



# ECHO12006 Cardiac Science

## Term 1 - 2023

Profile information current as at 03/05/2024 03:26 pm

All details in this unit profile for ECHO12006 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

The accurate diagnosis of cardiac conditions requires comprehensive knowledge of cardiac pathophysiology, and the outcomes of a variety of cardiovascular assessment procedures. In this unit you will be introduced to cardiac assessment within the catheterisation laboratory. You will learn how to interpret a 12-lead electrocardiogram (ECG), and how to assess cardiac structure and function by performing a two-dimensional echocardiographic examination. Within the ethical framework of best practice, you will examine simulated case-based clinical information. You will explore the outcomes of cardiac diagnostic procedures, formulate differential diagnoses and patient management strategies for a variety of common cardiovascular pathologies. Attendance at practical activities is a requirement of this unit.

#### Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 12

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.25

#### Pre-requisites or Co-requisites

Pre-requisite ECHO11002 Cardiac Structure and Function and ECHO11003 Fundamentals of Cardiac Science  
Co-requisite MEDS12001 Physics of Ultrasound

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
- 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. **Online Quiz(zes)**

Weighting: 20%

#### 2. **Written Assessment**

Weighting: 30%

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

Weighting: Pass/Fail

#### 4. **Performance**

Weighting: Pass/Fail

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

Weighting: Pass/Fail

#### 6. **Examination**

Weighting: 50%

### 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 Moodle and SUTE feedback

##### **Feedback**

Students found background noise in some lectures distracting. Some lectures were "not concise" causing confusion when learning a new topic.

##### **Recommendation**

A review of the unit lectures should be undertaken to identify where improvements can be made. Special consideration should be made to providing clear learning outcomes.

#### Feedback from SUTE

##### **Feedback**

Student found expectations of prior knowledge and skill expectations varied between tutors.

##### **Recommendation**

Further guidance should be given to tutors at the start of term. This should help to make tutors aware of the level of students prior learning and could include a discussion on skill expectations for the unit.

#### Feedback from SUTE

##### **Feedback**

Students reported the manned and unmanned sessions were very helpful to scanning practice.

##### **Recommendation**

Practice sessions will continue to be offered and students will continue to be encouraged to attend these sessions.

#### Feedback from SUTE

##### **Feedback**

Students would like more examples provided which are linked to real-world applications.

##### **Recommendation**

A review of tutorials should be undertaken to consider how to link unit content to real-world scenarios and case studies.

#### Feedback from SUTE

##### **Feedback**

Some students felt that expectations were not always clear.

##### **Recommendation**

This is the students first introduction to practical laboratory sessions. They may require further explanation of expectations of skill progression and assistance in understanding the assessment marking rubrics.

## Unit Learning Outcomes

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

1. Perform the standard two-dimensional echocardiographic protocol including associated anatomical quantification.
2. Formulate and evaluate reasoned arguments for the exclusion of artefactual and discordant two-dimensional echocardiographic findings.
3. Analyse case-based clinical information to formulate differential diagnoses and plan patient management strategies for a variety of common cardiovascular pathologies.
4. Discuss common cardiac catheterisation procedures including radiation safety.
5. Analyse the output of 12-lead electrocardiogram (ECG) studies.
6. Apply 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
<b>1 - Online Quiz(zes) - 20%</b>					•		
<b>2 - Written Assessment - 30%</b>			•	•	•		•
<b>3 - Practical Assessment - 0%</b>	•	•				•	
<b>4 - Performance - 0%</b>						•	
<b>5 - Reflective Practice Assignment - 0%</b>							•
<b>6 - Examination - 50%</b>		•	•	•			

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes						
	1	2	3	4	5	6	7
<b>1 - Communication</b>	•	•	•	•	•	•	•
<b>2 - Problem Solving</b>	•	•		•	•	•	•
<b>3 - Critical Thinking</b>	•	•	•	•	•	•	•

Graduate Attributes	Learning Outcomes						
	1	2	3	4	5	6	7
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

ECHO12006

#### **Prescribed**

##### **12-lead ECG. The Art of interpretation**

Edition: 2nd (2015)

