MATH40228 *Intermediate Mathematics for University*
Term 3 - 2020

Profile information current as at 03/05/2024 01:29 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 3 - 2020

- 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. **Take Home Exam**
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 feedback

Feedback
Issues with level of explanation of some topics and interference from background noises in selected videos

Recommendation
Continue to enhance the quality of recordings and depth of explanations in the videos.

Feedback from Student feedback

Feedback
Need to provide additional resources to assist with calculator use in modules where specialised functions and formulae are involved

Recommendation
Record additional videos to explain calculator use.

Feedback from Staff feedback and unit evaluation

Feedback
Positive feedback on the inclusion of a review problem in the weekly module tests and the space to give feedback on learning issues

Recommendation
Continue with the practice of including such questions to assist with retention of concepts and space for student reflection and feedback.

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 - Take Home Exam - 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 - Take Home Exam - 50%		—			—	—		—	

Textbooks and Resources

Textbooks
MATH40228

Prescribed

Intermediate Mathematics for University
7th edition (2019) (2019)
Authors: Sharon Cohalan
CQUniversity Australia
Rockhampton , Queensland , Australia
Binding: Spiral

Additional Textbook Information
The textbook is available from the MATH40228 Moodle site. The textbook cannot purchased from the CQUniversity
Bookshop. We strongly advise you to print the textbook. You can either print the textbook using a computer/printer or
source a commercial store/company. Your Access Coordinator will provide advice on printing options.

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

Antony Dekkers Unit Coordinator
a.dekkers@cqu.edu.au

Schedule

Week 1 - 09 Nov 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
GEOM Introductory Geometry		
Week 2 - 16 Nov 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
SYLE Systems of Linear Equations		GEOM Module Review Due Monday 16 November at 9AM AEST
Week 3 - 23 Nov 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
IEAB Inequalities & Absolute Values		SYLE Module Review Due Monday 23 November at 9AM AEST

Week 4 - 30 Nov 2020

Module/Topic	Chapter	Events and Submissions/Topic
QUAD Quadratic Equations (1.5 weeks)		IEAB Module Review Due Monday 30 November 2020 at 9AM AEST

Vacation Week - 07 Dec 2020

Module/Topic	Chapter	Events and Submissions/Topic

Week 5 - 14 Dec 2020

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

Week 6 - 21 Dec 2020

Module/Topic	Chapter	Events and Submissions/Topic
Finish LOGS Logarithms		QUAD Module Review Due Monday 21 December 2020 9AM AEST The date and time of the Take Home Exam will be made available on the Unit Moodle site, approximately six weeks before the Take Home Exam period.

Vacation Week - 28 Dec 2020

Module/Topic	Chapter	Events and Submissions/Topic

Week 7 - 04 Jan 2021

Module/Topic	Chapter	Events and Submissions/Topic
STSD Statistics and Standard Deviation		LOGS Module Review Due Monday 4 January 2021 9AM AEST

Week 8 - 11 Jan 2021

Module/Topic	Chapter	Events and Submissions/Topic
FUNC Introduction to Functions		STSD Module Review Due Monday 11 January 2021 9AM AEST

Week 9 - 18 Jan 2021

Module/Topic	Chapter	Events and Submissions/Topic
TRIG Introductory Trigonometry OR PROB Introduction to Probability		FUNC Module Review Due Monday 18 January 2021 9AM AEST

Week 10 - 25 Jan 2021

Module/Topic	Chapter	Events and Submissions/Topic
SEQR Sequences and Series OR FINM Financial Mathematics		TRIG Module Review OR PROB Module Review Due Monday 25 January 2021 9AM AEST

Week 11 - 01 Feb 2021

Module/Topic	Chapter	Events and Submissions/Topic

VRAP Variation, Ratio and Proportion OR ANNT Annuities		SEQR Module Review OR FINM Module Review Due Monday 1 February 2021 9AM AEST

Week 12 - 08 Feb 2021

Module/Topic	Chapter	Events and Submissions/Topic
Review		VRAP Module Review OR ANNT Module Review Due Monday 8 February 2021 9AM AEST

Exam Week - 15 Feb 2021

Module/Topic	Chapter	Events and Submissions/Topic
		Take Home Exam The date and time of the Take Home Exam will be made available on the Unit Moodle site, approximately six weeks before the Take Home Exam period.

Term Specific Information

Unit Coordinator: Antony Dekkers
email: a.dekkers@cqu.edu.au
Telephone (Office): 0749309355
Office: Rockhampton, North, CQUniversity, Building 32, Ground Floor, Room G38.
If you have any individual queries, please do not hesitate to email me and I will get back to you within two working days.

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 Moodle site. Your ELECTIVE modules can be chosen according to four available streams:

- Technical Stream - TRIG, SEQR and VRAP. This stream must be completed if you are required to complete MATH40252 Technical Mathematics for University.
- Science Stream - TRIG, SEQR, VRAP.
- Education Stream - TRIG, FINM, VRAP.
- 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 MATH40228 Unit Guide located on the MATH40228 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 Link 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

2 Take Home Exam

Assessment Type
Take Home Exam

Task Description
The Take Home Exam will be made available via Moodle. It is anticipated that the exam should take three hours to complete. You will be given a 12 hour time-frame to access and download the exam from the unit moodle site, complete it and upload it back into Moodle. The Take Home Exam covers material from all CORE and ELECTIVE modules within the unit. The Take Home Exam is an unsupervised assessment item and you are required to do your own work, maintaining academic integrity with all honesty.

Assessment Due Date

The date and time of the Take Home Exam will be made available on the Unit Moodle site approximately six weeks before the Take Home Exam period.

Return Date to Students

Take Home Exam marks will be made available to students via the unit Moodle site on the day grades are released for the term (Certification of Grades).

Weighting
50%

Minimum mark or grade
Minimum percentage of Take Home Examination marks required to pass the unit - 50%

Assessment Criteria
Marks for each question will be allocated for the following:
- using appropriate settting out;
- following correct mathematical protocols;
- showing all correct steps in the solution;
- answering the question, where appropriate; and
- finding the correct answer.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
The Take Home Exam must be submitted via the ASSESSMENT Link on the MATH40228 Moodle site.

Learning Outcomes Assessed

- 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
- Recall, select and apply appropriate intermediate bridging mathematics procedures to correctly solve problems.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Ethical Practice

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