MEDI13008 *Imaging Pathways in the Diagnostic Process*
Term 1 - 2022

Profile information current as at 03/05/2024 03:00 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 ProfessionsMEDI13004 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 - 2022

- Mackay
- 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 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: 50%
2. **Written Assessment**
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 drop in sessions to be extremely valuable in preparing for assessment.

Recommendation

Continue with the weekly interactive tutorial and informal drop in sessions in both on-campus and zoom format.

Feedback from Unit Coordinator Feedback

Feedback

Final assessment timing of poster presentation was close to final assessment for other third year Medical Imaging units.

Recommendation

Investigate the timing of assessment pieces across the three Year 3 Medical Imaging units for this term.

Feedback from Unit Coordinator Reflection

Feedback

Student results were skewed towards High Distinction and Distinction.

Recommendation

Review the marking rubrics for all assessment pieces to improve further discrimination of achievement levels.

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. 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 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.
- 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

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	**2**	**3**	**4**
1 - Written Assessment - 50%	●	●	●	●
2 - Online Test - 50%	●		●	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	**2**	**3**	**4**
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				

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1 - Written Assessment - 50%	●		●	●		●			●	
2 - Online Test - 50%	●		●	●					●	

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 styles below:

- Harvard (author-date)
- American Psychological Association 7th Edition (APA 7th edition)

For further information, see the Assessment Tasks.

Teaching Contacts

Sarah Wooldridge Unit Coordinator
s.wooldridge@cqu.edu.au

Schedule

Week 1 - 07 Mar 2022		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Evidence Based Practice Research and Evidence		No Tutorial this week

Week 2 - 14 Mar 2022		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Research about evidence and study designs		1hr Tutorial

Week 3 - 21 Mar 2022		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Clinical Practice Guidelines		1hr Tutorial

Week 4 - 28 Mar 2022		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Imaging Modalities Overview		1hr Tutorial

Week 5 - 04 Apr 2022		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Non-Imaging Diagnostic Tests Overview		1hr Tutorial

Vacation Week - 11 Apr 2022		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Week 6 - 18 Apr 2022

Module/Topic	Chapter	Events and Submissions/Topic
Clinical Decision Rules PET-CT		1hr Tutorial

Week 7 - 25 Apr 2022

Module/Topic	Chapter	Events and Submissions/Topic
Disease Pathways		No Tutorial this week **Online Test** Due: Week 7 Thursday (28 Apr 2022) 4:30 pm AEST

Week 8 - 02 May 2022

Module/Topic	Chapter	Events and Submissions/Topic
Emerging Technologies		1hr Tutorial

Week 9 - 09 May 2022

Module/Topic	Chapter	Events and Submissions/Topic
Developing Professional Presentations		1hr Drop in Session

Week 10 - 16 May 2022

Module/Topic	Chapter	Events and Submissions/Topic
E-Poster Development Time		1hr Drop in session

Week 11 - 23 May 2022

Module/Topic	Chapter	Events and Submissions/Topic
E-Poster Development Time		1hr Drop in session

Week 12 - 30 May 2022

Module/Topic	Chapter	Events and Submissions/Topic
Assessment		**E-Poster** Due: Week 12 Monday (30 May 2022) 9:00 am AEST

Review/Exam Week - 06 Jun 2022

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 13 Jun 2022

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 lecture and 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.

Weekly tutorials will be presented in on-campus timetabled sessions as well as via timetabled zoom sessions. The zoom session will be recorded and uploaded to the relevant Moodle week, if there are at least 3 students present at the online session.

Assessment Tasks

1 Online Test

Assessment Type
Online Test

Task Description
You will complete an on-line Moodle test covering topics from the first six weeks of the unit.

Question types may include short answer, definitions, discussions and explanations, with particular focus on evidence based practice, clinical practice guidelines, imaging and non-imaging diagnostic tests and clinical decision rules.

To complete the test, ensure that you have arranged to use a computer in good working order with adequate power/charged battery. You are encouraged to save your work at regular intervals during the testing period to avoid losing any typed answers.

This online test is an open-book assessment. Your test responses must be your own work. It means that during the test you may access your study notes, the unit Moodle site and/or any website. Colluding with other students on non-group work is considered academic misconduct. Just as for written assignments, you must acknowledge intellectual content in your answers that is not you own work. Basic statetment 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.*

The test must be written at the scheduled date and time. There is no provision for a late submission and no late penalty can be applied. 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 not completed it by the scheduled date and time. 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 University's Assessment Policy and Procedure for details regarding Assessment Management, specifically around assessment extension.

You will have 90 minutes to complete the test. You must log into Moodle to complete the test. You can only attempt the online test once and it must be completed in the designated time period. You cannot save your answers and return to the test at a later time. Note that the listed due time is when the test closes. **The test will commence at 3:00pm AEST**. If you start the test late, you will still need to submit by the due time.

Assessment Due Date
Week 7 Thursday (28 Apr 2022) 4:30 pm AEST

Return Date to Students
Week 9 Thursday (12 May 2022)

Weighting
50%

Assessment Criteria
You will be assessed on the following criteria:

- correct use of medical, research and evidence based practice terminology
- correctness of factual research and medical knowledge
- correct application of evidence based practice, clinical practice guidelines and imaging and non-imaging modalities
- demonstration of depth and breadth of knowledge in patient focused and research situations.

The number of marks for each question are allocated based on the depth and breadth of the required response and will be indicated on the sidebar of the Moodle test screen.

Referencing Style

- [Harvard (author-date)](#)
- [American Psychological Association 7th Edition (APA 7th edition)](#)

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 rationale for and the factors impacting the formulation and use of formalised imaging pathways in clinical practice

Graduate Attributes

- Communication

- Critical Thinking
- Information Literacy
- Social Innovation

2 E-Poster

Assessment Type
Written Assessment

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. You will choose for your poster topic a disease process that has not already been explored in the unit. You will apply your literature search skills to find a Clinical Practice Guideline (CPG) that employs diagnostic imaging in the investigation of this disease process and to 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
   · 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
   · Overview of benefits, limitations and risks of the associated diagnostic tests
   · Overview of a new or emerging diagnostic technology that relates to your chosen disease process and was not part of the selected CPG
   · Critical appraisal of the CPG 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 will need to 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 will 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 a list of eligible disease processes to be investigated, 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 Monday (30 May 2022) 9:00 am AEST

Return Date to Students

Certification of Grades

Weighting
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

- [Harvard (author-date)](#)
- [American Psychological Association 7th Edition (APA 7th edition)](#)

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.

Graduate Attributes

- Communication
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Social Innovation

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