



# BMSC12014 Pharmacology for Health Professionals

## Term 1 - 2020

Profile information current as at 03/05/2024 01:20 am

All details in this unit profile for BMSC12014 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 19-04-20

The end of term examination has now been changed to an alternate form of assessment. Please see your Moodle site for details of the assessment .

## General Information

### Overview

In this unit, you will develop an understanding of the fundamental principles of pharmacology and pharmacotherapy relevant to your health profession. You will explore the mechanism of action of major drug classes used in pharmacological interventions or procedures in patient management relevant to your profession. You will be required to demonstrate critical analysis of this content and align this with current practice in your respective professions.

### 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: CG93 Medical Science (Nutrition) and CG95 Paramedic Sciences: BMSC12010 Clinical Biochemistry CB86 Bachelor of Podiatry Practice (Honours): ALLH11001, and BMSC11008 (or ALLH11004), and HLTH11027, and PSYC11010, and BMSC11007 (or ALLH11005), and ALLH11009 (or ALLH12007), and ALLH11006 and HLTH12028CV69

Echocardiography and Cardiac Physiology: ECHO11004 Biochemistry for Cardiac Pharmacology

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 - 2020

- 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. **Written Assessment**

Weighting: 30%

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

Weighting: 20%

#### 3. **Examination**

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](#).

## Unit Learning Outcomes

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

1. Discuss the basic principles of pharmacology, including pharmacodynamics, pharmacokinetics and drug design
2. Discuss the indications, pharmacological action, routes of administration, contraindications, side effects and precautions of the major medication groups used in your health profession
3. Discuss pharmacological applications associated with common procedures undertaken with your health profession
4. Critically analyse the scientific literature relating to drugs and medicines within your health profession

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Written Assessment - 30%		•	•	•
2 - Online Quiz(zes) - 20%	•			
3 - Examination - 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				

### Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Written Assessment - 30%	•	•	•	•				•		
2 - Online Quiz(zes) - 20%	•		•							

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
<b>3 - Examination - 50%</b>	•		•					•		

## Textbooks and Resources

### Textbooks

BMSC12014

#### Prescribed

#### Pharmacology for Health Professionals

Edition: 5th (2018)

Authors: Bryant, Knights, Darroch, & Rowland

Elsevier

Chatswood , NSW , Australia

ISBN: 978-0-7295-4275-3

Binding: Paperback

#### Additional Textbook Information

Copies can be purchased at the CQUni Bookshop here: <http://bookshop.cqu.edu.au> (search on the Unit code)

[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 styles below:**

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

For further information, see the Assessment Tasks.

## Teaching Contacts

**Jordon Irwin** Unit Coordinator

[j.irwin@cqu.edu.au](mailto:j.irwin@cqu.edu.au)

**Andrew Fenning** Unit Coordinator

[a.fenning@cqu.edu.au](mailto:a.fenning@cqu.edu.au)

## Schedule

### Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic

Introduction to Pharmacology and Molecular Drug Targets	Selected readings from Chapter 1 and Chapter 4 Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition)	Online Zoom Tutorial on Week 1 Content
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### Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Pharmacodynamics and Introduction to Pharmacokinetics	Selected readings from Chapter 4 and Chapter 5 Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition)	Online Zoom Tutorial on Week 2 Content

### Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Pharmacokinetics (cont.) and Dosing Profiles	Selected readings from Chapter 5 and Chapter 7 Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition)	Online Zoom Tutorial on Week 3 Content

### Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Drug development and Therapeutic Drug Monitoring	Selected readings from Chapter 1 and Chapter 6 Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition)	Online Zoom Tutorial on Week 4 Content <b>Online Quiz</b> Opens Week 4 Friday (3 April 2020) 11:55 am AEST

### Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology I: Drugs affecting cardiac function	Chapter 20 Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition)	Online Zoom Tutorial on Week 5 Content <b>Online Quiz</b> Due: Week 5 Friday (10 Apr 2020) 11:55 am AEST

### Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
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### Week 6 - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology II: Drugs affecting vascular smooth muscle	Chapter 21 Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition)	Online Zoom Tutorial on Week 6 Content

### Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology III: Lipid-lowering drugs	Chapter 22 Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition)	Online Zoom Tutorial on Week 7 Content

### Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology IV: Drugs affecting thrombosis and haemostasis	Chapter 24 Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition)	Online Zoom Tutorial on Week 8 Content <b>Drug Poster</b> Due: Week 8 Friday (8 May 2020) 5:00 pm AEST

### Week 9 - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology V: Pharmacological applications during common cardiovascular interventions	eReading List on Moodle	Online Zoom Tutorial on Week 9 Content

### Week 10 - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology VI: Pharmacological applications during common cardiovascular interventions (cont.)	eReading List on Moodle	Online Zoom Tutorial on Week 10 Content

### Week 11 - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology VII: Chronic medications taken by CVD patients (that do not directly affect the heart, vasculature or blood)	eReading List on Moodle	Online Zoom Tutorial on Week 11 Content

### Week 12 - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
Revision		Online Zoom Revision Tutorial

### Review/Exam Week - 08 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
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### Exam Week - 15 Jun 2020

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

Your primary teaching contact for BMSC12014 Pharmacology for Health Professionals is Dr Jordon Irwin. The best way to contact Jordon is via the Q&A forum, or using email.

The Moodle Q&A forum is a great way to post questions related to the unit material, resources and assessment tasks. Please do not feel shy in asking questions on the forums - you will not be alone in your query! The Q&A forum will be monitored on a daily basis; thus, you can expect responses within 24 hours. If your queries are of a personal nature, please contact Jordon directly via email at [j.irwin@cqu.edu.au](mailto:j.irwin@cqu.edu.au), or phone 07 4923 2550.

All lectures for this unit are pre-recorded and will be available on the unit's Moodle site for students to access. Live tutorials will be delivered each week using Zoom. These sessions will be recorded and the links made available on Moodle. During the tutorials, we will discuss the weekly study questions provided to you on the Moodle site, as well as clinical case studies relevant to the week's content.

As per Australian education standards, you are expected to commit 150 hours of engagement to your study of this unit. For example, this can be broken down as:

- 2-3 hours per week watching recorded lectures and revising content through study notes
- 1-2 hours per week for completing assigned reading
- 2-3 hours per week completing the weekly study questions and attending tutorial
- 3-4 hours per week preparing your assessments or studying for the exam

## Assessment Tasks

# 1 Drug Poster

## Assessment Type

Written Assessment

## Task Description

In your role as a health professional, you will provide healthcare to patients with a variety of pharmacologically-managed conditions. You may also administer drugs in order to complete common procedures undertaken within your health profession. Additionally, you will be expected to find, appraise and distill information from the scientific literature in order to answer clinical questions and assist in patient care. This assessment task provides you with an opportunity to practice these skills. You will be given a selection of case studies (available on the Moodle site) which are like what you may come across in the clinical environment. You are to **select one (1) case study** that is relevant to your health profession. You will then select **one (1) drug** that can be used to address the case study. Your chosen drug will be the topic for your assessment in which you will **produce a poster that provides information on the pharmacodynamics, pharmacokinetics and applications of your selected drug.**

You will achieve this by using the scientific literature to learn about your drug. Peer-reviewed journal articles should form the basis of this search. The key areas of interest include: the pharmacological action of the drug (i.e. its mechanism of action), its routes of administration, indications, side effects, contraindications/precautions (including drug interactions), as well as its application/s in your health profession. You will then summarise this information in your own words by creating an electronic poster (a template will be provided on Moodle) with appropriate citation to your sources of literature.

## Assessment Due Date

Week 8 Friday (8 May 2020) 5:00 pm AEST

Your poster will be submitted online via Moodle.

## Return Date to Students

Week 10 Friday (22 May 2020)

Results and feedback will be available via Moodle.

