WMAT1010

Calculus and Linear Algebra I

MQUC Term 4, In person-scheduled-weekday, North Ryde 2025

Macquarie University College

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Disclaimer

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General Information

Unit convenor and teaching staff
Senior Teacher
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Contact via Email
Macquarie University College (MQ College)
Email Staff Member

Credit points
10

Prerequisites
(HSC Mathematics Band 3 and above or HSC Mathematics Advanced Band 3 and above or HSC Mathematics Extension 1 Band E2 and above or HSC Mathematics Extension 2) or WMAT1000 or WFMA003 or WFMA0003 or WMAT123 (HD) or MATH1000 or WFMS0001

Corequisites

Co-badged status

Unit description
This unit introduces basic concepts and techniques in linear algebra and calculus. The algebra component of the unit covers matrices, systems of linear equations and their applications, including the use of vectors in two and three-dimensional Euclidean geometry and linear optimisation. The calculus component of the unit explores the concept of a function of one variable and develops the notions of limit and continuity. The concept of the derivative as a suitable construct to describe rates of change is defined and techniques of differential and integral calculus of functions of a real variable are developed. Some simple differential equations and their role as quantitative models for dynamic processes are discussed. Students are also introduced to the use of computers in mathematics, and develop modelling and problem-solving skills through theoretical and practical problems.

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:

ULO1: Determine solutions to linear systems of equations using matrix tools and

techniques.

ULO2: Employ techniques from linear algebra to analyse structures in 2- and 3-D Euclidean space, including vectors, lines and planes.

ULO3: Analyze a mathematical problem using concepts of limits, continuity and differentiability.

ULO4: Utilise the techniques of differentiation and integration with proficiency to a wide range of functions.

ULO5: Evaluate problems from a wide variety of applications and utilise mathematical and computational techniques to solve them.

ULO6: Communicate mathematical ideas in writing effectively using discipline specific terminology appropriately.

General Assessment Information

Requirements to Pass

To successfully complete this unit, a student must obtain a numerical overall mark of 50 or more for the unit.

For further details about grading, please refer to Part F of the Assessment Procedure.

Students must also pass any hurdle assessments as stipulated in the Assessment Section of this Unit Guide.

Grading

Students will be awarded common result grades as specified in the Assessment Policy.

Students will receive criteria and standards for specific assessment tasks, which will be aligned with the grading descriptors given in Part F of the Assessment Procedure.

Note – Other grades, such as I, IS, UD, UJ may be allocated and these grades are outlined in Appendix A of the Assessment Policy.

Where to find information about assessments

General assessment information, such as the number and nature of assessments, due dates and weightings, has been provided in this unit guide.

Specific assessment information including assignment instructions, questions, marking criteria and rubrics as well as examples of relevant and related assessment tasks and responses will be available in the Assessment section on iLearn.

Submission of Assessment Tasks

Assessments must be submitted in accordance with instructions provided in this Unit Guide and via iLearn. Any tasks that are not submitted as per the assessment instructions may be considered a non-submission and a zero mark may be awarded for the task.

Late Submissions and Penalties (applicable to non-time limited assessment tasks)

Late submissions are allowed but they will attract a late submission penalty unless the student has an approved special consideration application (see the Special Consideration Policy).

Late penalties are calculated based on the total possible marks allocated to the specific assessment task. The penalty for late submission is as follows:

- 5% of the total possible marks will be deducted if it is late by up to 24 hours.
- A further 5% of the total possible marks will be deducted for each 24-hour period up to 3 days (including weekends).
- 100% of the marks will be deducted after 3 days and zero marks will be awarded.

Please note that online submissions are time stamped and this is used to determine late penalties which means that submitting an assessment even a few seconds after the deadline results in a late submission penalty as noted above. There is no flexibility regarding the application of the late submission penalties. **It is students' responsibility to allow sufficient time for submission of their work and uploading any documents.**

Examples:

If the assessment task is due on a Friday at 11.55pm

Submission day/time	Deduction penalty
Before/at 11:55pm Friday	0%
After 11:55pm Fri to 11:55pm Saturday	5%
After 11:55pm Sat to 11:55pm Sunday	10%
After 11:55pm Sun to 11:55pm Monday	15%
After 11.55pm Monday	100%

If the assessment task is due on a Wednesday at 11.55pm

Submission day/time	Deduction penalty
Before/at 11:55pm Wednesday	0%
After 11:55pm Wed to 11:55pm Thursday	5%
After 11:55pm Thurs to 11:55pm Friday	10%
After 11:55pm Fri to 11:55pm Saturday	15%

After 11.55pm Saturday	100%

Please see “In-class assessments” section for further information on assessments that take place during class time.

