WFMT002

Mathematics 2

MUIC Term 2 2016

Macquarie University International College

Contents

General Information

Unit convenor and teaching staff
Tecaher
Levente Horvath
levente.horvath@mq.edu.au
Contact via Email
Macquarie University International College
Contact Staff Member

Teacher
Rebecca Paul
rebecca.paul@mq.edu.au
Contact via Email
Macquarie University International College
Contact Staff Member

Eugene Quah
eugene.quah@mq.edu.au
Contact via Email
Macquarie University International College
Contact Staff Member

Teacher
Charles Magri
charles.magri@mq.edu.au
Contact via Email
Macquarie University International College
Contact Staff Member

Credit points
3

Prerequisites

Corequisites

Co-badged status

Unit description
Mathematics 2 provides a mathematical basis for further study in business, finance and science and research in the arts and social sciences. There is a strong focus on analytical thinking, inquiry and practical application to solve complex mathematical problems as well as a continuing emphasis on language development for mathematical reasoning and investigation. Activities undertaken by students will link to real-life situations in their intended field of study and involve the application of technology in the treatment and analysis of results.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

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

Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.
Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.
Demonstrate mathematical thinking in solving practical problems involving differentiation and integration.
Demonstrate mathematical thinking in solving practical problems involving maxima and minima
Demonstrate mathematical thinking in solving systems of simultaneous linear equations using matrices

General Assessment Information

Requirements to Pass

In order to pass this unit a student must:

- Attempt all assessment tasks
- Pass the final examination or final assessment task
- Achieve a Standard Numerical Grade (SNG) of 50 or more in the unit
- Attend at least 80% of scheduled classes

For further details about grading, please refer to the Grading Policy.

Submission of Assessment Tasks

All assessments must be submitted as per the instructions provided in class. Assessment tasks which have not been submitted as per requirements will not be marked. They will be considered a non-submission and zero marks will be awarded.

Turnitin

Turnitin compares electronically submitted papers to a database of academic publications, internet sources and other papers that have been submitted into the system to identify matching text. It then produces an Originality Report which indicates text taken from other sources,and generates a similarity percentage to judge whether plagiarism has occurred (see Academic Honesty section below).

Originality Reports may be made available to students, in which case they should be used to check work for plagiarism prior to a final submission. As a general guideline, a similarity percentage of below 15% will probably indicate that plagiarism has not occurred. However, if there is a matching block of text then this could still be considered plagiarism.

There will be a requirement for certain assessment tasks to be submitted through Turnitin, and in such cases it is the student's responsibility to ensure that work is submitted correctly prior to the due date. For assistance submitting through Turnitin, you may approach your teacher, lodge a OneHelp Ticket, refer to the IT help page or seek assistance from Student Connect.

Students should note that for a first time submission the Originality Report will be available immediately post submission but for any subsequent submissions it will take 24 hours for the report to be generated. This may be after the due date so students should plan their submission carefully.

Missed Assessments

The University recognises that students may experience disruptions that adversely affect their academic performance in assessment activities. In order to support students who have experienced a serious and unavoidable disruption, the University will provide affected students with an additional opportunity to demonstrate that they have met the learning outcomes of a unit. An additional opportunity provided under such circumstances is referred to as Special Consideration.

This Disruption to Studies Policy applies only to *serious and unavoidable* disruptions that arise after a study period has commenced. (Students with a pre-existing disability/health condition or prolonged adverse circumstances may be eligible for ongoing assistance and support. Such support may be sought through Campus Wellbeing and Support Services.)

Serious and Unavoidable Disruption The University classifies a disruption as **serious and unavoidable** if it:

- could not have reasonably been anticipated, avoided or guarded against by the student; and

- was beyond the student's control; and
- caused substantial disruption to the student's capacity for effective study and/or completion of required work; and
- occurred during an event critical study period and was at least three (3) consecutive days duration, and / or
- prevented completion of a final examination.

To be eligible for Special Consideration, a student must notify the University of a *serious and unavoidable* disruption within five (5) working days of the commencement of the disruption (Disruption to Studies notification). All Disruption to Studies notifications are to be made online via the University's Ask MQ system. A Disruption to Studies notification must be supported by documentary evidence.

