



MEDI13002 *Imaging Procedures 3*

Term 1 - 2017

Profile information current as at 04/04/2024 12:37 am

All details in this unit profile for MEDI13002 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

Imaging Procedures 3 builds upon the core knowledge and skills developed and consolidated during Imaging Procedures 1 and 2 and clinical practice. This unit will predominantly focus on practical Computed Tomography (CT) imaging and on safe administration of intravenous contrast media. On completion of this unit you will have developed the skills and knowledge to be able to perform simulated CT examinations of the brain, spine, thorax, abdomen, pelvis and extremities. You will learn the foundation knowledge and skills of intravenous (IV) cannulation. You will perform CT procedures and simulated IV cannulation in our clinical simulation laboratory.

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

Pre-requisite: MEDI12006 Imaging Procedure 2 and MEDI12005 Science & Instrumentation 2 and MEDI12004 Medical Imaging Clinical Course 1 and MEDI12007 Quality Processes for Dose and Image Optimisation Co-requisite: MEDI13001 Science & Instrumentation 3

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 - 2017

- 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. **Practical Assessment**

Weighting: Pass/Fail

2. **Practical Assessment**

Weighting: Pass/Fail

3. **In-class Test(s)**

Weighting: Pass/Fail

4. **Practical Assessment**

Weighting: Pass/Fail

Assessment Grading

This is a pass/fail (non-graded) unit. To pass the unit, you must pass all of the individual assessment tasks shown in the table above.

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 Discussions with students and Course Evaluation

Feedback

Consistency of messages across lectures, labs and tutorials cemented understanding

Recommendation

Maintain structure of content and use of labs and tutorials

Action

The structure of the content was maintained with consistency of weekly material throughout lectures, labs and tutorial. The preparation of the casual lab staff also assisted in maintaining consistency and cementing of the weekly content.

Feedback from Discussions with students and Course Evaluation

Feedback

Some form of exam or test would be beneficial to assess breadth of content

Recommendation

A change proposal has been initiated to change to an in-class test.

Action

The change was made to implement an in-class test to assess the breadth of CT content delivered.

Feedback from Discussions with students and Course Evaluation

Feedback

Timing of cannulation assessment soon after break week caused some stress to students

Recommendation

The timing of this unit may change in future offerings. If not, the timing of the cannulation assessment will be considered in relation to break week.

Action

This timing of this unit was changed to commence in week 2, resulting in the cannulation assessment being completed in week 5, prior to break week.

Unit Learning Outcomes

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

1. safely and effectively perform non-contrast computed tomography examinations and intra-venous cannulation in the simulated clinical environment
2. analyse computed tomography data sets in order to identify common pathologies and evaluate image quality
3. optimise the imaging protocols and presentation of data sets for CT examinations, taking into account evidence based practice and individual clinical circumstances
4. demonstrate patient care and professional behaviours in the simulated clinical environment.

This unit maps to the following components of the Medical Radiation Practice Board of Australia's Professional Capabilities for Medical Radiation Practice:

Domain 1 Professional and ethical conduct: capabilities 1 - 3

Domain 3 Evidence based practice and professional learning: capabilities 1 - 2

Domain 4 Radiation safety and risk management: capabilities 1 - 5

Domain 5 Practice in medical radiation science: capabilities 1 - 8

Domain 5a Practice in diagnostic radiography: capability 3

The Australian Institute of Radiographers (AIR) recommends that IV cannulation be taught at undergraduate level.

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 - Practical Assessment - 0%				•
2 - Practical Assessment - 0%	•	•	•	•
3 - In-class Test(s) - 0%	•	•	•	
4 - Practical Assessment - 0%	•			•

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 - Practical Assessment - 0%	•	•			•			•		
2 - Practical Assessment - 0%	•	•	•	•		•	•	•		

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
3 - In-class Test(s) - 0%	•	•		•			•	•		
4 - Practical Assessment - 0%	•	•					•	•		

Textbooks and Resources

Textbooks

MEDI13002

Prescribed

Computed Tomography for Technologists: A Comprehensive Text

(2010)

Authors: Romans, L

Lippincott Williams and Wilkins

Philadelphia , PA , USA

ISBN: 9780781777513

Binding: Paperback

[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: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Natalie Sciascia Unit Coordinator

n.sciascia@cqu.edu.au

Schedule

Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
MEDI13002 commences in Week 2		

Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
IV Cannulation and Contrast Safety	Romans, Chapter 12 and pages 142-147 Merrill's, Volume 2 Chapter 18 IV cannulation workbook available on the course Moodle site.	

