



# ECHO28001 Cardiac Imaging, Haemodynamics and Pharmacotherapy

## Term 1 - 2021

Profile information current as at 25/04/2024 03:33 pm

All details in this unit profile for ECHO28001 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

## General Information

### Overview

The aim of this unit is to provide introductory knowledge in cardiac imaging, haemodynamic assessment and pharmacotherapy, providing a foundation for future study in the Graduate Diploma of Cardiac Ultrasound. You will acquire knowledge of the physics behind ultrasound image formation and instrumentation. You will learn haemodynamic principles which apply to volumetric flow, valve assessment and pressure calculation and develop an understanding of how pharmacotherapy affects cardiac performance. You will further develop your physics knowledge and skill of ultrasound imaging through participation in an intensive on-campus scanning workshop, in a simulated clinical environment.

### 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: Enrolment in CL74 Graduate Diploma of Cardiac 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 - 2021

- Mixed Mode

### Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

### Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

### 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. **Online Quiz(zes)**

Weighting: 30%

#### 2. **Practical Assessment**

Weighting: 20%

#### 3. **Online Test**

Weighting: 50%

#### 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 Moodle unit evaluation

##### Feedback

Overall, the unit is well structured and organised.

##### Recommendation

The Moodle site format will continue to be improved with consideration of CQURenew guidelines.

## Unit Learning Outcomes

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

1. Discuss the theoretical principles underlying assessment of cardiac haemodynamics using echocardiography and cardiac catheterisation
2. Describe how cardiac performance is altered by pharmacotherapeutic agents
3. Discuss the physics behind ultrasound image formation and instrumentation, including imaging artefacts
4. Apply knowledge of ultrasound physics and practical skills to acquire optimal ultrasound images, with due regard for bioeffects and safety
5. Perform basic Doppler haemodynamic calculations using data derived from an echocardiogram
6. 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	6
1 - Online Quiz(zes) - 30%			•			
2 - Practical Assessment - 20%				•		

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
3 - Online Test - 50%	•	•	•		•	
4 - Learning logs / diaries / Journal / log books - 0%						•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
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 - Online Quiz(zes) - 30%	○	○	○					
2 - Practical Assessment - 20%	○	○	○			○		
3 - Online Test - 50%	○	○	○					
4 - Learning logs / diaries / Journal / log books - 0%	○	○	○		○	○		

## Textbooks and Resources

### Textbooks

ECHO28001

#### 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

ECHO28001

#### 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

ECHO28001

#### Prescribed

##### **The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide**

Edition: 1 (2012)

Authors: Dr Robert Gill

High Frequency Publishing

Sydney , NSW , Australia

ISBN: 9780987292148

Binding: eBook

#### Additional Textbook Information

Prescribed echocardiography resources will be used in multiple units throughout course.

### 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

**Tarryn Cremin** Unit Coordinator

[t.cremin@cqu.edu.au](mailto:t.cremin@cqu.edu.au)

## Schedule

**Week 1 - 08 Mar 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Physics fundamentals	Anderson B. Echocardiography : The Normal Examination and Echocardiographic Measurements. 3rd ed. Brisbane: Echotext; 2017. Chapter 1, p 1-9.  Gill R. The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide. 1st ed. [eBook]. Sydney: High Frequency Publishing; 2012. Chapter 1, p 1-5; Chapter 2, p 7-16.	

**Week 2 - 15 Mar 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Transducer and beam characteristics	Gill R. The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide. 1st ed. [eBook]. Sydney: High Frequency Publishing; 2012. Chapter 2, p 11-12; Chapter 3, p 17-20; Chapter 4, p 25-29, 39-40; Chapter 5, p 43-44; Chapter 11, p 121-123.	

**Week 3 - 22 Mar 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Beam focussing, A-mode, B-mode and M-mode	Gill R. The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide. 1st ed. [eBook]. Sydney: High Frequency Publishing; 2012. Chapter 3, p 20-21 & 23-24; Chapter 4, p 27-35; Chapter 12, p 127-129.	

**Week 4 - 29 Mar 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Resolution and image production	Gill R. The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide. 1st ed. [eBook]. Sydney: High Frequency Publishing; 2012. Chapter 4, p 32-36; Chapter 10, p 109-113.	

