



LMED28003 *Immunopathology 1*

Term 1 - 2023

Profile information current as at 05/05/2024 10:39 pm

All details in this unit profile for LMED28003 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

On completion of this unit, you will understand the pre and post-natal development of the human immune system and its function in health and disease. This includes autoimmune disorders, hypersensitivity reactions and microbiological infections. You will also have learned about the diagnostic uses of antibodies, vaccine design, and preventive and therapeutic uses of vaccines. Problem-solving and decision making skills will be developed through the use of authentic case studies. Skill development in instrument calibration, best practice measurement, interpretation of test results, and test quality control monitoring will occur through practical exercises. You will be required to attend a residential school on the Rockhampton campus to promote the development of unit learning outcomes. The residential school may be scheduled outside of the term of offering of the unit.

Details

Career Level: *Postgraduate*

Unit Level: *Level 8*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisite Enrolment in Master of Laboratory Medicine.

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 - 2023

- Melbourne
- 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).

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 Postgraduate 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: 20%

2. **Written Assessment**

Weighting: 30%

3. **Laboratory/Practical**

Weighting: Pass/Fail

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](#).

Unit Learning Outcomes

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

1. Evaluate the major cells and tissues of the immune system and their function in the immune response
2. Compare and contrast the innate and adaptive immune systems and their roles in the immune response
3. Evaluate immune dysfunctions including hypersensitivity, immunodeficiency and autoimmunity
4. Appraise the treatment and management of immune disorders
5. Demonstrate the skills and techniques required in the evaluation of immune function in a laboratory setting.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

| Assessment Tasks | Learning Outcomes | | | | |
|--------------------------------------|-------------------|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| 1 - Written Assessment - 20% | • | • | • | • | |
| 2 - Written Assessment - 30% | | | • | | • |
| 3 - Laboratory/Practical - 0% | | | • | | • |
| 4 - Examination - 50% | • | • | | • | |

Alignment of Graduate Attributes to Learning Outcomes

| Graduate Attributes | Learning Outcomes | | | | |
|---|-------------------|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| 1 - Knowledge | ◦ | ◦ | ◦ | ◦ | ◦ |
| 2 - Communication | ◦ | ◦ | ◦ | ◦ | ◦ |
| 3 - Cognitive, technical and creative skills | ◦ | ◦ | ◦ | ◦ | ◦ |
| 4 - Research | | | | | |
| 5 - Self-management | | | | | |
| 6 - Ethical and Professional Responsibility | | | ◦ | | ◦ |
| 7 - Leadership | | | | | |
| 8 - Aboriginal and Torres Strait Islander Cultures | | | | | |

Textbooks and Resources

Textbooks

LMED28003

Prescribed

Basic Immunology

Edition: 6th (2020)

Authors: Abul Abbas, Andrew Lichtman, Shiv Pillai

Elsevier

ISBN: 9780323549431

Binding: Paperback

Additional Textbook Information

The prescribed textbook can be accessed online at the CQUniversity Library website. Access can be limited, so if you prefer your own copy, you can purchase either paper or eBook versions 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 \(author-date\)](#)
- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Jason Steel Unit Coordinator
j.steel@cqu.edu.au

Schedule

Week 1 - 06 Mar 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|----------------------------|---|------------------------------|
| Introduction to Immunology | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 1 | |

Week 2 - 13 Mar 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|----------------------|---|------------------------------|
| Innate Immune System | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 2 | |

Week 3 - 20 Mar 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|----------------------------------|---|------------------------------|
| Antigen Capture and Presentation | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 3 | |

Week 4 - 27 Mar 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|---|---|------------------------------|
| Antigen Recognition in the Adaptive Immune System | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 4 | |

Week 5 - 03 Apr 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|--------------------------|---|------------------------------|
| T cell-mediated Immunity | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 5 | |

Vacation Week - 10 Apr 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|-------------------|---------|------------------------------|
| Independent Study | | |

Week 6 - 17 Apr 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|-----------------------------------|---|---|
| Effector Mechanisms of the T-cell | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 6 | Assessment 1: Case Report Due: Week 6 Friday (21 Apr 2023) 11:45 pm AEST |

Week 7 - 24 Apr 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|--------------------------|---|------------------------------|
| Humoral Immune Responses | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 7 | |

Week 8 - 01 May 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|---|---|------------------------------|
| Effector Mechanisms of the Humoral System | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 8 | |

Week 9 - 08 May 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|---|---------|------------------------------|
| Antibody use in disease diagnosis and treatment | | |

Week 10 - 15 May 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|--|---|------------------------------|
| Immunological Tolerance and Autoimmunity | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 9 | |

Week 11 - 22 May 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|--|---|--|
| Immunology in Non-Microbiological Diseases | Basic Immunology 6th Ed (2019); Abul Abbas, Andrew Lichtman, Shiv Pillai: Chapter 10-12 | Assessment 2: OUTLINE OF THE INNATE AND ADAPTIVE IMMUNE SYSTEMS Due: Week 11 Friday (26 May 2023) 11:45 pm AEST |

