



BIOH12011 Pathophysiology and Pharmacology 1

Term 2 - 2023

Profile information current as at 23/04/2024 06:54 pm

All details in this unit profile for BIOH12011 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

In this unit you will explore fundamental pathophysiology (alteration in function as seen in disease) of the cardiovascular, respiratory, endocrine, nervous, haematological systems, and the pharmacology of drugs used in the treatment and management of disease. Throughout the unit, there is an integrated focus on body systems contrasting normal and abnormal, and how disease states may be managed therapeutically. The unit concentrates on common major diseases of these body systems which facilitates a comprehensive study of the pathophysiology encountered in these disease states, as well as gaining an understanding of normal physiology. This is complemented by the study of the treatment and management of these diseases, whilst also focusing on the professional and legal responsibilities that underpin the use of medicines in the treatment of human disease.

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: BIOH11005 Introductory Anatomy Physiology or BMSC11010 Human Anatomy and Physiology 1 AND admission into CL91 (Bachelor of Nursing).

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
- 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. **Online Quiz(zes)**

Weighting: 20%

2. **Case Study**

Weighting: 30%

3. **Online Test**

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 and student emails

Feedback

As BMSC11010 is the only pre-requisite for being enrolled in the unit, some students were planned to take this second year unit whilst in first year and found the unit challenging.

Recommendation

Consult with the Head of Course for nursing regarding this issue so they can review the process.

Feedback from SUTE

Feedback

The use of real world application questions in the online assessments appropriately tests the students understanding of what is happening.

Recommendation

Continue to update and develop more case based scenarios for the online assessments

Unit Learning Outcomes

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

1. Apply knowledge of the cardiovascular, respiratory, endocrine, nervous and haematological systems to discuss pathophysiological processes, signs and symptoms of various relevant diseases
2. Evaluate appropriate pharmacological interventions in disease processes of the cardiovascular, respiratory, endocrine, nervous and haematological systems
3. Explain basic pharmacological principles; pharmacokinetics, pharmacodynamics and pharmacotherapeutics
4. Outline the nurse's professional and legal responsibilities in the quality use of medicines.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Online Quiz(zes) - 20%			•	•
2 - Case Study - 30%	•	•		•
3 - Online Test - 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

BIOH12011

Prescribed

Pathophysiology and Pharmacology for Nurses (Volume 1 and 2 - Custom Value Pack)

Edition: 1st (2021)

Authors: Debra Carlson and Roslyn Clapperton (from Shane Bullock, Elizabeth Manias, Majella Hales, Elaine Marieb, Katja Hoehn, Suzanne Keller, Michael Adams and Matthew Sorenson)

Pearson

Melbourne , VIC , Australia

ISBN: 9780655798767

Binding: Paperback

Additional Textbook Information

This textbook is available as a value pack which contains Pathophysiology and Pharmacology for Nurses 1, as well as Pathophysiology and Pharmacology for Nurses 2.

[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: [American Psychological Association 7th Edition \(APA 7th edition\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Saroj Neupane Unit Coordinator
s.neupane@cqu.edu.au

Schedule

Week 1 - 10 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to pathophysiology and pharmacology	Module 1: Introduction to pathophysiology and pharmacology. Chapters 1 to 8.	

Week 2 - 17 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Nursing pharmacology principles	Module 2: Pharmacology Principles. Chapters 9 to 14.	

Week 3 - 24 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Inflammation, anti-inflammatories and analgesics	Module 3: Analgesics and Anti-Inflammatory Medications. Chapters 15 to 18.	Assessment 2: Part A - Case Study Topic Selection Due: Week 3 Monday (24th July 2023) 5:00 pm AEST
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Week 4 - 31 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
Haematology	Module 4: Haematology Pathophysiology and Pharmacology. Chapters 19 to 21.	Assessment 1: Online Quiz Due: Week 4 Friday (4 Aug 2023) 5:00 pm AEST

Week 5 - 07 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
Cardiovascular - Part 1	Modules 5 and 6: Cardiovascular Pathophysiology and Pharmacology. Chapters 22 to 27.	

