ECHO12007 *Cardiac Assessment Skills*

Term 2 - 2023

Profile information current as at 12/10/2024 05:18 pm

All details in this unit profile for ECHO12007 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

This unit prepares you for entry into the clinical environment. You will build upon your knowledge of diagnostic techniques to support your future role as both an echocardiographer and cardiac physiologist. You learn to interpret electrocardiography cases applying the step-wise method, study the principles underpinning cardiac rhythm management (CRM) and device applications, and be introduced to various cardiac assessment strategies including invasive and non-invasive approaches. You will apply this knowledge to a variety of cardiovascular pathologies and case studies, formulating differential diagnoses, whilst considering patient management strategies within an ethical framework of best practice and patient safety.

Details

Career Level: *Undergraduate*
Unit Level: *Level 2*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Pre-requisites:ECHO12006 Cardiac ScienceANDECHO11002 Cardiac Structure and Function
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 2 - 2023

- Online

Attendance Requirements

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

Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit 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. **Online Quiz(zes)**
Weighting: 50%
2. **Online Quiz(zes)**
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 SUTE Teacher Evaluations

Feedback
Some students cited difficulties completing the online quiz(zes) due to issues with internet connectivity.

Recommendation
The importance of securing a reliable internet source and using a suitable device when undertaking online assessments, along with the procedure for reporting any technology disruptions will be highlighted in the E-unit profile and under the assessment tile on the Moodle site.

Feedback from SUTE Teacher Evaluations

Feedback
Student feedback acknowledged that the unit coordinator was both readily accessible and willing to give feedback through informal consultations, above and beyond routine tutorial offerings.

Recommendation
Additional ad hoc Zoom tutorials will continue to be offered to those students seeking additional learning support.

Feedback from SUTE Teacher Evaluations

Feedback
Additional resources could have helped with student learning.

Recommendation
Consider developing contextualised case studies, additional MOCK quizzes and revision material to support student learning and application of theoretical concepts.

Unit Learning Outcomes

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

1. Interpret 12-Lead electrocardiogram (ECG) studies, applying a step-wise method of interpretation
2. Compare and contrast referral indications, methodology and outcomes of various invasive and non-invasive routine cardiac assessment modalities
3. Explain the concepts underpinning basic cardiac rhythm management (CRM) and device applications
4. Analyse clinical case studies, constructing links between cardiovascular disease presentation, echocardiographic assessment and patient outcomes, with consideration of best practice and patient safety

Unit developed in collaboration with British Heart Rhythm Society (BHRS) certified staff.
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

— N/A Level | • Introductory Level | • Intermediate Level | • Graduate Level | ◦ Professional Level | ◦ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Online Quiz(zes) - 50%	•	•		•
2 - Online Quiz(zes) - 50%		•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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

ECHO12007

Supplementary

12-Lead ECG, The Art of Interpretation
Edition: Second (2015)
Authors: Tomas B. Garcia
Jones and Bartlett
America
ISBN: 978-0-7637-7351-9
Binding: Paperback
ECHO12007

Supplementary

Invasive Cardiology, A Manual for Cath Lab Personnel
Edition: Forth (2023)
Authors: Sandy Watson, Kenneth A. Gorski
Jones and Bartlett
America
ISBN: 978-1-284-22211-1
Binding: Paperback
ECHO12007

Supplementary

Pacemakers and ICDs
Edition: Second (2019)
Authors: Julian OM Ormerod, Jonathan Timperley
Oxford University Press
United Kindom
ISBN: 978-0-19-968783-1
Binding: Paperback

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

Aidan Rickwood Unit Coordinator
a.rickwood@cqu.edu.au

Schedule

Week 1 - Module 1 - 10 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic

ECG: Stepwise method recap ECG: Rhythm recognition ECG: Types of heart block	See eReading list for details.	

Week 2 - Module 1 - 17 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
ECG: Arrhythmia's ECG: Interpretation ECG: Single and three lead interpretation	See eReading list for details.	

Week 3 - Module 1 - 24 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
ECG: Abnormal ECG's ECG: Trouble shooting & artifact	See eReading list for details.	

Week 4 - Module 2 - 31 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Non-Invasive: Exercise stress testing Non-Invasive: Tilt table testing	See eReading list for details.	

Week 5 - Module 2 - 07 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
Non-Invasive: Holter monitor Non-Invasive: Event monitor & Loop recorders Non-Invasive: Ambulatory blood pressure monitors	See eReading list for details.	

Vacation / Revision Week - 14 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
N/A		

Week 6 - Module 3 / Online Quiz - 21 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
CRM: Pacemaker (PPM) indications CRM: Pacing codes (NBG code)	See eReading list for details.	**Online Quiz - Module 1 & 2** Due: Week 6 Thursday (24 Aug 2023) 8:00 am AEST

Week 7 - Module 3 - 28 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
CRM: Introduction to intracardiac electrograms (EGMs) CRM: Basic pacing intervals & cardiac resynchronisation therapy (CRT) principles	See eReading list for details.	

Week 8 - Module 3 - 04 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
CRM: Radiological imaging of cardiac devices CRM: Intracardiac electrogram (EGM) rhythm's	See eReading list for details.	