The above late submission penalties do not apply to time-limited assessment tasks (i.e. assessments with a time-limit of less than 24 hours). A time-limited assessment task must be submitted by its deadline. Any time-limited task that is not submitted as required will be considered a non-submission and a zero mark will be awarded for the task.

Extensions (applicable to non-time limited assessment tasks)

Extensions are allowed only if the student is granted a special consideration. To apply for an extension, students must submit their application via the Service Connect portal.

An **approved** extension will not incur late penalties. However, where a student has been granted an extension and then submits late, i.e., after the stipulated new due date following extension, late penalties will be applied.

Resubmissions (applicable to non-time limited assessment tasks)

It is students’ responsibility to upload their assessments as per the instructions provided on iLearn. Following an initial submission, students may resubmit their work up to 3 days after the due date* if, for example, they have submitted the incorrect document or forgotten to include information.

*If you make a resubmission after the due date, your submission will be counted as late, and penalties will be applied.

Retention of Originals

It is students’ responsibility to retain a copy of any work submitted. Students may be required to produce these documents upon request.

Requests for original documentation will be sent to the student’s Macquarie University email address. Students must retain all original documentation for a six (6) month period and must supply original documents to the University within ten (10) working days of such a request being made.

In-Class Assessments (time-limited assessments)

Assessments could be administered during scheduled lessons and students may be asked to produce their Macquarie University Student ID Card or any other official photo ID if required. Students may not be allowed sit an in-class assessment task if they cannot produce a valid photo ID.

Students are expected to be in class for the whole duration of their scheduled lesson to take the assessment task. No additional time or adjustment will be made for late arriving students or students not ready to submit an assessment at the start of the lesson. Any time-limited task that is not submitted as per assessment instructions will be considered a non-submission and a zero mark will be awarded for the task.

For example, if a one-hour test or quiz is due to take place in a 2-hour lesson, the test or quiz may start at any time in the first hour or at the start of the second hour, so students must be ready to take the test at the beginning of the lesson. No additional time will be given, or adjustment made for students who arrive late. While they may still be permitted to take the assessment, depending on the task, the student will only have the remaining time to complete the task.

Final Examinations

The final examinations will be held during the Macquarie University College Final Examination period. Students must be available to sit final exams or submit assessments throughout this period.

Final Examination Timetable

The University will publish the Final Examination Timetable before the commencement of the final examination period.

Final Examination Requirements

Details of the structure and format of the final examination will be made available to students via iLearn prior to the start of the final examination period.

For additional information regarding examination requirements refer to the Assessment Policy, Assessment Procedures, Section 3, Part E - Examinations.

Missed assessments and examinations

For any missed assessment tasks, please refer to the Special Consideration Policy and Special Consideration Eligibility Requirements.

Supplementary Tests and Examinations

When a student is granted a supplementary test or examination, they will be advised of the time, date and location for the supplementary task.

Supplementary interim assessments, i.e., assessments held during the Term, will be held throughout the Term, including Study Week, and students who are to sit a supplementary exam will be informed of times and dates via the Service Connect portal.

Supplementary final examination period for formal, end-of-term examinations will be the fortnight following Week 8. Students who need to sit a supplementary final examination are required to be available to undertake examinations during the supplementary examination period.

No more than one (1) supplementary assessment will be offered to a student in each affected unit, so it is essential that students make themselves available for alternative assessment activities. Please refer to the Special Consideration Policy for further details.

Results for supplementary final examinations may not be available for up to two weeks following the supplementary examination.

Due to the timing and administration of the supplementary final exams, students in their final

Term of study should note that formal completion of their studies at the College may not be possible until supplementary results are released. Similarly, students who are enrolled in a unit which is a prerequisite to another unit should note that they may not be able to enrol in a subsequent unit/course/program of study on time.

