



# MEDS13010 *Quality Practice in Diagnostic Imaging*

## Term 2 - 2019

Profile information current as at 17/05/2024 12:02 pm

All details in this unit profile for MEDS13010 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

In this unit you will apply quality management principles in health care to undertake a limited clinical audit of a medical sonography department. You will propose reasons for adverse events, prioritise action and describe appropriate intervention as part of a quality improvement strategy. Medical imaging departments utilise multiple imaging modalities. Quality practice requires an understanding of the function and use of each imaging modality to appreciate the diagnostic journey for each patient. You will evaluate the complementary role and safety of a range of medical imaging modalities. The unit will utilise multi-modality cases to provide you with an opportunity to practice and develop critical thinking and image interpretation skills for specified disease processes.

### 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

Co-requisite MEDS13006 Medical Sonography Clinical Course 2 Pre-requisite MEDS13002 Sonographic Skills Development 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 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).

### 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. **Portfolio**

Weighting: 60%

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

Weighting: 40%

### 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 "Have your say" unit evaluation

##### Feedback

Most students liked the weekly email and the zoom tutorials.

##### Recommendation

Continue to provide prompt feedback to students via emails utilising the Q & A forum, and continue with zoom tutorials.

#### Feedback from "Have your say" unit evaluation

##### Feedback

Students stated portions of the written assessment were repetitive

##### Recommendation

Consider reducing the volume of work required in the written assessment.

## Unit Learning Outcomes

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

1. Discuss key aspects of clinical governance, quality improvement, risk management and patient safety cultures in Medical Imaging
2. Employ quality improvement tools and strategies in the context of a clinical sonography environment
3. Describe the safe application of various medical imaging modalities
4. Identify complementary imaging pathways in specified pathologies
5. Correlate the multi-modality image appearance with a disease process.

Linked to National Standards

ASAR Accreditation Standards for Sonography - Units 1-5, 6, 7, 9, 10, 12, 13

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Portfolio - 60%	•	•			
2 - Online Test - 40%	•		•	•	•

### 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					

## Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Portfolio - 60%	•	•	•	•	•	•	•	•		
2 - Online Test - 40%	•	•	•	•		•				

## Textbooks and Resources

### Textbooks

MEDS13010

#### Prescribed

#### Enhancing Patient Care: a practical guide to improving quality and safety in hospitals

First edition (2009)

Authors: Wolff, Alan., Taylor, Sally.

MJA Books, Australasian Medical Publishing Company Limited (AMPCo)

NSW , Sydney , Australia

ISBN: 9780977578665

Binding: Hardcover

MEDS13010

#### Supplementary

#### Clinical Radiology - The Essentials

4th edition (2013)

Authors: Daffner, RH & Hartman, M

Lippincott Williams & Wilkins

Philadelphia , PA , USA

ISBN: 9781451142501

Binding: Hardcover

MEDS13010

### **Supplementary**

#### **Imaging for Students**

4th edition (2012)

Authors: Lisle, DA

Taylor and Francis

London , UK

ISBN: 978-1444121827

Binding: Hardcover

MEDS13010

### **Supplementary**

#### **Sectional Anatomy for Imaging Professionals**

4th edition (2013)

Authors: Kelley, L.L., Petersen, C.M.,

Mosby Elsevier

St Louis , MO , USA

ISBN: 9780323414876

Binding: Hardcover

MEDS13010

### **Supplementary**

#### **Workbook for Sectional Anatomy for Imaging Professionals**

4th edition (2012)

Authors: Kelley & Peterson

Mosby Elsevier

St Louis , MO , USA

ISBN: 9780323569613

Binding: Hardcover

### **Additional Textbook Information**

Your prescribed textbook "Enhancing Patient Care: a practical guide to improving quality and safety in hospitals" contains information that is directly related to your assessment.

[View textbooks at the CQUniversity Bookshop](#)

## **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**

**Robyn Boman** Unit Coordinator

[r.boman@cqu.edu.au](mailto:r.boman@cqu.edu.au)

**Deanne Chester** Unit Coordinator

[d.chester@cqu.edu.au](mailto:d.chester@cqu.edu.au)

**Jane Wardle** Unit Coordinator

[j.wardle@cqu.edu.au](mailto:j.wardle@cqu.edu.au)

## Schedule

### Week 1 - 15 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Introduction & Clinical Governance. Sonographer Longevity.	<b>Textbook:</b> • Wolff A., Taylor S. 2009. Enhancing Patient Care: A Practical Guide to Improving Quality and Safety in Hospitals. Pages 1-16.	