Authors: Garcia

Jones & Bartlett Learning

Burlington , MA , United States of America

ISBN: 9780763773519

Binding: Other

ECHO12006

#### **Prescribed**

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

Edition: 1st (2016)

Authors: Anderson

Echotext Pty Ltd

Australia

ISBN: 9780992322205

Binding: Hardcover

ECHO12006

#### **Prescribed**

##### **Echocardiography: The Normal Examination and Echocardiographic Measurements**

Edition: 3rd (2017)

Authors: Anderson

Echotext Pty Ltd

Australia

ISBN: 9780992322212

Binding: Hardcover

ECHO12006

#### **Prescribed**

##### **The Cardiac Catheterisation Handbook**

Edition: 6th (2016)

Authors: Kern, Sorajja, Lim

Elsevier

Philadelphia , PA , United States of America

ISBN: 9780323340397

Binding: eBook

#### **Additional Textbook Information**

Textbooks can be accessed online at the CQUniversity Library website. If you prefer your own copy, you can purchase either paper or eBook versions at the CQUni Bookshop here: <http://bookshop.cqu.edu.au> (search on the Unit code)

[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

**Katrina Cumins** Unit Coordinator  
[k.cumins@cqu.edu.au](mailto:k.cumins@cqu.edu.au)

## Schedule

### Week 1 - 06 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
<b>CCL:</b> purpose, procedures, and equipment. <b>ECG:</b> the stepwise method, identifying rhythm, and P waves. <b>Echo:</b> Echocardiographic windows and M-mode and two-dimensional protocol, M-mode and two-dimensional image optimisation, and M-mode measurements.	See eReading List via Moodle.	<b>Laboratory Agreement Form</b> and <b>Consent Form</b> to be completed and uploaded to Moodle by 4:00 pm (AEST) Wednesday 8th March 2023.

### Week 2 - 13 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
<b>CCL:</b> radiation. <b>ECG:</b> the P-R interval, Q waves, and the QRS complex. <b>Echo:</b> M-mode and two-dimensional left heart measurements.	See eReading List via Moodle.	

### Week 3 - 20 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
<b>CCL:</b> haemodynamics. <b>ECG:</b> the ST segment, T waves, and the Q-T interval. <b>Echo:</b> M-mode and two-dimensional right heart measurements.	See eReading List via Moodle.	

### Week 4 - 27 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
<b>CCL:</b> pressure transducers. <b>ECG:</b> interpretation. <b>Echo:</b> advanced two-dimensional image optimisation, cardiac anatomical variants, and sonographer ergonomics.	See eReading List via Moodle.	

### Week 5 - 03 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
<b>CCL:</b> determining cardiac output (CO). <b>ECG:</b> identifying arrhythmias. <b>Echo:</b> two-dimensional assessment of left ventricular regional systolic function.	See eReading List via Moodle.	

### 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
<b>Echo:</b> two-dimensional assessment of ischaemic and non-ischaemic causes of chest pain.	See eReading List via Moodle.	<b>ECG Online Quiz</b> will open at 8:00 am (AEST) on Tuesday 18th April and will close at 8:00 pm (AEST) Friday 21st April 2023.

**Week 7 - 24 Apr 2023**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Echo:</b> M-mode and two-dimensional assessment of aortic valve anatomy and disease, and aortopathies.	See eReading List via Moodle.	

**Week 8 - 01 May 2023**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Echo:</b> M-mode and two-dimensional assessment of mitral valve anatomy and disease.	See eReading List via Moodle.	

**Week 9 - 08 May 2023**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Echo:</b> M-mode and two-dimensional assessment of tricuspid and pulmonary valve anatomy and disease.	See eReading List via Moodle.	<b>Written assessment</b> Due: Monday 8th May at 8:00 pm (AEST).

**Week 10 - 15 May 2023**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Echo:</b> two-dimensional assessment of pericardial and extracardiac disease.	See eReading List via Moodle.	

**Week 11 - 22 May 2023**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Echo:</b> two-dimensional assessment of cardiac masses.	See eReading List via Moodle.	