Vacation Week - 14 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
No classes this week		

Week 6 - 21 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
Cardiovascular - Part 2	Modules 5 and 6: Cardiovascular Pathophysiology and Pharmacology. Chapters 22, 24 to 26 and 28 to 30.	Assessment 2: Part B - Online Clinical Case Study Quiz Due: Week 6 Monday (21st August 2023) 5:00 pm AEST

Week 7 - 28 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
Respiratory - Part 1	Modules 7 and 8: Respiratory Pathophysiology and Associated Pharmacology. Chapters 31, 32, 34 and 35.	

Week 8 - 04 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
Respiratory - Part 2	Modules 7 and 8: Respiratory Pathophysiology and Associated Pharmacology. Chapters 33, 34 and 36.	

Week 9 - 11 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
Endocrinology - Part 1	Modules 9 and 10: Endocrine Pathophysiology and Associated Pharmacology. Chapters 37 to 40, 42 and 43.	Assessment 2: Case Study Due: Week 9 Monday (11 Sept 2023) 5:00 pm AEST

Week 10 - 18 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
Endocrinology - Part 2	Modules 9 and 10: Endocrine Pathophysiology and Associated Pharmacology. Chapters 38, 41 and 44.	

Week 11 - 25 Sep 2023

Module/Topic	Chapter	Events and Submissions/Topic
Neurology - Part 1	Modules 11 and 12: Neurological Pathophysiology and Associated Pharmacology. Chapters 45 to 50 and 55.	

Week 12 - 02 Oct 2023

Module/Topic	Chapter	Events and Submissions/Topic
Neurology - Part 2	Modules 11 and 12: Neurological Pathophysiology and Associated Pharmacology. Chapters 51 to 54, 56, 61 and 62.	

Review/Exam Week - 09 Oct 2023

Module/Topic	Chapter	Events and Submissions/Topic
		Assessment 3: Online Test Due: Review/Exam Week Friday (13 Oct 2023) 10:00 am AEST

Exam Week - 16 Oct 2023

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

The unit coordinator this term is Dr. Saroj Neupane. You can contact me using the forums on the Moodle site; through email: bioh12011@cqu.edu.au or via the telephone on (07) 4930 6306

Unit Content:

The unit content has been developed so that the first three (3) weeks cover the underlying principles of pathophysiology and pharmacology, nursing pharmacology principles, inflammation and medications used in treating inflammation and pain. The next nine (9) weeks cover the main pathophysiological conditions of the blood, cardiovascular, respiratory, endocrine and nervous systems, and the associated pharmacology used in treating these conditions. The learning materials for each week are located within the weekly tiles. The following information and links will be provided each week:

- Selected weekly readings from the unit textbook, learning objectives and associated terminology
- Lecture slides and pre-recorded lectures
- Tutorial slides and recordings of the live tutorials (typically available within 24 hours of the tutorial)
- A weekly practice quiz
- Additional resources to support learning

The pre-recorded lectures are delivered by Roslyn Clapperton, Natasha Shepley, Roxina Sharma and Debra Carlson, and will be released progressively throughout the term on the Moodle site.

It is expected that students will review the weekly content, including the assigned readings and pre-recorded lectures prior to attending the tutorials.

Tutorials:

There are two different tutorials held each week, and each will provide students with an opportunity to ask questions. The first tutorial is a concept tutorial which reviews key concepts from the weekly lectures. The second tutorial is a question and answer session that is conducted by a registered nurse, and will use questions and case scenarios to help you apply what you are learning to the nursing profession. All tutorials will be delivered live on the Rockhampton campus, with the option for all students to join the tutorial online using the Zoom link provided in the Virtual Classes tile on the Moodle site. All students are strongly encouraged to attend and participate in the weekly tutorials. All tutorials will be recorded to enable all students to view the content if they are unable to attend the live tutorial. If you have never used Zoom before, please review the Zoom information provided in the Virtual Classes tile on the Moodle site.

