



## UNSW Course Outline

# MATH1251 Mathematics for Actuarial Studies and Finance 1B - 2024

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## General Course Information

Course Code : MATH1251

Year : 2024

Term : Term 2

Teaching Period : T2

Is a multi-term course? : No

Faculty : Faculty of Science

Academic Unit : School of Mathematics & Statistics

Delivery Mode : Multimodal

Delivery Format : Standard

Delivery Location : Kensington

Campus : Sydney

Study Level : Undergraduate

Units of Credit : 6

### Useful Links

[Handbook Class Timetable](#)

## Course Details & Outcomes

### Course Description

This course builds on the calculus and linear algebra in MATH1151. MATLAB is used throughout.

The course is delivered through a series of lectures, classroom tutorials, and online lessons and spans topics in both linear algebra and calculus.

In linear algebra, abstract vector spaces and linear transforms are introduced so that the study of vectors and matrices in MATH1151 can be applied to a wide range of applications. The concepts such as spans, linear independence, basis, dimension, kernel, image are studied in both abstract and concrete examples, with links made to data fitting and differential equations. Eigenvalues and eigenvectors are studied along with their applications to Markov chains and systems of differential equations. In calculus, further techniques of integration and the theory and applications of first and second order ordinary differential equations are studied, including existence and uniqueness results and numerical methods. Double integrals, including change of variables are introduced. Convergence results for sequences and series are developed along with Taylor polynomials in both one and two variables and their applications. Optimisation techniques, including classification of critical points and Lagrange multipliers are studied.

## Course Aims

The aims of MATH1251, along with MATH1151, are to provide the mathematical tools needed for Actuarial Studies and related disciplines. Students who have completed this course will be able to recognise linear structures and apply techniques in linear algebra to analyse and solve problems of a linear nature. Students will be able to analyse systems governed by commonly occurring ordinary differential equations and apply techniques to solve these analytically and numerically. In addition, students will be able to solve multivariable optimisation problems and use Taylor series techniques to find approximations and derive theoretical results and develop the MATLAB skills needed to apply these mathematical techniques to computational problems.

## Relationship to Other Courses

**Pre-requisite(s):** A pass or better is required in MATH1151.

**Exclusions:** MATH1231, MATH1241 and DPST1014.

# Course Learning Outcomes

Course Learning Outcomes
CLO1 : Apply definitions and theorems in Algebra and Calculus to justify mathematical statements and solve problems.
CLO2 : Apply concepts and techniques from Algebra and Calculus to solve problems.
CLO3 : Use technology as an aid to solve appropriate problems in Algebra and Calculus.
CLO4 : Communicate mathematical ideas in written form using correct terminology and using technology.
CLO5 : Apply concepts in Algebra and Calculus to unexpected contexts.
CLO6 : Identify and construct valid mathematical arguments.

Course Learning Outcomes	Assessment Item
CLO1 : Apply definitions and theorems in Algebra and Calculus to justify mathematical statements and solve problems.	<ul style="list-style-type: none"><li>• Weekly Lessons</li><li>• Assignment</li><li>• Final examination</li></ul>
CLO2 : Apply concepts and techniques from Algebra and Calculus to solve problems.	<ul style="list-style-type: none"><li>• Mastery Tests</li><li>• Weekly Lessons</li><li>• Assignment</li><li>• Final examination</li></ul>
CLO3 : Use technology as an aid to solve appropriate problems in Algebra and Calculus.	<ul style="list-style-type: none"><li>• Mastery Tests</li><li>• Weekly Lessons</li><li>• Final examination</li></ul>
CLO4 : Communicate mathematical ideas in written form using correct terminology and using technology.	<ul style="list-style-type: none"><li>• Assignment</li><li>• Final examination</li></ul>
CLO5 : Apply concepts in Algebra and Calculus to unexpected contexts.	<ul style="list-style-type: none"><li>• Weekly Lessons</li><li>• Assignment</li><li>• Final examination</li></ul>
CLO6 : Identify and construct valid mathematical arguments.	<ul style="list-style-type: none"><li>• Assignment</li><li>• Final examination</li></ul>

## Learning and Teaching Technologies

Moodle - Learning Management System | Möbius Platform, MATLAB | Echo 360

## Learning and Teaching in this course

### Lectures

In Term 2 2024, there will be in-person lectures with limited capacity and these will be streamed

live online via Echo360. A link will be provided on Moodle. These lectures will also be recorded and available to watch at a later time, however, it is recommended that students attend the lectures live, whether in-person or online.