Hurdle Assessments

A hurdle assessment mandates a minimum level of academic performance as a condition of successful completion of a unit. A student who has obtained a numerical mark of at least 50 yet failed all available attempts of a hurdle, fails the unit and receives a FH grade.

Accessing your Results

Students will be able to view their results for interim assessments via the Grades section in iLearn.

Marks for all assessment tasks will be released to students once marking and all relevant checks are concluded.

Students will be able to view their overall result of a unit via eStudent when results are ratified.

Calculating your WAM

Weighted Average Mark (WAM) will be the average of the actual marks students achieved in all units of their program/course and is a mark out of 100. WAM also incorporates ALL marks, including those from a fail grade. For more information, please refer to the Understanding your WAM page.

Obtaining Feedback

Feedback is an important part of student development and opportunities for feedback are built into the curriculum at key points throughout the Term. Students who complete the homework and classwork assigned to them will receive constructive feedback from teaching staff about their academic progress and performance in assessment tasks or a unit of study. When relevant, other staff such as Senior Teachers, Education Managers and members of the Student Administration and Services Team will provide feedback and advice to students about their academic performance in a course/program of study. Feedback may be provided to individual students, a group of students or a whole class and it may be written or verbal in nature.

Some examples of feedback include:

- A teaching staff member reviewing a draft submission and giving a student advice on how to improve their work before making a final submission.
- A teaching staff member telling a class that they need to improve their editing of grammar in their recently submitted assignment.
- A teaching staff member discussing progress of an individual student before census date to allow the student to decide whether they should remain enrolled in the unit.
- Online feedback via announcements or forums, an online marking rubric or various iLearn activities employed in a unit. Please note that feedback on written assessments is

usually provided via Feedback Studio in iLearn.
- Written marks and comments on a marking sheet or essay.
- Recorded voice comment in iLearn provided in response to an essay submitted online.
- A student receiving advice that they should consider withdrawing from a unit because they have missed too many classes / too much work to be able to catch up or for other reasons.

It is a student's responsibility to:

- attend sessions, be present and actively engaged during times when feedback is provided in scheduled class times.
- organise an alternative time with the teacher so that they can receive their feedback if absent from an in-class feedback session due to unavoidable circumstances.
- ensure that they have received sufficient feedback prior to their next assessment task and/or final assessment in the unit.
- act promptly on feedback provided, e.g., incorporate advice provided into their work and study habits).

Students who are unsure how or when feedback was or will be provided, or feel that feedback provided is not sufficient, should approach relevant teaching or administrative staff and request additional feedback in a timely manner during the Term and prior to any subsequent assessment task or the final assessment task. Claims that not enough feedback was provided are not grounds for a grade appeal, especially when a student did not make any effort to approach staff about obtaining additional feedback in a timely manner. Students may seek general feedback about performance in a unit up to 6 months following results release.

If a student has any problems contacting their teacher, they should seek help from a member of the Student Administration and Services team.

Contacting Teaching Staff to Obtain Help

For all University-related correspondence, students must use their official Macquarie University student email account. Students may contact teaching staff at any time during the Term by using the teacher contact details provided in iLearn or this Guide. Students should expect a response within 1-2 business days.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Knowledge Checkpoint	30%	No	Week 4 Lesson 5		No	
Mathematics Portfolio	30%	No	Monday 11:55pm Week 7		No	

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Final Exam	40%	No	Final Examination Period		No	

Knowledge Checkpoint

Assessment Type [1]: Problem set
Indicative Time on Task [2]: 16 hours
Due: **Week 4 Lesson 5**
Weighting: **30%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

Students will complete an in-class assessment that consists of a problem set on the topics covered prior to the date. Students will complete the task under invigilation and submit their work online via iLearn.

On successful completion you will be able to:

- Determine solutions to linear systems of equations using matrix tools and techniques.
- Employ techniques from linear algebra to analyse structures in 2- and 3-D Euclidean space, including vectors, lines and planes.
- Analyze a mathematical problem using concepts of limits, continuity and differentiability.
- Utilise the techniques of differentiation and integration with proficiency to a wide range of functions.
- Evaluate problems from a wide variety of applications and utilise mathematical and computational techniques to solve them.
- Communicate mathematical ideas in writing effectively using discipline specific terminology appropriately.

