



# LMED29011 *Transfusion and Transplantation* *Medicine 2* Term 1 - 2024

Profile information current as at 01/05/2024 09:00 am

All details in this unit profile for LMED29011 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 enables you to develop an advanced knowledge and understanding of the principles of transfusion and transplantation medicine, building on the knowledge and understanding of the principles gained in earlier units. You will enhance your knowledge on topics such as safe blood storage and handling, blood and tissue typing and the detection and identification of antibodies significant in transfusion and solid tissue transplantation. You will develop the critical skills necessary to enable you to provide advice on the provision of safe tissue transplantations and blood products and components for transfusion in both routine and emergency situations including product selection and patient management.

### Details

Career Level: *Postgraduate*

Unit Level: *Level 9*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

Prerequisites: LMED29003 Transfusion and Transplantation Medicine 1

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 - 2024

- Melbourne
- Online
- 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 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. **Case Study**

Weighting: 30%

#### 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. Articulate the application of transfusion of human blood products in the prevention or treatment of serious medical conditions
2. Analyse complex test results in transfusion and transplantation medicine
3. Review and optimise quality control procedures in transfusion and transplantation medicine
4. Determine the appropriate implementation of advanced testing procedures in transfusion science including pre-transfusion, compatibility testing, antenatal/postnatal/neonatal screening and the testing for autoantibodies
5. Research and critique literature related to adverse outcomes and their effects in transfusion and transplantation medicine.

## 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 - Case Study - 30%		•		•	•
3 - 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

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#### Supplementary

##### **Basic & Applied Concepts of Blood Banking and Transfusion Practices**

Edition: 3rd (2021)

Authors: Paula R Howard

Elsevier Inc

St. Louis , Missouri 63043 , United States of America

ISBN: 9780323697392

Binding: Paperback

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#### Supplementary

##### **Modern Blood Banking and Transfusion Practices**

Edition: 7th (2018)

Authors: Denise M Harmening

F.A. Davis Company

Pennsylvania , PA , United States

ISBN: 9780803668881

Binding: Hardcover

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#### Supplementary

##### **Transfusion and Transplantation Science**

Edition: 2nd (2017)

Authors: Avent, Neil

Oxford University Press

Oxford , Oxford , United Kingdom

ISBN: 9780198735731

Binding: Paperback

#### Additional Textbook Information

Paper versions can be purchased at the CQUniversity Bookshop at: <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)
- Zoom
- Teams

## Referencing Style

All submissions for this unit must use the referencing style: [Vancouver](#)  
For further information, see the Assessment Tasks.

## Teaching Contacts

**Genia Burchall** Unit Coordinator  
[g.burchall@cqu.edu.au](mailto:g.burchall@cqu.edu.au)

**Roxina Sharma** Unit Coordinator  
[r.r.sharma@cqu.edu.au](mailto:r.r.sharma@cqu.edu.au)

## Schedule

### Week 1 - 04 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
1. Introduction to Unit 2. Unit and Assessment Overview 3. Revision		Live tutorial

### Week 2 - 11 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
1. Laboratory Management of a Transfusion and Transplantation Laboratory 2. Medico-legal and Ethical Aspects of Providing a Blood Transfusion Service in Australia		Live tutorial

### Week 3 - 18 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Quality Assurance, Quality Control, Regulatory and Compliance Issues		Live tutorial

### Week 4 - 25 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Research in Transfusion & Transplantation Medicine 1		Live tutorial

### Week 5 - 01 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Research in Transfusion & Transplantation Medicine 2		Live tutorial

### Vacation Week - 08 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Independent study week - an opportunity for self-directed learning and mid-unit revision.		No lectures or tutorials

### Week 6 - 15 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Serological aspects of Transfusion Science 1		Live tutorial

### Week 7 - 22 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Serological aspects of Transfusion Science 2		Live tutorial
		<b>Literature Review</b> Due: Week 7 Friday (26 Apr 2024) 11:59 pm AEST

### Week 8 - 29 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
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Serological aspects of Transfusion  
Science 3

Live tutorial

#### **Week 9 - 06 May 2024**

**Module/Topic**

**Chapter**

**Events and Submissions/Topic**

Serological aspects of Transfusion  
Science 4

Live tutorial

#### **Week 10 - 13 May 2024**

**Module/Topic**

**Chapter**

**Events and Submissions/Topic**

Live tutorial

Transplantation Medicine/Science 1

**Group Case Study Presentation**

Due: Week 10 Tuesday (14 May 2024)  
9:00 am AEST

#### **Week 11 - 20 May 2024**

**Module/Topic**

**Chapter**

**Events and Submissions/Topic**

Transplantation Medicine/Science 2

Live tutorial

#### **Week 12 - 27 May 2024**

**Module/Topic**

**Chapter**

**Events and Submissions/Topic**

Unit revision and exam preparation.

