



ECHO28004 *Pericardial and Systemic Heart Disease*

Term 1 - 2023

Profile information current as at 11/05/2025 07:22 pm

All details in this unit profile for ECHO28004 have been officially approved by CQUUniversity 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

This unit will develop your knowledge of the application of cardiac ultrasound in the assessment of pericardial and systemic heart disease, preparing you for competent practise in the health workplace as a graduate cardiac sonographer. Knowledge presented will elaborate on the aetiology, pathophysiology and clinical presentations of these disease states. You will identify the role echocardiography plays in the clinical assessment of these disease states. Through discussions of clinical scenarios and case studies you will analyse diagnostic data and provide differential diagnoses within an ethical framework of best practice and patient safety.

Details

Career Level: *Postgraduate*

Unit Level: *Level 8*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Pre-requisite: ECHO28002 Assessment of Cardiac Function

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 - 2023

- 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 Postgraduate 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. **Written Assessment**

Weighting: 20%

2. **Online Quiz(zes)**

Weighting: 40%

3. **Online Test**

Weighting: 40%

4. **Learning logs / diaries / Journal / log books**

Weighting: Pass/Fail

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 emails.

Feedback

Students indicated satisfactory support was available.

Recommendation

Students will continue to be supported with frequent communication by the unit coordinator.

Feedback from Tutorials.

Feedback

Time allocations for online assessments are satisfactory.

Recommendation

The current assessment structure will be continued.

Unit Learning Outcomes

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

1. Differentiate between the aetiology, pathophysiology and echocardiographic assessment processes associated with a variety of pericardial and systemic heart diseases
2. Critically analyse case-based clinical information to formulate differential diagnoses and plan patient management
3. Perform advanced haemodynamic calculations applied to 2D, colour and spectral Doppler derived echocardiographic data
4. Compare and contrast assessment data acquired from a variety of cardiac imaging modalities
5. Engage in cardiac ultrasound practice as per external accreditation requirements (Australasian Sonographer Accreditation Registry).

Linked to the Australian Sonographers Accreditation Registry (ASAR) Accreditation Standards for Cardiac Sonography:

Foundation Units of Competence

- Unit 1: Deliver safe, patient centred service
- Unit 2: Practice within professional and ethical frameworks
- Unit 3: Locate, analyse and synthesise information to support evidence based practice
- Unit 4: Contribute to workplace health and safety and quality assurance
- Unit 5: Communicate effectively

Critical Practice Unit of Competence

- Unit 8: Cardiac

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 - Written Assessment - 20%	•	•		•	
2 - Online Quiz(zes) - 40%	•	•	•	•	
3 - Online Test - 40%	•	•		•	
4 - Learning logs / diaries / Journal / log books - 0%					•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Knowledge	○	○	○	○	○
2 - Communication	○	○	○	○	○
3 - Cognitive, technical and creative skills	○	○	○	○	○
4 - Research		○		○	
5 - Self-management					○
6 - Ethical and Professional Responsibility				○	○
7 - Leadership					
8 - 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
1 - Written Assessment - 20%	○	○	○	○		○		
2 - Online Quiz(zes) - 40%	○	○	○	○				
3 - Online Test - 40%	○	○	○	○				
4 - Learning logs / diaries / Journal / log books - 0%	○	○	○		○	○		

Textbooks and Resources

Textbooks

ECHO28004

Prescribed

A sonographer's guide to the assessment of heart disease

Edition: 1st (2016)

Authors: Bonita Anderson

Echotext

Brisbane , QLD , Australia

ISBN: 978-0-9923222-0-5

Binding: Hardcover

ECHO28004

Prescribed

BASIC to ADVANCED Clinical Echocardiography. A Self-Assessment Tool for the Cardiac Sonographer

Edition: 1st (2020)

Authors: Bonita Anderson; Margaret M. Park

Wolters Kluwer

Philadelphia , PA , USA

ISBN: 978-1-975136-27-7

Binding: eBook

ECHO28004

Prescribed

Echocardiography: The normal examination and echocardiographic measurements

Edition: 3rd (2017)

