



ECHO13002 Cardiac Assessment Skills 2

Term 1 - 2020

Profile information current as at 26/04/2024 09:07 am

All details in this unit profile for ECHO13002 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.

Corrections

Unit Profile Correction added on 30-03-20

The in-class test(s) have now been changed to an alternate form of assessment.
Please see your Moodle site for details of the assessment.

General Information

Overview

This unit builds upon the knowledge and skills required in Cardiac Assessment 1. You will advance your study of the principles of cardiac rhythm management, 12-Lead electrocardiogram interpretation, cardiac catheterisation procedures, and be exposed to a variety of other cardiac testing modalities including MRI, CT and nuclear medicine. You will compare and contrast the methodology and outcomes of these procedures. You will explore the role of pharmacotherapy during interventional procedures. Armed with this knowledge, you will be able to discuss common management strategies associated with a variety of common cardiovascular pathologies, within the setting of best practice and patient safety.

Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: *12*

Student Contribution Band: *8*

Fraction of Full-Time Student Load: *0.25*

Pre-requisites or Co-requisites

Pre-requisites: ECHO12003 Principles of Cardiac Assessment ANDECHO12004 Cardiac Assessment Skills 1

ANDECHO12005 Cardiac Clinical Unit 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 - 2020

- Mixed Mode

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 12-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 25 hours of study per week, making a total of 300 hours for the unit.

Class Timetable

[Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

[Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Written Assessment**

Weighting: 40%

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

Weighting: 60%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the [CQUniversity Policy site](#).

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Unit evaluation

Feedback

Students suggested the provision of smaller assessment tasks spread throughout term would better support learning.

Recommendation

The assessment format will be reviewed.

Feedback from Unit evaluation

Feedback

Some students were unable to make a connection between some of the content and cardiac sonographer scope of practice

Recommendation

Lecture content will be revised.

Feedback from Unit evaluation

Feedback

Assessment feedback

Recommendation

Assessments will be revised to limit the need for multimodality feedback.

Unit Learning Outcomes

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

1. Describe the relationship between anatomy, pathophysiology and clinical assessment of the cardiovascular system
2. Compare and contrast the methodology and outcomes of various cardiac assessment modalities, with consideration to best practice and patient safety
3. Describe the role of pharmacotherapy during cardiovascular interventional procedures
4. Analyse case-based cardiac assessment data to formulate differential diagnoses and plan patient management strategies.

Linked to National and International Standards

1. ASAR Accreditation Standards for Cardiac Sonography - critical practice Unit 8 - Cardiac, Foundation units of competence - 1 - 5.
2. European Association of Cardiovascular Imaging Core Syllabus
3. American Registry for Cardiac Sonography Core Syllabus

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

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Written Assessment - 40%	•	•	•	•
2 - In-class Test(s) - 60%	•	•	•	•

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 - 40%	•	•	•	•		•		•		
2 - In-class Test(s) - 60%	•	•	•	•		•		•		

Textbooks and Resources

Textbooks

ECHO13002

Prescribed

Cardiac Catheterization Handbook

Edition: 6th (2015)

Authors: Morton Kern, Paul Sorajja, Michael Lim

Elsevier

Philadelphia , PA , USA

ISBN: 10: 032334039

Binding: Paperback

ECHO13002

Prescribed

The Nuts and Bolts of Cardiac Resynchronization Therapy

(2007)

Authors: Tom Kenny

Wiley-Blackwell

UK

ISBN: 978-1-4051-5372-0

Binding: Paperback

ECHO13002

Prescribed

The Nuts and Bolts of ICD Therapy

(2009)

Authors: Tom Kenny

Wiley-Blackwell

UK

ISBN: 978-1-4051-8404-5

Binding: Paperback

ECHO13002

Prescribed

The Nuts and Bolts of Implantable Device Therapy: Pacemakers

(2014)

Authors: Tom Kenny

Wiley-Blackwell

UK

ISBN: 978-1-118-67067-5

Binding: Paperback

Additional Textbook Information

[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

Aidan Rickwood Unit Coordinator
a.rickwood@cqu.edu.au

Schedule

Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Pharmacotherapy in the Cardiac Catheterisation Laboratory		

Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Anticoagulation and concepts of haemostasis		

Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Anti-platelet therapy following coronary stenting		
Other cardiac testing modalities; including MRI, CT, Nuclear Medicine and ECG		

Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Fractional flow reserve assessment in coronary angiography Other cardiac testing modalities; including MRI, CT, Nuclear Medicine and ECG	Cardiac Catheterization Handbook 6th Edition (2015) Pages 134,395,432 & 433	

Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Cardiovascular haemodynamics 1: cardiac output and shunts Other cardiac testing modalities; including MRI, CT, Nuclear Medicine and ECG	Cardiac Catheterization Handbook 6th Edition (2015) Pages 180-182, 193 & 194-198	

Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Cardiovascular haemodynamics 2: Bidirectional shunt calculations Other cardiac testing modalities; including MRI, CT, Nuclear Medicine and ECG	Cardiac Catheterization Handbook 6th Edition (2015) Pages 194-199	

Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Valve pathology: Right heart disorders	Cardiac Catheterization Handbook 6th Edition (2015) Pages 175-182, 193 & 350
Principles of CRT pacing and the importance of a 12 lead ECG	The Nuts and Bolts of Implantable Device Therapy: Pacemakers (2014) Chapter 19
Upper rate behaviour in cardiac devices	The Nuts and Bolts of Cardiac Resynchronization Therapy (2008) Chapter 14 &19

Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Valve pathology: Left heart disorders	Cardiac Catheterization Handbook 6th Edition (2015) Pages 175-184	Written assessment Due: Week 8 Friday (8 May 2020) 5:00 pm AEST
To test or not to test: DFT in the lab environment and subcutaneous ICDs	The Nuts and Bolts of ICD Therapy (2007) Chapter 5 & 8	

Week 9 - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Non surgical cardiac support	Cardiac Catheterization Handbook 6th Edition (2015) Chapter 9	
SVT discriminators with a review of sensing and detection	The Nuts and Bolts of ICD Therapy (2007) Chapter 9	

Week 10 - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Transcatheter Aortic Valve Implantation	Cardiac Catheterization Handbook 6th Edition (2015)Pages 449-453	
Radiological imaging of cardiac devices		

Week 11 - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
CRT device tool box and trying to prevent heart failure	The Nuts and Bolts of Cardiac Resynchronization Therapy (2008) Chapter 23	
The downside to right ventricular pacing		

Week 12 - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
Revision		In-class test Due: Week 12 Tuesday (2 June 2020) 9:00 am AEST

Review/Exam Week - 08 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 15 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

The Unit Coordinator for ECHO13002 is Aidan Rickwood. The preferred method for contacting Aidan is via the Q&A forum located on the Moodle site for content related questions. If the query is of a personal nature, please email a.rickwood@cqu.edu.au, or phone (08) 9260 4034. Aidan's work days are: Monday, Tuesday and Wednesday and he is based at the Perth Campus.

Assessment Tasks

1 Written assessment

Assessment Type

Written Assessment

Task Description

You are to write an essay, which cites a variety of sources that support your discussion on the following topic: With an ageing population, valvular heart disease is becoming more prevalent. Advancements in technology have revolutionised treatment options for elderly patients. Over the last few years the technique for replacing the aortic valve has become a lot less invasive.

Your essay should include:

- An overview of a Transcatheter Aortic Valve Implantation (TAVI)
- Work-up tests and procedural information
- Prognosis and outcomes for TAVI compared to other invasive valvular implantation procedures
- Recent research and / or current news in the area of TAVI (you may select a topic from the last 4 years that is relevant to TAVI's)

Word count: 1500 words +/- 10% submitted as a word document.

Word count does not include headings or references but does include diagram explanations and labelling.