Week 12 - 29 May 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|------------------------------------|---------|------------------------------|
| Self-directed study/ Exam revision | | |

Review/Exam Week - 05 Jun 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|--------------|---------|---|
| | | An invigilated examination will be scheduled in the scheduled examination period from 8 June 2023 - 16 June 2023. Students will be notified of the exact date once it has been scheduled. |

Exam Week - 12 Jun 2023

| Module/Topic | Chapter | Events and Submissions/Topic |
|--------------|---------|---|
| | | An invigilated examination will be scheduled in the scheduled examination period from 8 June 2023 - 16 June 2023. Students will be notified of the exact date once it has been scheduled. |

Term Specific Information

The unit coordinator is Dr Jason Steel. Please feel free to contact me on j.steel@cqu.edu.au or on 07 4930 6391.

TEXTBOOK

Basic Immunology 6th Edition (2019)

Authors: Abul Abbas, Andrew Lichtman, Shiv Pillai

Assessment Tasks

1 Assessment 1: Case Report

Assessment Type

Written Assessment

Task Description

Students will be presented with a clinical case with immune implications.

Using knowledge of the immune system from weeks 1-6 content, coupled with literature research, students are to write a report outlining the clinical disease presented in the clinical case, the immune processes responsible for the clinical presentation, pathology testing to confirm the diagnosis, and what immune-modulating therapies (and how they work) could be used to treat the disease.

The clinical case and a detailed marking rubric will be provided via Moodle.

Assessment Due Date

Week 6 Friday (21 Apr 2023) 11:45 pm AEST

Return Date to Students

2 weeks after submission

Weighting

20%

Minimum mark or grade

50%

Assessment Criteria

You will be assessed on the following criteria:

- Identification of the disease
- Accurate description of the immune processes involved in the development of the disease
- Clear description of further diagnostic tests to confirm the disease
- Clear description of at least 1 immunotherapy that could be used to treat the disease
- Appropriate use of referencing of scientific literature

A detailed marking rubric will be available on the Moodle site for this unit.

Referencing Style

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

Submission

Online

Submission Instructions

The report will be submitted on Moodle as a PDF or word file.

Learning Outcomes Assessed

- Evaluate the major cells and tissues of the immune system and their function in the immune response
- Compare and contrast the innate and adaptive immune systems and their roles in the immune response
- Evaluate immune dysfunctions including hypersensitivity, immunodeficiency and autoimmunity
- Appraise the treatment and management of immune disorders

2 Assessment 2: OUTLINE OF THE INNATE AND ADAPTIVE IMMUNE SYSTEMS

Assessment Type

Written Assessment

Task Description

Students will be presented with a hypothetical scenario and will need to prepare a 2000 +/- 10% written report that "Explains the 'innate' and 'adaptive' immune responses to a novel Henipavirus. They will also need to outline how the non-specific and specific arms of the immune system cooperate to effect an immune response".

- Students will start with the premise of someone sneezing or coughing on someone and work their way through the immune responses, ending with viral clearance and the formation of immunological memory. Hint: the first part of the immune response are your barriers (skin and mucus layers). Most of the virus will get trapped by these before they get into your lungs.

- Diagrams and flow charts can be used. These will not be included in the word count.

- References are needed for this assignment (including any diagrams or figures used). DO NOT reference lectures or lecture notes. This information can be found from other sources (such as your textbook).

Assessment Due Date

Week 11 Friday (26 May 2023) 11:45 pm AEST

Return Date to Students

2 weeks after submission

Weighting

30%

Minimum mark or grade

50%

Assessment Criteria

The assessment of this written report will be based on the demonstrated knowledge of immune processes, using appropriate robust scientific literature, and clarity of the proposal with accurate referencing.

A detailed marking rubric will be available on the Moodle site for this unit.

Referencing Style

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

Submission

Online

Submission Instructions

The assessment is to be submitted on Moodle as a PDF or word file.

Learning Outcomes Assessed

- Evaluate immune dysfunctions including hypersensitivity, immunodeficiency and autoimmunity
- Demonstrate the skills and techniques required in the evaluation of immune function in a laboratory setting.

3 Assessment 3: Laboratory Practical

Assessment Type

Laboratory/Practical

Task Description

Attendance at the Residential School / Laboratory is mandatory to pass the unit. The exact dates will be advised.

Assessment Due Date

Assessment of practical skills will be completed during the residential school

Return Date to Students

Assessment of practical skills will be discussed during the residential school

Weighting

Pass/Fail

Assessment Criteria

Attendance at the Residential School / Laboratory is mandatory to pass the unit. You will be assessed on your laboratory skills as part of the residential school.

Referencing Style

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

Submission

No submission method provided.

Submission Instructions

Practical skills will be assessed during the residential school.

Learning Outcomes Assessed

- Evaluate immune dysfunctions including hypersensitivity, immunodeficiency and autoimmunity
- Demonstrate the skills and techniques required in the evaluation of immune function in a laboratory setting.

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%

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