Authors: Bonita Anderson

Echotext

Brisbane , QLD , Australia

ISBN: 978-0-9923222-1-2

Binding: Hardcover

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

Mahomed Osman Unit Coordinator
m.osman@cqu.edu.au

Schedule

Week 1 - 06 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic

Anatomy of the pericardium, pericarditis and pericardial effusions	See eReading list
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Week 2 - 13 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Cardiac diseases with pericardial involvement	See eReading list	

Week 3 - 20 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Constrictive Pericarditis	See eReading list	

Week 4 - 27 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Cardiac Tamponade	See eReading list	

Week 5 - 03 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Multi-modality imaging for pericardial disease	See eReading list	

Vacation Week - 10 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 17 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Interventional and surgical procedures of pericardial disease	See eReading list	Online Quiz will open at 8:00 am (AEST) on Tuesday 18th April and will close at 8:00 pm (AEST) Thursday 20th April 2023.

Week 7 - 24 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Systemic Disorders with Cardiac Manifestations - Systemic rheumatic disease and hereditary diseases	See eReading list	

Week 8 - 01 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Systemic Disorders with Cardiac Manifestations - Endocrine disorders	See eReading list	

Week 9 - 08 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Systemic Disorders with Cardiac Manifestations - Haemolytic, infiltrative and storage diseases	See eReading list	

Week 10 - 15 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Echocardiography in special populations	See eReading list	Written Assessment Due 8pm (AEST) on Friday 19th May 2023

Week 11 - 22 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Multi-modality imaging in systemic disease	See eReading list	

Week 12 - 29 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Revision and Online Test preparation

Clinical Attendance Log Due at 8pm (AEST) on Friday 2nd June 2023.

Review / Exam Week - 05 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic
		Online Test will open at 8:00 am (AEST) on Friday 9th June and will close at 8:00 pm (AEST) on Tuesday 13th June 2023.

Exam Week - 12 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Assessment Tasks

1 Written Assessment

Assessment Type

Written Assessment

Task Description

You are to write an essay, which cites a variety of sources to support your discussion on the following statement:

'There is great value in the identification and monitoring of cardiac involvement in scleroderma even in the absences of overt clinical symptoms.'

Within your essay:

- Discuss the pathophysiology, clinical presentations and cardiac manifestations of scleroderma.
- Compare and contrast assessment data acquired from a variety of cardiac imaging modalities, including echocardiography, and identify how the diagnosis of cardiac involvement in scleroderma could be supported.
- Briefly discuss the clinical management and prognosis of scleroderma.
- Include several illustrative echocardiographic images within your essay to support the discussion.

Your target audience is fellow clinical staff and student peers.

This assessment is to be undertaken as an individual. As with all other university assessments, colluding with other students on non-group work tasks is considered academic misconduct, and may lead to action being taken by the Deputy Dean of Learning and Teaching HMAS.

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

Assessment Due Date

The written assessment can be submitted anytime prior to the due date, 8:00 pm (AEST) Friday 19th May 2023.

Return Date to Students

Results will be made available within two weeks of assessment due date.

Weighting

20%

Minimum mark or grade

50%

Assessment Criteria

You will be assessed on your ability to:

- Locate and critically evaluate information.
- Produce a scholarly essay that is well written, and evidence-based.
- Use appropriate technical terms, spelling, grammar, and referencing.
- Address key points as outlined in the task description.

- Minimum 5 peer-reviewed journal articles must be cited.
- Literature titles must be current (<5 years of age), excepting seminal works.

Word count

1800 words count +/- 10%.

Word count does not include references, diagram captions, and labelling.

A detailed marking rubric can be found on the Moodle site.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

Written assessment must be uploaded through the assessment tab on Moodle as a 'word' document. The 'word' document must be appropriately labelled with student name, student number and descriptor (E.g. 'John SMITH_S12345_Written Assessment').