### Week 2 - 22 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Quality Improvement- Closing The Gaps in Patient Care	<b>Textbook:</b> • Wolff A., Taylor S. 2009. Enhancing Patient Care: A Practical Guide to Improving Quality and Safety in Hospitals. Pages 17-36	Zoom Wednesday 8:00 pm AEST Please adjust to your local time.

### Week 3 - 29 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Risk Management and Adverse Events. Detecting Adverse Events.	<b>Textbook:</b> • Wolff A., Taylor S. 2009. Enhancing Patient Care: A Practical Guide to Improving Quality and Safety in Hospitals. Page 37-47 & 49-93.	

### Week 4 - 05 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Risk Management in Radiology.	<b>Textbook:</b> • Wolff A., Taylor S. 2009. Enhancing Patient Care: A Practical Guide to Improving Quality and Safety in Hospitals. Pages 95-117.	Zoom Wednesday 8:00 pm AEST Please adjust to your local time

### Week 5 - 12 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Closing the Gaps in Care through a practical framework.	<b>Textbook:</b> • Wolff A., Taylor S. 2009. Enhancing Patient Care: A Practical Guide to Improving Quality and Safety in Hospitals. Pages: 119-153 & 155-187	

### Vacation Week - 19 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Break Week.		

### Week 6 - 26 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Patient Safety Culture.	<b>Textbook:</b> • Wolff A., Taylor S. Enhancing Patient Care: A Practical Guide to Improving Quality and Safety in Hospitals 2009.Pages 189-201.	Zoom Wednesday 8:00 pm AEST Please adjust to your local time

### Week 7 - 02 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Quality Management in Medical Sonography.  
Quality Assurance in Medical Imaging.

**Textbook:**

• Wolff A., Taylor S. Enhancing Patient Care: A Practical Guide to Improving Quality and Safety in Hospitals 2009.Chapter 6.

**Week 8 - 09 Sep 2019**

Module/Topic	Chapter	Events and Submissions/Topic
Comparing Imaging Modalities	Course resources online.	Zoom Wednesday 8:00 pm AEST Please adjust to your local time

**Week 9 - 16 Sep 2019**

Module/Topic	Chapter	Events and Submissions/Topic
Abdomen and Pelvis	Course resources online.	

**Week 10 - 23 Sep 2019**

Module/Topic	Chapter	Events and Submissions/Topic
Breast Imaging - 1	Course resources online.	Zoom Wednesday 8:00 pm AEST Please adjust to your local time

**Week 11 - 30 Sep 2019**

Module/Topic	Chapter	Events and Submissions/Topic
Breast Imaging - 2 Musculoskeletal Ultrasound (MSK)	Course resources online.	Daylight Saving starts 6th October 2019

**Week 12 - 07 Oct 2019**

Module/Topic	Chapter	Events and Submissions/Topic
		Tuesday: Portfolio due by 17:00 AEST Wednesday: Online test starts - 09:00 AEST
Online exam		

**Portfolio - Adverse event Report**  
Due: Week 12 Tuesday (8 Oct 2019)  
5:00 pm AEST

**Review/Exam Week - 14 Oct 2019**

Module/Topic	Chapter	Events and Submissions/Topic
		Wednesday: online test closes - 09:00 AEST
		<b>Online Test</b> Due: Review/Exam Week Wednesday (16 Oct 2019) 9:00 am AEST

**Exam Week - 21 Oct 2019**

Module/Topic	Chapter	Events and Submissions/Topic
		Thursday: Return date for online test - 9:00 am AEST Thursday: Return date for portfolio - 17:00 AEST

## Term Specific Information

The unit coordinator for MEDS13010 is Robyn Boman. The best way to contact Robyn is by email: r.boman@cqu.edu.au. Robyn's CQUniversity phone number is (02) 9324 5057.

Please contact me via email whenever possible.

The online tutorials are an opportunity to ask questions, gain feedback and join in discussions concerning theoretical concepts and completion of assessment tasks.

Access to the internet is required to undertake this unit, as unit materials, tutorials and updates will be provided via Moodle, email and Zoom. It is important to check your student email regularly as updates about the unit will be sent from the unit coordinator via email.

