



# BMSC12011 *Clinical Microbiology*

## Term 2 - 2017

Profile information current as at 20/04/2024 08:02 am

All details in this unit profile for BMSC12011 have been officially approved by CQUUniversity 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 provide you with evidence based learning and practice to maximise your diagnostic capabilities for the accurate detection, identification and management of infectious diseases of humans. This unit will provide you with a comprehensive knowledge and understanding of infectious diseases, the laboratory identification of causative pathogens as well as their pathogenicity and epidemiology. The unit will also include provision of the skills necessary to undertake common practical laboratory processes in clinical bacteriology.

### 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

Prerequisites: MBIO19012 Microbiology BIOL12106 Molecular Biology

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).

### 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. **Practical Assessment**

Weighting: 35%

#### 2. **Written Assessment**

Weighting: 15%

#### 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](#).

## 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 report

##### Feedback

To assist in cementing the amount of knowledge that is learnt each week, weekly quizzes might be helpful to remember the important topics.

##### Recommendation

Support self-assessment exercises are provided in the textbook that is recommended reading to accompany this course. Provision of further quizzes will be considered as formative feedback learning tools for specific themes.

#### Feedback from Student feedback report

##### Feedback

The residential school/workbook had far too much content for the allotted time. There were too many cases to get through and not enough lab staff to go around for everyone and the many questions they had.

##### Recommendation

The residential school will be re-evaluated in response to student feedback, with regard to both content and workload, and how the learning experience may be improved in order to support student attainment of learning outcomes.

## Unit Learning Outcomes

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

1. Describe the principal bacterial pathogens, commensal flora and opportunistic pathogens of each of the human body systems
2. Appraise the use of molecular techniques for identifying bacterial pathogens in human disease
3. Use practical skills to isolate, identify and test the basic antimicrobial resistance of pathogenic bacteria
4. Describe the mechanisms of antimicrobial resistance in bacteria
5. Understand and apply appropriate quality control processes for practice in clinical microbiology

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
<b>1 - Practical Assessment - 35%</b>	•		•	•	•
<b>2 - Written Assessment - 15%</b>	•	•			
<b>3 - Examination - 50%</b>	•	•		•	

### 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					
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 - Practical Assessment - 35%	•	•	•	•				•		
2 - Written Assessment - 15%			•	•						
3 - Examination - 50%		•	•	•				•		

## Textbooks and Resources

### Textbooks

BMSC12011

#### Prescribed

#### Bailey & Scott's Diagnostic Microbiology

Edition: 13th (2013)

Authors: Patricia Tille

Elsevier Mosby

St Louis , Missouri , United States of America

ISBN: ISBN-13: 978-0323083300 ISBN-10: 0323083307

Binding: Hardcover

#### Additional Textbook Information

The specified text book is the same for BMSC12011 Clinical Microbiology and BMSC13003.Advanced Clinical Microbiology

[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

**Padraig Strappe** Unit Coordinator

[p.strappe@cqu.edu.au](mailto:p.strappe@cqu.edu.au)

## Schedule

### Week 1 - 10 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Staphylococci/ Streptococci	Chapters 14 and 15	

### Week 2 - 17 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Aerobic Gram positive bacilli/ Filamentous Gram positive bacilli	Chapters 16, 17, 18 and 19	

### Week 3 - 24 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Enterobacteriaceae / Pathogenic Enterobacteriaceae	Chapter 20	

### Week 4 - 31 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Oxidase positive Gram negative bacilli/  
Facultative Gram negative bacilli

Chapters 21, 22, 25, 29, 31, 32, 33, 34, 35, 36, 37 and 38

#### Week 5 - 07 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Gram negative cocci - <i>Moraxella catarrhalis</i> and Neisseriaceae/ Anaerobes & Residential School Block 1	Chapters 40, 41 and 42	

#### Vacation Week - 14 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Individual study time		

#### Week 6 - 21 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Mycobacteria/ Spirochaetes, Mycoplasmas & Ureaplasma, Chlamydiae and Rickettsiae	Chapters 43, 44, 45 and 46	<b>Written Assessment</b> Due: Week 6 Monday (21 Aug 2017) 11:45 pm AEST

#### Week 7 - 28 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Urinary tract infections	Chapter 73	

#### Week 8 - 04 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Eye, ear, nose and throat & respiratory tract infections	Chapters 69, 70 and 72,	

#### Week 9 - 11 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Skin, soft tissue and wound infections	Chapter 76	

#### Week 10 - 18 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Genital tract infections and Gastrointestinal tract infections	Chapters 74 and 75	

#### Week 11 - 25 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Infections of sterile sites / Automation and molecular testing & Residential School Block 2	Chapters 68, 71, 77 and 8	

#### Week 12 - 02 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic
Testing for antimicrobial susceptibility	Chapter 12	

#### Review/Exam Week - 09 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic

#### Exam Week - 16 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic

## Assessment Tasks

# 1 Practical Assessment

## Assessment Type

Practical Assessment

## Task Description

Students will undertake analysis of cases in clinical microbiology over three days, designed to mimic true diagnostic microbiology laboratory cases.

## Assessment Due Date

End of residential school

## Return Date to Students

Marks 1 week after residential school. All marked workbooks returned 1 week after the second residential school

## Weighting

35%

## Minimum mark or grade

50% To pass this unit

## Assessment Criteria

Students will be assessed on the accuracy and interpretation of their laboratory investigations of the bacterial identification, staining and antimicrobial resistance of the cases provided. This assessment will be performed by use of a workbook for recording laboratory investigations and mock laboratory report for each case.

## Referencing Style

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

## Submission

Offline

## Submission Instructions

Submit at the end of the residential school

## Learning Outcomes Assessed

- Describe the principal bacterial pathogens, commensal flora and opportunistic pathogens of each of the human body systems
- Use practical skills to isolate, identify and test the basic antimicrobial resistance of pathogenic bacteria
- Describe the mechanisms of antimicrobial resistance in bacteria
- Understand and apply appropriate quality control processes for practice in clinical microbiology

## Graduate Attributes

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

# 2 Written Assessment

## Assessment Type

Written Assessment

## Task Description

Students will write a 1200-1500 word essay on a microbial pathogen or an infectious condition chosen from a selection of topics made available via the unit Moodle site.

## Assessment Due Date

Week 6 Monday (21 Aug 2017) 11:45 pm AEST

## Return Date to Students

Monday (4 Sept 2017)

Comments, mark and annotated essay returned via Moodle site/CQU email.

## Weighting

15%

**Assessment Criteria**

The report will be worth 20%, and will be marked against the following criteria:

Content and range of knowledge - 15%

Style, grammar and presentation - 3%

Referencing - 2%

**Referencing Style**

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

**Submission**

Online

**Submission Instructions**

Via the moodle site as a mircoscoft word document.

**Learning Outcomes Assessed**

- Describe the principal bacterial pathogens, commensal flora and opportunistic pathogens of each of the human body systems
- Appraise the use of molecular techniques for identifying bacterial pathogens in human disease

**Graduate Attributes**

- Critical Thinking
- Information Literacy

## Examination

**Outline**

Complete an invigilated examination.

**Date**

During the examination period at a CQUniversity examination centre.

**Weighting**

50%

**Length**

180 minutes

**Minimum mark or grade**

50% To pass this unit

**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