Learning Outcomes Assessed

- Differentiate between the aetiology, pathophysiology and echocardiographic assessment processes associated with a variety of pericardial and systemic heart diseases
- Critically analyse case-based clinical information to formulate differential diagnoses and plan patient management
- Compare and contrast assessment data acquired from a variety of cardiac imaging modalities

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Ethical and Professional Responsibility

2 Online Quiz

Assessment Type

Online Quiz(zes)

Task Description

The Online Quiz will assess your understanding of the content presented within this unit as outlined below.

- Questions may be drawn from lectures, additional resources provided (e.g. prescribed readings), or tutorial presentations.
- Questions will be drawn from a resource bank, to allow tests to be different for each student.
- Questions may include multiple-choice, short answer, or image interpretation format.
- It is recommended that you have a calculator available when sitting a quiz.
- Quiz can be accessed through the assessment tab on Moodle at the assigned time.
- Students will have 80 minutes to complete the quiz.

Please note:

- Once started, the quiz cannot be paused or restarted. Only one attempt per quiz is permitted.
- It is the student's responsibility to commence the Online Quiz with adequate time to complete the test prior to the close time.
- The quiz will automatically close and submit completed student answers once the allocated time has elapsed.
- The duration of the quiz is tailored to promote recall of fact, rather than research of answers unknown.
- Students are reminded that IT support from the university Information and Technology Division (TASAC) is only available during AEST business hours (Monday to Friday).
- This assessment is to be undertaken as an individual. Colluding with other students on non-group work tasks is considered academic misconduct, and may lead to action being taken by the Deputy Dean of Learning and Teaching HMAS.
- Students are advised to refer to the 'Assessment Policy and Procedure (Higher Education Coursework)' document

for additional university guidelines regarding assessments.

Number of Quizzes

1

Frequency of Quizzes

Other

Assessment Due Date

The Online Quiz will open at 8:00 am (AEST) on Tuesday 18th April and will close at 8:00 pm (AEST) Thursday 20th April. The quiz will assess the topics covered during weeks 1 to 5.

Return Date to Students

Results will be made available within two weeks of assessment due date. The Online Quiz question pool in its entirety will not be released to students.

Weighting

40%

Minimum mark or grade

50%

Assessment Criteria

Students will be required to answer a variety of online questions.

Question responses will be assessed according to the:

- Use of appropriate terminology and descriptors as well as grammar and spelling.
- Student's ability to appropriately interpret presented sonographic images and cardiac assessment data.
- Student's ability to succinctly respond with accurate answers.

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

- Please note that the quiz must be completed before the due date time listed.
- 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 percent per day.
- Students will receive a mark of zero (or fail) for this assessment, if you have not completed it by the scheduled date and time and do not have an extension.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

The Online Quiz will be accessible through the assessment tab on Moodle.

Learning Outcomes Assessed

- Differentiate between the aetiology, pathophysiology and echocardiographic assessment processes associated with a variety of pericardial and systemic heart diseases
- Critically analyse case-based clinical information to formulate differential diagnoses and plan patient management
- Perform advanced haemodynamic calculations applied to 2D, colour and spectral Doppler derived echocardiographic data
- Compare and contrast assessment data acquired from a variety of cardiac imaging modalities

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research

3 Online Test

Assessment Type

Online Test

Task Description

The Online Test will assess your understanding of the content presented within this unit. Questions may be drawn from lectures, additional resources provided (e.g. prescribed readings), or tutorial presentations.

- **The Online Test duration is 80 minutes including perusal time.**
- **It is recommended that you have a calculator available when sitting the Online Test.**
- Once started, the Online Test cannot be paused or restarted. Only one attempt is permitted.
- It is the student's responsibility to commence the Online Test with adequate time to complete the test prior to the close time.
- The Online Test will automatically close and submit completed student answers once the allocated time has elapsed.
- The duration of this test is tailored to promote recall of fact, rather than research of answers unknown.
- You will be required to answer a variety of online questions. Questions may include multiple-choice, short answer, essay style, or image interpretation format.

This assessment is to be undertaken as an individual. Colluding with other students on non-group work tasks is considered academic misconduct and may lead to action being taken by the Deputy Dean of Learning and Teaching HMAS. The number of marks allocated for each question will be indicated within the Online Test. Question marks are allocated based on the accuracy, depth, and breadth of required responses.