## **Classroom Tutorials**

The classroom tutorials are scheduled to be held in-person.

Students are enrolled in one weekly Classroom Tutorial for Weeks 1-5 and 7-10. The Classroom Tutorial will be a mix of Algebra and Calculus each week. Attendance is strongly recommended for all Classroom Tutorials, and a roll will be taken.

The time and location for your Classroom Tutorial can be found on myUNSW. You can change your tutorial via myUNSW until the end of Week 1. After that time, you can only change tutorials by contacting the Mathematics and Statistics Student Services with evidence of a timetable clash or work commitments.

The main reason for having Classroom Tutorials is to give you a chance to tackle and discuss problems which you find difficult or don't fully understand, so it is important to try at least a selection of tutorial problems before attending your Classroom Tutorial so that you know the questions you would like to ask of your tutor. A schedule of suggested homework problems, to be attempted **before** your classroom tutorial, will be posted on Moodle.

Solving problems and writing mathematics clearly are two separate skills that need to be developed through practice. We recommend that you keep a workbook to practice *writing* solutions to mathematical problems.

If your tutorial falls on a public holiday, it will be cancelled for that week. You can optionally attend another tutorial class from the online options for that week only. You can find the times of tutorials on the central timetable for all tutorials.

## **Weekly Möbius Lessons**

The Weekly Möbius Lessons are an integral part of this course; they help you to stay up-to-date with the course content and give an alternative view on the course materials.

## **Q&A/Problem Sessions**

In addition to your Weekly Classroom Tutorial there are Q&A/Problem Sessions. At these

sessions, you can ask anything about the previous week's tutorial problems, the lecture material, Weekly Möbius Lessons or administrative aspects of the course. You can also ask about the Mastery Tests and Assignment, but only general help and advice will be given for these.

## Moodle

Log into Moodle to find announcements, general information, notes, lecture slides, classroom tutorial and homework problems, and links to Weekly Lessons and assessments.

<https://moodle.telt.unsw.edu.au/>

## Möbius

All assessments in this course, including Weekly Lessons, use a system called Möbius. Information on how to access and use Möbius is provided on Moodle.

## Matlab and Computing

Following on from the Matlab taught in MATH1151, further topics in Matlab form part of the Weekly Möbius Lessons. Matlab will also be required during Lab Test 2 and provided in some assessments where a handheld calculator is not allowed. Details of Matlab resources will be provided on Moodle.

# Assessments

## Assessment Structure

Assessment Item	Weight	Relevant Dates
Weekly Lessons Assessment Format: Individual	10%	Start Date: Two weeks before the due date. Due Date: Weekly on Tuesday at 4:00 PM
Mastery Tests Assessment Format: Individual	30%	Start Date: Practice tests for Mastery Tests 1 and 2 released in Weeks 3 and 9. Due Date: See the EXM class in your myUNSW timetable for your Lab Test time.
Assignment Assessment Format: Individual	10%	Start Date: Early Week 7 Due Date: Week 9 Tuesday 11:59 PM
Final examination Assessment Format: Individual	50%	Start Date: During the exam period Due Date: See Moodle for details of your exam date and time.

# Assessment Details

## Weekly Lessons

### Assessment Overview

The Weekly Lessons cover all aspects of the course, including Algebra, Calculus and the use of the Maple computer algebra system. They will consist of both online self-paced lessons with weekly due dates and in-class activities during the weekly tutorial class. For each topic in the online component, you will watch a short video or complete a self-paced lesson and work through some accompanying exercises on Möbius. You will be provided with instant feedback and unlimited repeat attempts. The in-class component will complement the self-paced online lessons. You will engage in activities more suited to discussion and oral communication of mathematical ideas, such as constructing proofs and improvement of your mathematical communication.

