



# **ECHO13008 *Advanced Cardiac Assessment Skills***

## **Term 1 - 2020**

Profile information current as at 04/05/2024 04:04 pm

All details in this unit profile for ECHO13008 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.

### Corrections

**Unit Profile Correction added on 30-03-20**

Assessment 2 - In-class test has now been changed to an alternate form of assessment. Please see your Moodle site for details of the assessment.

## General Information

### Overview

In this unit you will compare and contrast the methodology and outcomes of several advanced echocardiographic and cardiac catheterisation procedures and alternative cardiac testing modalities including MRI, CT and Nuclear medicine. With this knowledge, you will be able to discuss management strategies associated with a variety of common cardiovascular pathologies frequently first assessed with echocardiography, within the setting of best practice and patient safety.

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

ANDECHO12005 Cardiac Clinical Unit 2 AND Co-requisite: ECHO13006 Adult Echocardiography

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

- Brisbane
- Online
- Perth
- Sydney

### 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. **Group Work**

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](#).

## Unit Learning Outcomes

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

1. Discuss the clinical assessment and management strategy for a variety of cardiac conditions
2. Compare and contrast the methodology and outcomes of various cardiac assessment modalities, identifying discordant data
3. Demonstrate professional communication skills.

Linked to the Australian Sonographer Accreditation Register Standards for Cardiac Sonography:

- Foundation units of competence - 1 - 5
- Critical practice 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
1 - Group Work - 40%	•	•	•
2 - In-class Test(s) - 60%	•	•	

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes		
	1	2	3
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 - Group Work - 40%	•	•	•	•	•			•		
2 - In-class Test(s) - 60%	•	•	•	•				•		

## Textbooks and Resources

### Textbooks

ECHO13008

#### Supplementary

##### **ASE's comprehensive echocardiography**

Edition: 2nd (2016)

Authors: Lang, Goldestein, Kronzon, Khandheria, Mor-avi

Elsevier Saunders

Philadelphia , PA , USA

ISBN: 978-0-32326011-4

Binding: Other

ECHO13008

#### Supplementary

##### **a sonographers guide to the assessment of heart disease**

Edition: 1st (2014)

Authors: Bonita Anderson

MGA Graphics

Brisbane , Queensland , Australia

ISBN: 9780992322205

Binding: Other

#### Additional Textbook Information

Bonita Anderson's textbook is only available in hardcopy. Copies can be purchased from the CQUni Bookshop here: <http://bookshop.cqu.edu.au> (search on the Unit code)

ASE text is available as an ebook. However, if you prefer a paper copy, you can purchase from the CQUni Bookshop as well.

[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

**Sudeepthi Singarayar** Unit Coordinator

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**Kate Sturwohld** Unit Coordinator

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## Schedule

### Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Stress echocardiogram applications in heart disease ASE's comprehensive echocardiography Section XIII Stress Echocardiography.

#### Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Stress echocardiogram applications in valve disease Dobutamine stress echocardiography	ASE's comprehensive echocardiography pg 246-247, 255-256	

#### Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Fractional Flow Reserve (FFR)		

#### Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Contrast Echocardiography	ASE's comprehensive echocardiography pg 91-112	

#### Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
3D Echocardiography		Group assessment draft due week 5 Thursday (9th April 2020) 6:00 pm AEST

#### Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic

#### Week 6 - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Strain		

#### Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
ASD/PFO closure	Anderson, B. (2017). A Sonographer's Guide to the Assessment of Heart Disease pg 433-439 and 449-452	

#### Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Transcatheter Aortic Valve Implantation (TAVI)	Anderson, B. (2017). A Sonographer's Guide to the Assessment of Heart Disease 297-298	

#### Week 9 - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Mitral Valve Clips	Anderson, B. (2017). A Sonographer's Guide to the Assessment of Heart Disease pg296-299	

#### Week 10 - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
CT and MRI		

#### Week 11 - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Nuclear Medicine		

#### WEEK 12 - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic

## Term Specific Information

The unit coordinator for ECHO13008 is Sudeepthi Singarayar. In the first instance, students are requested to utilise the Moodle Q&A forum for content-related questions. Multiple content experts are teaching into this unit, therefore this enables the most appropriate staff member to respond to your forum post. If the query is personal, please email s.singarayar@cqu.edu.au or phone (02) 9324 5036. Office hours are Wednesday, Thursday and Friday, therefore some responses may be delayed. Staff members will do their best to address any questions as soon as possible. Weekly tutorials will be held during the term, starting from week 2. Specific times and meeting IDs will be posted on the Moodle site. To give yourself the best chance of success with the unit, please ensure that you undertake all the additional readings and activities that are provided to you.

