



# MEDI13008 *Imaging Pathways in the Diagnostic Process*

## Term 1 - 2024

Profile information current as at 12/05/2024 03:55 pm

All details in this unit profile for MEDI13008 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

Radiography and computed tomography are part of a much larger process of diagnosing and monitoring patient conditions. In this unit you will expand your theory knowledge of diagnostic tools to include other imaging modalities such as sonography and magnetic resonance imaging as well as some non-imaging diagnostic tests. You will examine a variety of diagnostic work-up algorithms using an evidence-based approach. You will discuss appropriateness criteria for various diagnostic protocols for a range of patient presentations.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

Prerequisites: MEDI11001 Fundamentals of the Imaging Professions MEDI13004 Medical Imaging Clinical Course 2

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 - 2024

- Mackay

### 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 Undergraduate 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. **Online Test**

Weighting: 15%

#### 2. **Written Assessment**

Weighting: 35%

#### 3. **Presentation**

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**

Students found the tutorial weekly format and informal drop in sessions to support assessment preparation.

**Recommendation**

Continue with the weekly interactive tutorial and informal drop in sessions.

#### Feedback from Self Reflection

**Feedback**

Students engaged well with the newly added essay assessment.

**Recommendation**

Maintain and refine the essay assessment task.

## Unit Learning Outcomes

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

1. Discuss the relative merits and limitations of various imaging modalities in the detection and monitoring of traumatic injuries and disease processes
2. Critically appraise scientific literature, professional standards and practice guidelines regarding imaging pathways
3. Discuss the rationale for and the factors impacting the formulation and use of formalised imaging pathways in clinical practice
4. Discuss the impacts of the clinician's selection and implementation of imaging pathway standards and guidelines on the patient's healthcare journey
5. Present findings and recommendations for best practice to a discipline-specific audience

This unit links to the following professional capabilities of the medical radiation practitioner (March, 2020) as detailed by the Medical Radiation Practice Board of Australia:

#### Domain 1: Medical Radiation Practitioner:

- 3. Understand and apply the different methods of imaging and treatment.
- 4. Confirm the procedure according to clinical indicators.
- 5. Assess the patient's/client's capacity to receive care.

#### Domain 1A: Diagnostic Radiographer

- 1. Perform projection radiography examinations in a range of settings.
- 2. Perform fluoroscopy and angiography examinations in a range of settings.
- 3. Perform diagnostic computed tomography (CT) imaging.

#### Domain 2: Professional and ethical practitioner

- 1. Practice in an ethical and professional manner, consistent with relevant legislation and regulatory requirements.
- 2. Provide each patient/client with dignity and care.
- 3. Take responsibility and accountability for professional decisions.
- 4. Advocate on behalf of the patient/client when appropriate.
- 5. Seek opportunities to progress the profession.

#### Domain 3: Communicator and collaborator

- 2. Collaborate with other health practitioners

#### Domain 4:

- 1. Resolve challenges through application of critical thinking and reflective practice.

#### Domain 5: Radiation safety and risk manager:

- 1. Perform and provide safe radiation risk practice.

## 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	3	4	5
1 - Online Test - 15%		•	•		
2 - Written Assessment - 35%	•			•	
3 - Presentation - 50%	•	•	•		•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	•
2 - Problem Solving					
3 - Critical Thinking		•	•		
4 - Information Literacy	•	•		•	
5 - Team Work					
6 - Information Technology Competence					•
7 - Cross Cultural Competence				•	
8 - Ethical practice				•	
9 - Social Innovation			•		
10 - Aboriginal and Torres Strait Islander Cultures					

## Textbooks and Resources

### Textbooks

**There are no required textbooks.**

### 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

**Sarah Wooldridge** Unit Coordinator  
[s.wooldridge@cqu.edu.au](mailto:s.wooldridge@cqu.edu.au)

## Schedule

### Week 1 - 04 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Evidence Based Practice Research and Evidence		On campus tutorial

### Week 2 - 11 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Research about evidence and study designs		On campus tutorial

### Week 3 - 18 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Clinical Practice Guidelines		On campus tutorial

### Week 4 - 25 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Imaging Modalities Overview		On campus tutorial  <b>Online Quiz</b> Due: Week 4 Thursday (28 Mar 2024) 7:00 pm AEST

### Week 5 - 01 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Non-Imaging Diagnostic Tests Overview		No On campus tutorial

