

# **WFMA001**

# **Mathematics 1**

MUIC Term 2 2016

Macquarie University International College

# Contents

General Information	2
Learning Outcomes	2
General Assessment Information	3
Assessment Tasks	7
Delivery and Resources	10
Unit Schedule	12
Learning and Teaching Activities	13
Policies and Procedures	14
Graduate Capabilities	15
Changes since First Published	18

#### Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

# **General Information**

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Credit points

3

Prerequisites

Corequisites

Co-badged status

Unit description

The purpose of this course is to provide students with the skills necessary for occupations using basic mathematics and statistics or that may require further study in developing such skills. This course aims to develop basic numerical and algebraic skills and enable students to apply these skills to probability, geometry and statistics. The emphasis of the unit is on the meaningful interpretation of information and results using a variety of media including written and electronic, recording of results and analysis. Topics covered include statistics, fundamental computation and algebra, probability and coordinate and geometry.

### 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 various field of studies.

Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.

Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.

Apply mathematical arguments and reasoning to interpret and solve practical problems involving statistical data and probability.

Apply mathematical arguments and reasoning to interpret and solve practical problems involving coordinate geometry.

# **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

A student must attempt all assessment tasks in order to be able to pass this unit. Assessments must be submitted following instructions provided in class. Assessment tasks which have not been submitted as required 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 identifies text taken from other sources, and generates a similarity percentage to judge whether plagiarism has occurred (see Academic Honesty section below).

Multiple submissions may be possible via Turnitin prior to the due date of an assessment and originality reports may be made available to students. In such cases 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 be considered plagiarism unless its has been correctly referenced.

Where there is a requirement for assessment tasks to be submitted through Turnitin, it is the

student's responsibility to ensure that work is submitted correctly prior to the due date. Hard copies will not be accepted unless indicated otherwise by a teaching staff member. Records in Turnitin will be taken as records of submission. For assistance submitting through Turnitin, you may approach your teacher, lodge a <u>OneHelp</u> Ticket, refer to the <u>IT help page</u> or seek assistance from <u>Student Connect</u>.

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 unexpected events and circumstances that adversely affect their academic performance in assessment activities, for example illness. 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.

The 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 <u>Ask MQ</u> system. A Disruption to Studies notification must be supported by documentary <u>evidence</u>.

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 Disruptions to Studies notification 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 after the due date without grounds for special consideration (See <u>Disruptions to Studies Pol</u> icy) 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 <u>Important Dates</u> 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

It is not uncommon for students to have two consecutive examinations in one day.

# **Conduct During Assessments and Examinations**

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

Students will be provided with instructions relating to conduct during 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

items 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 next 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 in 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 or evidence submitted to support notifications of disruptions to studies. Requests for original documentation will be sent to the applicant's student 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.

# 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" 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 P ortal. 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
Quiz	20%	Week 2
Test	40%	Week 4
Exam	40%	Week 6

# **Diagnostic Test**

# Due: Week 1

Weighting: 0%

This test will be used to establish your current level of mathematical skill and to identify areas which need address during the course. The diagnostic test will not count towards your final result for this unit. Students will receive their marks and feedback in Week 1 Lesson 2.

This Assessment Task relates to the following Learning Outcomes:

- Demonstrate an understanding of the relevance and specific application of mathematics in various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.

On successful completion you will be able to:

- Demonstrate an understanding of the relevance and specific application of mathematics in various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.

# Quiz

#### Due: Week 2

Weighting: 20%

Multiple Choice test which will cover all work done in the first 2 weeks of the course. Students will receive their marks and feedback in Week 3 lesson 1.

This Assessment Task relates to the following Learning Outcomes:

- Demonstrate an understanding of the relevance and specific application of mathematics in various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving coordinate geometry.

On successful completion you will be able to:

- Demonstrate an understanding of the relevance and specific application of mathematics in various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving coordinate geometry.

# Test

Due: Week 4 Weighting: 40% This class test will cover all work done in the first 4 weeks of the course. Students will receive their marks and feedback in Week 5 Lesson 1.

This Assessment Task relates to the following Learning Outcomes:

- Demonstrate an understanding of the relevance and specific application of mathematics in various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving statistical data and probability.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving coordinate geometry.

On successful completion you will be able to:

- Demonstrate an understanding of the relevance and specific application of mathematics in various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving statistical data and probability.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving coordinate geometry.

### Exam

#### Due: Week 6 Weighting: 40%

Final exam will cover all work done in the term.

This Assessment Task relates to the following Learning Outcomes:

- Demonstrate an understanding of the relevance and specific application of mathematics in various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.

- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving statistical data and probability.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving coordinate geometry.