In submitting a disruption to studies notification, a student is acknowledging that they may be required to undertake additional work. The time and date, deadline or format of any required extra assessible work as a result of a disruption to studies notification is not negotiable and in submitting a disruption to studies notification, a student is agreeing to make themselves available to complete any extra work as required.

Please refer to the Disruption to Studies Policy for further details.

Extensions & Late Submissions

To apply for an extension of time for submission of an assessment item, students must submit a notification of Disruptions to Studies via ask.mq.edu.au.

Late submissions without an approved extension are possible but will be penalised at 20% per day up to 4 days (weekend inclusive). If a student submits an assessment task 5 or more days a after the due date without grounds for special consideration (See Disruptions to Studies Policy) a record or submission will be made but the student will receive zero marks for the assessment task.

Final Examinations and Final Assessment Tasks

Final exams and final assessments will typically take place in Week 6 or Monday of Week 7. All students enrolled in a teaching session are expected to ensure they are available up until and including Monday of Week 7 to undertake examinations. Passing the final exam or final assessment task is a requirement to pass this unit.

Details of teaching session dates can be found on the Important Dates calendar. Dates for any final examinations and assessment tasks will be provided in the Unit Guide Teaching Schedule.

Planning for an exam is very important. All students should be familiar with the Exam Rules. In addition, students should refer to the below links for other important examination related information.

- Talk to your lecturer
- Revision tips

- What to bring with you
- What not to bring with you
- Where to get help
- Tips for Success

Please note that is not uncommon for students to have two consecutive examinations in one day.

Conduct During Assessments and Examinations

Students must adhere to the Student Code of Conduct and Academic Honesty Policy at all times.

Students will be provided with instructions pertaining to conduct in in-class assessment tasks. For all examinations, students will be required to:

- provide their Macquarie University Campus Card as photographic proof of identity for the duration of the examination. This must be visible at all times during the examination.
- leave mobile phones, electronic devices, bags, computers, notes, books and similar outside a final examination venue or in a designated space
- ensure any water brought into the examination room is in a clear and unmarked bottle
- obey all instructions provided by an Examination Supervisor
- refrain from communicating in any way with another student once they have entered the examination venue.

Students are NOT permitted:

- into an examination venue once one hour from the time of commencement (excluding any reading time) has elapsed
- to leave an examination venue *before* one hour from the time of commencement (excluding any reading time) has elapsed
- to be readmitted to an examination venue unless they were under approved supervision during the full period of their absence
- to obtain, or attempt to obtain, assistance in undertaking or completing the examination script
- to receive, or attempt to receive, assistance in undertaking or completing the examination script.

Students should also ensure they follow all requirements of the Final Examination Policy.

Supplementary Examinations

Supplementary final examinations are held during the scheduled Supplementary Final exam Period. This may fall in Week 7 or within the first week of the subsequent teaching term. Results

for supplementary exams may not be available for up to two weeks following the supplementary examination. Students in their final term of study who undertake supplementary final exams should note that Formal Completion of the Foundation Program will not be possible until supplementary results are released and this may impact on their ability to enrol subsequent programs of study on time.

Retention of Originals

It is the responsibility of the student to retain a copy of any work submitted and produce another copy of all work submitted if requested. Copies should be retained until the end of the grade appeal period each term.

In the event that a student is asked to produce another copy of work submitted and is unable to do so, they may be awarded zero (0) for that particular assessment task.

The University may request and retain the originals of any documentation/ evidence submitted to support notifications of disruptions to studies. Requests for original documentation will be sent to the applicant's University email address within six (6) months of notification by the student. Students must retain all original documentation for the duration of this six (6) month period and must supply original documents to the University within ten (10) working days of such a request being made.

Pre-requisites for Undergraduate Mathematics Units.

Certain undergraduate degree programs and/or units of study (subjects) require specific Math prerequisites, as stated in NSW Higher School Certificate Math Syllabus terms. Students who have not completed High School in NSW will be required to demonstrate their Mathematics knowledge either through achievement of a certain result in their Foundation Program Mathematics units or through additional testing. An achievement of 70% or more in this unit is deemed to be equivalent to HSC Mathematics Band 4.