## Assessment Tasks

### 1 Group Work

#### Assessment Type

Group Work

#### Task Description

The internet is used to obtain information which can provide us with useful data. This information can be used for knowledge, personal, social or economic development. Cardiology routinely uses multimodality imaging to improve patient care.

In an attempt to replicate the team environment encountered by Cardiac Physiologist in the workplace, students will be randomly allocated into groups to complete the task. Ideally, groups will contain a maximum of four students from the same campus, however, depending on unit enrolment number, this may vary slightly. The groups will be allocated a number which will correspond to the topic they are required to research. A copy of the draft group allocation will be available by the first week of the term (Monday 9th March), this could be subject to minor changes up until the census date of Tuesday 31 st March.

In groups, you will be tasked with designing a website using the online platform Wix.com. Your target audience will be fellow colleagues and students. You will be required to inform your target audience with information about a specific cardiovascular condition and the various imaging modalities that are used to diagnose and monitor the disease presentation.

To help facilitate working in a group, teams are encouraged to review Belin's team role theory. This document will be provided in the assessment section on Moodle.

The following is a list of the topics that could be assigned:

1. Transcatheter aortic valve implantation (TAVI)
2. Transcatheter treatment of mitral regurgitation (MitraClip)
3. Atrial septal defect (ASD) closure
4. Stress echo in valvular heart disease

#### Assessment Due Date

Part A: Draft website format submission-group component (Due date: week 5 Thursday 9th April 2020 6:00 p.m AEST),  
 Part B: (FINAL SUBMISSION) A link to the completed website with individual component (Due date: week 10 Friday 22nd of May 2019 6:00 p.m AEST). Part C: Self and Peer Assessment (SPA) surveys x 2 - individual component (Due dates: week 5 Thursday 9th April 6:00 p.m AEST and week 10 Friday 22nd May 6:00 p.m AEST)

#### Return Date to Students

Week 12 Friday 5th June 2020

#### Weighting

40%

#### Assessment Criteria

Below is a breakdown of what is required within the website being developed.

The marks allocated show the percentage toward the overall weighting for the assessment piece. A detailed marking rubric can be found on the Moodle website.

There are 90% of marks available from the website, 5% available from both SPA surveys and 5% available from the draft submission of the website in week 5.



The website should contain 5 tabs only and must display the following titles. The percentage breakdown of the website weighting is displayed alongside the tab headings:

1. Overview (15%)
2. Disease information (20%)
3. Work up and procedure (20%)
4. Recent research / blog (25%)
5. References (10%)

Tab descriptors:

Tab 1. Overview (15%). In this tab you are required to introduce all group members, stating with the name of your unit, course and the university you are enrolled in. The maximum word count for this section is 500 words.

The following should be included:

- Describe what the website is designed for.
- Provide a guide for the reader on how to navigate the website.
- Clearly define the target audience.
- Describe the aims/objectives of the information provided on the website.
- Explain the significance of the cardiovascular condition as an important health issue.

Tab 2: Disease information (20%). This page should contain the main overview of the disease and should reflect evidence of a wide range of readings including the most up to date and accurate information about the disease using multiple credible resources. The maximum word count for this section is 1000 words.

The following should be included:

- Clearly define the background to the condition including facts/figures/statistics and identify the highrisk group.
- Clearly explain the signs and symptoms of the condition and possible associated prognosis.
- Discuss any differential diagnosis.

Tab 3: Work up procedure (20%). This page should explain the multimodalities involved to diagnose the condition. Discuss the different procedures from both a technical and patient perspective. The maximum word count for this section is 1000 words.