Mathematics Portfolio

Assessment Type [1]: Portfolio
Indicative Time on Task [2]: 34 hours
Due: **Monday 11:55pm Week 7**
Weighting: **30%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

Students will complete a set of knowledge and skill development and demonstration exercises throughout the term. These exercises may cover any of the topics covered prior to the date. The exercises will ask students to apply the knowledge and skills that they developed on real-world problems. Students will be given feedback on their responses and will be given the opportunity to revise them before they submit them in a portfolio at the end of the term.

On successful completion you will be able to:

- Determine solutions to linear systems of equations using matrix tools and techniques.
- Employ techniques from linear algebra to analyse structures in 2- and 3-D Euclidean space, including vectors, lines and planes.
- Analyze a mathematical problem using concepts of limits, continuity and differentiability.
- Utilise the techniques of differentiation and integration with proficiency to a wide range of functions.
- Evaluate problems from a wide variety of applications and utilise mathematical and computational techniques to solve them.
- Communicate mathematical ideas in writing effectively using discipline specific terminology appropriately.

Final Exam

Assessment Type [1]: Examination
Indicative Time on Task [2]: 16 hours
Due: **Final Examination Period**
Weighting: **40%**
Groupwork/Individual:
Short extension [3]: No
AI Approach:

The Final Exam is a written assessment, which may include any topic covered in this unit.

On successful completion you will be able to:

- Determine solutions to linear systems of equations using matrix tools and techniques.
- Employ techniques from linear algebra to analyse structures in 2- and 3-D Euclidean space, including vectors, lines and planes.
- Analyze a mathematical problem using concepts of limits, continuity and differentiability.

- Utilise the techniques of differentiation and integration with proficiency to a wide range of functions.
- Evaluate problems from a wide variety of applications and utilise mathematical and computational techniques to solve them.
- Communicate mathematical ideas in writing effectively using discipline specific terminology appropriately.

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[1] If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- Academic Success for academic skills support.

[2] Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation.

[3] An automatic short extension is available for some assessments. Apply through the Service Connect Portal.

Delivery and Resources

Term Dates & Calendar

Details of key dates during the term can be found on the Important Dates calendar.

Enrolment and Timetables

General enrolment and timetable information is available via the Macquarie University College enrolment dates and instructions page and Macquarie University's unit enrolment page.

Students will be able to enrol and register for classes via eStudent and view their personal timetable. It is a student's responsibility to ensure that classes they have registered for do not clash.

Students are only permitted to attend classes in which they have registered via eStudent unless they have written approval. To seek approval, students must contact Macquarie University College Student Services, or speak to a member of the Student Administration and Services Team at The College Student Desk (Ground Floor, 8 Sir Christopher Ondaatje Avenue). Approval will only be granted in exceptional circumstances.

The last day to enrol, add or change units is the Sunday, 9.00pm (AEDT) before the start of the Term. Changing class groups is not possible after the enrolment period has concluded.

Attendance Requirements – All Students

Attendance will be monitored in each lesson and students are able to see their current attendance percentage to date and potential attendance percentage for each unit they have enrolled in via iLearn.

- **Current Attendance Percentage** will reflect the percentage of classes a student has attended so far (based only on the lessons held to date).
- **Potential Attendance Percentage** will reflect the percentage of classes a student can potentially attend by the end of the term, taking into consideration lessons attended and assuming the student also attends all future lessons scheduled (based only on the total number of lessons in the Term).

When a student is present for a part of a lesson (for example arrives late, leaves early, leaves the class frequently, particularly for lengthy periods), the teacher reserves the right to mark a student absent for that part of the lesson.

Public Holidays and Make-up Lessons

If any scheduled class falls on a public holiday, a make-up lesson may be scheduled. Please check the iLearn announcements and your emails for details of the make-up lessons.

In Term 4, 2025 there will be one public holiday:

- **Labour Day - Monday, 6 October 2025**

Technology Used and Required

- Access to internet
- AppStream is a fully managed application streaming service that provides MQ users both staff and students with instant access to their applications from anywhere enabling students to use Microsoft Windows applications they require to do their university work from anywhere, anytime, on any device (BYODs).
- Access to iLearn.
- Access to the Waranara Library catalogue (MultiSearch); and
- Macquarie students can download the Microsoft Office Suite of software for free. For access and download instructions, please visit Macquarie University's Microsoft applications page.