Live tutorial

#### **Review/Exam Week - 03 Jun 2024**

**Module/Topic**

**Chapter**

**Events and Submissions/Topic**

Revision / Exam

The End-of-unit Exam will be scheduled in the CQUniversity examination period between 06/06/24 - 14/06/24. The exact date will be advised on the unit Moodle page.  
The End-of-unit exam comprises 50% of the overall unit mark.

#### **Exam Week - 10 Jun 2024**

**Module/Topic**

**Chapter**

**Events and Submissions/Topic**

## Term Specific Information

### Unit Contacts:

Unit Coordinators and Lecturers/Tutors/Assessors:

Ms Roxina Sharma: r.r.sharma@cqu.edu.au

A/P Genia Burchall: g.burchall@cqu.edu.au

Please note that, as this is an *advanced* level Transfusion & Transplantation Medicine unit within the CM18 Master of Laboratory Medicine, we have also invited, and are privileged to have a number of **expert** industry guest speakers present a number of lecture and/or tutorial classes within this unit.

Pre-recorded lectures (and/or shorter videos) will be used throughout the term and will be available to students on the Friday before each lecture week.

Live tutorials and Q&A sessions will be held weekly. Please refer to the Moodle site for further details. **It is strongly advisable to review the weekly lectures/videos before each tutorial session to support your learning and success in and from this unit. You are also strongly encouraged to attend and actively engage in weekly live classes, that have been shown through research to be directly correlated to successful outcomes** (Karnik, A., Kishore, P., & Meraj, M. (2020). Examining the linkage between class attendance at university and academic performance in an International Branch Campus setting. *Research in Comparative and International Education*, 15(4), 371-390.

<https://doi.org/10.1177/1745499920958855>)

Please note there are no recommended textbooks for this unit (due to the advanced and novel nature of the topics covered), but we have included several great examples of texts you may choose to use to support your learning within the supplementary texts. We will also be including a number of peer-reviewed articles and other relevant resources for specific weeks to support your knowledge development in this unit (in addition to the lecture/video recordings & tutorial classes). Reading material will be provided on a weekly basis related to each week's topic.

Students are encouraged to use the Moodle Q&A for all communication purposes.

As per Australian educational standards, you are expected to commit 150 hours of engagement to your study of this unit (for the entire term). This is broken down *per week* as:

2 - 3 hours per week attending or watching recorded lectures or videos and revising the content through study notes

2 - 2.5 hours per week completing the weekly readings (ie peer-reviewed articles), case studies (in your tutorial/lectorial notes), supplementary readings, and/or other material in the unit's Moodle site.

2 - 3 hours per week attending the weekly tutorial/lectorial classes and contributing to discussions as well as revising the content provided.

3 - 4 hours per week preparing your assessments or studying for your exams

If Generative AI is used in any way, it must be cited as per the CQU Guidelines (Academic Learning Centre).

As per academic writing requirements and assessment criteria, citations of information should be of the primary source (i.e statistics returned by AI must be fact-checked and referenced from their original source as well as the AI source).

Failure to cite primary sources as well as AI sources could be considered breach of academic integrity.

Your use of Generative AI must be clearly outlined in an appendix as a separate file which includes the prompt used and Generative AI response (in line with marking rubric). Failure to include an appendix may result in academic integrity investigation.

## Assessment Tasks

### 1 Literature Review

#### Assessment Type

Written Assessment

#### Task Description

For your first assessment in this unit you will be required to research and critique literature related to an adverse outcome/s and effects in transfusion and transplantation medicine. You will be provided with a few examples of *key* adverse outcomes that may be encountered in Transfusion and Transplantation Medicine or you may select your own topic of interest here (if you do wish to choose your own topic then pls make sure to discuss this first and receive approval from the Unit coordinator/s before proceeding). You will be further required to research control procedures or measures currently used to prevent or reduce the impacts of the adverse outcome/s addressed. You will be required to browse the peer-reviewed literature in your chosen area and write a literature review on common outcomes noted, as well as critique and evaluate the research *quality* from where you have taken your included studies, and in turn the reliability of the outcomes noted by these studies. You will be provided with learning opportunities and development of

your research knowledge throughout the term in this unit as well as given opportunities to ask questions and clarify any areas of unknown.

Please note the following details:

☐ As a guideline, the length of the main body of your review should be around 1500 words (+/-15%), excluding references - reviews that are substantially longer/shorter than this (>1500 words +/-20%) are unlikely to score as highly as those that make the best use of the specified word length (being on-target and making the best use of the word allocation is always better than being off-message).

☐ Text should be word-processed, with appropriate layout (double spaced) and use of headings/sub-headings.

