



# MEDS20007 Advanced Paediatric Ultrasound

## Term 1 - 2021

Profile information current as at 01/03/2025 09:40 am

All details in this unit profile for MEDS20007 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 will cover the role of sonography to evaluate conditions to guide the safe management of paediatric patients within an ethical framework of family-centred practice. You will develop knowledge regarding indications for sonographic imaging, advanced sonographic protocols using existing and emerging technology, and how to differentiate between normal and abnormal sonographic appearances. This knowledge will allow you to enhance your advanced sonographic imaging practices related to paediatric patients, interpret sonographic findings and sonographically guide interventions undertaken in the radiology department.

#### 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: 40%

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

Weighting: 60%

### 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 "Have your say".

**Feedback**

The relevance of the written assessment task to the learning outcomes of the unit was not clear.

**Recommendation**

'Provision of video lecture to articulate requirements of the assessment task and its relevance to advanced paediatric sonography.

#### Feedback from Student feedback "Have your say".

**Feedback**

Lectures could be provided with examples of practical scanning tips.

**Recommendation**

Where appropriate, clinically relevant practical components will be included into lectures to enhance clinical practice.

#### Feedback from Student feedback "Have your say".

**Feedback**

The feedback provided on the first assessment task was helpful to allow improvements in the second assessment task to be successfully implemented.

**Recommendation**

Continue to provide in-depth feedback on assessment tasks, including advice that can be used to enhance subsequent assessment submissions within this unit and other Master by coursework units.

#### Feedback from Student feedback "Have your say".

**Feedback**

The marking rubrics for the assessment tasks were confusing to follow.

**Recommendation**

Update the marking rubrics. Ensure that rubrics used clearly and simply outline the task and the expectations in regard to academic writing.

## Unit Learning Outcomes

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

1. Evaluate sonographic imaging of the paediatric patient, including normal and abnormal sonographic appearances, and the use of sonographic findings to guide patient management.
2. Research and evaluate the use of existing and emerging sonographic technology and imaging protocols to investigate the paediatric patient in a safe and ethical manner.

## 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 - 40%	•	•
2 - Online Test - 60%	•	

### 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 - 40%	◦	◦	◦		◦	◦		
2 - Online Test - 60%	◦	◦				◦		

## Textbooks and Resources

### Textbooks

MEDS20007

#### Supplementary

##### **Paediatric Ultrasound A Practical Guide**

Edition: 1st (2013)

Authors: Allison Holly

Allison Holley Consulting

Sydney , NSW , Australia

ISBN: 9780987526021

Binding: Paperback

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#### Supplementary

##### **Pediatric Ultrasound - How, Why and When**

Edition: 2nd (2010)

Authors: Rose De Bruyn

Churchill Livingstone Elsevier

Sydney , NSW , Australia

ISBN: 978-0443069178

Binding: eBook

#### Additional Textbook Information

Pediatric Ultrasound - How, Why and When is Out of Print. Paediatric Ultrasound A Practical Guide is available directly from Allison Holley's website.

### IT Resources

**You will need access to the following IT resources:**

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Microphone and camera to attend the Zoom sessions

## Referencing Style

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

## Teaching Contacts

**Jennifer Alphonse** Unit Coordinator  
[j.alphonse@cqu.edu.au](mailto:j.alphonse@cqu.edu.au)

## Schedule

### **Week 1 - Introduction to paediatric ultrasound - 08 Mar 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**Welcome** to Advanced Paediatric  
Ultrasound

**Introduction:**

- The child as a patient
  - Child protection and working with children
  - Appointments, waiting area, examination
  - Appropriate equipment
  - WHS/OHS
- Lectures and notes on Moodle site

**Week 2 - Practical Tips in paediatric sonography - 15 Mar 2021**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Overview:</b> <ul style="list-style-type: none"><li>• Developmental dysplasia of hip</li><li>• Overview of abdomen, MSK, head and spine ultrasound</li><li>• Documentation</li></ul>	Lectures and notes on Moodle site	<b>Zoom Tutorial</b> - Please see schedule posted on the Moodle page

**Week 3 - Paediatric Eye - 22 Mar 2021**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Eye:</b> <ul style="list-style-type: none"><li>• Embryology</li><li>• Anatomy</li><li>• Physiology</li><li>• Pathology</li></ul>	Lectures and extensive notes on Moodle site	

**Week 4 - Neonatal Spine - 29 Mar 2021**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Spine:</b> <ul style="list-style-type: none"><li>• Embryology</li><li>• Scanning Technique</li><li>• Anatomy</li><li>• Common Pathologies</li></ul>	Lectures and notes on Moodle site	<b>Zoom Tutorial</b> - Please see schedule posted on the Moodle page