Using your Own Device

Macquarie University students are entitled to free access to the Microsoft Office Suite, which can be accessed here. For any problems related to this link and Microsoft Office Suite please contact OneHelp.

Students are required to use Windows or Mac devices to study. They will need to have access to Office applications (Word, Excel and PowerPoint) and Internet browsers.

iLearn

iLearn is Macquarie's online learning management system and a principal teaching and learning resource which will be used throughout the Term.

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

Microsoft Teams

Microsoft Teams is now readily available for download and use, offering a secure platform for student-to-student communication and collaboration at Macquarie University.

Teams facilitates seamless communication among students and streamlines student group work within academic units. Additionally, students can leverage specific apps within Teams, such as Whiteboard and Planner, to enhance collaboration and planning efforts.

Useful Study Resources

The Learning Hub and WHUB1000 iLearn resource are specifically designed by Macquarie University College to support your studies. The Learning Hub is a study space available to all College students and offers workshops, study sessions and one-to-one and group consultations with academic staff during the Term. In addition, the WHUB1000 iLearn resource provides self-access support to help you strengthen your academic and numeracy skills.

Academic Succes empowers you to reach your study and professional goals by developing your academic writing, communication, English language and study skills.

StudyWise is an iLearn resource created by the Academic Success Unit. This resource is specifically designed to help you to manage your studies, strengthen your study techniques, write effective assignments and improve your English language proficiency. Once you enrol in StudyWise, you can access it from your iLearn course list under the category "Student Support".

Lib Guides provide students with links to electronic sources and websites that are good starting points for research in different fields or disciplines.

MultiSearch will connect you to Waranara Library and allow you to search library resources, databases, unit readings and past exam papers.

Waranara Library has released a mobile device app called libMQ. The app allows students to easily access MyLibrary (be notified about loans, renewals, holds and fees owing), book a computer, Library floor maps, see new books lists and search MultiSearch.

It can be downloaded from either Google Play or the App store.

Assignment and Study Support provide information about:

- Researching for your assignments
- How to manage your references
- Referencing style guides
- Subject and research guides

Numeracy Support is provided by the Numeracy Centre. Students can attend these support classes on a drop-in basis as required.

Studiosity offers free support to students via:

- The Macquarie University's **Writing Feedback+** service which gives you immediate feedback on your written drafts. It is quick and easy to use – providing you feedback in less than 2 minutes. You can use it as much as you like, whenever you like. As you start to work on your written assessments get into the habit of getting some feedback on your academic writing using Writing Feedback+. Students who seek feedback and apply it to their writing get better results.
- Study Assist helps you get started on an assessment by answering study questions immediately. It covers four key areas: assignment research, study skills, academic writing principles and referencing support.

You can access Studiosity via iLearn. The first time you use the service you will create your own account using your Macquarie student ID. You will then be able to submit your work as often as you like, for free.

Please note that this is an external service and feedback provided is generic in nature (for example comments on grammar and cohesion) and may not be specific to the requirements of the task. If students require specific feedback on how their work aligns with the expectations of the unit or marking criteria, they should consult their teacher.

Unit Schedule

Week	Topics	Assessment
1	Vectors, Cross Product, Determinants, Matrix Multiplication, and Introduction to MATLAB.	**There will be one public holiday this term: Labour Day - Monday 6th of October 2025.** Weekly activities and practice questions for the Portfolio assessment.
2	Planes and Lines, Matrix Row Reduction, Applications, and Set Theory.	Weekly activities and practice questions for the Portfolio assessment.
3	Functions, Limits, Algebra, and Trigonometry.	Weekly activities and practice questions for the Portfolio assessment.
4	Differentiation (Product, Quotient, and Chain Rules), Maxima and Minima of Functions, and Implicit Differentiation.	Weekly activities and practice questions for the Portfolio assessment. **Knowledge Checkpoint**
5	**Study Week**	**Catch-up Week for Unit Content Study and Assessment Writing: Work on Assessments, Portfolio, and Online Material. Visit the Learning Hub.**
6	Integration, Partial Fractions, Integration by Substitution, Integration by Parts, Areas and Volumes.	Weekly activities and practice questions for the Portfolio assessment.

