

In Progress

Please note that this Unit Profile is still in progress. The content below is subject to change.



# MATH13218 *Advanced Applications of Mathematics*

## Term 2 - 2027

Profile information current as at 04/09/2026 05:53 pm

All details in this unit profile for MATH13218 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 apply techniques to solve ordinary differential equations (ODEs) from science, engineering, and business domains. You will study the principles of proving for critical thinking and function analysis for logical reasoning in science, engineering and business applications. In this final mathematics unit in the Bachelor of Education (mathematics minor), you will critically analyse strategies and practices in mathematics teaching and assessment design from selected literature.

#### Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 7

Fraction of Full-Time Student Load: 0.125

#### Pre-requisites or Co-requisites

Prerequisites: MATH12224 Calculus B or MATH11219 Applied Calculus

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 - 2027

- Online

#### 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

Information for Class and Assessment Overview has not been released yet.  
This information will be available on Monday 17 May 2027

## 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
- Academic Progression Policy and Procedure
- Student Refund and Credit Balance Policy and Procedure
- 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 Unit evaluation data

Feedback

Formal student evaluation data for 2025 were limited due to a very low response rate.

Recommendation

Encourage students to complete the unit evaluation.

#### Feedback from Unit Coordinator reflection

Feedback

Some students may find the advanced mathematical content challenging, particularly where they need to recall and apply assumed knowledge from earlier mathematics units.

Recommendation

Add clearer assumed-knowledge guidance in Moodle, including early revision prompts, diagnostic activities, worked examples and targeted revision resources. Continue to remind students during teaching sessions to review prerequisite concepts that support the advanced applications covered in the unit.

## Unit Learning Outcomes

Information for Unit Learning Outcomes has not been released yet.  
This information will be available on Monday 17 May 2027

## Alignment of Learning Outcomes, Assessment and Graduate Attributes

Information for Alignment of Learning Outcomes, Assessment and Graduate Attributes has not been released yet.  
This information will be available on Monday 17 May 2027

## Textbooks and Resources

Information for Textbooks and Resources has not been released yet.  
This information will be available on Monday 21 June 2027

## Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.  
This unit profile has not yet been finalised.