BMSC13003 *Medical Microbiology 2*
Term 2 - 2024

Profile information current as at 12/07/2025 11:10 am

General Information

Overview
On completion of this unit, you will be able to identify and discuss the clinical significance of viruses, prions, fungi and parasites causing human disease. You will investigate the morphological characteristics, epidemiology, laboratory identification of these microorganisms and will be able to debate causes of mycological, parasitic and viral infectious diseases. You will discuss the life cycle of important parasites and their relevance to disease control. You will be able to interpret basic serological tests for the detection of human pathogenic viruses.

Details
Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites
Prerequisites: MBIO19012 Microbiology AND BIOL12106 Molecular Biology OR BMSC12012 Molecular Cell 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 - 2024

- Mixed Mode
- 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. **Poster Sessions**
Weighting: 30%
2. **Practical Assessment**
Weighting: Pass/Fail
3. **Group Work**
Weighting: 20%
4. **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 Evaluation

Feedback
Residential School could be enhanced by the inclusion of additional fungi slides.

Recommendation
Additional fungi slides will be included in the residential school practical.

Feedback from Self Reflection

Feedback
Assignments can be updated to include a greater variety of topics. The final examination is challenging with the viva voce. Consider changing to an invigilated examination.

Recommendation
Assignment topics are now updated. In addition, the final exam format has now been changed to invigilated rather than by viva voce.

Feedback from Student Evaluation

Feedback
Update assignment rubrics.

Recommendation
Assignment rubrics are now updated and modified

Unit Learning Outcomes

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

1. Discuss the clinical significance and laboratory detection of the principal viral/prion, fungal and parasitic pathogens of each of the human body systems
2. Appraise the use of molecular, histological and culture-based techniques for identifying viruses/prions, fungi and parasites causing human disease
3. Use practical skills to identify pathogenic viruses, fungi and parasites
4. Evaluate and interpret different testing methods used in the detection and monitoring of infectious diseases caused by viruses/prions, fungi and parasites
5. Apply appropriate quality control processes in the practice of virology, mycology and parasitology.

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level | • Introductory Level | • Intermediate Level | • Graduate Level | ◦ Professional Level | ◦ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Practical Assessment - 0%	•		•	•	•
2 - Group Work - 20%		•			
3 - Poster Sessions - 30%	•			•	
4 - Examination - 50%		•		•	•

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					

Textbooks and Resources

Textbooks

BMSC13003

Prescribed

Bailey and Scott's Diagnostic Microbiology
Edition: 15th (2022)
Authors: Patricia M Tile
Elsevier
St Louis , Missouri , USA
ISBN: 9780323681056
Binding: Hardcover

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Jalal Jazayeri Unit Coordinator
j.jazayeri@cqu.edu.au

Schedule

Week 1 - Introduction and Host Parasite interactions - 08 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Host Parasite interactions	Bailey and Scott's Diagnostic Microbiology Chapters 1, 2 and 10 (15th Edition)	Rockhampton Lecture and zoom tutorial Introduction to the subject content, learning materials and assessments

Week 2 - Viruses and anti viral chemotherapy - 15 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Viruses and anti viral chemotherapy	Bailey and Scott's Diagnostic Microbiology Chapters 64, 65, 66 (15th Edition)	Rockhampton lecture and zoom tutorial on week 1 content

Week 3 - Mycology and Anti Fungal Chemotherapy - 22 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Mycology and Anti Fungal Chemotherapy	Bailey and Scott's Diagnostic Microbiology Chapter 58-63 (15th Edition)	Rockhampton lecture and zoom tutorial on week 2 content

Week 4 - Parasites and anti Parasitic therapy - 29 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic

Parasites and anti-Parasitic therapy	Bailey and Scott's Diagnostic Microbiology Chapters 46-57 (15th Edition)	Rockhampton lecture and zoom tutorial on week 3 content

Week 5 - Respiratory Tract Infections - 05 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Respiratory Tract Infections	Bailey and Scott's Diagnostic Microbiology Chapters 68 and 69 (15th Edition)	Rockhampton lecture and zoom tutorial on week 4 content

Vacation Week - 12 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Independent study week		

Week 6 - Sexually Transmitted Infections (STIs) - 19 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Sexually Transmitted Infections (STIs)	Bailey and Scott's Diagnostic Microbiology Chapters 73 (15th Edition)	Rockhampton lecture and zoom tutorial on week 5 content **Mid-Term Assessment** Due: Week 6 Monday (19 Aug 2024) 9:00 am AEST

