



PMSC12004 Advanced Electrophysiology and Coronary Care

Term 1 - 2017

Profile information current as at 29/04/2024 11:35 pm

All details in this unit profile for PMSC12004 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 will enable you to complete detailed clinical assessments and examination of cardiac patients, focusing on the use of 12-lead electrocardiograms as a diagnostic tool in emergency care. You will study the pathophysiology, diagnosis, and treatment of a range of cardiac and cardiorespiratory conditions, including acute coronary syndromes, cardiac failure, and cardiac arrest. Practical coronary care skills such as defibrillation will be taught in this unit. Problem based case management and clinical interventions are practiced in the high-fidelity simulation environment during the residential school, allowing you to contextualise your knowledge of coronary care in preparation for decision supported thrombolysis in Paramedic practice.

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-requisite - PMSC11002 and BMSC11002 Co-requisite - PMSC12001

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 - 2017

- Cairns
- Distance
- Rockhampton
- Townsville

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 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. **Written Assessment**

Weighting: 50%

2. **Written Assessment**

Weighting: 50%

3. **Practical Assessment**

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 Course evaluations

Feedback

The lectures were too long

Recommendation

The structure and length of the lectures will be revised .

Action

Lectures were shortened this term

Feedback from Course evaluations

Feedback

The prescribed textbook did not enhance the students learning

Recommendation

An alternate textbook will be sourced for the next offering and other alternative resources will be explored.

Action

An alternate textbook was sourced however this years cohort of students preferred the previous years textbook which was added as an additional recommended text.

Feedback from Course evaluations and self reflection

Feedback

Timing of the residential school needs to be changed to be completed after PMSC12001 residential school. It would also be helpful to have a whole day of ECG interpretation at residential school

Recommendation

The residential school timing will be changed next offering to allow students to complete PMSC12001 residential school before attending this residential school. The structure will also be revised to allow the students some ECG interpretation time while attending the residential school.

Action

The residential school for this unit was scheduled after the residential school for PMSC12001.

Unit Learning Outcomes

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

1. Undertake thorough clinical history and assessment of cardiac patients, including ECG acquisition, coronary care skills and physical examination.
2. Accurately interpret ECGs to diagnose coronary conditions including dysrhythmias and acute coronary syndromes.
3. Describe and differentiate several common coronary and cardiorespiratory pathologies.
4. Synthesize clinical assessment data to diagnose cases and apply industry guidelines to develop clinical management plans.

Justification for this unit is strongly influenced by industry feedback on first CQUniversity graduate paramedics. By increasing the paramedic-specific focus of this unit the graduates will be better prepared for independent on-road practice without additional educational support from the ambulance services.

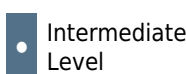
Alignment of Learning Outcomes, Assessment and Graduate Attributes



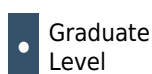
N/A
Level



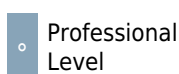
Introductory
Level



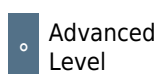
Intermediate
Level



Graduate
Level



Professional
Level



Advanced
Level

Textbooks and Resources

Textbooks

PMSC12004

Prescribed

The 12 Lead ECG in Acute Coronary Syndromes

Third Edition (2012)

Authors: Tim Phelan, Barbara Aehlert

Elsevier

Maryland Heights , Missouri , USA

ISBN: 9780323077859

Binding: Paperback

PMSC12004

Supplementary

Huszar's Basic Dysrhythmias and Acute Coronary Syndromes

Edition: Fourth (2010)

Authors: Wesley

Elsevier

St. Louis , Missouri , USA

ISBN: 9780323039741

Binding: Paperback

Additional Textbook Information

Both of the above texts are packaged with a pocket reference for the same price as the textbook. See them both at the CQUni Bookshop here: <http://bookshop.cqu.edu.au>

[View textbooks at the CQUniversity Bookshop](#)

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Access to UCROO
- Access to University Library System
- Access to Zoom

Referencing Style

All submissions for this unit must use the referencing style: [American Psychological Association 6th Edition \(APA 6th edition\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Laura Triffett Unit Coordinator

l.triffett@cqu.edu.au

Schedule

Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Anatomy & Physiology review, ECG basics, Resuscitation and Defibrillation Chapter 1 Pages 1-20 review.

Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
12 Lead ECG Introduction	Chapter 2 & 3 Pages 21-57	

Week 3 - 20 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Dysrhythmias Part 1		

Week 4 - 27 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Dysrhythmias Part 2		

Week 5 - 03 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Atrioventricular & Bundle Branch Blocks		Mind Map Due: Week 5 Friday (7 Apr 2017) 11:00 pm AEST

Vacation Week - 10 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Break Week		

Week 6 - 17 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Coronary Heart Disease & Acute Coronary Syndrome Part 1	Chapter 4 Pages 61-71	

Week 7 - 24 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Acute Coronary Syndrome Part 2	Chapter 5, 6 & 7 Pages 75-156	

Week 8 - 01 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Other ECG findings		Peerwise Due: Week 8 Friday (5 May 2017) 6:00 pm AEST

Week 9 - 08 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Case Studies	Chapter 8 & 9 Pages 159-296	Townsville Residential School 12th-15th May

Week 10 - 15 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Self orientated course revision	No assigned reading; use this time to ensure learning and assessment tasks are completed.	Rockhampton Residential School One 16th-19th May Rockhampton Residential School Two 20th-23rd May Cairns Residential School 15th-18th May

Week 11 - 22 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Self orientated course revision	No assigned reading; use this time to ensure learning and assessment tasks are completed.	

Week 12 - 29 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Case Studies & Unit Review	Chapter 8 & 9 Pages 159-296	

Review/Exam Week - 05 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 12 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Assessment Tasks

1 Mind Map

Assessment Type

Written Assessment

Task Description

For this assessment you will be required to construct a reflective mind map related to a cardiac condition.

You may choose any cardiac condition other than Acute Coronary Syndrome to construct your mind map.

You must include the following information:- PATHOPHYSIOLOGY, DIAGNOSIS, PRESENTATION, EMERGENCY TREATMENT, PHARMACOLOGY, EPIDEMIOLOGY & RISK FACTORS.

You must research your chosen condition and under each of the headings above you must examine what that heading means to you and display it as a mind map.

Presentation Format

You will be required to prepare a ONE page mind map of your understanding of this condition using the above headings. You must also submit a second page with a list of your references.

There will be a suggested minimum word count of 750 for this assessment.

Assessment Due Date

Week 5 Friday (7 Apr 2017) 11:00 pm AEST

Return Date to Students

Week 7 Friday (28 Apr 2017)

Feedback will be provided to students within 2 weeks of the due date for this assessment.

Weighting

50%

Minimum mark or grade

50

Assessment Criteria

You must present a clear, well researched mind map showing your understanding of the cardiac condition you have chosen.

Examples will be provided in Moodle; however you are free to research mind maps and decide on how you would like to present your work. Please note it must be a written presentation i.e. word document, PDF, power-point or similar. A marking rubric will be available via the Moodle page prior to the assessment due date.

You must achieve a pass mark of 50% in order to pass this assessment.

This assessment task must be completed individually and you should not collaborate with any other student. For this assessment task no late submissions will be accepted. 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 per cent per day. Therefore this assessment task must be completed by the due date.

Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

Submission

Online

Learning Outcomes Assessed

- Describe and differentiate several common coronary and cardiorespiratory pathologies.
- Synthesize clinical assessment data to diagnose cases and apply industry guidelines to develop clinical

management plans.

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

2 Peerwise

Assessment Type

Written Assessment

Task Description

Part A: PeerWise (20%)

You are required to write a minimum of seven (7) multiple choice questions related to coronary and cardiorespiratory pathophysiology, presentation or management, using the PeerWise software. These questions must relate to the learning outcomes of the unit. You must also provide detailed answers to those questions. The questions and answers must be detailed and valid. An explanation of the correct answer must also be provided. The ability to write a good question requires you to have truly understood a topic and shows evidence of a deeper level of understanding.

The questions must be uploaded to the PeerWise software and you must answer a minimum of seven (7) other questions and provide appropriate feedback on those questions. Using peer review and asking you to give appropriate feedback is very important and will allow you to reflect and monitor your progress. It will also allow you to develop and demonstrate the ability to judge yourself and others against a set standard.

This assessment task also provides you with the opportunity to use the question and answers provided as revision for your own study.

Academic staff can also provide feedback on the quality of the questions submitted and the answers generated and will monitor the Peerwise software, questions, answers and peer reviews. The Peerwise software will be open from the end of week 2 until the end of week 8. You can choose to upload a single question each week or can upload all questions at the same time.

Part B: Short Answer Questions (30%)

You will be required to answer two (2) short answer essays out of 6 questions provided. You must research and use evidence based data to discuss your thoughts on the given situations.

Further information and the six (6) questions will be provided to you in Week 2 via the Moodle page.

Word Count: 300words (+/- 10%) for both short answer essays.

Assessment Due Date

Week 8 Friday (5 May 2017) 6:00 pm AEST

All questions, reviews and short answer essays must be completed by the due date.

Return Date to Students

Week 10 Friday (19 May 2017)

Weighting

50%

Minimum mark or grade

50%

Assessment Criteria

To achieve a pass mark in this assessment you must submit all seven (7) questions and must answer at least seven (7) other questions from your peers and provide constructive feedback for those questions. You must also submit both short answer essays.