On successful completion you will be able to:

- Demonstrate an understanding of the relevance and specific application of mathematics in various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving statistical data and probability.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving coordinate geometry.

# **Delivery and Resources**

#### **Scheduled Class Time & Timetables**

Weekly face to face contact for this unit will be 10 hours consisting of 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.

#### **Attendance Requirements - All students**

All students are required to attend at least 80% of scheduled class time to pass this unit. Attendance will be monitored in each lesson & students will be able to see their attendance records for a unit via iLearn.

Where a student is present for a part 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 part of the lesson.

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. If attendance drops below 80%, the student will not be able to pass the unit.

Where a student is at risk of not meeting the 80% attendance requirement this unit, they will be alerted in writing or counselled by the teaching or administrative staff and may be advised to withdraw from the unit.

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.

For further information on attendance, please refer to the Attendance and Study Load Policy.

#### **Attendance requirements - International Students**

International students must also attend at least 80% of scheduled class time for all the units they are taking in a Term in order to meet the conditions of their visa. The table below shows how a an international student's attendance would drop as a result of missing different amounts of class time:

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

Where an international student is at risk of not meeting the 80% attendance requirement across their enrolled units, they will be counselled by administrative staff. Once an international student fails to meet the 80% attendance requirement across their units in a term, they may be reported to the Department of Immigration and Boarder Protection (DIBP) for non-attendance and their visa may be cancelled.

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.

For further information on attendance, please refer to the Attendance and Study Load Policy.

#### 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)**

There are no prescribed texts for this unit. Students will be issued with a reader which will contain relevant content and exercises. Links to other useful materials will be provided on iLearn.

#### **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	Topic/Content	Assessment Task
1	<ul> <li>Introduction</li> <li>Significant figures, scientific notation and absolute error.</li> <li>Pythagoras Theorem. Ratio and rates.</li> <li>Basic operations with algebra.</li> </ul>	Diagnostic Test
2	<ul> <li>Linear functions - midpoint, distance, gradient, equation of lines.</li> <li>Inequations and regions.</li> <li>Factorisation techniques - common factor, difference of two squares, Monic-trinomials.</li> <li>Revision for quiz</li> </ul>	Quiz
3	<ul> <li>Simultaneous equation.</li> <li>Quadratic equations and worded problems.</li> <li>Right angled trigonometry-finding unknown sides and angles.</li> <li>Bearing, angle of elevation and angle of depression.</li> </ul>	

4	<ul> <li>Probability - definition. Complementary events. Set notation (intersections, union, etc.).</li> <li>Venn diagram, lattice diagram.</li> <li>Tree diagram.</li> <li>Revision for class test</li> </ul>	Class Test
5	<ul> <li>Statistics - differences between categorical and numerical data, line graph, sector graph, divided bar graph, step graph, travel graph.</li> <li>How to find mean, median, mode, range, interquartile range and standard deviation both manually and using calculator.</li> <li>Construct stem and leaf, box plot, histograms and polygons.</li> <li>Z-score and Normal distribution.</li> </ul>	
6	Revision	Final Exam

# **Learning and Teaching Activities**

# Scheduled Classes

Lessons will include a mixture of learning and teaching activities.New content and topics will be 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 is 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 classes 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 <u>Policy Central</u>. 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/assessm ent/policy\_2016.html. For more information visit http://students.mq.edu.au/events/2016/07/19/ne w\_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 <u>http://www.mq.edu.a</u> u/policy/docs/complaint\_management/procedure.html

Disruption to Studies Policy <u>http://www.mq.edu.au/policy/docs/disruption\_studies/policy.html</u> 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: <a href="https://students.mq.edu.au/support/student\_conduct/">https://students.mq.edu.au/support/student\_conduct/</a>

### 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 <u>eStudent</u>. For more information visit <u>ask.m</u> <u>q.edu.au</u>.

# Student Support

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

### **Learning Skills**

Learning Skills (<u>mq.edu.au/learningskills</u>) 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 <u>http://www.mq.edu.au/about\_us/</u>offices\_and\_units/information\_technology/help/.

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

# **Graduate Capabilities**

# 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 various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving statistical data and probability.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving coordinate geometry.

### Assessment tasks

- Diagnostic Test
- Quiz
- Test
- Exam

# 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 various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
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# 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 various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving statistical data and probability.
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# 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 various field of studies.
- Use fundamental discipline specific terminology to express concepts and ideas related to Mathematics.
- Apply mathematical argument and reasoning to interpret and solve practical problems involving algebra.
- Apply mathematical arguments and reasoning to interpret and solve practical problems involving statistical data and probability.
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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 information.