**Week 5 - Paediatric Gastrointestinal tract - 05 Apr 2021**

Module/Topic	Chapter	Events and Submissions/Topic
<b>The Abdomen and Bowel:</b> <ul style="list-style-type: none"><li>• Infantile Hypertrophic pyloric stenosis (IHP)</li><li>• Malrotation</li><li>• Intussusception</li><li>• Appendix</li></ul>	Lectures and notes on Moodle site	

**Vacation Week - 12 Apr 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**Week 6 - The Scrotum - 19 Apr 2021**

Module/Topic	Chapter	Events and Submissions/Topic
<b>The Scrotum and Testes:</b> <ul style="list-style-type: none"><li>• Scanning technique</li><li>• Anatomy</li><li>• Common pathologies</li></ul>	Lectures and notes on Moodle site	<b>Assessment 1 Due</b>  <b>Narrative Review or Detailed Case Report or Case Series in Paediatric Ultrasound</b> Due: Week 6 Wednesday (21 Apr 2021) 4:00 pm AEST

**Week 7 - Paediatric female pelvis - 26 Apr 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**The Female Reproductive System:**

- Embryology
- Normal anatomical development
- Scanning Technique
- Reasons for referral
- Common pathologies

Lectures and notes on Moodle site

**Zoom Tutorial** - Please see schedule posted on the Moodle page**Week 8 - Urinary Tract - 03 May 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**The Urinary Tract:**

- Embryology and anomalies
- Prenatal renal pelvis dilatation
- Common pathologies
- Adrenal Glands

Lectures and notes on Moodle site

**Week 9 - Neonatal Head - 10 May 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**The Brain:**

- Embryology
- Anatomy
- Scanning Technique
- Reasons for referral
- Common pathologies

Lectures and notes on Moodle site

**Zoom Tutorial** - Please see schedule posted on the Moodle page**Week 10 - Advanced Techniques - 17 May 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**Advanced Techniques**

- Arteriovenous malformation (AVM)
- Haematoma
- Advances in technology and the impact on paediatric ultrasound

Lectures and notes on Moodle site

**Formative Quiz** available from Wednesday 19th May, 2021**Week 11 - Revision - 24 May 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**Revision Week**

This week is for revision prior to the the online test.

The zoom tutorial will be your **last opportunity** to ask questions prior to the exam going live on Wednesday.

Lectures and notes on Moodle site

**Zoom Tutorial** - Please see schedule posted on the Moodle page**Assessment 2** - The online test will be open for **one week****Online Test** Due: Week 11  
Wednesday (26 May 2021) 9:00 am AEST**Week 12 - Exam Week - 31 May 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**Exam Week - 07 Jun 2021**

Module/Topic	Chapter	Events and Submissions/Topic
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**Exam Week - 14 Jun 2021**

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

As this is a Master level unit, you will be required to take a self-directed learning approach. Lectures are online and pre-recorded. Some background knowledge is assumed and recommended pre-reading is the responsibility of the student. Zoom tutorials will be conducted regularly which you are encouraged to attend. In addition, the Q&A forum can be used to ask questions (rather than by email).

The eReading list contains journal articles relevant to this unit. There is a recommended textbook and supplementary texts will be suggested along the way. In addition, there is a link on the Moodle page to an embryology textbook that is available online via the CQU Library.

A formative quiz will be available in week 10 which will be discussed during the zoom tutorials.

There are two assessment tasks in this unit. More detailed information can be found in the unit profile and on the Moodle.

Dr. Jennifer Alphonse is based on the Sydney Campus and available Monday, Tuesday and Wednesday. You will find the best way to contact Jennifer is by email [j.alphonse@cqu.edu.au](mailto:j.alphonse@cqu.edu.au) however her phone number is 02 9324 5065.

Dr. Michelle Fenech is Head of Course Post Graduate Medical Sonography, is based on the Brisbane Campus and is also Unit Coordinator. The best way to contact Michelle is via email [m.fenech@cqu.edu.au](mailto:m.fenech@cqu.edu.au).

## Assessment Tasks

### 1 Narrative Review or Detailed Case Report or Case Series in Paediatric Ultrasound

#### Assessment Type

Written Assessment

#### Task Description

The written assessment for MEDS20007 is EITHER a narrative review OR detailed case report (or case series) in paediatric ultrasound.

The Narrative Review answers a research question or aim relevant to paediatric ultrasound by reviewing the available literature and includes the following components:

- Introduction
- Method
- Results
- Discussion
- Conclusion
- References

The detailed Case Report or Case Series can be an unusual presentation of a common paediatric condition or a rarely seen paediatric condition. A case series would describe multiple paediatric cases where retrospectively an observation is made, commented on and supported by the literature. The case report (or series) needs to be completed by you in your clinical workplace. The report should have an educational outcome.