## Assessment Tasks

### 1 Portfolio - Adverse event Report

#### Assessment Type

Portfolio

#### Task Description

#### Assessment Title

#### Quality Management Report

#### Task Description

Undertaking a clinical audit, as part of a quality management process, occurs in all imaging practices on a cyclical basis. In this assessment, you will complete a small part of a clinical audit. Successful completion of this assessment is a course requirement of the Australian Sonographers Accreditation Registry (ASAR). You will prepare a 2000 word (+/- 10%) report about quality management in a medical imaging workplace. This will include identifying adverse events, identifying contributing factors, near misses or potential adverse events and suggesting recommendations for quality improvement.

#### Purpose:

Quality practice in healthcare aims to enhance patient care through reduction in morbidity and mortality. When an adverse event in health care occurs, it can have devastating and far-reaching effects. It may have an impact on the reputation of the healthcare organisation, the service or the profession within which the incident occurred and impact those directly involved such as patients, relatives, staff and visitors.

#### Details:

You will complete a report on actual or possible adverse events, near-misses, quality management factors, risk assessment and patient safety in a Medical Imaging Department. Your responses can include your own, or a colleague's experiences or observations in any clinical sonography environment.

This assessment task involves completing a series of tasks. Many of these require understanding of quality management terminology and concepts to explain your experiences and recommendations. Explanations of terminology and the relevance of various findings are in your prescribed text. This text includes worked examples of many of your tasks below.

Complete the following tasks to produce your report:

#### **1. Describe problems in the sonographic environment and identify contributory factors.**

a. List 5 (five) adverse events from within a clinical sonographic department and describe one (1) in depth. Identify these from personal observations, oral recollections by colleagues or written accounts. For example for this would be: not correctly identifying the patient.

b. Identify contributory factors: Complete a Fishbone diagram for one adverse event from part 1a. In the Fishbone diagram, you must identify the root cause(s) of this event. This information will enable you to construct a strategy of prevention or minimisation. A completed example of a Fishbone diagram is on the unit Moodle site to guide you.

**2. Developing a model action plan for change to improve care is time and work intensive. It requires a framework for quality task force participants to follow, without skipping steps. One such problem-solving model is the FADE method of effective problem solving (Krasker et al. 1992). Analyse one adverse event described in question 1 using part of the FADE method (focus, analyse, develop and execute) of effective problem solving.** Details of the FADE method are on the unit Moodle site. Your text is a key source of information for this task. Note: You will not be undertaking the

'execute' part of the FADE method.

**3. Complete quality management tasks (a-e) below about one (1) of the adverse events identified in part 1.**

Your text is a key source of information for this task.

- a. **Management causation scale**, describe whether medical management rather than disease process caused an adverse event
- b. **Medical management analysis severity scale**, to rate the severity and preventability of an adverse event
- c. **An error cause scale.**
- d. **Assessment of the preventability of adverse errors.**
- e. **What further action would you recommend?**

Include discussion of opportunities to implement proactive risk management methods, such as barriers, trigger tools, benchmarking, indicators, national databases and methods to facilitate patients taking an active role in prevention

**4. Complete a risk assessment matrix for five (5) possible hazards in the clinical workplace.**

This will involve describing five (5) possible hazards and the risk(s) associated with each hazard. Complete an evaluation of each risk using a risk matrix/register and evaluate precautions likely to reduce consequences and /or likelihood of a recurrence. Further details are on the Unit Moodle site.

**5. Measure and evaluate the patient safety culture in your clinical workplace using the Manchester Patient Safety Framework Evaluation Sheets. Work with a partner in your clinical workplace to complete this.**

Further details are on the Unit Moodle site.

Submit the completed Manchester Patient Safety Framework Evaluation Sheets and produce a brief written discussion of your results.

**Your final report will include**

- cover page,
- contents page,
- data presented in figures, tables or diagrams,
- discussion of results, or further action, for some tasks
- short directive paragraphs and objective language

An introduction and conclusion is not required. Recommendations for improvement will relate to specific sections of the portfolio.

Please note:

- Assessment length should be 2000 (+/-10%) words, excluding references (including in-text), diagrams, tables, graphics and completed quality improvement tools.
- Diagrams must be cited / referenced.
- The list of references should be contained at the end of the assessment.
- Vancouver referencing system.