Week 7 - Obstetric and Gynaecological infections - 26 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Obstetric and Gynaecological infections	Bailey and Scott's Diagnostic Microbiology Chapters 72&73 (15th Edition)	Rockhampton lecture and zoom tutorial on week 6 content

Week 8 - Infections of the Central Nervous System - 02 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Infections of the Central Nervous System	Bailey and Scott's Diagnostic Microbiology Chapter 70 (15th Edition)	Rockhampton lecture and zoom tutorial on week 7 content

Week 9 - Gastrointestinal Tract Infections - 09 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Gastrointestinal Tract Infections	Bailey and Scott's Diagnostic Microbiology Chapter 74 (15th edition)	Rockhampton lecture and zoom tutorial on week 8 content

Week 10 - Infections of Skin and Soft Tissue - 16 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Infections of Skin and Soft Tissue	Bailey and Scott's Diagnostic Microbiology Chapter 75 (15th Edition)	Compulsory Residential School 22/09/2023 to 24/09/2023, Rockhampton Campus Rockhampton lecture and zoom tutorial on week 9 content **Residential School Practical Assessment** Due: Week 10 Friday (20 Sept 2024) 9:00 am AEST **Group poster presentation** Due: Week 10 Friday (20 Sept 2024) 12:00 am AEST

Week 11 - Vector Borne Infections and Zoonoses - 23 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Vector Borne Infections and Zoonoses	Bailey and Scott's Diagnostic Microbiology (15th Edition) Chapters 57, 65, 67	Rockhampton lecture and zoom tutorial on week 10 content

Week 12 - 30 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Revision		Zoom tutorial

Review/Exam Week - 07 Oct 2024

Module/Topic	Chapter	Events and Submissions/Topic
Revision	Bailey and Scott's Diagnostic Microbiology (15th Edition) All Chapters listed	

Exam Week - 14 Oct 2024

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Unit Coordinator:
The unit coordinator is Dr. Jalal Jazayeri and can be contacted via subject discussion forum as well as email: j.jazayeri@cqu.edu.au or phone: 0404024023. Dr. Jazayeri is based in Melbourne, at 120 Spencer Street, level 4, Room number 4.02.

Textbook:
Bailey and Scott's Diagnostic Microbiology 15th Edition, by Patricia M. Tille
In addition, references to published research articles, relevant to each topic, will also be provided. These articles are up-to-date with the latest advancements in the field, ensuring that you have access to the most current research and developments.
Study Guide:
As per Australian educational standards, you are expected to commit 150 hours of engagement to your study of this unit (~12.5hrs each week). Students are expected to spend time doing the following each week:

- 3 - 4 hours per week watching pre-recorded lectures and revising the content through study notes.
- 2 - 3 hours per week completing the weekly study questions and weekly revision quizzes on the unit's Moodle site.
- 2 - 3 hours per week attending the weekly tutorials and reflecting on your answers to the weekly revision worksheets
- 3 - 4 hours per week preparing for your assessments and end of term invigilated exam.

This unit also has a **compulsory residential school** component which will be held in week 10, September 2024 (exact date to be announced)

Assessment Tasks

1 Mid-Term Assessment

Assessment Type
Poster Sessions

Task Description
This written assessment will examine your comprehension of the learning objectives and activities carried from weeks 1 - 5 inclusive in the unit, including any pre-tutorial/lectorial learning materials such as the weekly lecture notes and related resources, peer-reviewed articles and other relevant resources provided with the unit content and covered during scheduled classes. The assessment may include (but not be limited to) multiple choice questions, some short answer questions, terminology questions, process and arrangement questions.
You will be provided with support and examples of the types of questions you are likely to encountered in this assessment during your scheduled tutorial classes; this will assist you in learning and understanding the expectations of this assessment. You are therefore strongly encouraged to regularly attend and actively participate in the weekly scheduled tutorial classes, ask questions where you are uncertain and ensure you come prepared for each class by having reviewed any pre-class learning material. If you still have questions or areas, you do not understand following each weekly lectorial/tutorial class you will be encouraged to address these promptly by posting your questions on the Discussion forum and engaging in discussion on this/these topics with fellow students and academics, and the Unit coordinators. Doing this will ensure you 'arrive' to this assessment well prepared and give yourself the best possibilities of preforming well in and from this assessment.

