UNSW Course Outline

# MATS6112 Characterisation of Materials - 2024

Published on the 12 Feb 2024

## General Course Information

**Course Code :** MATS6112
**Year :** 2024
**Term :** Term 1
**Teaching Period :** T1
**Is a multi-term course? :** No
**Faculty :** Faculty of Science
**Academic Unit :** School of Materials Science & Engineering
**Delivery Mode :** In Person
**Delivery Format :** Standard
**Delivery Location :** Kensington
**Campus :** Sydney
**Study Level :** Postgraduate
**Units of Credit :** 6

**Useful Links**

Handbook Class Timetable

## Course Details & Outcomes

### Course Description

In this course students will learn the principles and applications of the main methods employed in the characterisation of the composition and structure of materials including specimen preparation, crystallography and diffraction, optical microscopy, electron microscopy,

spectroscopy, image analysis and microstructural quantification. Emphasis is placed on the applicability of each technique to appropriate analysis and the limitations of each method.
The course is completed as weekly lectures, self-learning online activities, and in-person laboratory classes. The first half of the course (Weeks 1-6) will provide a fundamental understanding of crystallography, diffraction, and electron microscopy (taught with MATS2003). The second half of the course presents advanced topics in diffraction, electron microscopy, and spectroscopy. This course is also suitable for science and engineering students who need basic understanding and practical skills in the
characterisation of materials.

## Course Aims

The objective of this course is to introduce the principles, practice and application of optical microscopy, electron microscopy, X-ray diffraction, and related advanced characterisation techniques in the characterisation of the microstructure of materials. The course is designed to furnish students with theoretical knowledge and hands-on skills in materials characterisation. Upon the successful completion of this course the students will learn to analyse materials at various scales (crystal, nano, micro), provide principles of operating key instruments for material characterisation, understand structure's impact on properties and apply crystallography, X-ray, neutron diffraction, microscopy, and spectroscopy for material analysis.

## Relationship to Other Courses

By delving into the intricacies of characterisation techniques, students gain a comprehensive understanding of material properties, a fundamental aspect shared across disciplines. This unit's insights contribute significantly to courses such as Materials Properties, where the focus is on understanding the behaviour of different materials under specific conditions. Additionally, it intersects with courses like Materials Processing, where knowledge of characterisation techniques aids in optimising manufacturing processes based on material characteristics.

By establishing these connections, the characterisation of materials unit enriches the overall learning experience, providing students with a holistic perspective on the role of characterisation in Materials Science and Engineering. The acquired knowledge serves as a foundation for advanced studies, ensuring that postgraduate students can proficiently apply characterisation methodologies to enhance the quality and depth of their research endeavours.

# Course Learning Outcomes

| Course Learning Outcomes |
| --- |
| CLO1 : Quantify the composition and structure of materials at following scales: crystal structure, nanostructure, microstructure. |
| CLO2 : Explain the principles of operation of major equipment and instruments used for characterisation of materials. |
| CLO3 : Understand the real-world industrial applications of materials characterisation techniques and demonstrate proficiency in evaluating the suitability of different characterisation methods for specific materials, research questions and material properties. |
| CLO4 : Select the appropriate materials characterisation technique(s) to determine the composition and structure of a given material. |

| Course Learning Outcomes | Assessment Item |
| --- | --- |
| CLO1 : Quantify the composition and structure of materials at following scales: crystal structure, nanostructure, microstructure. | • Assignments<br>• Mid-Term Test<br>• Final Exam |
| CLO2 : Explain the principles of operation of major equipment and instruments used for characterisation of materials. | • Mid-Term Test |
| CLO3 : Understand the real-world industrial applications of materials characterisation techniques and demonstrate proficiency in evaluating the suitability of different characterisation methods for specific materials, research questions and material properties. | • Tests<br>• Final Exam |
| CLO4 : Select the appropriate materials characterisation technique(s) to determine the composition and structure of a given material. | • Tests<br>• Final Exam |

# Learning and Teaching Technologies

Moodle - Learning Management System | Echo 360

# Learning and Teaching in this course

• Students are actively engaged in the learning process.

It is expected that, in addition to attending classes, students read, write, discuss, and are engaged in solving problems in the characterisation of materials and the analysis of materials behaviour.

• Effective learning is supported by a climate of inquiry where students feel appropriately challenged.

Problems involving microscopy, crystallography, diffraction, and spectroscopy are challenging; students will perform practical exercises that will motivate deep analysis of various phenomena in materials science and engineering. Much of the fundamentals that are learnt are applied in a practical way to real-world materials and situations.

• Learning is more effective when students' prior experience and knowledge are recognised and built on.

The course is built on prior courses in materials science, computing, mathematics, chemistry, and physics.

• Students become more engaged in the learning process if they can see the relevance of their studies to professional and disciplinary contexts

Students will be asked to analyse the role of crystallography, diffraction, microscopy, and spectroscopy in understanding the relationship between composition, structure, and properties in engineering materials.

# Assessments

## Assessment Structure

| Assessment Item | Weight | Relevant Dates |
|---|---|---|
| Assignments<br>Assessment<br>Format: Individual | 35% | Start Date: Not Applicable<br>Due Date: Not Applicable |
| Mid-Term Test<br>Assessment<br>Format: Individual | 20% | Start Date: Not Applicable<br>Due Date: 28/03/2024 05:00 PM |
| Tests<br>Assessment<br>Format: Individual | 15% | Start Date: Not Applicable<br>Due Date: Not Applicable<br>Post Date: 12/04/2024 11:00 AM |
| Final Exam<br>Assessment<br>Format: Individual | 30% | Start Date: Not Applicable<br>Due Date: Not Applicable |

## Assessment Details

### Assignments

#### Assessment Overview

You will complete three ongoing assignments to assess your understanding and application of concepts taught throughout the course.