**Week 12 - 29 May 2023**

Module/Topic	Chapter	Events and Submissions/Topic
		<b>Professional Behaviour and Laboratory Attendance Forms</b> to be completed and uploaded to Moodle by 8:00 pm (AEST) Thursday 1st June 2023.

**Review/Exam Week - 05 Jun 2023**

Module/Topic	Chapter	Events and Submissions/Topic
		<b>Examination</b> timetable can be accessed through <a href="#">MyCQU Calender</a> .

**Exam Week - 12 Jun 2023**

Module/Topic	Chapter	Events and Submissions/Topic
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## Term Specific Information

**The Unit Coordinator for ECHO12006 is Katrina Cumins.** The most efficient and preferred method of contacting Katrina, and other staff involved in the running of this unit, is via the Q&A forum located on the unit Moodle site. If your query is of a personal nature, please contact Katrina directly via email (k.cumins@cqu.edu.au). While Katrina will endeavour to deal with all enquiries as soon as possible, please be aware she works a three-day week at CQUniversity, being Monday - Wednesday.

**Students are encouraged to use the Learning Community Q&A forum on the ECHO12006 Moodle site as the first point of contact.** Prioritising the forum allows the entire cohort to view and benefit from questions and answers. Forums are monitored and responses will be provided in a timely manner. Students are encouraged to review the CQUniversity Student Charter and follow advice on appropriate conduct within the university environment (on-campus and online).

**ECHO12006 consists of weekly lectures, readings, live tutorials, and laboratory sessions.** Lectures present central information, with essential and supporting resources outlined on the ECHO12006 eReading List. Tutorials are held via Zoom, with specific meeting times and access details posted on the ECHO12006 Moodle site under Virtual Classes. Tutorials are designed to be interactive and focus on the clarification of unit concepts, application of knowledge, and preparation for assessments. Tutorials are recorded for educational purposes and may be posted on the ECHO12006 Moodle site. If you have concerns about being recorded please adjust your audio/visual settings as appropriate. Your participation implies consent for recorded tutorials.

**The laboratory induction and all laboratory sessions for ECHO12006 are mandatory.** The Mandatory Laboratory Induction must be completed in the first laboratory. Laboratory Documents (Laboratory Agreement Form + Consent Form) are available on the ECHO12006 Moodle site and must be completed and uploaded to access ECHO12006 on-campus activities. Please review the Laboratory Resources tile on the ECHO12006 Moodle site. Laboratory sessions that are not attended must be accompanied by appropriate documentation and can not be attended at a later date. All students are to demonstrate professional behaviour, including appropriate dress (see the CV69 Course Dress Code). All students must be available to act as a patient model throughout the term, as well as during mock practical assessments, practical assessments and re-sit practical assessments.

Further unit information is available on the ECHO12006 Moodle site.

## Assessment Tasks

### 1 Online Quiz

#### Assessment Type

Online Quiz(zes)

#### Task Description

The ability to correctly analyse and interpret a 12-lead electrocardiogram (ECG) is crucial in a professional cardiac diagnostic role. Comprehensive ECG analysis and interpretation can provide vital information about the location and nature of heart disease.

Students are to analyse and interpret a series of 12-lead ECGs in accordance with the "Stepwise Method of ECG Interpretation" (available on the ECHO12006 Moodle site).

Students will have 80 minutes to complete the quiz once it is started.

To successfully complete the ECG Online Quiz, students must:

- Access the ECG Online Quiz on the ECHO12006 Moodle site at the assigned time
- Prepare personal notes and have a calculator when attempting the ECG Online Quiz
- Undertake the ECG Online Quiz as an individual (questions are drawn from a question pool to allow a different quiz for each student. Any incidences of academic misconduct will be met with action from the Deputy Dean of Learning and Teaching)
- Notify TASAC and relevant ECHO12006 staff if technical issues arise during the ECG Online Quiz (i.e. email TASAC with a screenshot of the issue, and cc ECHO12006 staff); TASAC is available for immediate assistance during AEST business hours.

