MATH40228 *Intermediate Mathematics for University*
Term 2 - 2019

Profile information current as at 24/04/2024 12:09 am

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 2 - 2019

- Bundaberg
- Cairns
- Gladstone
- Mackay
- 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 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 comments from students about the opportunity to give staff their feedback as part of the weekly module reviews.

Recommendation
Keep module reviews in their current form.

Feedback from Unit evaluation

Feedback
Additional video resources are needed in the more complex modules.

Recommendation
Continue with the development of video resources, including those that support the sample module review questions.

Feedback from Unit evaluation and teaching staff feedback

Feedback
Some modules in the unit are seen to be more difficult than what may be needed for specific undergraduate study.

Recommendation
Consider a realignment of Core and Elective modules to better accommodate student needs.

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

Additional Textbook Information
You can download your textbook modules from the IMU Moodle site and print your own copy of the textbook. 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. It is recommended 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.

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

Schedule

Week 1 - 15 Jul 2019

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

Week 2 - 22 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
IEAB Inequalities & Absolute Values		SYLE Module Review Due Monday 22 July 2019 at 9AM AEST

Week 3 - 29 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
QUAD Quadratic Equations (1.5 weeks)		IEAB Module Review Due Monday 29 July 2019 at 9AM AEST

Week 4 - 05 Aug 2019

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

Week 5 - 12 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Finish LOGS Logarithms		QUAD Module Review Due Monday 12 August 2019 at 9AM AEST

Vacation Week - 19 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 26 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
FUNC Introduction to Functions		LOGS Module Review Due Monday 26 August 2019 9AM AEST

Week 7 - 02 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
STSD Statistics and Standard Deviation		FUNC Module Review Due Monday 2 September 9AM AEST Check MyCentre for date, time and allocated Exam Centre for the Examination in IMU.

Week 8 - 09 Sep 2019

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

Week 9 - 16 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
TRIG Introductory Trigonometry OR PROB Introduction to Probability		GEOM Module Review Due Monday 16 September 2019 9AM AEST

Week 10 - 23 Sep 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 23 September 2019 9AM AEST

Week 11 - 30 Sep 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 30 September 2019 9AM AEST

Week 12 - 07 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
Review		VRAP Module Review OR ANNT Module Review Due Monday 7 October 2019 9AM AEST

Review/Exam Week - 14 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 21 Oct 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 year. As a printed version of the IMU textbook cannot be purchased from the CQUniversity Bookshop, a new process has been put in place, commencing T1 2019.
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 2. IMU study materials will be available from the IMU Moodle site. For further information regarding the printing of the Core modules and the Elective modules please see the advice given in this profile under the heading **Textbooks and Resources**.
Contact information for the Unit Coordinator: Margaret Flanders
email 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