The following should be included:

- Clearly describe the different imaging techniques involved in diagnosing the condition.
- Define the different grades/levels of severity for the condition and how each is assessed.
- List any other possible test or procedures that may be offered to the patient.

Tab 4: Blog (25%). Individual component Each member of the group is to enter a blog on this page, with the maximum word count of 500 words per blog. One blog entry per person regardless of the group size. The blog entry needs to contain the title of the entry, author's name and date of entry. This part of the assessment represents an individual component for this assignment. The blog entry should bring in new information about the condition and should not be elsewhere on the website. The entry should show evidence of a wide range of readings and most up to date, accurate information is required.

The following should be included:

- Provide new information on any aspect of the condition and or the treatment of the condition.
- Refer to any new media release / recent published work about the condition.
- Explain possible alternative diagnostic examination and/ or treatment options (if relevant).

Tab 5- References (10%). This tab should contain all your end text citations and link address to any other websites/videos you have used in your website. The references should be divided under subheadings (corresponding to page/tab number) to show which references were used for each tab. All website content needs to contain correct in-text citation using the Vancouver style of referencing with superscript numbers. When referencing use reputable websites or peer-reviewed journals. Minimum of 10 references. References do not form part of individual maximum tab word counts. Draft submission (5%) - (Due date: week 5 Thursday 9th April 2020 6:00 p.m AEST). The purpose of the draft submission is to demonstrate that your group has made progress towards the final submission.

The minimum requirement for the draft status of your websites is as follows:

- Website title.
- Tabs/pages allocated with headings.
- Introduction of group members and the purpose of the website explained in tab 1 / page 1.
- At the time of draft submission, it is acceptable to have additional website information displayed beyond the minimum draft requirements. Changes are permitted between the draft and final submission and will not incur any penalties.

The SPA Survey (5%). This will be assessed in two parts. The first SPA survey to be completed during week 5 (Due date: week 5 Thursday 9th April 2020 6:00 p.m AEST). The final SPA survey to be completed during week 10 (Due date: week

10 Friday 22nd of May 2019 6:00 p.m AEST). The two surveys will be averaged to determine the final SPA grade.

### Referencing Style

- [Vancouver](#)

### Submission

Online Group

### Submission Instructions

Only one student from each group is to submit the draft and the final link to the website on the due dates. All students need to submit their individual components on the due date. Each student is required to complete both SPA surveys in week 5 and week 10 by the due date.

### Learning Outcomes Assessed

- Discuss the clinical assessment and management strategy for a variety of cardiac conditions
- Compare and contrast the methodology and outcomes of various cardiac assessment modalities, identifying discordant data
- Demonstrate professional communication skills.

### Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Ethical practice

## 2 In Class Test

### Assessment Type

In-class Test(s)

### Task Description

This test is to review the topics presented in the unit and assess your understanding of the content presented.

- The questions will be short answer or essay-style questions.
- Questions will be similar to revision material presented throughout the term.

The in-class test is a closed-book assessment. You will have ten minutes of perusal time prior to the allotted writing time. The test will be held under examination conditions as detailed in the Assessment Procedures. You will submit your test paper at the end of the test period to the invigilator. 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 this 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 2nd June 2020. Campus specific venue details will be published on the Moodle site

### Return Date to Students

Results will be made available once the submissions have been marked and moderated.

### Weighting

60%

### Minimum mark or grade

50%

### Assessment Criteria

You must provide short to medium-length written responses to a series of questions. Responses will be assessed according to:

- Use of appropriate terminology and descriptors as well as grammar, spelling.
- The relevance of the response in addressing the question.
- The ability of the student to appropriately interpret images/graphs and tables.
- Succinctly compose appropriate responses based on their learning from the unit.

The number of marks allocated for each question will be based on the breadth and depth required by the response and will be indicated on the test paper.

**Referencing Style**

- [Vancouver](#)

**Submission**

Offline

**Learning Outcomes Assessed**

- Discuss the clinical assessment and management strategy for a variety of cardiac conditions
- Compare and contrast the methodology and outcomes of various cardiac assessment modalities, identifying discordant data

**Graduate Attributes**

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