Musculoskeletal* *Ultrasound Lower Body* Term 2 - 2019

Profile information current as at 24/04/2024 04:28 pm

All details in this unit profile for MEDS20006 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 advance your clinical practice in the field of musculoskeletal ultrasound of the lower body. You will deepen your knowledge and understanding of sonographic anatomy, pathophysiology and dynamic function of the musculoskeletal systems in the lower body. You will appreciate the role of ultrasound in clinical assessment, diagnosis, patient management and treatment, 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 lower 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 2 - 2019

- 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).

Residential Schools

This unit has a Optional 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: 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 student feedback

Feedback

Quizzes for each week to be added to ensure students stay up to date with the lectures

Recommendation

Review feasibility of inclusion of quizzes to support students' weekly learning.

Feedback from student feedback

Feedback

Further image based anatomy explanations could be added for those needing anatomical explanations at a more basic level

Recommendation

This unit is an advanced MSK ultrasound unit, so a basic anatomical understanding is an expectation, however more basic anatomical discussions involving medical images (all types) could be added.

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 lower body
2. Research the role of ultrasound in the clinical assessment, diagnosis and treatment of a patient.

This masters unit 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) recognised by the Australian Sonographers Accreditation Registry (ASAR).

Textbooks and Resources

Textbooks

MEDS20006

Prescribed

Ultrasound of the musculoskeletal system

Edition: 1st (2007)

Authors: Stefano Bianchi, Carlo Martinoli

Springer-Verlag

Berlin Heidelberg , Germany

ISBN: 978-3-662-49964-1

Binding: Paperback

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Computer with camera and microphone to participate in tutorials via zoom

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: Introduction and Revision of basic concepts of MSK Ultrasound - 15 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Advanced MSK ultrasound - Lower body Revision of basics of MSK ultrasound Assessment tasks explained	Chapters 1 - 5 of the prescribed text (Ultrasound of the Musculoskeletal System by Bianchi et al.) As this unit covers content relating to advanced MSK ultrasound, some general knowledge of the basics of MSK ultrasound is assumed. These chapters are available to read to refresh your understanding of the basics. Lectures are available to supplement this reading. Lectures are provided about the assessment tasks for this unit.	First Zoom Tutorial Tuesday 16/07/2019 at 7:00 pm AEST - we will discuss housekeeping, navigating the Moodle, expectations, and assessment information. Every week a "case of the week" will be posted on monday. This case will be related to the topics covered in that week. The answer will be posted on friday. Case 1 posted on monday (15/7/2019), and discussion opened. Answers supplied on Friday (19/7/2019)

Week - 2: Abdominal and pelvic muscles - 22 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Abdominal wall and pelvic floor muscles

Lectures are available to cover the content for this week.

Case 2 posted on monday (22/7/2019), and discussion opened. Answers supplied on Friday (26/7/2019)

Week - 3: The groin - 29 Jul 2019

Module/Topic

Chapter

Events and Submissions/Topic

The groin

Chapter 12 of the prescribed textbook: Hip (Pages 562 - 610)
Lectures are available.

Case 3 posted on monday (29/7/2019), and discussion opened. Answers supplied on Friday (2/8/2019)
Zoom Tutorial **Tuesday 30/07/2019 at 7:00 pm AEST** - Case 1 and 2 discussed. Topics covered in previous weeks discussed.

Week - 4: The Hip, gluteal compartments and adductors - 05 Aug 2019

Module/Topic

Chapter

Events and Submissions/Topic

Hip, buttocks (superficial and deep gluteal compartments) and adductors

Chapter 12 of the prescribed textbook: Hip (Pages 562 - 610)
Lectures are available.

Case 4 posted on monday (5/8/2019), and discussion opened. Answers supplied on Friday (9/8/2019)

Week - 5: Hamstrings - 12 Aug 2019

Module/Topic

Chapter

Events and Submissions/Topic

Hamstrings

Chapter 13 of the prescribed textbook: Thigh (Pages 613 - 636)
Lectures are available.

Case 5 posted on monday (12/8/2019), and discussion opened. Answers supplied on Friday (18/8/2019)
Zoom Tutorial **Tuesday 13/08/2019 at 7:00 pm AEST** - Case 3 and 4 discussed. Topics covered in previous weeks discussed.

Vacation Week - 19 Aug 2019

Module/Topic

Chapter

Events and Submissions/Topic

Break week - no content delivered this week - time to catch up

Week - 6: Anterior and Medial thigh - 26 Aug 2019

Module/Topic

Chapter

Events and Submissions/Topic

Thigh - Anterior and Medial thigh

Chapter 13 of the prescribed textbook: Thigh (Pages 613 - 636)
Lectures are available.