### Vacation Week - 08 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 15 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Clinical Decision Rules PET-CT		On campus tutorial
Week 7 - 22 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Disease Pathways		On campus tutorial
Week 8 - 29 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Emerging Technologies		On campus tutorial  <b>Written Essay</b> Due: Week 8 Monday (29 Apr 2024) 4:45 pm AEST
Week 9 - 06 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Developing Professional Presentations		No On campus tutorial
Week 10 - 13 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
E-Poster Development Time		1hr Drop in session
Week 11 - 20 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
E-Poster Development Time		1hr Drop in session
Week 12 - 27 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Assessment		<b>E-Poster</b> Due: Week 12 Thursday (30 May 2024) 6:00 pm AEST
Review/Exam Week - 03 Jun 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Exam Week - 10 Jun 2024		
Module/Topic	Chapter	Events and Submissions/Topic

## Term Specific Information

In this unit, the initial portion provides foundation knowledge and skill development in a traditional pre-recorded lecture and on campus tutorial format. In the second part of the unit your learning will be in a more independent format as you apply the knowledge and skills to researching and developing a professional presentation. You should expect to spend about 45-50 hours on your presentation project. That time has been allocated in the weekly schedule of activities.

## Assessment Tasks

### 1 Online Quiz

#### Assessment Type

Online Test

#### Task Description

You will write an online Moodle quiz to demonstrate your ability to understand and apply concepts regarding content from Weeks 1 to 3 of this unit.

Questions will be of the same types that you practice in weekly tutorials and will be short answer or multiple choice questions. These questions will include content surrounding evidence based practice, clinical practice guidelines and various forms of research styles.

This quiz is scheduled to take place online via the unit Moodle page, on Thursday 28th March 2024. The Moodle quiz availability period will be from 2pm to 7pm on the stated date. Once you open the test you will have 30 minutes to complete it, up to 7:00pm on 28th March 2024. All unfinished tests will be automatically submitted at that time.

To complete this quiz, ensure that you have arranged to use a computer in good working order with adequate power/charged battery.

You must undertake the test as individuals and not with classmates or others. As with all other university assessments, colluding with other students on a non-group work task is considered academic misconduct. The test is open-book, but be mindful of the time-limited nature of the test. The standards of academic integrity still apply. Just as for written assignments, you must acknowledge intellectual content in your answers that is not your own work. Basic statements of facts are considered 'common knowledge' in the context of this unit so they do not need to be cited. However, if you copy any explanation word-for word from ANY source, you must put that content in quotation marks and formally cite your source. Failure to cite sources is plagiarism. All incidents of academic integrity breaches will be reported as per University policy.

In the absence of an approved extension, you cannot complete this assessment at a later time, and you will receive a mark of zero for the assessment. If you have an approved extension, you will be assigned a new test date and time as soon as possible after the original test date. It is your responsibility to ensure that you can attend at that new assigned date/time. Please see Section 5 of the the University's Assessment Policy and Procedure for details regarding Assessment Management, specifically around assessment extension.

**Assessment Due Date**

Week 4 Thursday (28 Mar 2024) 7:00 pm AEST

**Return Date to Students**

Week 6 Thursday (18 Apr 2024)

**Weighting**

15%

**Assessment Criteria**

Question responses will be scored on the following criteria:

- Correct use of scientific terminology
- Correct selection and application of core concepts to the specific content of the question
- Clarity, correctness, relevance and completeness of the response in addressing the question that was asked
- Evidence of critical thinking in application of concepts to specific circumstances.

The number of marks for each question are allocated based on the depth and breadth of the required response, and will be indicated on each quiz.

**Referencing Style**

- [Vancouver](#)

**Submission**

Online

**Learning Outcomes Assessed**

- Critically appraise scientific literature, professional standards and practice guidelines regarding imaging pathways
- Discuss the rationale for and the factors impacting the formulation and use of formalised imaging pathways in clinical practice

## 2 Written Essay

**Assessment Type**

Written Assessment

**Task Description**

Radiographers and the use of medical imaging equipment play an integral role in many patient clinical pathways. It is imperative as a radiographer to understand the importance of our role and where it fits into the patient journey.



Patients may be influenced by their culture when making decisions regarding their medical pathway, therefore it is essential as medical imaging professionals to be aware of the importance of culture on their decisions. Medical providers decisions can also be influenced according to the medical imaging facilities availability to patients.

For this assessment you will write an essay on one of the four provided scenarios related to patient presentation. In your response you will choose an appropriate clinical pathway considering the patient's scenario and cultural requirements, available medical imaging equipment, advantages, disadvantages, cost and risk factors of medical imaging facilities.