If you are not able to demonstrate the required prerequisite knowledge for entry into an Undergraduate degree or unit, you may need to undertake additional MATH subject(s) in the first year of your degree. This may delay and/or extend the duration of your studies.

Contacting Teaching Staff and Obtaining Help and Feedback

Students may contact teaching staff at any time during the term by using the contact details provided in this guide or using the "Contact your teacher" dialogue tool provided in Week 0 of the respective unit in iLearn.

For all university related correspondence, students are required to use their official Macquarie University student email account which may be accessed via the Macquarie University Student Portal. Inquiries from personal email accounts will not be attended to.

Information on how and when students will receive feedback for individual assessment tasks has been provided in this unit guide.

Students may seek additional feedback at any time during the term and general feedback about

their performance in a unit up to 6 months following results release.

Assessment Tasks

Name	Weighting	Due
Diagnostic Test	0%	Week 1 Lesson 1
Quiz	15%	Week 2 Lesson 4
Class Test	25%	Week 4 Lesson 4
Individual Project	20%	Week 6 Lesson 1
Final Examination	40%	Week 6 Lesson 4

Diagnostic Test

Due: **Week 1 Lesson 1**
Weighting: **0%**

In the first lesson, students will be required to undertake a diagnostic test which will be used to identify their current level of mathematical skill and identify areas which need address throughout the course. The diagnostic test will not count towards the result for this unit.

Individual students will be provided with advice on the areas of maths they need to improve during the first week as well as throughout the term.

On successful completion you will be able to:

- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.

Quiz

Due: **Week 2 Lesson 4**
Weighting: **15%**

This quiz will encompass content covered in the first two weeks of the course. This will be an online quiz completed in iLearn. Students will receive feedback within 1 week of the assessment task

On successful completion you will be able to:

- Demonstrate an understanding of the relevance and specific application of mathematics

in the arts, science and business disciplines.
- Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.
- Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.

Class Test

Due: **Week 4 Lesson 4**
Weighting: **25%**

The class test will encompass content covered in the first four weeks of the course. The paper will be completed in class and students will receive feedback within 1 week of the assessment task.

On successful completion you will be able to:
- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.
- Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.
- Demonstrate mathematical thinking in solving practical problems involving differentiation and integration.
- Demonstrate mathematical thinking in solving practical problems involving maxima and minima

Individual Project

Due: **Week 6 Lesson 1**
Weighting: **20%**

Details for the project will be provided in class. This will be an individual project completed and submitted electronically. Submission will be in the forma of a text document (Microsoft Word) via iLearn. Students will receive feedback with the final week of the Term.

On successful completion you will be able to:
- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.

- Demonstrate mathematical thinking in solving systems of simultaneous linear equations using matrices

Final Examination

Due: **Week 6 Lesson 4**
Weighting: **40%**

This test will cover all aspects of the course but focus more extensively on the content in weeks 5 and 6.

On successful completion you will be able to:

- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.
- Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.
- Demonstrate mathematical thinking in solving practical problems involving differentiation and integration.
- Demonstrate mathematical thinking in solving practical problems involving maxima and minima
- Demonstrate mathematical thinking in solving systems of simultaneous linear equations using matrices

Delivery and Resources

Scheduled Class Time, Timetable and Attendance Requirements

Weekly face to face contact for this unit will be 10 hours consisting of a four 2.5 hour lessons (60 hours per term).

Students will be able to enrol in their classes and view their personal timetable via eStudent and may also view general timetable information via Macquarie University's Timetable page.

80% Attendance is compulsory in order to pass this unit (see requirements to pass in Assessment section above). International students must also attend at least 80% of scheduled classes in order to meet visa requirements (see Attendance Policy below).

Because of the intensive nature of this program, students should be aware that their attendance in this unit will fall to 80% when they miss 12 hours of class time (4.8 lessons) without justifiable grounds. At that point the student will not be able to pass the unit.