Week 3 - 20 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Humanistic & Scientific aspects of CT	Romans, Chapters 10 & 11	

Week 4 - 27 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
CT Imaging of the Head	Romans, Chapter 19 and pages 183-197	

Week 5 - 03 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
CT Special Procedures	Romans, Chapters 23 & 24 and pages 273-287	IV cannulation assessment

Vacation Week - 10 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
VACATION WEEK		

Week 6 - 17 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
CT Imaging of the Spine	Romans, pages 198 - 203	Public Holiday - Easter Monday

Week 7 - 24 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Principles of CT Angiography	Romans, pages 147-164, 242-245, 269-273, 285	Public Holiday - Anzac Day (Tuesday)

Week 8 - 01 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
CT Imaging of the Thorax	Romans, Chapter 16 and pages 267 - 272	Public Holiday - Labour Day (Monday)

Week 9 - 08 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
CT Imaging of the Abdomen	Romans, Chapters 17 & 21	

Week 10 - 15 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
CT Imaging of the Pelvis & Hips	Romans, Chapters 17 & 21	

Week 11 - 22 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
CT Imaging of the Extremities	Romans, Chapter 18	

Week 12 - 29 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Consolidation		

Review/Exam Week - 05 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic
		CT practical assessment Professional Behaviours Due: Review/Exam Week Friday (9 June 2017) 3:00 pm AEST

Exam Week - 12 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic
		CT In-class Test

Term Specific Information

This unit commences in Week 2, running until Week 14. The final assessment for this unit (In-class test) is timetabled for Week 14.

Note that the requirement of 150 hours of student engagement with the unit still holds. You should expect to spend approximately 15 hours per week for this course. Students should plan to attend all lectures, labs and tutorials as this will be integral to the development of knowledge and skills required for the assessments of the unit. Students are expected to practice CT techniques during the timetabled practice sessions. The pace of class CT lab activities has been set with this expectation of practice and corresponding skill development.

Please note this important information from the University Assessment Procedures.

A student who fails any assessment item in a pass/fail unit will be deemed to have failed that unit.

Assessment Tasks

1 Professional Behaviours

Assessment Type

Practical Assessment

Task Description

Professional behaviour is a vital component of your competencies as a health care professional. As such you will be expected to demonstrate this consistently whilst working in the simulated clinical environment of the imaging labs. A professional behaviours assessment form will be available on the unit Moodle site. You must bring it with you to each of your scheduled labs. This form details the behaviours required. Your lab tutor will assess your performance relative to the stated standards. For any category where you have not demonstrated the behaviour to the standard, one demerit point will apply. Your lab tutor will complete and sign the form every session. If you fail to bring your form to your scheduled lab session you will be awarded one demerit. Once completed this form must be uploaded via the unit Moodle site for review by the unit coordinator.

Please note the following advice from the University Assessment Procedures:

This assessment task must be completed by the specified due date. In the absence of an approved extension, there will be no opportunity to complete the task after this date, and there will be no opportunity to apply a late penalty of five per cent per day. Students who fail a single assessment task in a pass-fail unit will be deemed to have failed that unit. This assessment form must be completed and uploaded by the due date set in the unit Moodle site or you will be awarded a fail grade for this task. This will result in a fail grade for the unit as per the university procedure.

Assessment Due Date

Review/Exam Week Friday (9 June 2017) 3:00 pm AEST

Return Date to Students

Feedback within 2 weeks of the due date.

Weighting

Pass/Fail

Minimum mark or grade

Pass

Assessment Criteria

Assessed upon:

- Adherence to dress code
- Punctuality
- Use of materials
- Use of class time
- Team behaviour
- Professional behaviour
- Acceptance of feedback

Detailed assessment criteria and a marking rubric are available on the unit Moodle site.