Assessment Due Date
Week 6 Monday (19 Aug 2024) 9:00 am AEST

Online submission via the subject Moodle site

Return Date to Students
Week 8 Friday (6 Sept 2024)

Weighting
30%

Assessment Criteria
A detailed marking criteria and marks allocated for each question will be provided with this assessment. Marks will range from 1-2 marks for short responses and 4-5 marks where more detailed information will be required. You will be provided with support and examples of the types of questions you are likely to encountered in this assessment during your scheduled classes; this will assist you in learning and understanding the expectations of this assessment.
You are therefore, strongly encouraged to regularly attend and actively participate in the weekly scheduled classes, ask questions where you are uncertain and ensure you come prepared for each class by having reviewed any pre-class learning material. If you still have questions or areas, you do not understand following each weekly lectorial/tutorial class you will be encouraged to address these promptly by posting your questions on the Discussion forum and engaging in discussion on this/these topics with fellow students and academics, and the Unit coordinators. Doing this will ensure you 'arrive' to this assessment well prepared and give yourself the best possibilities of preforming well in and from this assessment.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Submit online via subject Moodle site

Learning Outcomes Assessed

- Discuss the clinical significance and laboratory detection of the principal viral/prion, fungal and parasitic pathogens of each of the human body systems
- Evaluate and interpret different testing methods used in the detection and monitoring of infectious diseases caused by viruses/prions, fungi and parasites

2 Residential School Practical Assessment

Assessment Type
Practical Assessment

Task Description
During the residential school, you will conduct a range of experiments that will provide opportunities to learn and perform clinical diagnostic procedures in Virology, Mycology, and Parasitology, complementing your theoretical knowledge of diagnostic microbiology. The residential school will offer valuable practical experience in techniques currently used in diagnostic clinical microbiology laboratories. The laboratory practical assessment will consist of laboratory-based exercises, which will be completed during the residential school period. These exercises, described in the subject laboratory manual, will involve the completion of laboratory tasks, calculation, and presentation of results. A detailed rubric of assessment criteria for the laboratory manual will be available on the unit's Moodle site.

Assessment Due Date
Week 10 Friday (20 Sept 2024) 9:00 am AEST

Online submission via the subject Moodle site

Return Date to Students
Week 10 Friday (20 Sept 2024)

Your grade will be communicated to you within a week of the residential school finishing via Moodle.

Weighting
Pass/Fail

Assessment Criteria
You will be assessed on your competency while carrying out practical tasks during the residential school. This assessment is **Pass/fail.**

Referencing Style

- Harvard (author-date)

Submission
Offline

Submission Instructions
Submit online via subject Moodle site

Learning Outcomes Assessed

- Discuss the clinical significance and laboratory detection of the principal viral/prion, fungal and parasitic pathogens of each of the human body systems
- Use practical skills to identify pathogenic viruses, fungi and parasites
- Evaluate and interpret different testing methods used in the detection and monitoring of infectious diseases caused by viruses/prions, fungi and parasites
- Apply appropriate quality control processes in the practice of virology, mycology and parasitology.

3 Group poster presentation

Assessment Type
Group Work

Task Description
Working in groups of three members, you will produce a scientific poster that compares and contrasts two pathogens that infect a similar tissue or organ system. Your focus will be on the laboratory techniques used for their detection, along with descriptions of their transmission, pathogenesis, and treatment. **A list of topics will be provided on the subject Moodle site in week 2**.

Assessment Due Date
Week 10 Friday (20 Sept 2024) 12:00 am AEST

Posters will be presented at the Residential School on Day 3

Return Date to Students

You will be assessed on the day and marks will be uploaded immediately after the Residential school

Weighting
20%

Assessment Criteria
Your poster will be assessed on a number of criteria including:

- Design and appearance
- Information content relating to Transmission, pathogenicity, virulence factors, etc.
- Contribution to the group effort
- Ability to answer questions relating to your poster.

Referencing Style

- Harvard (author-date)

Submission
Offline Group

Submission Instructions
Submission will be via assessment dropbox on Moodle

Learning Outcomes Assessed

- Appraise the use of molecular, histological and culture-based techniques for identifying viruses/prions, fungi and parasites causing human disease

Examination

Outline
Complete an invigilated examination.

Date
During the examination period at a CQUniversity examination centre.

Weighting
50%

Length
120 minutes

Minimum mark or grade
50%

Exam Conditions
Restricted.

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