### Course Learning Outcomes

- CL01 : Apply definitions and theorems in Algebra and Calculus to justify mathematical statements and solve problems.
- CL02 : Apply concepts and techniques from Algebra and Calculus to solve problems.
- CL03 : Use technology as an aid to solve appropriate problems in Algebra and Calculus.
- CL05 : Apply concepts in Algebra and Calculus to unexpected contexts.

### Detailed Assessment Description

There is a Weekly Lesson on the learning platform Möbius due on Tuesday of the following Week at 4 pm. The deadline (for the Weekly Lesson 1) is on Tuesday of Week 2. Each Weekly Lesson will consist of at least an Algebra Lesson and a Calculus Lesson. Some weeks will also have a Matlab Lesson. Note that there is a Weekly Lesson 0 due on Tuesday of Week 1, but this is very short.

Your best grade from 6 of the 9 Weekly Möbius Lessons will be counted towards your final grade.

Note:

- Your work on Weekly Möbius Lessons must be your own, but you are encouraged to discuss the methods required in collaboration with other students.
- Each version of a Weekly Möbius Lesson will be slightly different.
- You are expected to complete all 9 weeks of Weekly Möbius Lessons, but only your best grade from 6 of the 9 weeks will be counted towards the final grade.
- You can ask for help with these exercises and you can check your answers as you go, so most students obtain a perfect score and you should aim for this.
- Only a limited number of users can have simultaneous access to Möbius, so **do NOT leave**

your work on Weekly Lessons to the due date, since the server may be too busy.

- **No deadline extensions will be granted** unless you have documented reasons beyond your control covering at least 4 weeks. You should attempt these tests with sufficient remaining time to allow for unplanned service interruptions.

#### Assessment Length

One week

#### Submission notes

Möbius Platform

#### Assessment information

Since only the best 6 out of 9 Weekly Lessons count for marks, special consideration for Weekly Lessons will only be considered for students who have appropriate documentation to explain missing **more than 3** Weekly Lessons.

#### Assignment submission Turnitin type

This is not a Turnitin assignment

## **Mastery Tests**

#### Assessment Overview

You will complete two Mastery Tests during the term. These tests are focused on basic skills in both Algebra and Calculus and will be a mix of questions that can be solved by hand and with MATLAB. Before each test you will be provided with the actual test question bank. This test bank provides unlimited practice attempts with instant feedback. You will be able to practice until you can solve all the problems quickly and accurately. The tests have a 40-minute duration and will be supervised in a computer lab on campus. Mastery Tests 1 and 2 will each contribute 15% of the overall course grade.

#### Course Learning Outcomes

- CL02 : Apply concepts and techniques from Algebra and Calculus to solve problems.
- CL03 : Use technology as an aid to solve appropriate problems in Algebra and Calculus.

#### Detailed Assessment Description

These tests will be conducted in-person at the times and locations listed as the EXM classes on your Class Timetable on myUNSW (you may need to select the specific weeks to view these). Any variations to these will be announced on Moodle or via email. **You will have a single attempt at each Mastery Test.**

For Mastery Test 1, you will not be able to use software such as Matlab. For Mastery Test 2, you

will be required to use Matlab for at least one question. In Mastery Test 2 at least one question will be based on the Matlab coding topics of the Weekly Lessons in addition to Algebra and Calculus questions that can be solved by hand.

During these tests you will be provided with the following resources on the lab computer.

- Algebra Notes from the coursepack;
- Calculus Notes from the coursepack;
- Introduction to Matlab Notes from the coursepack;
- Matlab self-paced lesson.

You must bring the following to your test.

- The device you use for MFA so that you can log in to Möbius;
- Your UNSW Student ID card;
- Any pens, pencils, erasers, rulers and other static drawing aids that you wish to use.

No other devices or resources are permitted in either Mastery Test 1 or 2. For example, you CANNOT bring the following.

- A handheld calculator.
- Notes other than those provided on the computer.
- Paper for working. (Rough working paper will be provided.)

The entire question bank of possible test problems will be provided in your MATH1251 Möbius class. There, you will also find a Practice Mastery Test with the same format as the actual Mastery Test. You are allowed an unlimited number of attempts at the practice tests, and these do not count for marks.

You are expected to have worked out exactly how to answer the questions before you attend the real in-person tests because you are granted unlimited practice at the question bank, and you can review your results for these tests in the Möbius gradebook.