In order to receive a "pass" grade for this task you must:

- receive no more than six (6) demerit marks if you attend all scheduled lab sessions. The maximum allowable number of demerit points will be calculated on a pro-rata basis for any students who do not attend all scheduled lab sessions.
- complete and upload the assessment form by the due date set in the unit Moodle site.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

Completed forms to be uploaded via the unit Moodle site.

Learning Outcomes Assessed

- demonstrate patient care and professional behaviours in the simulated clinical environment.

Graduate Attributes

- Communication
- Problem Solving
- Team Work
- Ethical practice

2 CT Practical Assessment

Assessment Type

Practical Assessment

Task Description

You will perform an individual 20 minute practical assessment of a CT clinical simulation procedure in the CT suite.

You will be given a CT examination referral for **one** of the non-contrast CT protocols that have been covered during CT practical lab sessions.

This is a holistic assessment and you must consider all aspects of the patient journey, including patient care and communication as well as the technical aspects of the examination. For the first part of the assessment the assessor will take the part of the patient. For the second part you will use the CT anthropomorphic phantom and complete the required CT examination.

Please note -

- Detailed assessment criteria and a scoring rubric will be available on Moodle.
- You must present for your individual practical assessment dressed as you would present to the clinical environment. Any student not adhering to the dress code may be excluded from the assessment.
- The examination is timed. You will have 20 minutes to complete the practical elements of the task, including questioning time to enable you to justify the technique you have used. If the practical element of the examination is not completed within the allocated 20 minutes, the practical element will be stopped and you will be marked based on your performance to that point.
- Clinical staff may be present as part of the examining panel as well as academic members of the team.
- This assessment task may be recorded using a video camera to enable moderation.
- As this is a simulation of a clinical procedure, you must perform this assessment without referring to any guidance resources (eg. notes, texts, electronic devices) - this is a closed book assessment.

Please note the following advice from the University Assessment Procedures:

Students who fail a single assessment task in a pass/fail unit will be deemed to have failed that unit.

This assessment task must be completed as specified in the Assessment Due Date below. In the absence of an approved extension, there will be no opportunity to complete the task after this date.

Assessment Due Date

During timetabled class on Wednesday and Thursday of Review/Exam week.

Return Date to Students

Written feedback within 2 weeks.

Weighting

Pass/Fail

Minimum mark or grade

Pass

Assessment Criteria

This is an holistic assessment of CT imaging skills. You will be assessed on the following main categories of activities:

- Justification
- Patient communication
- Legal requirements
- Use of the control panel
- Use of the gantry and table
- Selection of protocols and imaging parameters
- Scan planning and manipulation of data set
- Accurate use of terminology

Each main category has one or more tasks. Each task has a minimum score required for a pass. Some tasks are of a more critical nature than others, therefore require a higher level of performance.

Please note:

- Detailed assessment criteria and a scoring rubric will be available on Moodle.
- If you do not achieve the minimum score on all tasks you will be given one additional opportunity to perform the assessment, to be scheduled within one week of the original test date.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Offline

Submission Instructions

Practical assessment in CT lab.

Learning Outcomes Assessed

- safely and effectively perform non-contrast computed tomography examinations and intra-venous cannulation in the simulated clinical environment
- analyse computed tomography data sets in order to identify common pathologies and evaluate image quality
- optimise the imaging protocols and presentation of data sets for CT examinations, taking into account evidence based practice and individual clinical circumstances
- demonstrate patient care and professional behaviours in the simulated clinical environment.

Graduate Attributes

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

3 In-class Test

Assessment Type

In-class Test(s)

Task Description

A two-hour in-class written assessment.

You will write an in-class test to demonstrate your ability to apply the concepts and use the terminology based on content provided from all weeks of this unit. Question tasks will be of the same types that you will practice in weekly tutorials. These tasks may include analysis of projected diagrams, photographs and CT images, creation of line diagrams to illustrate concepts, explanations and discussions.

This is a closed-book assessment and no notes, texts or electronic devices are allowed into the class during this assessment task. You will have a five minute perusal time prior to the allotted writing time. You will write the test under examination conditions as detailed in the Assessment Procedures. You will submit your test paper and rough paper at the end of the test period.