**Week 5 - Revision - 05 Apr 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Revision		<b>Online Quiz</b> will open at 11:00 am (AEST) on Wednesday the 7th of April and will close at 11:00 am (AEST) of Friday the 9th of April.  <b>Online Quiz</b> Due: Week 5 Friday (9 Apr 2021) 11:00 am AEST

**Break Week - 12 Apr 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Residential School		<b>Compulsory Residential School</b> Wednesday the 14th of April 2021.

**Week 6 - 19 Apr 2021**

Module/Topic	Chapter	Events and Submissions/Topic

Signal analysis and processing

Gill R. The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide. 1st ed. [eBook]. Sydney: High Frequency Publishing; 2012. Chapter 5, p 41-51; Chapter 10, p 114-116.

**Week 7 - 26 Apr 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Quality control and B-mode artifacts	Anderson B. Echocardiography : The normal examination and echocardiographic measurements. 3rd ed. Brisbane: Echotext; 2017. Chapter 1, p 19-28.  Gill R. The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide. 1st ed. [eBook]. Sydney: High Frequency Publishing; 2012. Chapter 6, p 53-64 & 65-69; Chapter 8, p 153-60; Chapter 10, p 114-116.	<b>Practical Assessment</b> Due: Week 7 Tuesday (27 Apr 2021) 5:00 pm AEST

**Week 8 - 03 May 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Doppler Ultrasound and more artifacts	Anderson B. Echocardiography : The normal examination and echocardiographic measurements. 3rd ed. Brisbane: Echotext; 2017. Chapter 5, p 83-103.  Gill R. The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide. 1st ed. [eBook]. Sydney: High Frequency Publishing; 2012. Chapter 7, p 71-92.	

**Week 9 - 10 May 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Novel applications and biological effects	Anderson B. Echocardiography : The normal examination and echocardiographic measurements. 3rd ed. Brisbane: Echotext; 2017. Chapter 1, p 13-14 & 29-30.  Gill R. The Physics and Technology of Diagnostic Ultrasound: A Practitioner's Guide. 1st ed. [eBook]. Sydney: High Frequency Publishing; 2012. Chapter 8, p 89-100; Chapter 11, p 117-125, Chapter 12, p 130-136.	

**Week 10 - 17 May 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Cardiac hemodynamic assessment	Anderson B. A Sonographer's Guide to the Assessment of Heart Disease. 1st ed. Brisbane: Echotext; 2016. Chapter 1, p 1-14.  Anderson B. Echocardiography : The normal examination and echocardiographic measurements. 3rd ed. Brisbane: Echotext; 2017. Chapter 11, p 203-232; Chapter 12; p 233-240.	

**Week 11 - 24 May 2021**

Module/Topic	Chapter	Events and Submissions/Topic
Pharmacotherapy	Lilly, L. Pathophysiology of heart disease. 6th ed. Philadelphia: Woltzers Kluwer; 2016. Chapter 17; p 400-454.	
<b>Week 12 - 31 May 2021</b>		
Module/Topic	Chapter	Events and Submissions/Topic
Revision		
<b>Exam Block - 07 Jun 2021</b>		
Module/Topic	Chapter	Events and Submissions/Topic
		<p><b>Online Test</b> will open at 11:00 am (AEST) on Tuesday the 8th of June and will close at 11:00 am (AEST) of Friday the 11th of June.</p> <p><b>Online Test Due:</b> Review/Exam Week Friday (11 June 2021) 11:00 am AEST  <b>Clinical Attendance Log Book Due:</b> Review/Exam Week Friday (11 June 2021) 5:00 pm AEST</p>
<b>Exam Block - 14 Jun 2021</b>		
Module/Topic	Chapter	Events and Submissions/Topic

## Term Specific Information

### Unit Coordinator and Contact details

Your coordinator for ECHO28001 Cardiac Imaging, Haemodynamics and Pharmacotherapy is Tarryn Cremin. The most efficient and preferred method of contacting Tarryn is via the Q&A forum located on the unit Moodle site. If your query is of a personal nature please contact Tarryn directly via email (t.cremin@cqu.edu.au) or phone (02 9324 5034). Tarryn is contactable between Monday to Thursday. In between these days, replies may be delayed. If your enquiry is of an urgent nature, please contact Head of Course Paula Boucaut directly via email (p.boucaut@cqu.edu.au) or phone (07 3023 4108).