Case 6 posted on monday (26/8/2019), and discussion opened. Answers supplied on Friday (30/8/2019)
Zoom Tutorial **Tuesday 27/08/2019 at 7:00 pm AEST** - Case 5 discussed. Topics covered in previous weeks discussed.

Week - 7: The Knee - 02 Sep 2019

Module/Topic

Chapter

Events and Submissions/Topic

The Knee

Chapter 14 of the prescribed textbook: Knee (Pages 638 - 744)
Lectures are available.

Case 7 posted on monday (2/9/2019), and discussion opened. Answers supplied on Friday (6/9/2019)

Week - 8: The Calf - 09 Sep 2019

Module/Topic

Chapter

Events and Submissions/Topic

The Calf	Chapter 15 of the prescribed textbook: Leg (Pages 747 - 772) Lectures are available.	Case 8 posted on monday (9/9/2019), and discussion opened. Answers supplied on Friday (13/9/2019) Zoom Tutorial Tuesday 10/09/2019 at 7:00 pm AEST - Case 6 and 7 discussed. Topics covered in previous weeks discussed. E-poster Due: Week 8 Monday (9 Sept 2019) 5:00 pm AEST
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Week - 9: The Ankle - 16 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
The ankle	Chapter 16 of the prescribed textbook: Ankle (Pages 775 - 834) Lectures are available.	Case 9 posted on monday (16/9/2019), and discussion opened. Answers supplied on Friday (20/9/2019)

Week 10 The Foot - 23 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
The Foot	Chapter 17 of the prescribed textbook: Foot (Pages 835 - 888) Lectures are available.	Case 10 posted on monday (23/9/2019), and discussion opened. Answers supplied on Friday (27/9/2019) Zoom Tutorial Tuesday 24/09/2019 at 7:00 pm AEST - Case 8 and 9 discussed. Topics covered in previous weeks discussed.

Week - 11: Interventional techniques - 30 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Interventional techniques	Chapter 18 of the prescribed textbook: US-Guided interventional procedures (Pages 891 - 917) Lectures are available.	Time to revise in preparation for online test opening next week.

Week - 12: Revision and Online test - 07 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
Revision and online test		Ensure you sit the online test. Opens Tuesday 8th October at 9 am, and closes Tuesday 15th October at 9am. Last Zoom Tutorial Tuesday 08/10/2019 at 7:00 pm AEST - Case 10 discussed. Topics covered in previous weeks discussed. Wrap Up and aurevoirs

Review/Exam Week - 14 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
		Ensure you sit the online test. Opens Tuesday 8th October at 9 am, and closes Tuesday 15th October at 9am. Online Test Due: Review/Exam Week Tuesday (15 Oct 2019) 9:00 am AEST

Exam Week - 21 Oct 2019

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

Dr. Aamer Aziz is the unit coordinator for the MEDS20006 unit. The best way to contact Aamer is by email at a.aziz@cqu.edu.au. Aamer's CQU telephone number is 07 4940 7478. Aamer's office hours are 9 to 5 Monday to Friday but he is often in labs, so please use email whenever possible.

Access to the internet is required to undertake this unit, as unit materials, tutorials and updates will be provided via Moodle, email and Zoom tutorials. You may need a camera and microphone to participate in the Zoom online sessions. Tutorials are interactive sessions where your participation enables you to check your understanding of the learning material. Guidance for completing the assessments is also provided in tutorial sessions. Your regular participation in these tutorials will strongly support your success in this unit. Weekly resources will include access to relevant websites, activities, and readings. To give yourself the best chance of success with this unit please ensure that you watch all the lectures, attend the zoom tutorial sessions and undertake all the readings and activities. It is vital that you keep in touch with your unit coordinator throughout the term. There will be Zoom tutorials on selected Tuesdays from week 1. These will be posted on the unit Moodle site with enough notice. They are not compulsory to attend but are highly recommended. These will be recorded and available for review. This is a 6-credit Postgraduate unit and requires an overall time commitment of an average of 12.5 hours of study per week. A suggested time budget for a weekly study is:

- 3 hours for watching recorded lectures.
- 2-3 hours for creating study notes to meet weekly learning goals using lectures and readings.
- 3 hours for research and working on assessments.
- 1-hour revision in preparation for the final submission.

Assessment Tasks

1 E-poster

Assessment Type

Written Assessment

Task Description

You are required to develop an educational e-poster that clearly discusses the sonographic examination of a specific lower body musculoskeletal region or structure which is clinically relevant.