7	Separable Ordinary differential equations (ODEs), Linear ODEs, Second Order ODEs, and ODE Models.	**Mathematics Portfolio**

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Assessment Procedure
- Complaints Resolution Procedure for Students and Members of the Public
- Special Consideration Policy

Students seeking more policy resources can visit Student Policies (https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit Policy Central (https://policies.mq.edu.au) and use the search tool.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/admin/other-resources/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) 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 connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe academic integrity – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free online writing and maths support, academic skills development and wellbeing consultations.

Academic Integrity

Using the work or ideas of another person, whether intentionally or not, and presenting them as your own without clear acknowledgement of the source is called Plagiarism.

Macquarie University promotes awareness of information ethics through its Academic Integrity 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; and
- when the ideas of others are used, these ideas must be acknowledged appropriately.

All breaches of the Academic Integrity 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 Integrity Policy.

Penalties for Plagiarism and Collusion

The University may commence applicable disciplinary procedures if a person breaches the Academic Integrity Policy.

If students' work is found to be similar to another source and considered to include instances of plagiarism or collusion, they will be penalised.

Plagiarism occurs when a person takes someone else's work or ideas and presents them as their own, that is, without acknowledging where the work or ideas came from originally.

For example, if a student was awarded 52/100 marks for an essay, which contained 20% similarity (i.e. 20% of the work was identified to be copied from another source), the 20% of the 100 marks allocated to the task (i.e. 20 marks) could be deducted as a penalty. The final score would be 32/100 marks.

Penalty calculations may vary by unit.

Collusion takes place when a student copies work or ideas from another student with or without this student's consent to complete a task that is supposed to be done individually. Please note that **all students are penalised** in collusion cases, regardless of who produced the original work.

For example, if a friend asks another student for assistance and the student provides them with a copy of their work, both students will receive exactly the same penalty for the act of collusion.

Turnitin and other Plagiarism Detection Software

Student submissions for assessment tasks are subject to plagiarism detection software, for example, Turnitin, or similar software approved by the University. This software compares electronically submitted papers to a database of academic publications, internet sources and other student papers that have been submitted to the system to identify matching text. It then produces an Originality Report which identifies text taken from other sources and generates a similarity percentage.

Multiple submissions may be possible via Turnitin or other software prior to the final due date

and time of an assessment task and originality reports may be made available to students to view and check their levels of similarity prior to making a final submission. Students are encouraged to use these reports to ensure that they do not breach the Academic Integrity Policy through high levels of similarity (plagiarism).

If you have not planned your submission time carefully and note high levels of similarity in your work after the due date, you can still resubmit your work (if it is not a time-limited assessment); however, a late penalty will apply. For instructions on how to resubmit your work, please see the "Resubmissions (applicable to non-time limited assessment tasks)" section in this Unit Guide.

Teaching staff will use the originality report to judge whether plagiarism has occurred and whether penalties should apply for breaches of the Academic Integrity Policy. Any similar text identified by Turnitin on iLearn will be considered carefully to see if it is indeed a breach of the Academic Integrity Policy.

There is no set percentage which indicates whether plagiarism has occurred; all identified matching text should be reconsidered carefully. If plagiarism has occurred or is suspected and resubmission is possible prior to the due date, students are advised to edit their work before making a final submission. Help may be sought from teaching staff and students may also access Assignment and Study Support provided by the library or Academic Success Writing and study skills support.

Please refer to these instructions on how to submit your assignment through Turnitin on iLearn and to access similarity reports and feedback provided by teaching staff.

Should you have questions about Turnitin on iLearn or experience issues submitting through the system, you must inform your teacher immediately. If the issue is technical in nature, you may also lodge a OneHelp Ticket; please refer to the IT help page.

Submission of Drafts through Turnitin.

In some instances, students may be required to submit drafts of written work via Turnitin in iLearn **prior to the due date of the assessment** task so that they can receive feedback prior to making a final submission. If the student does not make a final submission prior to the due date, their draft will be counted as the final submission or late penalties will be applied.

