



BMSC13008 Advanced Cardiorespiratory Measurement

Term 2 - 2017

Profile information current as at 07/05/2024 10:20 am

All details in this unit profile for BMSC13008 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.

Corrections

Unit Profile Correction added on 14-06-17

A new, 11th edition of Ruppel's Manual of Pulmonary Function Testing is now available.

General Information

Overview

On completion of this unit students should be able to relate cardiorespiratory physiology and pathophysiology to advanced clinical tests of cardiovascular and respiratory function including haemodynamic, electrophysiological and angiographic cardiovascular measurement. Students will gain vital knowledge of various pulmonary function tests including static lung volumes, pulmonary gas exchange, airway resistance, compliance, maximal pressures and blood gas measurements.

Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 9

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Pre-requisite BMSC12006 Cardiorespiratory Physiology and Measurement

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 - 2017

- Distance
- Rockhampton

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. **Written Assessment**

Weighting: 60%

2. **Examination**

Weighting: 40%

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 Students

Feedback

Weekly study tools were useful

Recommendation

Continue provision of weekly study tools

Unit Learning Outcomes

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

1. Describe the underlying physiology requiring clinical cardiorespiratory measurements.
2. Explain the various types of cardiorespiratory measurement according to best practice guidelines.
3. Rationalise the implementation of a particular cardiorespiratory measurement.
4. Interpret the results from cardiorespiratory measurement.
5. Consider the pharmacological implications for cardiorespiratory measurement.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Written Assessment - 60%	•	•	•	•	•
2 - Examination - 40%	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	
2 - Problem Solving			•	•	
3 - Critical Thinking	•		•	•	•
4 - Information Literacy	•	•	•	•	•
5 - Team Work					

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
6 - Information Technology Competence				•	
7 - Cross Cultural Competence					
8 - Ethical practice	•	•	•	•	•
9 - Social Innovation					
10 - 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	9	10
1 - Written Assessment - 60%	•	•	•	•				•		
2 - Examination - 40%	•	•	•	•				•		

Textbooks and Resources

Textbooks

BMSC13008

Prescribed

Ruppel's Manual of Pulmonary Function Testing

10th Edition (2013)

Authors: Carl D Mottram

Elsevier Mosby

St. Louis , Missouri , USA

ISBN: 9780323085052

Binding: Hardcover

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Prescribed

The Cardiac Catheterization Handbook

5th edition (2011)

Authors: Morton L Kern

Mosby/Elsevier Saunders

St Louis , Philadelphia , USA

ISBN: 9780323079020

Binding: Hardcover

[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: [Harvard \(author-date\)](#)
For further information, see the Assessment Tasks.

Teaching Contacts

Romeo Batacan Unit Coordinator
r.j.batacan@cqu.edu.au

Schedule

Week 1 - 10 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Electrocardiogram	Kern (Chapter 3, Section II)	

Week 2 - 17 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Non-invasive tests and Cardiac Pharmacology	Moodle resource	

Week 3 - 24 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Electrophysiology and Cardiac Pacing	Kern (Chapter 6)	

Week 4 - 31 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Echocardiography	Moodle resource	

Week 5 - 07 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Cardiac Catheterisation-part I Coronary Angioplasty and Stenting	Kern (Chapter 3,4, and 10)	

Vacation Week - 14 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 21 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Cardiac Catheterisation-part II Coronary Angioplasty and Stenting	Kern (Chapter 3,4, and 10)	

Week 7 - 28 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Indications for Pulmonary Function Testing	Mottoram (Chapter 1)	

Week 8 - 04 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Spirometry and Diffusing Tests	Mottoram (Chapters 2 and 3)	Written Assessment Due: Week 8 Monday (4 Sept 2017) 9:00 am AEST

Week 9 - 11 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Lung Volumes and Gas Distribution Tests
Ventilation and Ventilatory Control Tests
Mottoram (Chapters 4 and 5)

Week 10 - 18 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Blood Gases Paediatric Pulmonary Function Tests	Mottoram (Chapters 6 and 8)	

Week 11 - 25 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Cardiopulmonary Exercise Testing Bronchoprovocation Testing	Mottoram (Chapters 7, 9 and 10)	

Week 12 - 02 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic
Pulmonary Function Testing Equipment and Quality Assurance	Mottoram (Chapters 11 and 12)	

Review/Exam Week - 09 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 16 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Assessment Tasks

1 Written Assessment

Assessment Type

Written Assessment

Task Description

This assessment is designed to enhance your understanding and expand your knowledge of the wide range of complex techniques and measurements discussed during weeks 1-6. You will be presented with scenarios followed by questions to test your critical thinking skills. The task will require interpretation of data, explanation of pathophysiology, reasoning, literature search and evaluation of techniques. You may refer to textbooks, journal articles and professional body websites to get the needed information. Further information regarding the assessment item will be available via the Moodle page of this unit, under the Written Assessment link.

Assessment Due Date

Week 8 Monday (4 Sept 2017) 9:00 am AEST

Return Date to Students

Week 11 Friday (29 Sept 2017)

Weighting

60%

Minimum mark or grade

You will be required to achieve a minimum of 50% of the marks available, to pass this unit.

Assessment Criteria

Performance in this task will be measured using the criteria of accuracy and a question-specific rubric, which will be made available via the Moodle site.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

Submit as a Word Document

Learning Outcomes Assessed

- Describe the underlying physiology requiring clinical cardiorespiratory measurements.
- Explain the various types of cardiorespiratory measurement according to best practice guidelines.
- Rationalise the implementation of a particular cardiorespiratory measurement.
- Interpret the results from cardiorespiratory measurement.
- Consider the pharmacological implications for cardiorespiratory measurement.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Ethical practice

Examination

Outline

Complete an invigilated examination.

Date

During the examination period at a CQUniversity examination centre.

Weighting

40%

Length

180 minutes

Minimum mark or grade

45

Exam Conditions

Closed Book.

Materials

No calculators permitted

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