Week 9 - Module 4 - 11 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
CL: Patient pathway CL: Coronary angiography	See eReading list for details.	

Week 10 - Module 4 - 18 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
CL: Left heart coronary angiogram CL: Therapeutic treatment	See eReading list for details.	

Week 11 - Module 4 - 25 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
CL: ST elevation myocardial infarction (STEMI) & coronary stenting CL: Structural devices	See eReading list for details.	

Week 12 - Online Quiz - 02 Oct 2023

Module/Topic	Chapter	Events and Submissions/Topic
N/A		**Online Quiz - Module 3 & 4** Due: Week 12 Thursday (5 Oct 2023) 8:00 am AEST

Term Specific Information

The unit coordinator for ECHO12007 Cardiac Assessment Skills is Aidan Rickwood. The most efficient and preferred method of contacting Aidan is via the Q&A forum located on the unit Moodle site. If the query is personal in nature, please contact Aidan directly via email (a.rickwood@cqu.edu.au) or phone (08 9260 4034). Aidan works from the Perth campus and is available Monday to Wednesday.

Unit Tutorials
Tutorials for this unit will be delivered online using Zoom (the links required for accessing the tutorials are provided on the Moodle site under the Virtual Classes tile). The tutorials will focus on clarification of theoretical concepts and assessment requirements. Tutorials are designed to complement the theories and principles presented in lectures. Tutorials provide an opportunity for discussion and interaction with other students and with your tutor. It is important students make the most of these interactive sessions and participate fully in order to broaden their knowledge and experience with the course material.
Note: Tutorials are recorded for educational purposes. Recordings of Zoom tutorials may be uploaded and appear on Moodle or Microsoft Teams. If you have any concerns about being recorded, please turn off your webcam or audio, or both, during the session. Your participation will signify your consent to the recording and publication for educational purposes.

Unit Study Commitment
As per Australian educational standards, there is an expectation of 150 hours of engagement required to complete learning and assessment tasks associated with this 6-credit point unit. (i.e. 12.5 hours per week). Weekly revision material will be provided. Attempting all provided revision material will help you prepare for both online quizzes.

Assessment Tasks

1 Online Quiz - Module 1 & 2

Assessment Type
Online Quiz(zes)

Task Description
The Online Quiz will assess your understanding of all content from week one (1) to week five (5) covering topics from module one (1) ECG Analysis and module two (2) Non-Invasive Cardiac Assessments.
This assessment task will require you to complete one (1) Online Quiz.

The Online Quiz will be marked out of 100 marks. You will have 120 minutes (2 hours) to complete the quiz.

Questions posed will assess your ability to:

- interpret the outcome of 12-Lead electrocardiogram (ECG) studies.
- explain the concepts underpinning non-invasive cardiac assessments, including consideration of best practice

and patient safety.

Details of the Online Quiz include:

- Once started, the quiz cannot be paused or restarted.
- Only one attempt is permitted.
- The Online Quiz will automatically close and submit completed answers once the allocated time has elapsed.
- The time available to complete this assessment is purposely kept tight to promote fact recall, rather than testing the ability of students to look up answers in available resources at hand.

As the Online Quiz is open book, you will find it useful if you have produced your own notes from content within the unit (lectures, readings, tutorials, etc) and you may benefit from having normal electrocardiographic reference ranges and a calculator available to ensure that you are prepared for this assessment.

Questions will be randomly drawn from a resource bank, which will provide each student with a unique experience for each quiz.

Students are reminded that IT support from the University Information and Technology Division (TASAC) is only available during AEST business hours. It is recommended that the Online Quiz is completed during business hours. Students are advised to refer to the 'Assessment Policy and Procedure (Higher Education Coursework)' document for additional university guidelines regarding assessments.

It is the student's responsibility to ensure adequate and reliable internet connection while using a suitable device when completing the Online Quiz(zes). If this is unattainable at home or work, then attending campus to attempt the Online Quiz(zes) is recommended. For any technical disruptions during the Online Quiz(zes), it is recommended contacting both TASAC and the Unit Coordinator immediately and to take screen shots or photos as evidence. Any technical issues will be delt with on a case-by-case approach.

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.

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 6 Thursday (24 Aug 2023) 8:00 am AEST

Online Quiz 1 will open at 8am (AEST) on Thursday the 24, August 2023 and close at 6pm (AEST) on Saturday the 26, October 2023. Online Quiz 2 will open at 8am (AEST) on Thursday the 5, October 2023 and close at 6pm (AEST) on Saturday the 7, October 2023.

Return Date to Students

Individual student results will be made available within two (2) weeks of quiz attempt. The online quiz question pool in its entirety will not be released to students.

Weighting
50%

Minimum mark or grade
50%

Assessment Criteria
Students will be required to answer a variety of questions presented in an online format. Answers will be assessed according to the following criteria:

- Ability to appropriately interpret presented data and images.
- Ability to respond clearly and concisely.
- Use of appropriate terminology and descriptors.