It is important that you commence the Online Quiz before 6:40 pm (AEST) on Friday the 21st of April 2023. If you have not completed the test by this time, your test may be submitted incomplete or with no answers. Please note:

- Once started, the quiz cannot be paused or restarted
- Only one attempt is permitted
- The Online Quiz will automatically close at 8:00 pm (AEST) on Friday the 21st of April 2023.

In the absence of an approved extension, the ECG Online Quiz cannot be completed at a later time.

**Number of Quizzes**

1

**Frequency of Quizzes**

Other

**Assessment Due Date**

The ECG Online Quiz will open at 8:00 am (AEST) on Tuesday 18th April and will close at 8:00 pm (AEST) Friday 21st April 2023.

**Return Date to Students**

Feedback will be provided to students within two weeks of submission. The ECG Online Quiz question pool in its entirety will not be released to students.

**Weighting**

20%

**Minimum mark or grade**

50%

**Assessment Criteria**

The Stepwise Method of ECG Interpretation will be available on Moodle, with grading based on the student's ability to:

- Analyse calibration settings;
- Analyse cardiac rhythm, rate, and axis;
- Identify common arrhythmias; and
- Utilise correct terminology in interpreting ECG waveforms, segments, intervals, and associated anomalies.

**Referencing Style**

- [Vancouver](#)

**Submission**

No submission method provided.

**Learning Outcomes Assessed**

- Analyse the output of 12-lead electrocardiogram (ECG) studies.

## 2 Written Assessment

**Assessment Type**

Written Assessment

**Task Description**

Multimodality cardiac testing is useful in the diagnostic assessment pathway for many cardiac pathologies. Integrating information from cardiac catheterisation, 12-lead electrocardiogram (ECG), and echocardiographic studies provide useful clinical information that may be applied to clinical scenarios, such as generating test reports, formulating differential diagnoses, and planning patient management strategies.

Students are required to present a scholarly report of 1200 (+/- 10 %) words reviewing multimodality findings on the topic:

**Takotsubo cardiomyopathy.**

The report requires each student to:

1. Research, analyse, and discuss the aetiology, epidemiology, pathophysiology, presenting clinical symptoms, clinical management, and prognosis of the cardiac pathology.

2. Research, analyse, and discuss at least two (2) alternatives for differential diagnoses, and describe relevant clinical information that would exclude alternative diagnoses.
3. Research, analyse, and discuss analysis methods, characteristic findings, and diagnostic criteria as observed from a **standard 12-lead ECG**. Include an example and description of a 12-lead ECG to demonstrate findings.
4. Research, analyse, and discuss indications, analysis methods, characteristic findings, and diagnostic criteria as observed from **cardiac catheterisation**. Include an example and description of a haemodynamic graph or angiographic image to demonstrate findings.
5. Research, analyse, and discuss analysis methods, characteristic findings and diagnostic criteria as observed from **M-mode and two-dimensional echocardiographic analysis methods**. Include an example and description of a two-dimensional and M-mode image to demonstrate findings. Doppler findings (colour, continuous wave or pulse wave Doppler) findings should not be included in the report.
6. Provide a reference list, using the Vancouver referencing style. The reference list is not included in the word count.
7. Present information in a scholarly manner, with accurate spelling and grammar, and within the word count. Content beyond the word limit will not be marked.
8. Provide a reflection on the strengths and areas for improvement of their report by responding to prompts on the task rubric, and include the rubric and your reflection at the front of your report upon submission.

Students are advised to review and utilise the "Written Task Template with Rubric" document (available on the ECHO12006 Moodle site).

### Assessment Due Date

Written assessment is due Monday 8th May 2023 at 8:00 pm (AEST).

### Return Date to Students

Feedback will be provided to students within two weeks of submission.

### Weighting

30%

### Minimum mark or grade

50

### Assessment Criteria

A detailed rubric will be available on the ECHO12006 Moodle site, with grading based on the student's ability to:

- Analyse and discuss cardiovascular findings;
- Research and evaluate topics;
- Apply academic referencing protocols;
- Apply scholarly presentation standards; and
- Apply critical reflection to practice.