Complete the essay in the form of a word document. The essay is to be between 1000 and 1500 words in length. Your essay must comply with academic writing standards in acknowledging content that is from external sources using both in-text citations and a reference list using correct technique.

Further details on the assignment will be provided on the unit Moodle site.

**Assessment Due Date**

Week 8 Monday (29 Apr 2024) 4:45 pm AEST

**Return Date to Students**

Week 10 Monday (13 May 2024)

**Weighting**

35%

**Minimum mark or grade**

50%

**Assessment Criteria**

You will be assessed on the following criteria:

- Critical analysis and choice of clinical pathway
- Critical analysis of cultural implications with regards to your choice of clinical pathway
- In-depth discussion regarding advantages, disadvantages, risk and availability of relevant imaging modalities
- Communication
  - Skill in using academic conventions to deliver a clear and concise body of work that articulates perspective
  - Adherence to assignment instructions regarding referencing, structure and length
  - Appropriate and accurate referencing and paraphrasing throughout in accordance with Vancouver referencing requirements to support content and critical thinking, utilising high quality sources.

A detailed rubric outlining the scoring criteria will be provided on the unit Moodle site.

**Referencing Style**

- [Vancouver](#)

**Submission**

Online

**Learning Outcomes Assessed**

- Discuss the relative merits and limitations of various imaging modalities in the detection and monitoring of traumatic injuries and disease processes
- Discuss the impacts of the clinician's selection and implementation of imaging pathway standards and guidelines on the patient's healthcare journey

### 3 E-Poster

**Assessment Type**

Presentation

**Task Description**

As a healthcare professional you have a responsibility to contribute to the body of knowledge of the profession and support the professional development of your colleagues. This assignment helps you to apply your skills in using authoritative sources to update your own professional knowledge and in presenting your findings to others.

Your task is to create an e-poster that is suitable for a professional conference in terms of both format and content. For your poster topic you will choose a pathology/disease that has not already been explored in the unit. You will apply your literature search skills to find a Clinical Practice Guideline (CPG) or Clinical Pathway that employs diagnostic imaging in the investigation of this pathology/disease and find current research articles that relate to diagnosis of this disease

process.

You will use this literature to develop an e-poster that includes the following components:

- Overview of the guideline or pathway
- Overview of the patient's journey along this clinical pathway
- Discussion of the role of the imaging and non-imaging diagnostic tests recommended in the CPG or Clinical Pathway
- Overview of benefits, limitations and risks of the associated diagnostic tests
- Overview of a new or emerging diagnostic technology that relates to your chosen pathology/disease and was not part of the selected CPG or Clinical Pathway
- Critical appraisal of the CPG or Clinical Pathway and recommendations for or against modification to include the emerging diagnostic technology
- Recommendations for future research related to this CPG and/or emerging diagnostic technology

Your e-poster content must comply with academic writing standards in acknowledging content that is from external sources using both in-text citations and a reference list using correct technique. You must construct your e-poster following the formatting instructions that will be provided on the unit Moodle site.

You may opt to enhance the communication of your e-poster content by including a linked recorded audio file. This may be used to provide additional explanations, examples and/or depth of discussion of required content.

Further details on the assignment including the details of the content and formatting requirements and the marking rubric will be provided on the unit Moodle site.

**Assessment Due Date**

Week 12 Thursday (30 May 2024) 6:00 pm AEST

**Return Date to Students**

Exam Week Thursday (13 June 2024)

**Weighting**

50%

**Minimum mark or grade**

50%

**Assessment Criteria**

Content:

- Completeness of each required component as listed in the task description
- Factual correctness of content
- Relevance and appropriateness of selected literature
- Evidence of critical thinking in use of selected literature to evaluate the CPG, diagnostic tests and emerging technology
- Depth of analysis and discussion

Communication:

- Correct use of terminology
- Clarity of statements
- Organisation and flow of content
- Breadth of communication methods used

Format:

- Adherence to correct referencing technique in acknowledging external sources
- Adherence to e-poster formatting instructions

Further detail, including the assessment Task sheet and Criteria sheet are available on the MEDI13008 Moodle Page under the 'Assessment' tile.

**Referencing Style**

- [Vancouver](#)

## Submission

Online

### Learning Outcomes Assessed

- Discuss the relative merits and limitations of various imaging modalities in the detection and monitoring of traumatic injuries and disease processes
- Critically appraise scientific literature, professional standards and practice guidelines regarding imaging pathways
- Discuss the rationale for and the factors impacting the formulation and use of formalised imaging pathways in clinical practice
- Present findings and recommendations for best practice to a discipline-specific audience

## 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