#### **Assessment Length**

40 minutes

#### **Submission notes**

Möbius Platform

#### **Assignment submission Turnitin type**

This is not a Turnitin assignment



# Assignment

## Assessment Overview

The purpose of the assignment is to improve your written mathematical communication. You will be presented with individualised questions and you will produce typed solutions using Microsoft Word, LaTeX or another similar system. You will be able to check the correctness of some parts of your answers prior to submission so your main task will be to create a well-presented written document containing your solutions. The assignment will be released in Week 7 and will be due in Week 9. You will be provided with feedback on the clarity of your communication of mathematical ideas and the correctness of your solutions approximately two weeks after submission.

## Course Learning Outcomes

- CL01 : Apply definitions and theorems in Algebra and Calculus to justify mathematical statements and solve problems.
- CL02 : Apply concepts and techniques from Algebra and Calculus to solve problems.
- CL04 : Communicate mathematical ideas in written form using correct terminology and using technology.
- CL05 : Apply concepts in Algebra and Calculus to unexpected contexts.
- CL06 : Identify and construct valid mathematical arguments.

## Detailed Assessment Description

The Assignment is designed to provide feedback on your writing and help you recognise good mathematical writing for future study. It will also give you practice at presenting written solutions to exam-style questions.

The questions will be presented to you on Möbius, and you will write solutions to these questions in a typed document. You will be able to check the mathematical correctness of some parts of your answer using Möbius, so your main task will be to present your answers well with good explanations of your working. Your marker will grade your work based on the following aspects; note that the marking criteria are focused on how you explain and present your answers:

1. Is the work written in sentences and paragraphs with correct grammar?
2. Is the level of written explanation sufficient for someone who did not know how to solve this problem to follow the argument? Are the explanations concise and clear? Do the explanations avoid unnecessary detail or irrelevant information?
3. Are the arguments self-contained and can be understood without reference to the question? Are the conclusions written out clearly?
4. Are the mathematical arguments valid?
5. Are the equations typeset using an equation editor or similar? Are mathematical symbols

within the text typeset as mathematical symbols? Are equations and mathematical expressions formatted appropriately?

6. Has Matlab been used and presented appropriately?

You will submit your work online via a Turnitin link on Moodle. The assessment deadline will be 11:59 pm on Tuesday of Week 9. The assignment will have a maximum mark of 10. A penalty of 5% of the maximum mark will be deducted from the awarded mark per day late up to a maximum of 5 days late. **Submissions over 5 days late will receive a mark of zero.**

Complete details of the process for this will be provided when the assignment is released.

### Assessment Length

Complete solutions to all questions

### Submission notes

Must be typed using software with an equation editor (e.g. Word, LaTeX).

### Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

## **Final examination**

### Assessment Overview

The final examination covers all aspects of the course.

The assessment tasks during the term allow repeated attempts over an extended period and focus more on basic skills. The exam focuses on questions that assess deeper understanding and higher-level skills, such as applying a theorem or technique in an unexpected context or to a new application, combining ideas from different topics and constructing rigorous mathematical arguments within the context of the syllabus.

The examination will be held during the formal examination period.

### Course Learning Outcomes

- CL01 : Apply definitions and theorems in Algebra and Calculus to justify mathematical statements and solve problems.
- CL02 : Apply concepts and techniques from Algebra and Calculus to solve problems.
- CL03 : Use technology as an aid to solve appropriate problems in Algebra and Calculus.
- CL04 : Communicate mathematical ideas in written form using correct terminology and using technology.

- CLO5 : Apply concepts in Algebra and Calculus to unexpected contexts.
- CLO6 : Identify and construct valid mathematical arguments.

### **Detailed Assessment Description**

The Final Examination will be conducted using Möbius. The exam will be conducted in-person in the Anita B. Lawrence Centre Computing Labs. The approximate date and time will be available on myUNSW. Your actual precise date, time and location will be provided on Moodle. Further details of the exam arrangements will be available on Moodle after the final exam timetable is released.