### Unit Tutorials

Tutorials for this unit will be delivered 'live' online using ZOOM (the links required for accessing the tutorials are provided on the Moodle site). The tutorials will incorporate a discussion of the weekly content delivered and associated revision material. Advice will also be provided to support student preparation for related assessments. All tutorials will be recorded and subsequently made available on Moodle.

### Unit Study Commitment

As per Australian educational standards, a study commitment or engagement of approximately 150 hours will be required to complete this unit (i.e. 12.5 hours per week). A suggestion for how you should allocate your study commitment per week is as follows:

- 3 hours watching recorded lectures
- 2 hours completing recommended readings
- 1.5 hours creating study notes
- 1 hour completing the weekly study questions
- 1 hour participating in/or viewing the weekly tutorial
- 4 hours preparing for quizzes, practical assessments or the final examination.

### Compulsory Residential School

All students are required to attend the on-campus Compulsory Residential School on Wednesday the 14th of April 2021 (break week on the academic calendar). Students will be notified of the campus venue details and residential school schedule upon term commencement. Travel will be necessitated to either Brisbane, Sydney or Perth CQUniversity campus for attendance at the residential school. Delivery venue will be dependent upon the number of student enrolments. Students may be required to act as a patient model for their peers during practical activities.

**Please ensure you complete all the activities listed under the Orientation tile on the Moodle site upon first enrolment.**



## Assessment Tasks

### 1 Online Quiz

#### Assessment Type

Online Quiz(zes)

#### Task Description

This Online Quiz will assess your understanding of the content presented during weeks 1-4 of unit delivery.

- Questions will be drawn from a resource bank, to allow the Online Quiz to be different for each student.
- All unit content presented in lectures, tutorial presentations, at the residential school and within prescribed readings is examinable.

The Online Quiz may include multiple choice, short answer, calculation or image interpretation style questions. Students are encouraged to have a calculator available when sitting the quiz.

The Online Quiz will be open for 45 minutes.

- Once started, the quiz cannot be paused or restarted.
- Only one attempt is permitted.

Please note: It is important that you commence the Online Quiz before 10.15 am (AEST) on Friday the 9th of April.

- The Online Quiz will automatically close at 11.00 am (AEST) on Friday the 9th of April.
- If you have not completed the test by this time, your test may be submitted incomplete or with no answers.

In the absence of an approved extension, students will receive a mark of zero (or fail) for this assessment, if it is not completed by the scheduled date and time.

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

This assessment is to be undertaken as an individual. As with all other university examinations, 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

#### Assessment Due Date

Week 5 Friday (9 Apr 2021) 11:00 am AEST

Online Quiz will open at 11:00 am (AEST) on Wednesday the 7th of April and will close at 11:00 am (AEST) on Friday the 9th of April.

#### 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

30%

#### Minimum mark or grade

To PASS this assessment task, a minimum of 50% must be achieved.

#### Assessment Criteria

You 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.

#### Referencing Style

- [Vancouver](#)

**Submission**

Online

**Submission Instructions**

At the assigned time, the Online Quiz can be accessed and completed through the assessment tab at the top of the ECHO28001 Moodle site.

**Learning Outcomes Assessed**

- Discuss the physics behind ultrasound image formation and instrumentation, including imaging artefacts

**Graduate Attributes**

- Knowledge
- Communication
- Cognitive, technical and creative skills

## 2 Practical Assessment

**Assessment Type**

Practical Assessment

**Task Description**

This practical assessment will be commenced during the break week Residential School. Attendance at the Residential School is compulsory. You will use knowledge from previous weeks as well as skills learned at the Residential School to perform tasks under the supervision of a Tutor.

- The residential school laboratory manual can be downloaded from the Moodle site.
- Students will commence completion of the laboratory manual questions during the residential school.
- Students are required to bring a USB stick to the residential school to save acquired images.