☐ Diagrams & images should be used to illustrate specific aspects - a picture paints ten thousand words! (please ensure that you correctly cite/reference all sources of diagrams or images used, unless they are original and composed by you, since this is an important aspect of academic integrity).

☐ Please avoid images with very large file sizes, as this may make your assessment too large to upload/download.

☐ The list of references should form the last page or two, at the end of the assessment.

Referencing should be in a consistent style - in Vancouver format. Please make sure to include both in-text references and as well as details of these at the end of your text.

☐ Please save/upload your file in either a Word format (.doc or .docx) or in PDF.

Note: for further support on writing, referencing, etc pls contact the Academic Learning Centre (ALC).

### **Assessment Due Date**

Week 7 Friday (26 Apr 2024) 11:59 pm AEST

Please upload your Literature Review to the Turnitin Assessment 1 link in Moodle

### **Return Date to Students**

Week 9 Friday (10 May 2024)

Feedback will be provided in Moodle/Turnitin and in class.

### **Weighting**

20%

### **Assessment Criteria**

This assessment task will assess the following unit learning objectives:

1. Articulate the application of transfusion of human blood products in the prevention or treatment of serious medical conditions
3. Review and optimise quality control procedures in transfusion and transplantation medicine
5. Research and critique literature related to adverse outcomes and their effects in transfusion and transplantation medicine.

A detailed marking rubric will be provided in the unit Moodle site of the assessment criteria used.

### **Referencing Style**

- [Vancouver](#)

### **Submission**

Online

### **Submission Instructions**

Please upload your Literature Review to the Turnitin Assessment 1 link in Moodle.

### **Learning Outcomes Assessed**

- Articulate the application of transfusion of human blood products in the prevention or treatment of serious medical conditions
- Review and optimise quality control procedures in transfusion and transplantation medicine
- Research and critique literature related to adverse outcomes and their effects in transfusion and transplantation medicine.

## **2 Group Case Study Presentation**

### **Assessment Type**

Case Study

### **Task Description**

There are two parts to this assessment task.

Part 1: Please form a group for this assessment with a max of 4 students in each group (min 3 students). You will be provided with several examples of authentic clinical case studies on the Moodle site. Pls select the case study of interest to your group and the group leader must include a post in the Moodle Discussion board indicating which case has been selected (& names of thier group members). The case studies will be available for selection on a 'first come, first serve' basis. Each group must have their *own* case to work on (and present) and no 2 or more groups can select the same case.



Please check carefully the Moodle Discussion board before selecting your case study to ensure this has not already been chosen by another group previously.

The following information regarding the case will be available to you: clinical presentation, patient history, key laboratory information and/or other relevant case details.

Part 2: You are then required, as a group, to discuss and develop a PowerPoint presentation (or another suitable presentation file/format) using a case study approach. This will include a detailed description of the specific clinical and/or laboratory results (& other clinical data provided) and interpretation of these observed outcomes that led to the provisional diagnosis and differential diagnosis/es. What further tests are recommended to confirm this diagnosis? Discuss in depth the pathology associated with your provisional diagnosis including the aetiology/ies, pathophysiology, key clinical and lab results and any treatment/management options.

Guidelines to complete the presentation and a marking rubric will be available on the Moodle site.

### **Assessment Due Date**

Week 10 Tuesday (14 May 2024) 9:00 am AEST

Student groups to present their case studies in the normally scheduled Week 10 tutorial class (& upload their PowerPoint presentation file to Moodle by 9am on Tue of Week 10)

### **Return Date to Students**

Week 11 Tuesday (21 May 2024)

Students will be provided with feedback after each group presentation in the Week 10 tutorial class (and the marking rubric returned to students by/before Tue Week 11).

### **Weighting**

30%

### **Minimum mark or grade**

50%

### **Assessment Criteria**

This assessment task will assess the following unit learning objectives:

2. Analyse complex test results in transfusion and transplantation medicine
4. Determine the appropriate implementation of advanced testing procedures in transfusion science including pre-transfusion, compatibility testing, antenatal/postnatal/neonatal screening and the testing for autoantibodies
5. Research and critique literature related to adverse outcomes and their effects in transfusion and transplantation medicine.

A detailed marking rubric will be provided in the unit Moodle site of the assessment criteria used. The marking rubric will include both a group assessment component as well as individual assessment component.

### **Referencing Style**

- [Vancouver](#)

### **Submission**

Offline Online Group

### **Learning Outcomes Assessed**

- Analyse complex test results in transfusion and transplantation medicine
- Determine the appropriate implementation of advanced testing procedures in transfusion science including pre-transfusion, compatibility testing, antenatal/postnatal/neonatal screening and the testing for autoantibodies
- Research and critique literature related to adverse outcomes and their effects in transfusion and transplantation medicine.

## **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