



# MATH40228 *Intermediate Mathematics for* *University* Term 1 - 2019

Profile information current as at 28/04/2024 03:43 am

All details in this unit profile for MATH40228 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

Intermediate Mathematics for University is designed to follow on from a study of introductory mathematical concepts, such as Fundamental Mathematics for University, preparing you for Technical Mathematics for University and/or undergraduate courses requiring an intermediate level of mathematics. You will complete core and elective modules, chosen according to your future study plans, including simultaneous equations; inequalities and absolute values; quadratic equations; logarithms; functions; geometry; trigonometry; variation, ratio, and proportion; sequences and series; statistics and standard deviation; probability; financial mathematics; and annuities.

### Details

Career Level: *Non-award*

Credit Points: 6

Student Contribution Band: 7

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

There are no requisites for this unit.

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 - 2019

- 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 Non-award 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: 50%

#### 2. **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 and teaching staff feedback

**Feedback**

Positive feedback on the Term 1 2018 module reviews. Many online students made comment on how these reviews assisted their learning.

**Recommendation**

Continue with the module reviews in their current form.

#### Feedback from Unit evaluation

**Feedback**

Positive comments on the structure of the unit.

**Recommendation**

Continue with the current structure of the unit content on the unit Moodle site.

#### Feedback from Student and teaching staff feedback

**Feedback**

The Term 1 2018 video resources were favourably commented on by online students.

**Recommendation**

Continue to develop and upgrade video resources.

## Unit Learning Outcomes

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

1. Use available resources to select and apply appropriate intermediate bridging mathematics techniques to correctly solve problems
2. Adopt mathematics as a language to logically communicate solutions
3. Reflect on assessment feedback to improve mathematical comprehension
4. Implement appropriate revision techniques and strategies to improve the retention and recall of content
5. Recall, select and apply appropriate intermediate bridging mathematics procedures to correctly solve problems.

## 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 - Written Assessment - 50%	•	•	•	•	
2 - Examination - 50%		•	•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Self Management	—		—	—	
2 - Communication	—	—			—
3 - Information Literacy	—	—	—	—	
4 - Information Technology Competence					
5 - Problem Solving	—				—
6 - Critical Thinking		—	—	—	—
7 - Cross-Cultural Competence					
8 - Ethical Practice	—				—
9 - Aboriginal and Torres Strait Islander Cultures					

### Alignment of Assessment Tasks to Graduate Attributes

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

## Textbooks and Resources

### Textbooks

MATH40228

#### Prescribed

#### **TRANSITION MATHEMATICS: Intermediate Mathematics for University**

Edition: 7th (2019)

Authors: Sharon Cohalan

School of Access Education, CQUniversity Australia

Binding: Spiral

[View textbooks at the CQUniversity Bookshop](#)

### IT Resources

#### **You will need access to the following IT resources:**

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Computer- ability to access study materials, including instructional videos & upload assessment. Printer for printing assessment. Scanner or equivalent for uploading assessment.

## Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Margaret Flanders** Unit Coordinator

[m.flanders@cqu.edu.au](mailto:m.flanders@cqu.edu.au)

## Schedule

### **Week 1 - 11 Mar 2019**

Module/Topic	Chapter	Events and Submissions/Topic
SYLE Systems of Linear Equations		

### **Week 2 - 18 Mar 2019**

Module/Topic	Chapter	Events and Submissions/Topic
IEAB Inequalities & Absolute Values		SYLE Module Review Due Monday 18 March 2019 at 9AM AEST

### **Week 3 - 25 Mar 2019**

Module/Topic	Chapter	Events and Submissions/Topic
QUAD Quadratic Equations (1.5 weeks)		IEAB Module Review Due Monday 25 March 2019 at 9AM AEST

### **Week 4 - 01 Apr 2019**

Module/Topic	Chapter	Events and Submissions/Topic
Finish QUAD Quadratic Equations Start LOGS Logarithms (1.5 weeks)		

**Week 5 - 08 Apr 2019**

Module/Topic	Chapter	Events and Submissions/Topic
Finish LOGS Logarithms		QUAD Module Review Due Monday 8 April 2019 at 9AM AEST

**Vacation Week - 15 Apr 2019**

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

**Week 6 - 22 Apr 2019**

Module/Topic	Chapter	Events and Submissions/Topic
FUNC Introduction to Functions		LOGS Module Review Due Monday 22 April 2019 9AM AEST

**Week 7 - 29 Apr 2019**

Module/Topic	Chapter	Events and Submissions/Topic
STSD Statistics and Standard Deviation		FUNC Module Review Due Monday 29 April 9AM AEST Check MyCentre for date, time and allocated Exam Centre for the Examination in IMU.