## Weighting

30%

## Minimum mark or grade

This assessment has a minimum passing grade of 50%.

## Assessment Criteria

The drug poster will be evaluated in accordance with a marking rubric available on the unit's Moodle site. The total maximum grade for this assessment task is 60 marks. A brief overview of the assessment criteria are as follows:

- 40 marks available for the scientific content that demonstrates a clear understanding of the pharmacological action of the drug (i.e. its mechanism of action), its routes of administration, indications, side effects, contraindications/precautions, as well as its application/s in your health profession.
- 10 marks available for the appropriate use of references and formatting of the reference list - it is expected that a minimum of five (5) scientific references will be used (ideally peer-reviewed journal articles or government websites).
- 10 marks available for the visual effectiveness and presentation of the poster (including spelling, grammar, sentence structure and punctuation).

## Referencing Style

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

## Submission

Online

## Submission Instructions

Your poster will be submitted online via Moodle.

## Learning Outcomes Assessed

- Discuss the indications, pharmacological action, routes of administration, contraindications, side effects and precautions of the major medication groups used in your health profession
- Discuss pharmacological applications associated with common procedures undertaken with your health profession
- Critically analyse the scientific literature relating to drugs and medicines within your health profession

## Graduate Attributes

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

## 2 Online Quiz

### Assessment Type

Online Quiz(zes)

### Task Description

Understanding the principles of pharmacodynamics, pharmacokinetics and drug development is essential for many health professions. The purpose of this assessment task is to evaluate your knowledge and understanding of this material which will be presented in Weeks one (1) to four (4) of term. You are required to complete **one (1) online quiz**. The specific details of this assessment task are as follows:

- The quiz will be available for a period of one (1) week - it will open at 11:55 am on Friday 3 April 2020 (Week 4) and will close at 11:55 am on Friday 10 April 2020 (Week 5).
- Prior to the quiz opening, you will be provided with six (6) written case studies.
- The questions that you will answer in the quiz will be about the case studies. Therefore, you should ensure that you have read through the case studies **before** attempting the quiz.
- The quiz will be comprised of 40 questions and you will have 60 minutes (1 hour) to complete it.
- You will provide short written answers for each question (no more than five (5) words per question).
- Exemplar case studies, quiz questions and responses will be worked through in the tutorials so that you will be familiar with the assessment format and requirements before you complete this task.
- You will have only one (1) attempt to complete the quiz.
- Your score from the quiz will contribute 20% to your final grade.
- You are required to obtain at least 50% of the available marks to be eligible to pass the unit.
- In the absence of an approved extension, there will be no opportunity to complete the task after the closing date of the quiz.

### Number of Quizzes

1

### Frequency of Quizzes

Other

### Assessment Due Date

Week 5 Friday (10 Apr 2020) 11:55 am AEST

The quiz will end once you click submit, or when the 60 minute time limit has been exhausted.

### Return Date to Students

Week 7 Friday (1 May 2020)

Your quiz will be graded manually by the unit coordinator so that you can receive personalised feedback on your attempt.

### Weighting

20%

### Minimum mark or grade

This assessment has a minimum passing grade of 50%.

### Assessment Criteria

Each correct answer in the quiz will be awarded 1 mark. No marks will be deducted for incorrect answers.

### Referencing Style

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

### Submission

Online

### Submission Instructions

The quiz will be accessed and completed via Moodle.



## **Learning Outcomes Assessed**

- Discuss the basic principles of pharmacology, including pharmacodynamics, pharmacokinetics and drug design

## **Graduate Attributes**

- Communication
- Critical Thinking

## **Examination**

### **Outline**

Complete an invigilated examination.

### **Date**

During the examination period at a CQUniversity examination centre.

### **Weighting**

50%

### **Length**

150 minutes

### **Minimum mark or grade**

This assessment has a minimum passing grade of 50%.

### **Exam Conditions**

Closed Book.

### **Materials**

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