This practical assessment requires students to:

- observe the effect of changing machine parameters on the resultant image
- perform practical tasks set out in their laboratory manual
- obtain, annotate and store ultrasound images during the residential school that will assist to answer questions detailed in their laboratory manual (for later submission).

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

**Assessment Due Date**

Week 7 Tuesday (27 Apr 2021) 5:00 pm AEST

A 5% mark penalty will be applied for each day, or part there of, that the residential school laboratory manual submission is late.

**Return Date to Students**

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

**Weighting**

20%

**Assessment Criteria**

Questions posed in the laboratory manual will assess the student's understanding of each lab task performed during the residential school.

Students will be assessed on their ability to:

- provide accurate responses to questions posed in their lab manual using appropriate terminology
- provide appropriate illustrative images in response to questions posed.

**Referencing Style**

- [Vancouver](#)

**Submission**

Online

**Submission Instructions**

Students will be required to upload their completed lab manual answers to the unit Moodle page via the link provided in the assessment block. The completed lab manual should be submitted as a single Word or PDF document.

## Learning Outcomes Assessed

- Apply knowledge of ultrasound physics and practical skills to acquire optimal ultrasound images, with due regard for bioeffects and safety

## Graduate Attributes

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

## 3 Online Test

### Assessment Type

Online Test

### Task Description

This Online Test will assess your understanding of the content presented throughout unit delivery. There will be a heavier emphasis on content not previously assessed, in particular content from weeks 5-11 of unit delivery.

- Questions will be drawn from a resource bank, to allow the Online Test to be different for each student.
- All unit content presented in lectures, tutorial presentations, at the residential school and within prescribed readings is examinable.

The Online Test may include multiple choice, short answer, calculation or image interpretation style questions. Students are encouraged to have a calculator available when sitting the test.

The Online Test will be open for 70 minutes.

- Once started, the test cannot be paused or restarted.
- Only one attempt is permitted.

Please note: It is important that you commence the Online Test before Friday 9.50 am (AEST) on Friday the 11th of June.

- The Online Test will automatically close at 11.00 am (AEST) on Friday the 11th of June.
- If you have not completed the test by this time, your test may be submitted incomplete or with no answers.

In the absence of an approved extension, students will receive a mark of zero (or fail) for this assessment, if it is not completed by the scheduled date and time.

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

This assessment is to be undertaken as an individual. As with all other university examinations, 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

Review/Exam Week Friday (11 June 2021) 11:00 am AEST

Online Test will open at 11:00 am (AEST) on Tuesday the 8th of June and will close at 11:00 am (AEST) on Friday the 11th of 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

50%

### Minimum mark or grade

To PASS this assessment task, a minimum of 50% must be achieved.

### Assessment Criteria

You 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.

## Referencing Style

- [Vancouver](#)

## Submission

Online

## Submission Instructions

At the assigned time, the Online Test can be accessed and completed through the assessment tab at the top of the ECHO28001 Moodle site.

## Learning Outcomes Assessed

- Discuss the theoretical principles underlying assessment of cardiac haemodynamics using echocardiography and cardiac catheterisation
- Describe how cardiac performance is altered by pharmacotherapeutic agents
- Discuss the physics behind ultrasound image formation and instrumentation, including imaging artefacts
- Perform basic Doppler haemodynamic calculations using data derived from an echocardiogram

## Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills

# 4 Clinical Attendance Log Book

## 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 all cardiac ultrasound practice since course enrolment.

- The logbook should include all hours spent in attendance within the echocardiography laboratory (either observing, participating, or performing related activities).
- 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 academic term of course enrolment.

Students were first supplied with this same Clinical Attendance Log Book at the time of course enrolment.

The Clinical Attendance Log Book:

- template can be found on the Moodle site
- should be printed, manually completed and scanned to a digital file format for submission.

**A Clinical Attendance Log Book electronic submission can be requested at any point during course enrolment, at the discretion of the university course coordinator.**

## Assessment Due Date

Review/Exam Week Friday (11 June 2021) 5:00 pm AEST

## Return Date to Students

Results will be made available within two weeks of assessment due date. Individual student feedback will be provided only if assessment criteria deficits are identified.

## 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 'PDF' 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