This test must be written at the timetabled date and time. As per the Assessment Procedures, this task is to be completed during a defined period. There is no opportunity to apply a late penalty. If you arrive late, you may enter the test room up to 30 minutes after the start of the test, however, you will still be required to submit your test at the standard test end time. You will not be allowed entry more than 30 minutes after the test starts. In the absence of an approved extension, there will be no opportunity for you to complete this assessment at a later time, and you will receive a mark of zero for the assessment.

Please note the following advice from the University Assessment Procedures:

Students who fail a single assessment task in a pass/fail unit will be deemed to have failed that unit.

Assessment Due Date

During the timetabled class in Week 14/Exam Week.

Return Date to Students

Written feedback within 2 weeks of the due date.

Weighting

Pass/Fail

Minimum mark or grade

Pass

Assessment Criteria

Assessed on:

- Correct use of scientific terminology
- Identification of normal cross-sectional anatomy
- Identification of abnormalities on cross-sectional imaging
- Application of knowledge of imaging protocols
- Accurate description of patient positioning
- Application and adaptation of CT data sets to suit individual clinical circumstances
- Analysis of CT data sets to evaluate scan quality
- Accurate consideration of contrast safety, cannulation technique and contrast use.

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

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 test paper.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Offline

Learning Outcomes Assessed

- safely and effectively perform non-contrast computed tomography examinations and intra-venous cannulation in the simulated clinical environment
- analyse computed tomography data sets in order to identify common pathologies and evaluate image quality
- optimise the imaging protocols and presentation of data sets for CT examinations, taking into account evidence based practice and individual clinical circumstances

Graduate Attributes

- Communication
- Problem Solving
- Information Literacy
- Cross Cultural Competence
- Ethical practice

4 IV Cannulation Practical Assessment

Assessment Type

Practical Assessment

Task Description

An individual 15 minute practical assessment in the general science lab. You will perform intravenous cannulation on the arm or hand of a cannulation phantom for this practical assessment.

This is a holistic assessment and you must consider all aspects of the patient's journey during cannulation, including patient care and communication as well as the practical elements of the cannulation. For the first part of the assessment, the assessor will take the part of the patient. For the second part you will cannulate the arm phantom.

Please note -

- Detailed assessment criteria and a scoring rubric will be available on Moodle.
- You must present for your individual practical assessment dressed as you would present to the clinical environment. Any student not adhering to the dress code may be excluded from the assessment.
- You will have 15 minutes to complete the assessment. If all the practical elements of the assessment are not completed within the allocated 15 minutes, the assessment will be stopped and you will be marked based on your performance to that point.
- Clinical staff may be present as part of the examining panel as well as academic members of the team.
- This assessment task may be recorded using a video camera to enable moderation.
- As this is a simulation of a clinical procedure, you must perform this assessment without referring to any guidance resources (eg. notes, texts, electronic devices) - this is a closed book assessment.

Please note the following advice from the University Assessment Procedures:

Students who fail a single assessment task in a pass/fail unit will be deemed to have failed that unit.

This assessment task must be completed on the specified day and time. In the absence of an approved extension, there will be no opportunity to complete the task after this date.

Assessment Due Date

During the timetabled class on Wednesday of Week 5.

Return Date to Students

Written feedback within 2 weeks.

Weighting

Pass/Fail

Minimum mark or grade

Pass

Assessment Criteria

Assessed on:

- Patient care
- Professional communication
- Legal requirements
- Infection control
- Sharps safety
- Effective and safe cannulation

Each main category has one or more tasks. Each task has a minimum score required for a pass. Some tasks are of a more critical nature than others, therefore require a higher level of performance.

Please note:

- Detailed assessment criteria and a scoring rubric will be available on Moodle.
- If you do not achieve the minimum score on all tasks you will be given one additional opportunity to perform the assessment, to be scheduled within one week of the original test date.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Offline

Submission Instructions

Practical assessment in the general science lab.

Learning Outcomes Assessed

- safely and effectively perform non-contrast computed tomography examinations and intra-venous cannulation in the simulated clinical environment
- demonstrate patient care and professional behaviours in the simulated clinical environment.

Graduate Attributes

- Communication
- Problem Solving
- Cross Cultural Competence
- Ethical practice

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