### Referencing Style

- [Vancouver](#)

### Submission

Online

### Learning Outcomes Assessed

- Analyse case-based clinical information to formulate differential diagnoses and plan patient management strategies for a variety of common cardiovascular pathologies.
- Discuss common cardiac catheterisation procedures including radiation safety.
- Analyse the output of 12-lead electrocardiogram (ECG) studies.
- Apply reflective feedback to professional practice improvement.

## 3 Echocardiography Skills Assessment

### Assessment Type

Practical Assessment

### Task Description

The ability to perform an M-mode and two-dimensional echocardiogram and perform associated measurement analysis are crucial skills for a professional cardiac sonographer.

### Task Requirements

Students are to perform a complete M-mode and two-dimensional echocardiographic examination using ultrasound

equipment, and complete associated measurements using analysis software.

### 1. Part A (Scanning) component.

- Professional tasks: including pre-scan, during, and post-scan professionalism, such as patient care, effective communication, obtaining a relevant patient history, informed consent, and operating equipment in a professional manner.
- Technical tasks: including scanning technique, scanning protocol, transducer manipulation, image optimisation, and M-mode and two-dimensional image acquisition.
- 70-minute time limit to complete both professional and technical tasks.

### 2. Part B (Measurement) component.

- Appropriate techniques in performing and recording a series of offline measurements using analysis software.
- 35-minute time limit.

Students will be assessed using the Assessment of Readiness for Clinical (ARC) tools: "Scanning ARC Tool" and "Measurement ARC Tool". Students are advised to carefully review these documents on the ECHO12006 Moodle site. These documents detail performance criteria the student must demonstrate competence in to pass the assessment. Student competence is assessed in relation to the expectations specific to this unit of study. Students enrolled in ECHO12006 are working towards the attainment of a **Novice level** of competency, as detailed on the ARC tool.

**Part A (Scanning) and Part B (Measurement) components, and tasks therein, must all be successfully completed to achieve a pass.** Part A (Scanning) professional and technical tasks are graded separately so that if a pass is awarded for one and not the other, only the component that was awarded a fail must be repeated. Students must demonstrate all Part A (Scanning) professional tasks in the Scanning ARC Tool. In the event that a student does not achieve the minimum to pass, the student will be given one (1) opportunity to re-sit the component.

In the absence of an approved extension, students cannot complete this assessment later and will be awarded a fail for this assessment. In the case of non-attendance of the assessment session, students must notify the Unit Coordinator and local campus staff before the start of their laboratory session with appropriate documentation, as per CQUniversity's Assessment Policy and Procedure (Higher Education Coursework), for the assessment to be postponed to a later date.

Assessments will be recorded for moderation purposes. The recordings will not be released to students for review. All students are required to be available to act as a patient model. This includes mock tests, tests, and re-sit test dates. Students will be advised of times for the assessment prior to the test date.

Students will be provided with a single opportunity to attempt the Echocardiography Skills Assessment under **MOCK examination conditions**. Individual feedback will be provided to students after completing the MOCK assessments. Students will receive a completed MOCK Part A (Practical) ARC tool and MOCK Part B (Measurement Performance and Interpretation) ARC tool following moderation. Scanning feedback will be provided verbally by the tutor supervising each individual student's MOCK practical scanning assessment. The MOCK assessment will be delivered as part of the routine laboratory sessions.

There is no opportunity for the rescheduling of missed laboratory sessions.

### Assessment Due Date

The Skills Assessment will be completed during Week 10. The Re-sit Skills Assessment will be completed during Week 12. Schedules will be posted on the ECHO12006 Moodle site.

### Return Date to Students

Feedback will be provided to students within two weeks of assessment completion.

### Weighting

Pass/Fail

### Assessment Criteria

Detailed rubrics are available on the ECHO12006 Moodle site.

- **To pass the Part A (Professional and Technical) component, all criteria must be demonstrated.**
- **To pass the Part B (Measurement) component, all criteria must be demonstrated.**

Competency is defined as a Novice level of competency, as described Dreyfus Model of Skill Acquisition<sup>1</sup>, 2021 Professional Competency Framework for Sonographers<sup>2</sup> and the best practice guidelines published by the American Society of Echocardiography (ASE)<sup>3</sup>.