As you contribute to PeerWise, you will accumulate a score which is composed of three parts:

- Writing questions (Questioning),
- Answering questions (Answering), and
- Rating questions you have answered (Rating).

The more questions you create and answer the better your overall score will be.

On completion of the task you will receive an overall score that is generated by the PeerWise software based on the quality of the questions submitted and by the feedback gained from fellow students, this score will then be converted to a percentage and added to the marks from part B.

The PeerWise score will contribute to 20% of this assessment item with the Short Answer Questions contributing to the final 30%

In order to achieve a passing grade you must achieve a pass mark of greater than 50% for part A & part B.

A marking rubric for the short answer essays will be provided on the Moodle page.

Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

Submission

Online

Submission Instructions

Hard Copy

Learning Outcomes Assessed

- Accurately interpret ECGs to diagnose coronary conditions including dysrhythmias and acute coronary syndromes.
- Describe and differentiate several common coronary and cardiorespiratory pathologies.

Graduate Attributes

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

3 Practical Assessment

Assessment Type

Practical Assessment

Task Description

For this assessment students will be required to attend a compulsory residential school. This assessment consists of two (2) components.

Part A

You will be assessed in an OSCE format throughout the compulsory residential school. In an OSCE clinical skills are tested as well as theoretical knowledge. It is essential to learn correct clinical methods, and then practice repeatedly until you perfect the methods whilst simultaneously developing an understanding of the underlying theory behind the methods used.

There will be a total of three (3) assessment tasks each designed to assess knowledge and practical skills acquired during this course. The assessment tasks will consist of OSCE's. The format of the OSCE's will be CME (Case Management Exercise), Viva Voce or a clinical skill station which relates to the learning outcomes of this unit.

There will be two (2) long case CME's where students will be allocated 20 minutes to complete each assessment.

The long case CME will be in the format of a structured scenario looking at the following areas :

Patient assessment and history taking

Evidence gathering and patient treatment

Implementation of interventions, procedures and skills

Overall patient and scene management

There will also be a short case OSCE which will be in the form of a Viva Voce or a clinical skill station and students will be allocated 10 minutes to complete this assessment task.

According to the Encyclopedia and Dictionary of Medicine, Nursing and Allied Health, "Critical" can be defined as: Extremely important or essential.

Critical errors in this unit will be classed as anything that causes immediate harm to yourself, partner, patient or bystanders and/or any procedure that is performed outside the scope of practice. During any form of assessment, if any of the following are witnessed the assessment will immediately cease and no marks will be given for that item:

- **Unsafe defibrillation**
- **Incorrect joulage delivered to the patient**
- **Defibrillation of an unshockable rhythm**
- **Failure to recognise a shockable rhythm**
- **No or incomplete drug check**
- **Incorrect sharps disposal**
- **Performing a skill and/or procedure outside the scope of practice taught to you in PMSC12001 or PMSC12004**

Part B

Students must complete an ECG exam at the residential school. This assessment task will consist of twenty (20) 12 Lead

ECG's. Students will be required to answer questions based on the ECG's provided. Some questions will require the student to provide an accurate interpretation of the 12 lead ECG finding and some questions will require a short answer based on the ECG presented

Assessment Due Date

The Practical Assessment will take place during the Residential School

Return Date to Students

Results and feedback will be given to students within 2 weeks of completion of the residential school.

Weighting

Pass/Fail

Minimum mark or grade

50%

Assessment Criteria

Part A

Each long case OSCE will be worth 20% of the overall mark for this assessment and each short case OSCE will be worth 10% of the overall mark for this assessment.

There will be varied scoring tools based on the type of OSCE assessment. The scoring tools for each station are validated and reliable and will be available to students via the Moodle page at the commencement of term.

Students must achieve an overall pass mark of 50% for all three (3) OSCE to pass part A.

Part B

Students must review each ECG carefully. If an interpretation is required you must follow a systematic analysis and provide a rhythm interpretation of each 12 lead ECG, this must include rate, rhythm, full analysis of the ECG and any other abnormalities that are shown. If no rhythm interpretation is included in this answer, no marks will be given for that question.

They must answer any question associated with the presented ECG.

The pass mark for this assessment task is 60%, which is higher than the University pass mark of 50%. This is why we prefer a pass/fail model of grading. This is about assessing your competence in ECG interpretation rather than academic attainment.

Students must achieve a passing grade for **BOTH** part A & part B to pass this assessment.

Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

Submission

Offline

Submission Instructions

Hard Copy

Learning Outcomes Assessed

- Undertake thorough clinical history and assessment of cardiac patients, including ECG acquisition, coronary care skills and physical examination.
- Accurately interpret ECGs to diagnose coronary conditions including dysrhythmias and acute coronary syndromes.
- Synthesize clinical assessment data to diagnose cases and apply industry guidelines to develop clinical management plans.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?



Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem