



# BMSC12014 Pharmacology for Health Professionals

## Term 2 - 2020

Profile information current as at 02/05/2024 01:55 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.

## 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 2 - 2020

- Cairns
- Online
- 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).

### 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. **Written Assessment**

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 Student Feedback, Feedback from Unit Coordinator

##### Feedback

The style of unit delivery and learning resources enabled students to engage with (and retain) the unit content effectively.

##### Recommendation

This presentation style will be retained.

#### Feedback from Student Feedback

##### Feedback

Students appreciated the variation in assessment tasks.

##### Recommendation

The assessment profile will be retained.

## 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 - 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				

## 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%	•		•							
3 - Online Test - 50%	•		•					•		

## 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

If you prefer to study with a paper copy, they can be purchased at the CQUni Bookshop here: <http://bookshop.cqu.edu.au> (search on the Unit code). eBooks can be purchased at the publisher's website.

[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

**Andrew Fenning** Unit Coordinator

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

**Jordon Irwin** Unit Coordinator

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

## Schedule

### Week 1 - 13 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Introductory Material I: CV69 and CG95 – Introduction to Pharmacology and Molecular Drug Targets.	Selected readings from Chapters 1 and 4 (pages listed on Moodle). Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition).	Online Zoom Tutorial on Week 1 Content.

### Week 2 - 20 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Introductory Material II: CV69 and CG95 – Pharmacodynamics and Introduction to Pharmacokinetics.	Selected readings from Chapters 4 and 5 (pages listed on Moodle). Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition).	Online Zoom Tutorial on Week 2 Content.
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### Week 3 - 27 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Introductory Material III: CV69 and CG95 – Pharmacokinetics (cont.) and Dosing Profiles.	Selected readings from Chapters 5 and 7 (pages listed on Moodle). Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition).	Online Zoom Tutorial on Week 3 Content.

### Week 4 - 03 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Introductory Material IV: CV69 and CG95 – Drug development and Therapeutic Drug Monitoring.	Selected readings from Chapters 1 and 6 (pages listed on Moodle). 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 (07 Aug. 2020) 11:55 am AEST.

### Week 5 - 10 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology I: CV69 and CG95 – 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 (14 Aug 2020) 11:55 am AEST

### Vacation Week - 17 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
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### Week 6 - 24 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology II: CV69 and CG95 – 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 - 31 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology III: CV69 and CG95 – Drugs Affecting Thrombosis and Haemostasis.	Chapter 24. Pharmacology for Health Professionals (Bryant, Knights, Darroch & Rowland, fifth edition).	Online Zoom Tutorial on Week 7 Content.

### Week 8 - 07 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Profession-specific Pharmacology IV: CV69 – Lipid-Lowering Drugs. CG95 – Drugs For Treating Environmental Toxins.	CV69 – Chapter 22. CG95 – eReading List on Moodle. 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 (11 Sept 2020) 5:00 pm AEST

### Week 9 - 14 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Profession-specific Pharmacology V:  
CV69 – Drugs Used During  
Echocardiography Procedures.  
CG95 – Drugs For Treating  
Respiratory, Allergic and Adrenal  
Conditions.

eReading Lists on Moodle.

Online Zoom Tutorial on Week 9  
Content.

#### **Week 10 - 21 Sep 2020**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Profession-specific Pharmacology VI: CV69 – Drugs Used During Echocardiography Procedures (cont.). CG95 – Analgesics and Sedatives Administered by Paramedics.	eReading Lists on Moodle.	Online Zoom Tutorial on Week 10 Content.

#### **Week 11 - 28 Sep 2020**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Profession-specific Pharmacology VII: CV69 – Non-cardiovascular Medications taken by CVD patients AND Drugs Which Cause Cardiotoxicity. CG95 – Emergency Cardiovascular Drugs Administered by Paramedics AND Commonly Used Illicit Drugs.	eReading Lists on Moodle.	Online Zoom Tutorial on Week 11 Content.

#### **Week 12 - 05 Oct 2020**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Revision.		Online Zoom Revision Tutorial.

## Term Specific Information

### Contacting the Teaching Staff

Your primary teaching contact for BMSC12104 Pharmacology for Health Professionals is Dr Jordon Irwin. The best way to contact Jordon is via the Q&A forum on the unit Moodle site. However, if your query is of a more personal nature please contact Jordon directly by email ([j.irwin@cqu.edu.au](mailto:j.irwin@cqu.edu.au)). The Q&A forum really is a great way to post questions related to the unit content, resources and assessment tasks. Please do not feel too shy to ask questions on the forum – you will not be alone in your query!

### Modularisation of Unit

BMSC12014 is a modularised unit i.e. the content presented in this unit has been tailored to accommodate students in the CV69 and CG95 courses. This means that, at certain times during the term, students from each course will study different content (as listed in the Unit Schedule). Furthermore, although all students will complete the same assessments tasks, there will be "profession-specific" case studies/questions for students in each course to complete. Further guidance pertaining to the modularisation of BMSC12014 is provided on the unit Moodle site.

### Lectures and Tutorials

All lectures for this unit are pre-recorded and will be available on the unit's Moodle site. Live tutorials will be delivered each week using Zoom – the links required for accessing the sessions are provided on Moodle. The tutorials will be recorded, and the links made available on the unit Moodle site. During these sessions, we will cover practice Online Quiz/Test questions to ensure that you are comfortable with answering the style of questions which form these assessment tasks.

### Unit Study Commitment

As per Australian education standards, you are expected to commit 150 hours of engagement to your study of this unit. A suggestion of how you should allocate your study commitment per week is as follows:

- 2-3 hours watching recorded lectures and attending/viewing the tutorial.
- 1-2 hours completing the recommended readings.
- 2-3 hours completing the weekly study questions and practice assessment activities.
- 3-4 hours preparing for the Online Quizzes, Drug Poster or Online Test.

## Assessment Tasks

### 1 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 1 to 4 of term).

- You will complete **one (1) Online Quiz**.
- The quiz will be available for a period of one (1) week – it will open at 11:55 am on Friday 7th August 2020 (Week 4) and will close at 11:55 am on Friday 14th August 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 thoroughly **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. Hence, you will be very 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 (14 Aug 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 (4 Sept 2020)

Your quiz result will be graded checked by the unit coordinator so that you can receive additional 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 individually via Moodle.

**Learning Outcomes Assessed**

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

**Graduate Attributes**

- Communication
- Critical Thinking

## 2 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. Additionally, you may be expected to find, appraise and distill information from the scientific literature in order to answer clinical questions/assist with patient care. This assessment task provides you with an opportunity to practice this skill of condensing complex pharmacological information into a practical summary.

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 and drug interactions. You will then summarise this information (in your own words) by creating an electronic poster with appropriate citation to your sources of literature. The crux of this assessment task is to achieve a balance between presenting an informative poster while ensuring that your summary is succinct and includes only the most relevant/important details.

**Assessment Due Date**

Week 8 Friday (11 Sept 2020) 5:00 pm AEST

Your poster will be submitted online via Moodle.

**Return Date to Students**

Week 10 Friday (25 Sept 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 and drug interactions.
- 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).
- 10 marks available for the visual effectiveness (colour schemes, images, font, etc.) and presentation of the poster (i.e. 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

## 3 Online Test

### Assessment Type

Online Test

### Task Description

The purpose of this assessment task is to evaluate your understanding of the drugs and basic pharmacological principles which we have covered in this unit (Weeks 1-11).

- You will complete **one (1) Online Test**.
- The test is comprised of **ten (10) questions** which will contain multiple sub-questions.
- You will provide **short answers** for each question.
- Each question is worth a total of ten (10) marks. Hence, there are **100 marks** available in this assessment task.
- Only **one (1) attempt** is permitted for this assessment task.
- Your score from the Online Test will contribute 60% to your final grade.
- You are required to obtain at least 50% of the available marks to be eligible to pass the unit (i.e.  $\geq 50$  out of 100 marks).
- The Online Test will be held after the Term 2 2020 Course Review Period.
- If you are unable to complete the Online Test on the nominated date, you will have to apply for a Deferred Assessment.

**Assessment Due Date**

The exact time and date of the Online Test will be made available via Moodle once the University Online Examination Timetable has been finalised.

**Return Date to Students**

Results and feedback will be available following review by the unit coordinator.

**Weighting**

50%

**Minimum mark or grade**

This assessment has a minimum passing grade of 50%.

**Assessment Criteria**

The Online Test will consist of ten (10) questions each worth ten (10) marks. Marks will be awarded for correct responses. No marks will be deducted for incorrect answers.

**Referencing Style**

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

**Submission**

Online

**Submission Instructions**

The Online test will be accessed and completed individually via Moodle.

**Learning Outcomes Assessed**

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

**Graduate Attributes**

- Communication
- Critical Thinking
- 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