

## In Progress

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



# MATH12224 *Calculus B*

## Term 2 - 2024

Profile information current as at 13/05/2024 05:17 am

All details in this unit profile for MATH12224 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 solve problems in geometry, science, engineering, business, and other disciplines through the application of integral calculus techniques. You will interpret the fundamental theorems of integration and evaluate integrals using the substitution rule, integration by parts, trigonometric substitution, and other numerical approximations. You will learn how to apply Taylor or Maclaurin series to represent and approximate nonlinear functions.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 6

Student Contribution Band: 7

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

Prerequisite: MATH12223 Calculus and Linear Algebra A

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

- 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

### 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

#### 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 Unit Evaluation

##### **Feedback**

The unit provides a perfect mix of challenge and support, making learning enjoyable. It is streamlined around a tailored textbook with real-world examples, aiding understanding before building complexity.

##### **Recommendation**

Continue to offer a positive supported learning experience.

## Unit Learning Outcomes

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

1. Interpret the fundamental theorems of integration
2. Evaluate integrals using the substitution rule, integration by parts, trigonometric substitution, and other numerical approximations
3. Use Taylor or Maclaurin series to represent and approximate nonlinear functions
4. Apply integral calculus to solve problems in geometry, science, engineering, business, and other disciplines.

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
<b>1 - Written Assessment - 25%</b>	•	•		
<b>2 - Written Assessment - 25%</b>			•	•
<b>3 - Examination - 50%</b>	•	•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
<b>1 - Communication</b>	•	•	•	•
<b>2 - Problem Solving</b>	•	•	•	•
<b>3 - Critical Thinking</b>	•	•	•	•
<b>4 - Information Literacy</b>	•	•	•	•
<b>5 - Team Work</b>				
<b>6 - Information Technology Competence</b>	•	•	•	•
<b>7 - Cross Cultural Competence</b>				
<b>8 - Ethical practice</b>				
<b>9 - Social Innovation</b>				
<b>10 - Aboriginal and Torres Strait Islander Cultures</b>				

## Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Written Assessment - 25%	•	•	•	•		•				
2 - Written Assessment - 25%	•	•	•	•		•				
3 - Examination - 50%	•	•	•	•						

## Textbooks and Resources

Information for Textbooks and Resources has not been released yet.

This information will be available on Monday 17 June 2024

## Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.