Students are reminded that IT support from the university Information and Technology Division (TASAC) is only available during AEST business hours. It is recommended that the Online Test is completed during business hours.

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

Assessment Due Date

Online Test will open at 8:00 am (AEST) on Friday 9th June and will close at 8:00 pm (AEST) on Tuesday 13th June.

Return Date to Students

Results will be made available within two weeks of assessment due date. The Online Test question pool in its entirety will not be released to students.

Weighting

40%

Minimum mark or grade

50%

Assessment Criteria

Students will be required to answer a variety of online questions.

Question responses will be assessed according to the:

- Use of appropriate terminology and descriptors as well as grammar and spelling.
- Student's ability to appropriately interpret presented sonographic images and cardiac assessment data.
- Student's ability to succinctly respond with accurate answers.

The number of marks allocated for each question will be indicated within the Online Test. Question marks are allocated based on the accuracy, depth and breadth of required responses.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

The Online Test will be accessible through the assessment tab on Moodle.

Learning Outcomes Assessed

- Differentiate between the aetiology, pathophysiology and echocardiographic assessment processes associated with a variety of pericardial and systemic heart diseases
- Critically analyse case-based clinical information to formulate differential diagnoses and plan patient management
- Compare and contrast assessment data acquired from a variety of cardiac imaging modalities

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research

4 Clinical Attendance Log

Assessment Type

Learning logs / diaries / Journal / log books

Task Description

Students must maintain access to suitable clinical experience for the duration of the course enrolment. In accordance with the Australasian Sonographer Accreditation Registry (ASAR) Program Accreditation Guidelines, it is recommended that students be engaged in cardiac ultrasound practice for a minimum of three days/week over a two-year period, full-time equivalent, in an Australian or New Zealand clinical setting (minus standard leave privileges).

Clinical experience is the component of sonographer education that allows students to put theoretical knowledge into practice within the patient care environment. It includes, but is not limited to, the hospital setting, and may include general practice, remote and rural health clinics, and community care environments.

This assessment task requires the submission of a Clinical Attendance Log Book, detailing clinical attendance since the last requested log book submission.

- All hours spent in attendance within the echocardiography laboratory (either observing, participating, or performing related activities) must be documented.
- These hours must be signed off on and approved by your ASAR registered clinical supervisor or appropriately qualified medical practitioner, verifying the accuracy of entries.
- A student is required to complete a total of 2200 hours of clinical attendance prior to graduation and ASAR registration as a qualified sonographer.
- It is recommended that a student complete a minimum of 270 hours of clinical attendance per 12-week term of course enrolment.

A template for the Clinical Attendance Log Book is supplied in a word document format on the Moodle site. Students were supplied with this same Clinical Attendance Log Book at the time of course enrolment.

- The word document is designed to facilitate easy electronic submission at various checkpoints throughout unit and course enrolment. The clinical supervisor's digital signature can be used to verify the authenticity of entries on the word document.
- Alternatively, the word document can be printed, manually completed and scanned to a digital file format for submission. Please note all writing must be legible on the hand-completed document.

Assessment Due Date

The Clinical Attendance Log Book must be submitted by 8:00 pm (AEST) on Friday 2nd June 2023.

Return Date to Students

Results will be made available within two weeks of assessment due date

Weighting

Pass/Fail

Assessment Criteria

To be awarded a PASS, all documentation must be completed and submitted by the corresponding due date and time. The Clinical Attendance Log Book must demonstrate:

- that minimum training requirements have been met and verified by ASAR registered clinical supervisor or

- appropriately qualified medical practitioner
- hours of attendance have been documented appropriately.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

The Clinical Attendance Log Book must be uploaded through the assessment tab on Moodle as a single 'PDF' document. The document must be appropriately labelled with student name, student number and descriptor (E.g. 'John SMITH_S12345_Clinical Attendance Log Book').

Learning Outcomes Assessed

- Engage in cardiac ultrasound practice as per external accreditation requirements (Australasian Sonographer Accreditation Registry).

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Self-management
- Ethical and Professional Responsibility

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