Attendance will be monitored in each lesson and record made of any absences or partial

absences (students arriving late, leaving early or during part of the lesson). Students will be able to see their attendance records for a unit via iLearn. Where a student is at risk of not meeting the 80% attendance requirement in a unit, they will be counselled by the teaching and/or administrative staff and may be advised to withdraw from the unit.

Where a student is at risk of not meeting the 80% attendance requirement across their enrolled units, they will be counselled by the teaching and/or administrative staff. Once an international student fails to meet the 80% attendance requirement, they may be reported to the Government for non-attendance and their visa may be cancelled.

iLearn

iLearn is Macquarie's online learning management system and a principal resource which will be used throughout the term. Students should access iLearn at least 3 times per week as it will contain important information including:

- Announcements - Teaching staff will communicate to the class using iLearn announcements.
- Staff contact details
- Lecture notes and recordings
- Learning and teaching activities and resources
- Assessment information
- Tutorial questions and solutions
- Assessment submission tools such as Turnitin
- Other relevant material

For any technical or support issues using iLearn, please contact the IT helpdesk (Ph. 02 9850 4357) or lodge a ticket using OneHelp.

Required and Recommended Texts and Materials

Prescribed Texts(s)

- No text book has been prescribed for this course. Students will receive a reader which will contain relevant materials and exercises.

Useful reference materials

- Mathematics 2 Course notes (to be provided to students at the start of the course).
- Maths Quest 11 and 12 M2 Further Mathematics Edition 4 (Casio ClassPad edition) Author: Novak et al Publisher: John Wiley and Sons (Jacaranda) ISBN13: 9781118444474 Or ISBN13: 9781118447185
- Modern Statistics A graphical introduction McNeil and Middeldorp Pearson Australia, ISBN 0733980309 Is this the 2nd edition 2012

Technology Used and Required

- Access to internet (Available on Campus using Macquarie OneNet)
- Access to iLearn
- Access to Macquarie University Library catalogue
- Access to Microsoft Office Word and Excel (available in Labs)

Unit Schedule

Week	Lesson	Topic / Content Covered	Required reading (should not be more than 12 pages) per week – provide citation	Associated tasks	Assessment Task (if applicable)
1	**Lesson 1**	*The Binomial Theorem*	*Course Reader 1 Chapter 9*	*Exercises involving Investigation of Pascal's Triangle and Binomial Expansion, through to Written proofs of combinatorial properties.* *Terminology and binomial notation.*	
	Lesson 2	*The Binomial Distribution in Statistics and applications to counting.*	*Course Reader 1 Chapter 9*	*Examination of the link between the binomial and normal distribution. Use of the binomial theorem for probability distributions.* *Investigation via excel.*	
	Lesson 3	*Radian Measure, Conversions between Degrees and Radians and applications to* *Arc Length Area of a triangle, Sectors and Segments.*	*Course Reader 2 Chapter 12*	*Discussion relating to the reasons why radian measure is used. Terminology exercises.*	
	Lesson 4	*Sine and Cosine Rules applications and sketching Trigonometric graphs.*	*Course Reader 2 Chapter 13*	*Applications of sine and cosine rule and elevation and depression and roof pitch. Discussion on the link between Pythagoras' theorem and the cosine rule. Graph sketching. The ambiguous case of the sine rule.*	
2	**Lesson 1**	*A.S.T.C result and solving trigonometric equations via graphs and the A.S.T.C. rule.*	*Course Reader 2 Chapter 13*	*Written exercises involving the solution of trigonometric equations and the link to the quadratic equation.*	
	Lesson 2	*Review of Trigonometry*	*Course Reader 2 Chapter 12 and 13*	*Written review exercises on trigonometry and terminology.*	