Student Communication:

1. Open discussions of pathophysiology and pharmacology is important when learning this content and for being able to communicate this information. It is expected that you will use reputable sources for your information, respect your fellow students, maintain a polite, respectful dialogue, and at all times communicate in the professional manner expected in the nursing profession.
2. Any NON-PERSONAL communications (e.g., questions relating to the lectures, tutorials, assessments, etc.) should be conducted via the relevant forums on the Moodle site.
3. Any PERSONAL communications (e.g., personal illness, life events, etc.) should be held with the unit coordinator via email or telephone. Please ensure that all emails contain your name, contact details and unit code, as sometimes we are coordinating more than one unit at a time.
4. All assessment extension requests must meet policy requirements and be made via the Assessment Extension Request link found at the top of the BIOH12011 Moodle site as part of the Support tab. Please ensure that you provide the appropriate documentation with your extension request (e.g., medical certificate, statutory declaration). If you have any questions about this process, please contact the unit coordinator for further advice.

As per Australian educational standards, you are expected to commit 150 hours of engagement to your study of this unit. A recommended breakdown of study hours is given below:

- 2-3 hours per week watching recorded lectures and revising the content through study notes.
- 2-3 hours per week attending the weekly tutorials and reflecting on your answers to the weekly study questions.
- 2-3 hours per week revising content from this week and previous weeks.
- 2-3 hours per week preparing for your assessments or studying for the online quiz and online test.

Assessment Tasks

1 Assessment 1: Online Quiz

Assessment Type

Online Quiz(zes)

Task Description

The purpose of the online quiz is to challenge your knowledge and understanding of the concepts that underpin pathophysiology and pharmacology, the pharmacology principles of nursing, and the use of analgesics and anti-inflammatory medications.

Online quiz details:

- **Opens:** Week 3, Friday at 5:00pm AEST.
- **Closes:** Week 4, Friday at 5:00pm AEST.
- **Topics examined:** Weeks 1, 2 and 3.
- **Attempts allowed:** Two (2). The highest grade achieved will serve as your final mark for the quiz.
- In the absence of an approved extension request for more time, there will be no opportunity to complete the task after the assigned date.

Number of Quizzes

1

Frequency of Quizzes

Other

Assessment Due Date

Week 4 Friday (4 Aug 2023) 5:00 pm AEST

Return Date to Students

The assessment marks will be available upon completion of the online quiz.

Weighting

20%

Minimum mark or grade

50%

Assessment Criteria

1. Questions will be automatically marked as correct or incorrect, and the correct answers will only be provided once all students have completed the online quiz.
2. A variety of question styles similar to those used in the weekly practice quizzes, as well as application questions, will be used to assess the unit content in a variety of contexts.

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Learning Outcomes Assessed

- Explain basic pharmacological principles; pharmacokinetics, pharmacodynamics and pharmacotherapeutics
- Outline the nurse's professional and legal responsibilities in the quality use of medicines.

2 Assessment 2: Case Study

Assessment Type

Case Study

Task Description

This assessment task requires you to develop the level of understanding required to give evidence based advice that is within your scope of practice, to manage and educate your patients, and to close the gaps in healthcare.

There are three parts to this assessment:

1. Selection of a case study topic from the options provided.
2. Completion of an online clinical case study quiz.
3. Submission of a written response to specific questions about your patient.

Part 1. Selection of a case study topic (No marks) - due Monday 24th July (Week 3)

At the beginning of Week 1, you will find a link to topic options in the Assessment tile on the Moodle site. You must choose only one (1) topic from those listed, and your topic selection is final (i.e., you will not be able to change topics). Each topic can only be selected by a limited number of students, so the earlier you choose your topic the more options you will have. Once you have selected your topic, you will then need to download the associated 'Case Study Document' and start researching your topic using only the approved resources. Use the first template provided in the case study document to record all the pathophysiology and pharmacology information relevant to your topic. You will need this information to complete the online case study quiz and to write your written response.

Part 2. Completion of the online clinical case study quiz (10 marks) - due Monday 21st August (Week 6)

The online clinical case study quiz will be available from week 3 and will close on Monday of week 6. You will find the link for the online clinical case study in the Assessment tile on the Moodle site. This online quiz consists of a clinical case study and ten (10) multiple choice questions. As you progress through the online case study, you will be provided with information about the patient's clinical presentation, their history, the results of a physical examination and any other relevant tests, a pathophysiology concept map, disease diagnosis and treatment plan. With each set of information there will be an associated multiple choice question(s) to assess your ability to apply what you have learnt about your chosen topic to the patient in your case study. To understand how the case study and associated questions will be presented in the assessment task, you should complete the practice online clinical case study quiz first.