The case report or case series is to be structured into headed sections as follows:

- Introduction (including literature review)
- Case description
- Discussion
- Conclusion
- References

The report requires five elements:

1. A statement of why the case is worth reading about
2. An account of the case, with all relevant data
3. Discussion of evidence that the case is unique or unexpected
4. Possible alternative explanations for case features



## 5. Conclusions with implications.

### **For either written assessment to be submitted, the following applies:**

- Your work should show clear relevance to paediatric sonography
- Evidence based, peer reviewed material must be used and appropriately referenced
- Any ultrasound images must be original and de-identified or properly referenced with written permission from the original author/s if sourced from elsewhere.

Your assessment will be assessed on academic writing and contain content which is;

- Interesting and clinically relevant
- Structured and cohesive
- Logical and coherent
- Concise
- Correctly and accurately referenced

The level of writing style expected for these assessments is such that the assessment could be published in a peer review journal. Referencing is required to be completed in Vancouver Style.

### **Assessment Due Date**

Week 6 Wednesday (21 Apr 2021) 4:00 pm AEST

### **Return Date to Students**

Week 8 Wednesday (5 May 2021)

Return will be at or about week 8

### **Weighting**

40%

### **Minimum mark or grade**

50%

### **Assessment Criteria**

Assessment criteria for assessment 1 is in accordance with the detailed marking rubric, available on the Moodle site.

Word limit **2000 words +/-10%** (1800 ~ 2200 words) excluding titles, headings, image descriptions, figures, tables and references. The assessment is required to contain 20 – 30 relevant references and may include up to 10 figures/images. All images are to be deidentified and if figures/images are taken from a peer review journal, permission from the publisher is required and evidence included in an appendix.

Submission format is as a Word document.

Font - Calibri, size 12 with 1.5 spacing.

A cover page should be included specifying; unit code and name, essay title, your name and student number, unit coordinator and word count.

### **Written style, presentation and communication**

- Information presented is synthesized into a unified, coherent, whole document which demonstrates internal coherence and logical flow
- There is a clear progression from introduction through to conclusion
- Literature reviewed is critically analyzed, relevant to the topic and reflected in the discussion
- Written and presented in a scholarly style which is also creative and effective
- Findings are clearly communicated in a style that incorporates both specialist and non-specialist audience
- Findings are clearly articulated and demonstrate critical judgement
- Independently written and can foster intellectual debate
- Contributes information that is relevant and of value to the field concerned
- Writing is original
- Accurate, appropriate and complete in-text citations and reference list
- Appropriate language; clear, accurate and used to maximum effect
- Outstanding command of grammar, spelling and punctuation with thorough editing

### Contribution to the field

Relative to the limited time available within the scope of this assessment task, there has been a thorough and meticulous exploration of the topic relation to paediatric ultrasound that:

- For a Narrative Review, demonstrates a gap in knowledge
- For Detailed Case Report, highlights an unusual pathological process
- For Case Series, discusses an unusual but common finding in series of patients

### Referencing Style

- [Vancouver](#)

### Submission

Online

### Learning Outcomes Assessed

- Evaluate sonographic imaging of the paediatric patient, including normal and abnormal sonographic appearances, and the use of sonographic findings to guide patient management.
- Research and evaluate the use of existing and emerging sonographic technology and imaging protocols to investigate the paediatric patient in a safe and ethical manner.

### Graduate Attributes

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

## 2 Online Test

### Assessment Type

Online Test

### Task Description

You are required to complete an online test at the end of term to demonstrate your depth of knowledge gained, relative to this unit. You will be assessed on the content covered in the whole unit (weeks 1 to 12). This includes material covered in lectures, tutorials and any additional resources and reading supplied during the term. The test involves a combination of question types, including short and long answer questions which require typed answers and some multi-choice questions. Image interpretation may be included in short and long answer questions.

This online test must be completed by you, without assistance or collusion with others. Any evidence of collusion will be dealt with in adherence with the CQU student academic integrity policy and procedure.

### Assessment Due Date

Week 11 Wednesday (26 May 2021) 9:00 am AEST

The test will be open from 9am Wednesday 26th May (AEST). You have 120 minutes to complete the test and you will need to allocate 120 minutes during the accessible period to complete it. The test cannot be paused once started, or reattempted once finished.

### Return Date to Students

Exam Week Wednesday (16 June 2021)

Results will be made available after marking is completed, however all grades are considered 'interim grades' until the unit grades are released (after they have been certified).

### Weighting

60%

### Minimum mark or grade

50%

### Assessment Criteria

For multiple choice questions, you will be required to select the most appropriate answer from a selection of possible answers in relation to the question asked.

Typed response answers will be assessed according to:

- use of appropriate medical and sonographic terminology/descriptors and directional terms
- correct spelling of the terms
- relevance of response to the question asked
- adequate detail provided in the answer
- a depth of understanding demonstrated

**Referencing Style**

- [Vancouver](#)

**Submission**

Online

**Learning Outcomes Assessed**

- Evaluate sonographic imaging of the paediatric patient, including normal and abnormal sonographic appearances, and the use of sonographic findings to guide patient management.

**Graduate Attributes**

- Knowledge
- Communication
- Ethical and Professional Responsibility

## 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