	Lesson 3	*Differentiation of Polynomials via rates examples. Formal Definition of Differentiation.*	*Course Reader 2 Chapter 15*	*Demonstration of differentiation via motion graphs.* *Written exercises on graphing and the link between gradient and derivative and area and integral.* *Formal definition and terminology. The apparatus of differentiation from first principles. Exercise on first principles for polynomial equations only.*	
	Lesson 4	*Differentiation of Exponential Logarithmic and Trigonometric Functions Rules for Differentiation*	*Course Reader 2 Chapter 15*	*Review of Functions from Math1 and inverse functions. Demonstration of functions via Excel or Geogebra Written exercises on all types of derivatives and rules.*	**Quiz**
3	**Lesson 1**	*Rates of Change and the chain rule*	*Course Reader 2 Chapter 14*	*Discussion of the chain rule and applications including maxima and minima applications. Written exercises from the reader and the extensive applications in calculus.*	
	Lesson 2	*Curve Sketching for Polynomials, Logs, Exponentials and trigonometric functions using calculus.*	*Course Reader 2 Chapter 18 (On the lines of Chapter 6 course reader 1) and Introduction to Geogebra or Excel*	*A computer laboratory may be needed for this class.* *Practice curve sketching*	
	Lesson 3	*Applications of Differentiation*	*Course Reader 2 Chapter 16*	*Maxima and Minima Problems from the reader with an emphasis on environmental and financial calculations.*	
	Lesson 4	*Further applications and review for Task 1*	*A review of all course reader sections to date.*	*Written review exercises and discussion/ questions*	
4	**Lesson 1**	*Approximate Methods of Integration (Mid ordinate, Trapezoidal and Simpson's Rule)*	*Course Reader 2 Chapter 17*	*Justification for integration via motion discussion lecture 2 week 2.* *Integration as finite sums.* *(Finite constant width approximations)*	
	Lesson 2	*Integration of Polynomial Functions and power functions.*	*Course Reader 2 Chapter 17*	*Discussion of limiting sums: Terminology and language. Review of Arithmetic Progression before Riemann Sum for a straight line function. Standard improper and proper integrals.*	

	Lesson 3	*Integration of Logarithmic and Exponential Functions* *Integration of Trigonometric Functions and project consultation.*	*Course Reader 2 Chapter 17*	*Integration on either axis and change of bounds and variables. Tricks when integrating the log function.*	
	Lesson 4	*Applications of Integration*	*Course Reader 2 Chapter 17 and*	*More substitution techniques and the relation to the chain rule.*	**Class Test**
5	**Lesson 1**	Project consultation and Introduction to Logic.	*Course Reader 2 Chapter 19 (Logic)*	*Discussion and history of the constructing a logical argument and philosophy and law. Laws of Logic, Laws of Sets Boolean Algebra. From Greek Philosophy to the Computer age.*	
	Lesson 2	*Geogebra and or Excel for Curve Sketching and Applications.*		*A computer laboratory may be needed for this class for Turnitin checks and curve sketching.*	
	Lesson 3	*Logic and Sets and Project consultation.*		*Worksheets on Logic and Individual/Group consultation on projects.*	
	Lesson 4	*Project presentations.*		*Students to give short presentations on their project.*	**Task 2**
6	**Lesson 1**	*Review of the Binomial Theorem and Binomial Distribution.*	*Sample examination tasks reviewed by students in their own time.*	*Drill exercises and on line practice possibly through software packages.* *All of the course reader may be used here.*	**Individual Project due.**
	Lesson 2	*Review of Trigonometry. Review of Differential Calculus.*		*Formulae quiz and speed drill. How to recall trigonometric identities.*	
	Lesson 3	*Review of Differential Calculus (continued). Review of Integral Calculus.*		*Drill exercises followed by a terminology quiz. A discussion of exam technique and examination "etiquette".*	
	Lesson 4	*Final Examination.*			**Final Examination**

Learning and Teaching Activities

Scheduled Classes

Lessons will include a mixture of learning and teaching activities.New content and topics will

presented in lessons and students will be given problems, practice questions and other interactive activities to apply the knowledge and the skills gained in the lesson. Case studies and real life scenarios will be studied and the course focus on transforming students into independent thinkers and problem solvers. Students will be required to take notes, complete set class tasks and engage in discussion and individual and group activities. In class, specific time may be dedicated to work on assessment tasks and students will be given guidance and feedback to complete these. Certain lessons may be dedicated to independent research and reading related to the unit whether in the classroom or a computer lab. Attendance of all scheduled class is compulsory (see attendance Policy below). Students must attend at least 80% of scheduled classes in order to meet visa requirements and pass the unit (see additional requirements to pass in Assessment section above).

