

## In Progress

Please note that this Unit Profile is still in progress. The content below is subject to change.



# ECHO13006 Adult Echocardiography

## Term 1 - 2023

Profile information current as at 07/02/2023 09:01 pm

All details in this unit profile for ECHO13006 have been officially approved by CQU University 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

Accurate analysis and assessment of complex cardiovascular disease and their pathological processes is a core part of all echocardiographic examinations. In preparation for clinical placement you will attain the knowledge and skills needed to analyse complex cardiovascular disease. This will include consideration of the echocardiographic generated images and assessment measures, haemodynamic calculations, pressures and valve prosthetics. You will apply knowledge to practical echocardiographic tasks in the laboratory setting, and utilise simulated clinical scenarios and case studies to analyse diagnostic data to provide differential diagnoses within an ethical framework of best practice and patient safety. You will demonstrate the professional knowledge, attitude and skills required to perform a complete echocardiographic study within a time frame related to clinical expectations. This unit prepares you for the clinical environment using the Assessment of Readiness for Clinical tool (ARC) in conjunction with other assessment tasks. Attendance at practical activities is a requirement of this unit.

### 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 MPAT12001 Medical Pathophysiology AND ECHO12003 Principles of Cardiac Assessment OR ECHO12008 Doppler Echocardiography AND ECHO12005 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 - 2023

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

Weighting: 50%

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

Weighting: 50%

#### 3. **Practical Assessment**

Weighting: Pass/Fail

#### 4. **Performance**

Weighting: Pass/Fail

#### 5. **Reflective Practice Assignment**

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 and Unit Teaching Evaluation

### Feedback

Online tests in prior CV69 units are conducted remotely. Some students did not fully appreciate the requirement for closed book conditions in this third-year unit.

### Recommendation

Echocardiography requires a high level of independent thinking and analytical interpretation, and requires the ability to immediately access a vast pool of foundational knowledge, particularly in urgent clinical situations. Proper comprehension and recall of foundational concepts is vital for scaffolding of skills before extended clinical placements in follow-on units of the CV69 course. Open book tests cannot assess the recall and comprehension necessary at this level of study, immediately prior to clinical placement. For this reason, ECHO13006 tests will continue to be scheduled in-class and under closed book conditions. Many academic lecturers within Echocardiography have expressed a view that closed book conditions should be introduced earlier than third year and this will be discussed further, prior to 2023 unit deliveries.

## Feedback from Student and Unit Teaching Evaluation

### Feedback

Some students did not appreciate the requirement to recall equations, and felt that a list of equations should have been provided for reference in the first in-class test.

### Recommendation

While equations are often programmed into industry software, all practising sonographers have learned the theory behind common equations and understand their application. Recall of equations during the ECHO13006 test is necessary to assess understanding of (sometimes non-standard) requisite parameters and application to specific pathologies. As such, students will be required to recall and apply equations in future deliveries.

## Feedback from Student and Unit Teaching Evaluation

### Feedback

Some students felt that on-campus time with tutors was insufficient and that more time should be afforded for explanation of concepts.

### Recommendation

Weekly lab sessions provide students with an opportunity to apply concepts taught in lectures. Lab schedules for QLAB are carefully considered so that content follows on from the previous week, to afford students the opportunity to learn theoretical concepts and attend tutorials before their lab session. This approach will be made clearer to students in future deliveries. Scanning sessions are inevitably constrained by equipment and staffing availability and are scheduled to enable staff to support students as equitably as possible across campuses.

## Feedback from Student and Unit Teaching Evaluation

### Feedback

The revised rubrics for practical assessments were unfamiliar and some students found assessment requirements difficult to understand.

### Recommendation

Redevelopment of the practical assessment rubric was necessary, to move from a negative-marking approach to a competency-led approach. Students may have been unfamiliar with the competency framework and where their skill progression should sit within this context. The industry-recognised competency framework for sonographers will be introduced to students early on in the CV69 course in future deliveries— this will likely improve student comprehension of unit expectations and assessment criteria.

## Feedback from Student and Unit Teaching Evaluation

### Feedback

Students felt they would have benefitted from additional time and lab access between the mock and final practical assessments.

### Recommendation

Given student numbers, staffing and equipment constraints, optimal lab scheduling is always difficult. The lab delivery schedule will be reviewed close to term commencement to ensure optimal lab deliveries across campuses. This will potentially provide more time or additional sessions between the mock and formal practical assessments.

## Feedback from Student and Unit Teaching Evaluation

**Feedback**

Students appreciated the commitment and care demonstrated by tutors.

**Recommendation**

Pastoral care is recognised as an important aspect of student interaction and will continue to be a strong focus within the CV69 teaching team.

## Unit Learning Outcomes

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

1. Differentiate between the aetiology, pathophysiology and echocardiographic assessment process associated with a variety of cardiovascular disease processes
2. Perform and interpret measurements and advanced haemodynamic calculations applied to 2D, colour and spectral Doppler derived echocardiographic measures
3. Differentiate prosthetic valve and valvular surgical intervention functionality and disease processes
4. Analyse case-based clinical information to formulate differential diagnoses and plan patient management
5. Perform an echocardiographic examination efficiently and effectively
6. Display professional behaviour, teamwork and communication skills consistent with safe practice
7. Apply reflective feedback to professional practice improvement.

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



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes						
	1	2	3	4	5	6	7
1 - In-class Test(s) - 50%	•	•	•	•			
2 - In-class Test(s) - 50%	•	•	•	•			
3 - Practical Assessment - 0%		•			•		
4 - Performance - 0%						•	
5 - Reflective Practice Assignment - 0%							•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes						
	1	2	3	4	5	6	7
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							

## Textbooks and Resources

### Textbooks

ECHO13006

#### Prescribed

##### **A Sonographer's Guide to the Assessment of Heart Disease**

Edition: 1st (2014)

Authors: Bonita Anderson

MGA Graphics

BRISBANE , QUEENSLAND , AUSTRALIA

ISBN: 9780992322205

Binding: Hardcover

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#### Prescribed

##### **Basic to Advanced Clinical Echocardiography**

Edition: 1st (2020)

Authors: Bonita Anderson, Margaret M. Park

Wolters Kluwer

USA

ISBN: 9781975136253

Binding: eBook

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#### 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

[View textbooks at the CQUniversity Bookshop](#)

### IT Resources

**You will need access to the following IT resources:**

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

## Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.