Assessment Policy

Students should familiarise themselves with their responsibilities under the Assessment Policy, and notably the Assessment Procedures, Section 3, Part E – Examinations.

Final Examination Script Viewings

A student may request to view their final examination script once results have been released but scripts remain the property of Macquarie University.

Students should view their final examination paper prior to submitting a grade appeal, if this is relevant to their case. The viewing will be conducted in a secure location under supervision.

To request a final examination script viewing, you will need to submit an MQ College Script Viewing Request. Please note that the form will only be available for 10 working days after the publication of results for the current Term. Details about the date, time, and location of the script

viewing will be sent to your student email. Further information and the MQ College Script Viewing Request link are available here.

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 Assessment Policy, Assessment Procedures, Section 3, Part F. Grade appeals apply to the final mark and the grade a student receives for a unit of study. They do not apply to results received for individual assessment tasks.

Students considering lodging a grade appeal are recommended to review the information outlined in Appealing a final grade, and also the Guide to Grade Appeals, provided by Student Advocacy, prior to submitting their application.

Grade appeals must be submitted via the Service Connect portal within 15 working days from the published result date for the relevant unit. Before submitting a Grade Appeal, please ensure that you read the Assessment Policy and note valid grounds for appeals.

Students are expected to seek feedback on individual assessment tasks prior to the award of a final grade. Students may request generic feedback from teaching staff 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.

Course Progression

The College closely monitors students' academic progress as per the Progression Policy for Courses and Programs delivered by Macquarie University College.

To maintain satisfactory academic progress, a student must successfully complete (pass) 50% or more of their enrolled units in a Term of study and meet any other requirements to pass listed in the Unit Guide.

Students who fail to make satisfactory academic progress will be classified as "at risk" and will be notified in writing. At-risk students may be required to undergo academic counselling, undertake certain initiatives or have conditions placed upon their enrolment to help them make satisfactory progress.

Students must also pass 50% or more of the units in two or more terms in order to meet Minimum Rate of Progress (MRP) requirements. A student is deemed not to be making Minimum Rate of 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 units after studying two or more terms.

If students do not satisfy academic progression the University may impose a suspension of their studies. For international students, this can have an impact of their visa status.

Student Support

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

Academic Success

Academic Success provides resources to develop your English language proficiency, academic

writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- Access StudyWISE
- Upload an assignment to Studiosity
- Complete the Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

Student Services and Support

Macquarie University offers a range of Student Support Services including:

- IT Support
- Accessibility and disability support with study
- Mental health support
- Safety support to respond to bullying, harassment, sexual harassment and sexual assault
- Social support including information about finances, tenancy and legal issues
- Student Advocacy provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the Service Connect Portal, or contact Service Connect.

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.

Learning and Teaching Activities

Lessons

Lessons will include a mixture of activities. New content and topics will be presented during lessons, and students will be given problems, practice questions and other interactive activities to apply the knowledge and the skills gained in the lesson. Students will be required to take notes, complete set tasks and engage in discussions 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.

Active Participation

In the workplace, at university and in the surrounding community, a person's contributions are important. Students will be required to not only attend but also actively participate in lessons.

Active participation entails:

- active engagement in class activities;
- contribution to class discussions by asking and answering questions;
- coming to class prepared and having completed required pre-readings and activities;
- completion of set class and homework activities;
- collaboration with other students; and
- adhering to Macquarie University's Student Code of Conduct.

Unit Contact Hours

Weekly face-to-face contact for this unit will be 10 hours (60 hours per term).

There will be 5 lessons per week consisting of 2 hour lessons.

Unit Specific Texts and Materials

The following texts have been recommended for this unit:

- Anton & Rorres: Elementary Linear Algebra, Applications Version, 11th Edition, Wiley 2014 (ISBN 978-1-118-43441-3)
- Hughes-Hallet et al: Calculus Single and Multivariable, 6th Edition, Wiley 2014 (ISBN-13: 978-1118231142; ISBN-10: 1118231147)

All students should ensure that they have access to the recommended text(s) from the start of the Term as failure to do so could jeopardise their academic progress in this unit.

Other editions or formats of the above resource(s) may be acceptable, but students must consult teaching staff prior to purchasing these.

Unit information based on version 2025.03 of the Handbook