Extension Activities

In addition to the units a student is enrolled in, they are required to complete extension activities each term. Extension activities are an integral and compulsory part of the Foundation Program. Students cannot successfully complete the Foundation Program without completing Extension Activities. Extension Activities will be made available to students via iLearn and will involve a range of tasks which may be academic in nature or more broadly related to participation within the University. Some tasks will be completed and submitted online while others may require students to attend workshops and other activities within the University. Students do not need to enrol in extension activities, they will automatically be given access to the relevant module in each Term. If you do not have access to your extension activities module in iLearn, please log a OneHelp ticket via ask.mq.edu.au. Extension activities must be completed by 5 pm Monday Week 6. It is very important that students complete extension activities in a timely manner. Some activities will only be available during specified periods of time and others may not be available until certain tasks have been completed. Student progress with extension activities will be monitored throughout the term. If you require assistance with extension activities, please contact the supervisor whose details have been provided in the extension activities module in iLearn. Students who fail to complete extension activities by 5 pm Friday Week 6 will receive incomplete grades for any other units they are undertaking unless grounds for special consideration exist. This may mean that a student is unable to graduate (complete the Foundation Program) or calculate their current GPA. The student will need to undertake the same Extension Activity Module again in a subsequent Term and redo activities already completed as these will not carry across to the new module. It may also mean that they require additional Terms to complete their program.

Make-up lessons

If any scheduled class falls on a public holiday a make-up lesson may be scheduled, usually on a Wednesday. Where appropriate, the instructor may instead organise an online make-up lesson which would require students to access online learning materials and/or complete activities outside of class rather than attending a make-up lesson. Scheduled make-up days will be announced in class and attendance is taken for both for face to face and online make-up lessons.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

New Assessment Policy in effect from Session 2 2016 http://mq.edu.au/policy/docs/assessment/policy_2016.html. For more information visit http://students.mq.edu.au/events/2016/07/19/new_assessment_policy_in_place_from_session_2/

Assessment Policy prior to Session 2 2016 http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy prior to Session 2 2016 http://mq.edu.au/policy/docs/grading/policy.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Complaint Management Procedure for Students and Members of the Public http://www.mq.edu.au/policy/docs/complaint_management/procedure.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the Learning and Teaching Category of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au.

Academic Honesty

All staff and students must abide by the principles of academic honesty as outlined in the Academic Honesty Policy. This means that:

- all academic work claimed as original must be the work of the person making the claim
- all academic collaborations of any kind must be acknowledged
- academic work must not be falsified in any way
- when the ideas of others are used, these ideas must be acknowledged appropriately.

All breaches of the Academic Honesty Policy are serious and penalties apply. Students should be aware that they may fail an assessment task, a unit or even be excluded from the University for breaching the Academic Honesty Policy.

If you are unsure about how to incorporate scholarly sources into your own work, speak to your teacher or Student Connect prior to your assessment due date You may also enrol in StudyWise or visit the University's Library Webpage for more resources.

Final Examination Script Viewings and Grade Appeals

A student who has been awarded a final grade for a unit has the right to appeal that grade as outlined in the Grade Appeal Policy. Grade appeals apply to the final Standardised Numerical Grade (SNG) a student receives for a unit of study. They do not apply to results received for individual assessment tasks. A student is expected to seek feedback on individual assessment tasks prior to the award of a final grade. In particular, a student is expected to view their final examination paper in advance of submitting a grade appeal, if this is relevant to their case.

Students also have the right to request feedback from the Unit Convenor on their overall performance in the unit, including in a final examination. This can be done at any time in the six month period starting from the day on which the final grade of the relevant unit is published.

Grade appeals must be submitted via ask.mq.edu.au within 20 working days from the published result date for the relevant unit. Before submitting a Grade Appeal, please ensure that you read the Grade Appeal Policy and note valid grounds for appeals.

Attendance

Please refer to the Macquarie University International College Attendance Policy for Foundation Students.

A student must attend a minimum of 80% of scheduled classes in order to pass the unit. International students must also maintain their attendance above 80% to meet visa requirements.