**Assessment Due Date**

Week 12 Tuesday (8 Oct 2019) 5:00 pm AEST

Referencing Style: Vancouver Submission: Online Include a title page with student, unit and assessment details. Please save/upload your file in Word format (.doc or .docx) so I can open the file and mark in Word

**Return Date to Students**

Exam Week Thursday (24 Oct 2019)

Students will receive their grades through the Gradebook

**Weighting**

60%

**Minimum mark or grade**

50%

**Assessment Criteria**

**Your assessment will be evaluated using the following Criteria**

- Production of a complete, informative quality management portfolio.

- Informed rationale for choices made.
- Application of concepts to analysis of events, observations and data collected.
- Proposal of relevant, feasible plans for improvement.
- Explicit organisation in a logical way, including use of appropriate titles, headings and sub-headings.
- Relevancy and prioritisation of content.
- Application of concepts and correct use of terminology.
- Information supported by credible, up to date references correctly cited.
- Correct labeling of legible diagrams, tables and graphics appropriately cited.
- Correct use of terminology of quality practice.
- Critical analysis, and application of relevant theory to data collected.
- Accurate completion of quality improvement tools.
- Correct grammar and spelling.
- Adherence to the word limit.
- Use of footers with student/ assessment name & number and page number on each page.
- Legible font 12 pt.
- Marking rubric available on your unit Moodle site

### Referencing Style

- [Vancouver](#)

### Submission

Online

#### Submission Instructions

Online Include a title page with student, unit and assessment details. Please save/upload your file in Word format (.doc or .docx) so I can open the file and mark in Word.

#### Learning Outcomes Assessed

- Discuss key aspects of clinical governance, quality improvement, risk management and patient safety cultures in Medical Imaging
- Employ quality improvement tools and strategies in the context of a clinical sonography environment

#### Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

## 2 Online Test

### Assessment Type

Online Test

### Task Description

#### Online Test

An on-line test will be conducted to assess your understanding of the content of this unit and its application. The test will be accessed through the tab on the Unit Moodle site and you will require internet access to complete this test.

**TEST FORMAT :** This online-test will be short answer questions

**NUMBER of QUESTIONS.**10 questions. Each Question will be worth 10 marks.

The questions will be drawn at random from a larger bank of equitable questions.

**TIME LIMIT :** The test will be open for 90 minutes which will allow you 9 minutes for each question. Only 1 attempt at the quiz is allowed and you cannot go back to a question.

Once the test is commenced it cannot be paused, stopped or re-started and once you have completed the test, it cannot be re-taken.

**Students must attempt all questions.**

The on-line test will be open for one week from Wednesday Week 12 (09:00) until Wednesday Review Exam week (09:00).

The on-line test must be completed within this time frame.

**RETURN DATE:** 2 weeks after online-test closes.

**Assessment Due Date**

Review/Exam Week Wednesday (16 Oct 2019) 9:00 am AEST

On-line test opens Week 12 Wednesday 09:00 AEST

**Return Date to Students**

Results will be released to students 2 weeks after the on-line test has closed

**Weighting**

40%

**Minimum mark or grade**

50%

**Assessment Criteria**

The questions for this on-line test will be drawn from a pool of questions to allow tests to be different for each student. Image viewing tests may be included and questions will cover various imaging modalities.

You will need to allocate a **90 minute** period of time during that week that the test is open where you have good internet connection to allow the test to be completed. Your answers need to be detailed enough to allow you to gain 10 marks for each answer you provide.

Please note. You must complete this test before Wednesday day the 16th October at 9.00am AEST as the test will automatically close at this time. If you have not completed the on-line test by this time, your test may be submitted with no answers.

**It is your responsibility to ensure you have the test well and truly completed before Review Exam Week Wednesday at 9:00 AEST.**

This test is to be completed on-line and is an open book exam, however, there will be limited time to look up answers. The test is time limited with only 9 minutes allowed for you to type in your answer to each question. You will find it useful to produce your own notes from the unit material to help you during the test as the time limit will not permit extensive searching through the unit material.

You need to obtain a minimum score of 50% in the on-line test to pass the unit.

**Referencing Style**

- [Vancouver](#)

**Submission**

Online

**Submission Instructions**

On-line. You need to access the test through the assessment tab on Moodle and will need to maintain continuous internet access for 90 minutes to complete the test.

**Learning Outcomes Assessed**

- Discuss key aspects of clinical governance, quality improvement, risk management and patient safety cultures in Medical Imaging
- Describe the safe application of various medical imaging modalities
- Identify complementary imaging pathways in specified pathologies
- Correlate the multi-modality image appearance with a disease process.

**Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

## 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