The best guide to the style and level of difficulty of the Final Examination is the past exam papers. These will be provided on Moodle. Some have worked solutions and others do not. Examination questions are, by their nature, different from the Lab Test questions; the questions may be longer, test a greater depth of understanding, and test sections of the course not covered in other assessments. Some parts of the Final Examination may require knowledge of Matlab.

This term's Final Examination will be closest in format to the 2020, 2021 and 2022 exams. More specific information on the format will be provided on Moodle closer to the end of Term.

### **Assessment Length**

2 hours

### **Submission notes**

Möbius Platform

### **Assessment information**

The assessment tasks during the term allow repeated attempts over an extended period and focus more on basic skills. As a result, you should be aiming for a high mark in the pre-exam assessment material, and this indicates significant progress towards achieving the CLOs of MATH1251. The Final Examination is time-limited and has more complex questions. Therefore, a high mark in the pre-exam assessment is not always an accurate indication of the final course mark.

You are expected to be available for both the main exam period and, in case you cannot attend the exam due to illness or other misadventure, the supplementary exam period.

### **Assignment submission Turnitin type**

This is not a Turnitin assignment

# General Assessment Information

The assessment structure of MATH1251 may be quite different to high school and other courses that you are used to. It is designed so that you should expect to be close to passing the course before taking the Final Examination, with pre-exam assessments (Weekly Lessons, Mastery Tests, Assignment) focusing on basic skills, and the Final Examination itself focusing on more advanced skills.

- Weekly Lessons allow you to check your answers them, they are available for an extended period, you can collaborate with peers, seek help and use any resources you wish, as long as the answers you enter are you own. Most students gain a perfect score for these lessons.
- The Mastery Tests allow you unlimited practice of questions from the question bank used in these tests. For this reason, you should aim for a mark of 80% or higher in the Mastery Tests. Marks below this threshold should be seen as a warning sign of possible failure in the course.
- The focus of the Assignment is mathematical communication. It is available over an extended period and you can work on the Assignment with the benefit of all the course resources. Students who pass MATH1251 typically obtain a mark of at least 6 or 7 out of 10 for the Assignment.
- The average mark for pre-exam work is typically well over 40/50.

Note:

- You will be able to view your final exam timetable on myUNSW. Note that the exam may run over multiple sessions, possibly covering several days, but this will not appear on myUNSW, so you must also check Moodle for details of your exam time. Details of when this timetable will be released is available on the university website: <https://student.unsw.edu.au/dates-and-timetables>.
- It is important that you understand UNSW's rules for the conduct of assessments and the penalties for academic misconduct. This information can be accessed through myUNSW at: <https://student.unsw.edu.au/conduct>
- UNSW assesses students under a standards-based assessment policy. For more information on how this policy is applied within the School of Mathematics and Statistics, please refer to the following website: <https://www.unsw.edu.au/science/our-schools/maths/student-life-resources/student-services/assessment-policies>
- For more information on how UNSW implements special consideration policies for assessments during the term and the Final Examination, please refer to the following website: <https://student.unsw.edu.au/special-consideration>

## Grading Basis

Standard

## Requirements to pass course

To pass MATH1251, you need a final mark of 50/100 or greater overall. There is no requirement

to gain any particular mark in any individual assessment items.

## Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 27 May - 2 June	Online Activity	Weekly Möbius Lessons commence in Week 1 and continue until Week 10 with a break in Week 6. Each week's Lessons are due on the following Wednesday. Note that there is a very short Möbius Lesson 0 due on Tuesday of Week 1. This doesn't count for marks but contains the tutorial problem poll for the week.
	Lecture	Lectures commence in Week 1 and continue until Week 10 with a break in Week 6.
	Tutorial	Tutorials commence in Week 1 and continue until Week 10 with a break in Week 6.
	Tutorial	The Problem/Q&A session starts in Week 1. This is shown in your timetable on myUNSW as the TUT class on Friday. These sessions continue each week until Week 10 with a break in Week 6. This is a tutor-led session in which tutor will discuss homework and other problems and answer your questions about any aspect of the course.
Week 2 : 3 June - 9 June	Other	Lectures, Tutorials, Möbius Lessons and Optional Q&A/Problem sessions continue.
	Online Activity	The Weekly Möbius Lesson 1 is due on Wednesday at 4pm. Deadlines for future weeks are always at 4pm on the following Wednesday. They are not shown in the schedule below.
Week 3 : 10 June - 16 June	Other	Lectures, Tutorials, Möbius Lessons and Optional Q&A/Problem sessions continue.
	Homework	Prepare for Mastery Test 1 which is next week.
Week 4 : 17 June - 23 June	Other	Lectures, Tutorials, Möbius Lessons and Optional Q&A/Problem sessions continue.
	Assessment	Mastery Test 1 (see EXM class in you myUNSW Timetable for date and time)
Week 5 : 24 June - 30 June	Other	Lectures, Tutorials, Möbius Lessons and Optional Q&A/Problem sessions continue.
Week 6 : 1 July - 7 July	Other	Flexibility Week.
Week 7 : 8 July - 14 July	Other	Lectures, Tutorials, Möbius Lessons and Optional Q&A/Problem sessions continue.
	Assessment	Mastery Test 1 (see EXM class in you myUNSW Timetable for date and time)
	Assessment	Assignment questions released on Möbius.
Week 8 : 15 July - 21 July	Other	Lectures, Tutorials, Möbius Lessons and Optional Q&A/Problem sessions continue.
Week 9 : 22 July - 28 July	Other	The exam session booking page released on Moodle at 8am on Monday. Book early if you wish to secure a convenient time.
	Other	Lectures, Tutorials, Möbius Lessons and Optional Q&A/Problem sessions continue.
	Assessment	Assignment due at 11:59pm Tuesday Week 8.
	Homework	Prepare for Mastery Test 2 which is next week.
Week 10 : 29 July - 4 August	Other	The exam session booking page closes at 8am on Monday. Students who have not booked will be assigned a time.
	Other	Lectures, Tutorials, Möbius Lessons and Optional Q&A/Problem sessions continue.
	Assessment	Mastery Test 2 (see EXM class in you myUNSW Timetable for date and time)

## Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

# General Schedule Information

Note that all lectures and some tutorials will be recorded, and this may include student comments. Recorded lectures and tutorials will be indicated on Moodle.

Lectures and tutorials run in all Weeks from 1 to 10, except for Week 6 which will have no classes.

Full syllabuses for Algebra and Calculus will be provided on Moodle. The course covers the following broad areas.

## Calculus

- Chapter 1: Techniques of Integration (Lectures 1-2)
- Chapter 2: Ordinary Differential Equations (Lectures 3-8)
- Chapter 3: Taylor Series (Lectures 9-15)
- Chapter 4: Further Functions of Several Variables (Lectures 16-18)
- Chapter 5: Double Integrals (Lectures 19-22)

## Algebra

- Chapter 6: Complex Numbers (Lectures 1-5)
- Chapter 7: Vector Spaces (Lectures 6-13)
- Chapter 8: Linear Transformations (Lectures 14-16)
- Chapter 9: Eigenvectors and Eigenvalues (Lectures 17-22)

# Course Resources

## Prescribed Resources

### Course Pack

The Course Pack for MATH1251 contain the following three items:

1. Algebra Notes,
2. Calculus Notes from MATH1231/1241 as an additional resource,
3. Calculus Problem Booklet
4. Past Exam Papers Booklet.

Note that the Introduction to Matlab is also available on Moodle. These are the same notes as provided in MATH1151.

# Recommended Resources

## Staff Consultations

From Week 2, there will be a roster which shows for each hour of the week a list of names of members of staff who are available to help students in first-year mathematics courses, no appointment necessary. This roster will be announced on the course Moodle and linked in the page on Moodle called "Student Life - Support Resources". See also below:

<https://www.unsw.edu.au/science/our-schools/maths/student-life-resources/student-services/consultation-mathematics-staff>

## Mathematics Drop-in Centre

The Mathematics Drop-in Centre also provides free help to students with certain first- and second-year mathematics and statistics courses. All first-year MATH courses are supported. In Term 2 2024, the Drop-in Centre will be available both in-person in H13 Lawrence East Lab G12B and online on the Drop-in Centre Moodle page (via Blackboard Collaborate).