The e-poster will:

- Be developed using power-point slides.
- Be written at a level suitable for presentation at a conference with an audience of fellow sonographers/medical/allied health professionals. You need to develop a research question which will be answered. You will be required to conduct a literature search to aid the development of your question. The research question and answer must be clearly articulated in the poster, including the provision of a memorable 'take home' message.
- Demonstrate research, analysis and a critical reflection on current medical literature pertaining to your selected topic.
- Demonstrate a high level of communication skills and appropriate scientific language to convey a clear and concise message.
- Contain figures, tables and/or diagrams to enhance the text. Figures/tables/diagrams must be original, or proof of permission to re-use must be provided.

The e-poster will contain:

- Title slide - contains the title of presentation, your name, current workplace, qualifications and the conference chosen for your intended audience
- Abstract slide - an unstructured abstract is required.
- 8 Slides for the body of the poster - this must include an introduction, body and conclusion

- 1 slide for references.

Total of 11 slides maximum. All power point slides are to be used in 'landscape' format with no animations.

Assessment Due Date

Week 8 Monday (9 Sept 2019) 5:00 pm AEST

Return Date to Students

Week 10 Monday (23 Sept 2019)

Returned within 2 weeks of due date

Weighting

50%

Minimum mark or grade

50%

Assessment Criteria

Your e-poster will be assessed on:

1. Academic writing - The e-poster should be organised, logical and coherent, with a clearly defined research question, message and answer and at an appropriate length. Your e-poster should be proof read and edited with accurate spelling and grammar. Scientific language needs to be used appropriate for your selected target audience.
2. Content of e-poster - The purpose of the poster should be clear and relevant to the discipline and inform the reader of results of recent research studies which are not available in current texts. Evidence based content must be used. Current gaps in knowledge must be identified and opportunities for areas of research highlighted. All ultrasound images should be de-identified and original, or if images are to be re-used from current literature, proof of permission to re-use must be provided.
3. Suitability for presentation at a conference - Your e-poster should be suitable for a presentation to fellow professionals, and the subject matter chosen, must be relevant to the audience selected. Topics that will enhance the body of knowledge of the audience should be selected.
4. Referencing - Adequate in-text citations should be used with appropriate sources which will be correctly referenced in the reference list. Vancouver referencing style is required.

The marking rubric is available on Moodle.

You need to obtain a minimum mark of 50% in this e-poster submission to allow a pass grade in this unit.

Referencing Style

- [Vancouver](#)

Submission

Online

Learning Outcomes Assessed

- Analyse sonographic anatomy and appearances of normal and pathological musculoskeletal structures of the lower body
- 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
- Ethical and Professional Responsibility

2 Online Test

Assessment Type

Online Test

Task Description

An online test will be conducted and completed to assess your understanding of content in this unit and its clinical application.

The test will

- Be accessed through the assessment tab on Moodle at the assigned time. You will require internet access to complete this test.
- Be comprised of 10 questions which will require you to provide typed written answers. Each question will be worth 10 marks.
- Be open for 90 minutes (1.5 hours) which will allow nine (9) minutes per question. Only one attempt of the test is allowed. Once the test is commenced, it cannot be paused, stopped or re-started. Once you have completed the test, it cannot be re-taken. You will need to allocate a continuous 90 minute period during the week when the test is open, to allow the test to be completed. 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.
- Include questions from a pool of questions to allow tests to be different for each student
- Include Image viewing questions which will require you to accurately interpret sonographic images of lower body musculoskeletal structures. You will be required to determine if a pathology or injury is being demonstrated on images and justify your response using appropriate sonographic terminology. You may be asked how a sonographic examination may be extended to further demonstrate an area that informs the diagnosis. Questions will be drawn from content covered in lectures, readings and tutorial presentations.
- Be undertaken and completed as an individual. As with all other university assessments, colluding with other students on non-group work tasks is considered academic misconduct, and may lead to action being taken by the Deputy Dean of Learning and Teaching HMAS.

Assessment Due Date

Review/Exam Week Tuesday (15 Oct 2019) 9:00 am AEST

The online test will be open for one week. It will open at 9 am Tuesday 8th October (week 12) and close the following Tuesday 15th October at 9am. You must allow yourself enough time (at least 90 minutes) to sit this test at some stage during the time it is open.

Return Date to Students

Exam Week Tuesday (22 Oct 2019)

Weighting

50%

Minimum mark or grade

50%

Assessment Criteria

You must provide short to medium length typed responses which will be marked based on the question complexity and the answer provided.

Responses to test questions will be assessed according to:

- use of appropriate anatomic and sonographic terminology and descriptors with correct spelling
- correctness, relevance and completeness of the response to the question asked
- the ability to accurately interpret sonographic images of lower body musculoskeletal structures and compose an appropriate and succinct response based on the learning from this unit.

You need to obtain a minimum score of 50% in this online test, in order to pass this unit.

Referencing Style

- [Vancouver](#)

Submission

Online

Learning Outcomes Assessed

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

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