As there is only one (1) attempt allowed for the online case study quiz, it is essential that you take notes about your patient during the quiz as you will need this to answer the written response section (Part 3 of the assessment task). You should use the second template provided in the Case Study Document to record your patient's information as you work through the online clinical case study.

Part 3. Submission of a written response to specific questions about your patient (90 marks) - due Monday 11th September (Week 9)

You must submit a written response to each of the specific questions about your patient that is listed in the Case Study Document for your topic. **This is NOT a general essay about your topic.** You will be required to use your notes taken in Part 2 (online clinical case study) to help answer the specific questions regarding your patient. As each individual question has a limited word count, please focus on providing specific responses about your patient only.

Your written responses need to demonstrate your understanding of the links between aetiology, risk factors, pathophysiology, clinical manifestations, diagnosis and the pharmacological treatment of your patient. Your response must be completed using only the approved resources listed in the Case Study Document. Guidelines on how to complete the case study and the marking rubric will be available on the Moodle site. The important dates for each part of this assessment are located in the table below.

Case Study Task	Available Date	Due Date	Marks Out of 100
Topic selection	Week 1, Monday 5pm AEST	Week 3, Monday 5pm AEST	None
Online case study quiz	Week 3, Tuesday 5pm AEST	Week 6, Monday 5pm AEST	10 marks
Written response	Week 4, Monday 5pm AEST	Week 9, Monday 5pm AEST	90 marks

Assessment Due Date

Week 9 Monday (11 Sept 2023) 5:00 pm AEST

The online case study quiz closes Monday of week 6 and the answers are automatically saved in Moodle. The written response needs to be submitted by 5pm on Monday of week 9.

Return Date to Students

Week 11 Friday (29 Sept 2023)

Assessment feedback and marks will be available by close of business on Friday of week 11.

Weighting

30%

Minimum mark or grade

50%

Assessment Criteria

1. The online clinical case study quiz will be automatically marked as correct or incorrect, and immediate feedback provided for each multiple choice question.
2. The written response will be assessed according to the rubric that will be available on the Moodle site.
3. All late submissions will be penalised 5% per calendar day unless an extension request for more time has been approved.

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Learning Outcomes Assessed

- Apply knowledge of the cardiovascular, respiratory, endocrine, nervous and haematological systems to discuss pathophysiological processes, signs and symptoms of various relevant diseases
- Evaluate appropriate pharmacological interventions in disease processes of the cardiovascular, respiratory, endocrine, nervous and haematological systems
- Outline the nurse's professional and legal responsibilities in the quality use of medicines.

3 Assessment 3: Online Test

Assessment Type

Online Test

Task Description

The purpose of this online test is to assess your knowledge and understanding of the haematology, cardiovascular, respiratory, endocrine and neurological pathophysiology and pharmacology covered in this unit.

Online test details:

- **Opens:** Revision / Exam week, Thursday 12th October at 10:00 AEST.
- **Closes:** Revision / Exam week, Friday 13th October at 10:00 AEST.
- **Topics examined:** Weeks 4 to 12.
- **Attempts allowed:** One (1).
- In the absence of an approved extension request for more time, there will be no opportunity to complete the task after the assigned date.

Assessment Due Date

Review/Exam Week Friday (13 Oct 2023) 10:00 am AEST

Marks will be available once all students have completed the online test and all manual marking has been completed.

Return Date to Students

Marks will be available once all students have completed the online test and all manual marking has been completed.

Weighting

50%

Minimum mark or grade

50%

Assessment Criteria

1. The online test will be a combination of automatically and manually marked questions.
2. A variety of question styles similar to those used in the weekly practice quizzes, as well as case study questions will be used to assess the unit content in a variety of contexts.

Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

Submission

Online

Learning Outcomes Assessed

- Apply knowledge of the cardiovascular, respiratory, endocrine, nervous and haematological systems to discuss pathophysiological processes, signs and symptoms of various relevant diseases
- Evaluate appropriate pharmacological interventions in disease processes of the cardiovascular, respiratory, endocrine, nervous and haematological systems
- Explain basic pharmacological principles; pharmacokinetics, pharmacodynamics and pharmacotherapeutics
- Outline the nurse's professional and legal responsibilities in the quality use of medicines.

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