The Mathematics Drop-in Centre schedule will be available on Moodle by the end of Week 1. Please note that no appointment is necessary, this is a drop-in arrangement to obtain one-on-one help from tutors. See also below:

<https://www.unsw.edu.au/science/our-schools/maths/student-life-resources/student-services/mathematics-drop-in-centre>

## Lab Consultants

For help with the Maple computing component of the first-year courses, consultants will be available via the Drop-in Centre. For more details, see below:

<https://www.unsw.edu.au/science/our-schools/maths/student-life-resources/student-services/computing-information/maple-lab-consultants>

## Textbook

S.L. Salas, E. Hille and G.J. Etgen, *Calculus – One and Several Variables*, any recent edition, Wiley.

*(Note: The 10th Edition of this textbook comes with access to the electronic resources known as WileyPlus. This electronic version provides internet access to the textbook, problems, worked solutions, tests (for self-assessment) and other electronic resources related to the text material. If purchased from the UNSW Bookshop, you will have access to the WileyPlus server for one year; it is*

*possible to renew the web access on a yearly basis for one year, at a fee determined by the publisher. Note that these WileyPlus electronic resources are provided by the publisher John Wiley, and **not** by the School of Mathematics and Statistics. Any difficulty that you might experience with WileyPlus must be resolved with the publisher.)*

## Regarding student-owned computers for mathematics courses

The School of Mathematics and Statistics is committed to providing, through its own computing laboratories, all the computing facilities which students need for courses taught by the School. No student should feel the need to buy their own computer in order to undertake any Mathematics course. Nevertheless, the following information is provided for the benefit of those who may wish to use their own computer for work associated with Mathematics courses.

All of our courses have a UNSW Moodle presence, and it is there that you should look for course materials or links unless your lecturer tells you otherwise. UNSW Moodle may be accessed from any computer with internet access; see their help files and pages for technical requirements and how to check whether your web browser is supported.

The School of Mathematics and Statistics provides assistance to students using teaching software in its computing laboratories. It does not have the resources to advise or assist students in the use of home computers or in communication between home computers and university facilities.

## Course Evaluation and Development

Feedback will be collected at the end of term via myExperience forms. Your feedback informs our decisions about course organisation and individual lecturer and tutor practices.

## Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Alan McCarthy		H13 Lawrence East 3092		See Moodle for a consultation schedule	No	Yes
Administrator	Hilda Cahya		H13 Lawrence East 3072		via email	Yes	No
Lecturer	Dmitriy Zani		H13 Lawrence East 6104		See Moodle for a consultation schedule	No	No
Year coordinator	Jonathan Kress		H13 Lawrence East 3073		See Moodle for a consultation schedule	No	No



# Other Useful Information

## Academic Information

Upon your enrolment at UNSW, you share responsibility with us for maintaining a safe, harmonious and tolerant University environment.

You are required to:

- Comply with the University's conditions of enrolment.
- Act responsibly, ethically, safely and with integrity.
- Observe standards of equity and respect in dealing with every member of the UNSW community.
- Engage in lawful behaviour.
- Use and care for University resources in a responsible and appropriate manner.
- Maintain the University's reputation and good standing.

For more information, visit the [UNSW Student Code of Conduct Website](#).

## Academic Honesty and Plagiarism

**Referencing** is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Further information about referencing styles can be located at <https://student.unsw.edu.au/referencing>

**Academic integrity** is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage. At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity, plagiarism and the use of AI in assessments can be located at:

- The [Current Students site](#),
- The [ELISE training site](#), and
- The [Use of AI for assessments](#) site.

The Student Conduct and Integrity Unit provides further resources to assist you to understand

your conduct obligations as a student: <https://student.unsw.edu.au/conduct>

## Submission of Assessment Tasks

### Penalty for Late Submissions

UNSW has a standard late submission penalty of:

- 5% per day,
- for all assessments where a penalty applies,
- capped at five days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and
- no permitted variation.

***Any variations to the above will be explicitly stated in the Course Outline for a given course or assessment task.***

Students are expected to manage their time to meet deadlines and to request extensions as early as possible before the deadline.