**Week 8 - 06 May 2019**

Module/Topic	Chapter	Events and Submissions/Topic
GEOM Introductory Geometry		STSD Module Review Due Monday 6 May 2019 9AM AEST

**Week 9 - 13 May 2019**

Module/Topic	Chapter	Events and Submissions/Topic
TRIG Introductory Trigonometry OR PROB Introduction to Probability		GEOM Module Review Due Monday 13 May 2019 9AM AEST

**Week 10 - 20 May 2019**

Module/Topic	Chapter	Events and Submissions/Topic
SEQR Sequences and Series OR FINM Financial Mathematics		TRIG Module Review OR PROB Module Review Due Monday 20 May 2019 9AM AEST

**Week 11 - 27 May 2019**

Module/Topic	Chapter	Events and Submissions/Topic
VRAP Variation, Ratio and Proportion OR ANNT Annuities		SEQR Module Review OR FINM Module Review Due Monday 27 May 2019 9AM AEST

**Week 12 - 03 Jun 2019**

Module/Topic	Chapter	Events and Submissions/Topic
Review		VRAP Module Review OR ANNT Module Review Due Monday 3 June 2019 9AM AEST

**Review/Exam Week - 10 Jun 2019**

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

**Exam Week - 17 Jun 2019**

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

The date and time of the examination will be made available through MyCentre approximately six weeks before the examination period

## Term Specific Information

Please be aware of changes to the process for obtaining your mathematics prescribed textbook for IMU this term. As a printed version of the IMU textbook cannot be purchased from the CQUniversity Bookshop, a new process has been put in place.

All STEPS study materials are available to you free of charge online via CQUniversity's Learning Management System, Moodle. You will be able to access these electronic resources from two weeks prior to the start of term. IMU study materials will be available from the IMU Moodle site.

I **highly recommend** that you download your textbook modules from the IMU Moodle site and print your own copies. If you wish to have someone else print that material at a cost for you, you'll need to follow the advice of your Access Coordinator who will provide you with information on how to access a printed copy and the approximate price. Information is also available on the Moodle site about this. I recommend that you follow this process for the seven **Core modules** of this unit as this will be available as one text for you to use.

Before Week 9 of term it will be necessary for you to download and print off three of the six available **Elective modules**. These modules are dependent on your future study plans for your undergraduate degree so only print these off when you're confident of your Study Plan. You would normally have these discussions with your Access Coordinator.

You will need hard copies of your study materials to complete activities, make notes and to refer to in this unit. If you need further advice my details are below.

Contact information for the Unit Coordinator: Margaret Flanders

email [m.flanders@cqu.edu.au](mailto:m.flanders@cqu.edu.au)

Telephone (Office): 07 41507041

Office: Bundaberg Campus, CQUniversity, Building 1, Room G.46

## Assessment Tasks

### 1 Module Reviews

#### Assessment Type

Written Assessment

#### Task Description

In this unit you will complete ten modules - seven CORE and three ELECTIVE - provided from the MATH40228 Intermediate Mathematics for University Moodle site. Your ELECTIVE modules can be chosen according to four available streams:

1. **Technical Stream** - TRIG, SEQR and VRAP. This stream must be completed if you are required to complete MATH40252 Technical Mathematics for University.
2. **Science Stream** - TRIG, SEQR, VRAP.
3. **Education Stream** - TRIG, FINM, VRAP.
4. **Business Stream** - PROB, FINM, ANNT

At the conclusion of each module you must complete the corresponding Module Review (as outlined in the Schedule in this Unit Profile). The Module Reviews are available on the MATH40228 Moodle site and must be submitted via Moodle for marking and feedback. The Module Reviews are completed as assignments - no supervision is required and you may use your resources to assist you in completing them. The purpose of the Module Reviews is to allow your lecturer and yourself to monitor your progress throughout the term, providing support and preparation for the examination. You should use the Module Reviews to identify any concepts that require further review.

#### Assessment Due Date

Module reviews are due on the Monday of the week specified in the Unit Profile Schedule. A more detailed version of this schedule can be found in the IMU Unit Guide located on the IMU Moodle site.

## Return Date to Students

Module Reviews will be returned and feedback provided, via the MATH40228 Moodle site, within (1) week from the due date or submission date, whichever is the latest.

### Weighting

50%

### Minimum mark or grade

You must achieve an average of 50% across the ten Module Reviews.

### Assessment Criteria

Marks will be awarded for:

- Demonstrating appropriate revision techniques and strategies to improve the retention and recall of content;
- Providing a logical solution that appropriately answers the question;
- Mathematical communication;
- The correct answer.

### Referencing Style

- [Harvard \(author-date\)](#)

### Submission

Online

### Submission Instructions

Module Reviews must be submitted via the ASSESSMENT Block on the MATH40228 Moodle site.

### Learning Outcomes Assessed

- Use available resources to select and apply appropriate intermediate bridging mathematics techniques to correctly solve problems
- Adopt mathematics as a language to logically communicate solutions
- Reflect on assessment feedback to improve mathematical comprehension
- Implement appropriate revision techniques and strategies to improve the retention and recall of content

### Graduate Attributes

- Self Management
- Communication
- Information Literacy
- Problem Solving
- Critical Thinking
- Ethical Practice

## 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

Minimum percentage of examination marks required to pass the unit - 50%

### Exam Conditions

Closed Book.

### Materials

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).

Calculator - all non-communicable calculators, including scientific, programmable and graphics calculators are authorised



## 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