Referencing: Vancouver

Assessment Due Date

Week 8 Friday (8 May 2020) 5:00 pm AEST

Submission is due through Moodle. You are required to submit a copy to Turn-it-in. Please allow time for your Turn-it-in results and implement changes if required, prior to assessment due date.

Return Date to Students

Week 10 Friday (22 May 2020)

Weighting

40%

Assessment Criteria

Students are advised to refer to the 'Assessment Policy and Procedure (Higher Education Coursework) document for additional university guidelines regarding assessments.

You will be assessed on your ability to:

- Locate and critically evaluate information
- Recognise pertinent professional information
- Describe all practical aspects of the work-up tests and procedure
- Produce a scholarly essay
- The use of Vancouver referencing to a high standard
- A detailed marking rubric can be found on the Moodle site and students are encouraged to review this.
- There is no opportunity for re-submission. 5% penalty will be applied for each day (or part thereof) that submission is late.

Referencing Style

- [Vancouver](#)

Submission

Online

Learning Outcomes Assessed

- Describe the relationship between anatomy, pathophysiology and clinical assessment of the cardiovascular system
- Compare and contrast the methodology and outcomes of various cardiac assessment modalities, with consideration to best practice and patient safety
- Describe the role of pharmacotherapy during cardiovascular interventional procedures
- Analyse case-based cardiac assessment data to formulate differential diagnoses and plan patient management strategies.

Graduate Attributes

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

2 In-class test

Assessment Type

In-class Test(s)

Task Description

The job role of a cardiac physiologist is broad and includes multiple clinical specialities. As a result, it's necessary to have a clear understanding of the various modalities that contribute to a patient's management and treatment pathway. Having the ability to correctly analyse and interpret these forms of specialist imaging is essential. In order for students to demonstrate their understanding and knowledge from this unit, they are required to complete an in-class test. This will involve a combination of clinical scenarios, short answer and essay type questions which will be based on concepts which students have been introduced to during the lecture and tutorial sessions.

The students will be required to correctly interpret information (data and images) presented in a number of separate clinical scenarios as well as correctly answer theoretical type questions.

- The in-class test will be held in class during week 12.
- Campus specific venue details will be advised via the Moodle site.
- There will be ten minutes perusal time prior to test commencement and 120 minutes to write and complete the in-class test.
- The in-class test will be written under examination conditions as detail in the Assessment Policy and Procedure.
- The in-class test is a closed-book assessment and the test paper will be submitted at the end of the test period.

As per the Assessment Procedures, these tasks are 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. If late, you will not be allowed entry more than 30 minutes after the test starts. In the absence of an approved extension, this assessment cannot be completed at a later time. Students will receive a mark of zero (or fail) for the assessment, if you have not completed it by the scheduled date and time and do not have an extension.

Assessment Due Date

Week 12 Tuesday (2 June 2020) 9:00 am AEST

Campus specific venue details will be advised via the Moodle site.

Return Date to Students

Exam Week Tuesday (16 June 2020)

Weighting

60%

Minimum mark or grade

50%

Assessment Criteria

You must provide short to medium length typed responses to a series of questions.

Image viewing questions may be included and you are required to be familiar with both normal and pathological images.

Responses will be assessed according to:

- Use of appropriate terminology and descriptors as well as grammar, spelling, relevance of response and competence in addressing all elements of the question.
- The student's ability to appropriately interpret images/graphs/tables and then to succinctly compose an appropriate response based on their learning from the unit.

Referencing Style

- [Vancouver](#)

Submission

Offline

Learning Outcomes Assessed

- Describe the relationship between anatomy, pathophysiology and clinical assessment of the cardiovascular system
- Compare and contrast the methodology and outcomes of various cardiac assessment modalities, with consideration to best practice and patient safety
- Describe the role of pharmacotherapy during cardiovascular interventional procedures
- Analyse case-based cardiac assessment data to formulate differential diagnoses and plan patient management strategies.

Graduate Attributes

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