### Special Consideration

If circumstances prevent you from attending/completing an assessment task, you must officially apply for special consideration, usually within 3 days of the sitting date/due date. You can apply by logging onto myUNSW and following the link in the My Student Profile Tab. Medical documentation or other documentation explaining your absence must be submitted with your application. Once your application has been assessed, you will be contacted via your student email address to be advised of the official outcome and any actions that need to be taken from there. For more information about special consideration, please visit: <https://student.unsw.edu.au/special-consideration>

**Important note:** UNSW has a “fit to sit/submit” rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit to do so and cannot later apply for Special Consideration. This is to ensure that if you feel unwell or are faced with significant circumstances beyond your control that affect your ability to study, you do not sit an examination or submit an assessment that does not reflect your best performance. Instead, you should apply for Special Consideration as soon as you realise you are not well enough or are otherwise unable to sit or submit an assessment.

## Faculty-specific Information

### Additional support for students

- [The Current Students Gateway](#)
- [Student Support](#)
- [Academic Skills and Support](#)
- [Student Wellbeing, Health and Safety](#)
- [Equitable Learning Services](#)
- [UNSW IT Service Centre](#)
- Science EDI Student [Initiatives](#), [Offerings](#) and [Guidelines](#)

## School-specific Information

### School of Mathematics and Statistics and UNSW Policies

The School of Mathematics and Statistics has adopted a number of policies relating to enrolment, attendance, assessment, plagiarism, cheating, special consideration etc. These are in addition to the Policies of The University of New South Wales. Individual courses may also adopt other policies in addition to or replacing some of the School ones. These will be clearly notified in the Course Initial Handout and on the Course Home Pages on the Maths Stats web site. Students in courses run by the School of Mathematics and Statistics should be aware of the School and Course policies by reading the appropriate pages on the web site starting at: [The School of Mathematics and Statistics assessment policies](#)

The School of Mathematics and Statistics will assume that all its students have read and understood the School policies on the above pages and any individual course policies on the Course Initial Handout and Course Home Page. Lack of knowledge about a policy will not be an excuse for failing to follow the procedure in it.

### Special Consideration - Short Extension Policy

The School of Mathematics and Statistics has carefully reviewed its range of assignments and projects to determine their suitability for automatic short extensions as set out by the UNSW Short Extension Policy. Upon comprehensive examination of our course offerings that incorporate these types of assessments, we have concluded that our current deadline structures already accommodate the possibility of unexpected circumstances that may lead students to require additional days for submission. Consequently, the School of Mathematics and Statistics has decided to universally opt out of the Short Extension provision for all its courses, having pre-

emptively integrated flexibility into our assessment deadlines. The decision is subject to revision in response to the introduction of new course offerings. Students may still apply for Special Consideration via the usual procedures.

## **Computing Lab**

The main computing laboratory is room G012 of the Anita B. Lawrence Centre (formerly Red Centre). You can get to this lab by entering the building through the main entrance to the School of Mathematics (on the Mezzanine Level) and then going down the stairs to the Ground Level. A second smaller lab is Room M020, located on the mezzanine level through the glass door (and along the corridor) opposite the School's entrance.

For more information, including opening hours, see the [computing facilities webpage](#). Remember that there will always be unscheduled periods when the computers are not working because of equipment problems and that this is not a valid excuse for not completing assessments on time.

## **School Contact Information**

Please visit the [School of Mathematics and Statistics website](#) for a range of information.

For information on Courses, please go to "Student life & resources" and either Undergraduate and/or Postgraduate and respective "Undergraduate courses" and "Postgraduate courses" for information on all course offerings.

All school policies, forms and help for students can be located by going to the "Student Services" within "Student life & resources" page. We also post notices in "Student noticeboard" for your information. Please familiarise yourself with the information found in these locations. If you cannot find the answer to your queries on the web you are welcome to contact the Student Services Office directly.

### **Undergraduate**

E: [ug.mathsstats@unsw.edu.au](mailto:ug.mathsstats@unsw.edu.au)

P: 9385 7011 or 9385 7053

### **Postgraduate**

E: [pg.mathsstats@unsw.edu.au](mailto:pg.mathsstats@unsw.edu.au)

P: 9385 7053

Should we need to contact you, we will use your official UNSW email address of in the first instance. **It is your responsibility to regularly check your university email account. Please use your UNSW student email and state your student number in all emails to us.**