Attendance will be recorded in every lesson and note made of any lateness or period of absence from class. Where a student is present for only for a minor portion of a lesson (for example arrives late, leaves early, leaves the class frequently or for lengthy periods, engages in inappropriate or unrelated activities or does not participate actively in the majority of the lesson) the teacher reserves the right to mark a student absent for that particular lesson and make note of such incidents.

Students should also note that because of the intensive nature of the course their attendance can quickly drop below 80%:

Attendance	Student enrolled in 2 Units	Student enrolled in 1 Unit
100%	Attends all classes	Attends all classes
90%	Misses 12 hours of classes	Misses 6 hours of classes
85%	Misses 18 hours of classes	Misses 9 hours of classes
80%	Misses 24 hours of classes	Misses 12 hours of classes

In cases of unavoidable non-attendance due to illness or circumstances beyond control, students should lodge a Disruption to Studies Notification via ask.mq.edu.au and supply relevant supporting documentation, even if they have not missed a formal assessment task. This will ensure that that appropriate records of unavoidable absences can be made on their student record.

Course Progression

Macquarie University International College monitors Foundation students' Academic and Course progress as per the Progression Policy.

To maintain satisfactory Academic Progress, a student must pass 50% or more of their enrolled units in a study Term.

Students who fail to make satisfactory Academic Progress will be classified as "at risk" and will be required undertake an academic counseling interview with the Program Manager or delegate to discuss their studies and, if necessary, formalise an appropriate intervention strategy to assist the student in their progression. They may also have conditions placed upon their enrolment.

Students must also maintain Satisfactory Course Progress. A student is deemed not to be making satisfactory course progress if they fail more than 50% of their enrolled units in two consecutive Terms of study, or if they have failed more than 50% of their subjects after studying two or more terms.

A Foundation Program student who fails to make satisfactory course progress will be subject to exclusion. International students must also comply with the Course Progress policy in order to meet the conditions of their visa.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Demonstrate mathematical thinking in solving systems of simultaneous linear equations using matrices

Assessment task

- Individual Project

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.

- Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.
- Demonstrate mathematical thinking in solving practical problems involving differentiation and integration.
- Demonstrate mathematical thinking in solving practical problems involving maxima and minima
- Demonstrate mathematical thinking in solving systems of simultaneous linear equations using matrices

Assessment tasks

- Diagnostic Test
- Quiz
- Class Test
- Individual Project
- Final Examination

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.
- Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.
- Demonstrate mathematical thinking in solving practical problems involving differentiation and integration.
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Assessment tasks

- Diagnostic Test
- Quiz
- Class Test
- Individual Project
- Final Examination

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.
- Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.
- Demonstrate mathematical thinking in solving practical problems involving differentiation and integration.
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Assessment tasks

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- Individual Project
- Final Examination

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.
- Demonstrate mathematical thinking in solving practical problems involving differentiation and integration.
- Demonstrate mathematical thinking in solving practical problems involving maxima and minima
- Demonstrate mathematical thinking in solving systems of simultaneous linear equations using matrices

Assessment tasks

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- Final Examination

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.

- Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.
- Demonstrate mathematical thinking in solving practical problems involving differentiation and integration.
- Demonstrate mathematical thinking in solving practical problems involving maxima and minima
- Demonstrate mathematical thinking in solving systems of simultaneous linear equations using matrices

Assessment tasks

- Diagnostic Test
- Quiz
- Class Test
- Individual Project
- Final Examination

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcome

- Demonstrate mathematical thinking in solving systems of simultaneous linear equations using matrices

Assessment tasks

- Diagnostic Test
- Quiz
- Class Test
- Individual Project
- Final Examination

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded,

sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of the relevance and specific application of mathematics in the arts, science and business disciplines.
- Communicate mathematical relationships using discipline specific terminology in graphical, spoken and written form and/or using software where appropriate.
- Demonstrate mathematical thinking in solving practical problems involving algebra, trigonometry and calculus.
- Demonstrate mathematical thinking in solving practical problems involving differentiation and integration.
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Assessment tasks

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Changes since First Published

Date	Description
07/03/2016	updated staff details
20/02/2016	Added teaching staff and extension activities details.