## Referencing Style

- [Vancouver](#)

## Submission

Offline

## Learning Outcomes Assessed

- Perform the standard two-dimensional echocardiographic protocol including associated anatomical quantification.
- Formulate and evaluate reasoned arguments for the exclusion of artefactual and discordant two-dimensional echocardiographic findings.
- Apply professional behaviour, teamwork and communication skills consistent with safe practice.

# 4 Professional Behaviour and Laboratory Documentation

## Assessment Type

Performance

## Task Description

The purpose of this assessment is to ensure that students from the echocardiography course are well-equipped to embody the high standards of professionalism that are expected from CQUniversity students while on their follow-on clinical placement blocks. Professional behaviour is a critical part of any medical imaging profession and encompasses the manner in which we treat our colleagues, patients and the professional settings and equipment we interact with. Exemplary professional behaviour is highly valued by clinical supervisors and this information may be used to endorse students for placements if requested by clinical sites.

This assessment requires students to treat each of the lab sessions as a scheduled "work shift" and to exhibit high-quality professional attributes. This assessment is based on a continuous and ongoing evaluation of student application and attendance during labs, and behaviour exhibited during the time spent studying this unit up until the completion of all formal assessments. Aspects of professionalism will be assessed across multiple levels including, but not limited to: maintenance of laboratory documentation, Moodle forums, online tutorials, lab sessions (both manned and unmanned), interactions with peers and staff, social media, phone calls and all official correspondence with university staff, peers and the community.

Instances of substandard professional behaviour will result in a Lapse in Professionalism (LiP) point being awarded to the offending student. **Should a student acquire more than three (3) LiPs, this assessment will automatically be graded a FAIL.**

LiPs may be issued in three different categories:

1. Professional behaviour towards colleagues and staff
2. Professional behaviour towards patients
3. Professional behaviour towards professional settings and equipment

Further information is detailed in the **Expected Professional Behaviour and LiP Allocation** document, which is available on the Moodle site. Students are encouraged to review this document to be sure of behavioural expectations. Students should also be familiar with the CQUniversity Student Charter as well as the Australasian Sonographers Association (ASA) Code of Conduct (available online).

If an unprofessional attitude or behaviour is reported by fellow classmates and not witnessed by a staff member, a written warning detailing the allegations will be issued to the student and the student's response will be documented. If further evidence of ongoing unprofessional behaviour arises then a LiP may be awarded. If any exhibited attitude or behaviour is deemed as unsafe or inappropriate, this assessment will be graded as a FAIL at the discretion of the unit coordinator.

## Absenteeism

Skills labs for this unit are mandatory. Students must advise the unit coordinator before the start of compulsory labs if unable to attend. Failure to notify staff (via email or phone) before the start of a missed lab will result in a LiP (Lapse in Professionalism) except in extraordinary circumstances. Lateness to labs may result in a LiP, whether notice is given or not. Labs missed for a valid reason (eg. illness or injury) require supporting documentation. Medical or health-related certificates must be in the approved formats articulated in the CQUniversity Assessment Policy and Procedure (HE Coursework), section 5.

Any missed labs must be clearly marked on the Lab Attendance Page and Reflective Feedback Form. A tutor's signature is not required in this case. There is no opportunity to 'make up' missed lab sessions.

### Unmanned Practice Sessions

Students are offered regular unmanned practice sessions, which are scheduled through Google Doc links on the Moodle site. Penalties will be applied if instructions and rules disclosed on these documents are not adhered to. Failure to abide by these regulations may result in a LiP and removal of attendance privileges.

### Assessment Due Date

Laboratory Agreement Form and Consent Form due via Moodle by Wednesday 8th March at 4:00 pm (AEST); Professional Behaviour Rubric Form and Laboratory Attendance Form due via Moodle by Thursday 1st June at 8:00 pm (AEST).

### Return Date to Students

Feedback will be provided to students within two weeks of submission.