Online Quiz mark allocation:

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

Please ensure that the quiz is commenced with sufficient time prior to the quiz closing (i.e. commence the test before 3:59pm AEST on the designated Saturday - if the test is not completed by 6pm AEST your test may be automatically submitted incomplete or with no answers).

Please note that the Online Quiz must be completed before the due date listed. In the absence of an approved extension, there will be no opportunity to complete the task after this date, and there will be no opportunity to apply a late penalty of five (5) percent per day. Students will receive a mark of zero (or fail) for this assessment if you have not completed it by the scheduled date and time and do not have an approved extension.

Referencing Style

- Vancouver

Submission
Online

Submission Instructions
The Online Quiz(zes) will be accessible through the assessment tab on Moodle.

assessmentOutcome

- Interpret 12-Lead electrocardiogram (ECG) studies, applying a step-wise method of interpretation
- Compare and contrast referral indications, methodology and outcomes of various invasive and non-invasive routine cardiac assessment modalities
- Analyse clinical case studies, constructing links between cardiovascular disease presentation, echocardiographic assessment and patient outcomes, with consideration of best practice and patient safety

assessmentGradAttribute

2 Online Quiz - Module 3 & 4

Assessment Type
Online Quiz(zes)

Task Description
The Online Quiz will assess your understanding of all content from week six (6) to week eleven (11) covering topics from module three (3) Cardiac Rhythm Management and module four (4) Coronary Catheterisation Lab.
This assessment task will require you to complete one (1) Online Quiz.

The Online Quiz will be marked out of 100 marks. You will have 120 minutes (2 hours) to complete the quiz.

Questions posed will assess your ability to:

- explain the concepts underpinning cardiac rhythm management
- show an understanding of routine assessments carried out within the coronary catheterisation lab
- offer consideration of best practice and patient safety.

Details of the Online Quiz include:

- Once started, the quiz cannot be paused or restarted.
- Only one attempt is permitted.
- The Online Quiz will automatically close and submit completed answers once the allocated time has elapsed.
- The time available to complete this assessment is purposely kept tight to promote fact recall, rather than testing the ability of students to look up answers in available resources at hand.

As the Online Quiz is open book, you will find it useful if you have produced your own notes from the content (lectures, readings, tutorials, etc) and you may benefit from having normal reference ranges and a calculator available to ensure that you are prepared for this assessment.

Questions will be randomly drawn from a resource bank, which will provide each student with a unique experience for each quiz.

Students are reminded that IT support from the University Information and Technology Division (TASAC) is only available during AEST business hours. It is recommended that the Online Quiz is completed during business hours. Students are advised to refer to the 'Assessment Policy and Procedure (Higher Education Coursework)' document for additional university guidelines regarding assessments.

It is the student’s responsibility to ensure adequate and reliable internet connection while using a suitable device when

completing the Online Quiz(zes). If this is unattainable at home or work, then attending campus to attempt the Online Quiz(zes) is recommended. For any technical disruptions during the Online Quiz(zes), it is recommended contacting both TASAC and the Unit Coordinator immediately and to take screen shots or photos as evidence. Any technical issues will be delt with on a case-by-case approach.

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.

Number of Quizzes
1

Frequency of Quizzes

Assessment Due Date
Week 12 Thursday (5 Oct 2023) 8:00 am AEST

Online Quiz 1 will open at 8am (AEST) on Thursday the 24, August 2023 and close at 6pm (AEST) on Saturday the 26, October 2023. Online Quiz 2 will open at 8am (AEST) on Thursday the 5, October 2023 and close at 6pm (AEST) on Saturday the 7, October 2023.

Return Date to Students

Individual student results will be made available within two (2) weeks of quiz attempt. The online quiz question pool in its entirety will not be released to students.

Weighting
50%

Minimum mark or grade
50%

Assessment Criteria
Students will be required to answer a variety of questions presented in an online format. Answers will be assessed according to the following criteria:

- Ability to appropriately interpret presented data and images.
- Ability to respond clearly and concisely.
- Use of appropriate terminology and descriptors.

Online Quiz mark allocation:

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

Please ensure that the quiz is commenced with sufficient time prior to the quiz closing (i.e. commence the test before 3:59pm AEST on designated Saturday - if the test is not completed by 6pm AEST your test may be automatically submitted incomplete or with no answers).

Please note that the Online Quiz must be completed before the due date listed. In the absence of an approved extension, there will be no opportunity to complete the task after this date, and there will be no opportunity to apply a late penalty of five (5) percent per day. Students will receive a mark of zero (or fail) for this assessment if you have not completed it by the scheduled date and time and do not have an approved extension.

Referencing Style

- Vancouver

Submission
Online

Submission Instructions
The Online Quiz(zes) will be accessible through the assessment tab on Moodle.

assessmentOutcome

- Compare and contrast referral indications, methodology and outcomes of various invasive and non-invasive routine cardiac assessment modalities
- Explain the concepts underpinning basic cardiac rhythm management (CRM) and device applications
- Analyse clinical case studies, constructing links between cardiovascular disease presentation, echocardiographic assessment and patient outcomes, with consideration of best practice and patient safety

assessmentGradAttribute

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