### Weighting

Pass/Fail

### Assessment Criteria

This assessment incorporates maintenance of pertinent lab documentation including lab attendance and any Lapse in Professionalism (LiP) points accrued throughout unit delivery. To pass this unit students need to consistently display a high standard of professional behaviour including, but not limited to, punctual lab attendance. All interactions with staff and peers pertaining to this unit will be treated as a replica of the clinical work environment, and students are expected to demonstrate the professional behaviour expected in a formal work environment. **No more than three (3) Lapses in Professionalism are permitted to pass the unit.**

Students are required to complete the following documentation and submit to Moodle in PDF format. All documents are available on the unit Moodle page.

1. A signed **Lab Agreement Form** (signed and uploaded to Moodle by Wednesday week 1)
2. A signed **Consent Form - Sonographic Examination for Teaching Purposes** (signed and uploaded to Moodle by Wednesday week 1)
3. A completed and signed **Lab Attendance and Professional Behaviour Assessment form** (signed and uploaded to Moodle by Thursday week 12)

**The "Laboratory Agreement Form" and "Consent Form", as well as the Mandatory Laboratory Induction, must be completed via Moodle by Week 1 Wednesday 4:00 pm (AEST) and submitted to the Assessment 4a tab on the ECHO12006 Moodle site. Students will not receive access to weekly content and cannot participate in laboratory activities until these documents are uploaded to Moodle.**

The "Laboratory Attendance and Professional Behaviour Rubric Form" must be uploaded to the Assessment 4b tab by Week 12 Thursday 1st June 8:00 pm (AEST) on the ECHO12006 Moodle site. Students can access these tasks on the ECHO12006 Moodle site and must complete and upload all documents to achieve a pass.

To PASS this assessment, all documentation must be completed appropriately and submitted by the due date and time.

All documents must be legible, labelled appropriately and uploaded in PDF format.

### Referencing Style

- [Vancouver](#)

### Submission

Online

### Submission Instructions

Online via Moodle. Each item must be submitted and labelled appropriately, i.e. "S123456789 - John SMITH - Laboratory Attendance Form".

### Learning Outcomes Assessed

- Apply professional behaviour, teamwork and communication skills consistent with safe practice.

## 5 Formative Feedback and Self-Reflection

### Assessment Type

Reflective Practice Assignment

**Task Description**

The ability to set goals, self-reflect, and take advantage of feedback, are important to aid the progress of knowledge and skill development. These abilities also address industry requirements, whereby professionals must perform continuing professional development (CPD) activities.

Students are to develop goal-setting, reflection, and feedback skills through weekly activities:

1. Formative Feedback Forms (one for each laboratory session; a total of six forms). Each form must include goal setting and self-reflection, tutor feedback, and tutor signature. The feedback form must be completed before leaving the associated laboratory session.
2. Mock Assessment Reflection. This form must include a reflection on areas of strength and areas for improvement in preparation for the Skills Assessment.

The "Formative Feedback and Self-Reflection Forms" are available on the ECHO12006 Moodle site.

Students must complete and upload the complete document by the due date to achieve a pass.

**Assessment Due Date**

Formative feedback and self reflection forms are due Wednesday 31st May 2023 at 4:00pm (AEST).

**Return Date to Students**

Feedback will be provided to students within two weeks of submission.

**Weighting**

Pass/Fail

**Assessment Criteria**

Detailed rubrics are available on the ECHO12006 Moodle site. Grading will be based on the student's ability to:

- Develop self-reflection skills;
- Apply goal-setting strategies; and
- Implement feedback for performance improvement.

**Referencing Style**

- [Vancouver](#)

**Submission**

Online

**Submission Instructions**

All documents must be appropriately labelled with student name, student number and document descriptor (eg. JohnSMITH\_S12345\_ReflectiveFeedback). Documentation must be individually submitted as PDF documents. JPEG is not acceptable.

**Learning Outcomes Assessed**

- Apply reflective feedback to professional practice improvement.

**Examination****Outline**

Complete an invigilated examination.

**Date**

During the examination period at a CQUniversity examination centre.

**Weighting**

50%

**Length**

180 minutes

**Minimum mark or grade**

50%

**Exam Conditions**

Closed Book.

**Materials**

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).



## 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