**Crystallography Assignment**: You will be expected to determine basic crystallographic

relationships and perform crystal structure calculations. Submission due in Week 4 (10%)

**X-ray Diffraction Assignment**: You will be expected to determine crystallographic structure factors and diffraction angles and intensities of a selected material from first principles and then use these to determine theoretical structural parameters of the material such as lattice parameter(s), unit cell volume, and density of the material. Submission due in Week 7 (10%)

**Electron Microscopy Assignment**: You will use an online interactive SEM simulator to learn the basic operation of an SEM and to determine how image appearance is affected by SEM operating conditions, and you will interpret topographical and compositional SEM images and data. Submission due in Week 9 (15%)

Feedback will be given within one week after submission of the assignment including: your marked assignment, overall comments on how the class performed, and worked answers.

**Course Learning Outcomes**

- CLO1 : Quantify the composition and structure of materials at following scales: crystal structure, nanostructure, microstructure.

**Detailed Assessment Description**

Refer to Moodle for detailed information about this assessment task.

## Mid-Term Test

**Assessment Overview**

You will be assessed on your understanding of the underlying principles of materials characterization techniques, as well as their application to the practical determination of the composition and structure of real materials, for the topics of Specimen Preparation, Crystallography, and X-ray Diffraction (as covered by formal lectures, nominated reading material, and assignments).
The mid-term test will consist of a combination of short-answer style questions and calculations. All relevant background equations (except Bragg's Law) will be provided.

The mid-term test will be 1.5 hours in duration and will be held in Week 7 of Term.

**Hurdle**: You are required to achieve a mark of at least 7/20 in this mid-term test (and a mark of at least 22.5/50 for the mid term (out of 20) and final exam (out of 30) combined) to pass.

*Feedback*: You will receive your marked test indicating what questions were answered correctly

and  incorrectly. Overall comments and worked solutions may be provided.

Course Learning Outcomes

- CLO1 : Quantify the composition and structure of materials at following scales: crystal structure, nanostructure, microstructure.
- CLO2 : Explain the principles of operation of major equipment and instruments used for characterisation of materials.

Detailed Assessment Description

Refer to Moodle for detailed information about this assessment task.

Assignment submission Turnitin type

This is not a Turnitin assignment

Hurdle rules

You are required to achieve a mark of at least 7/20 in this mid-term test (and a mark of at least 22.5/50 for the mid term (out of 20) and final exam (out of 30) combined) to pass otherwise an Unsatisfactory Fail (UF) grade may be awarded.

## Tests

Assessment Overview

**Test 1**: Orientation Imaging Microscopy and Atomic Force Microscopy Techniques (Week 9): In this multiple-choice quiz, your understanding of orientation imaging-related techniques and atomic force microscopy will be assessed. I (7.5%)

**Test 2**: Synchrotron Spectroscopy, Neutron Scattering, and In-situ Methods (Week 10): This multiple-choice quiz evaluates your comprehension of synchrotron spectroscopy, neutron scattering, and in-situ methods. It serves as an assessment of your knowledge and understanding of these specific course topics. (7.5%)

*Feedback*: You will receive personalized feedback, highlighting areas of strength and those needing improvement and additional support details will be provided separately within one week of completing each test.

Course Learning Outcomes

- CLO3 : Understand the real-world industrial applications of materials characterisation techniques and demonstrate proficiency in evaluating the suitability of different characterisation methods for specific materials, research questions and material properties.
- CLO4 : Select the appropriate materials characterisation technique(s) to determine the composition and structure of a given material.

Detailed Assessment Description

Tests 1 and 2 are integral components of the course assessment, each contributing 7.5% to your overall evaluation.

Test 1 assesses your proficiency in orientation imaging-related techniques and atomic force microscopy through a multiple-choice quiz. This evaluation aims to measure your understanding of the principles, applications, and practical aspects associated with advanced microscopy techniques covered in the course. Similarly, Test 2, concentrates on synchrotron spectroscopy, neutron scattering, and in-situ methods. This multiple-choice quiz evaluates your comprehension of the intricate details surrounding these advanced analytical methods. The assessment explores your knowledge of theoretical foundations, practical applications, and the interplay of these techniques within materials science and engineering.

Both tests provide a structured multiple-choice format, facilitating a systematic approach to evaluation. Following each test, questions will be reviewed, and dedicated discussion sessions will be conducted. These interactive feedback sessions are designed to address uncertainties, reinforce key concepts, and enhance your overall comprehension of the material.

Assessment Length

20 Multiple choice questions

Submission notes

Face-to-face using the Moodle portal

Assessment information

**Test 1 Date:** 12/04/2024 11:00 AM

**Test 2 Date:** 19/04/2024 11:00 AM

Assignment submission Turnitin type

This is not a Turnitin assignment

## Final Exam

Assessment Overview

You will be assessed on your understanding of the underlying principles of materials characterization techniques, as well as their application to the practical determination of the composition and structure of real materials, for the topics of Electron Microscopy, Spectroscopy, Optical Microscopy, Digital Image Analysis, and Stereology (as covered by formal lectures,

nominated reading material, assignments, and laboratory classes).

The final exam will provide summative assessment and will consist of a combination of short-answer style answers and calculations. All relevant background equations will be provided. The final exam will be 2 hours in duration and be held in the formal UNSW examination period at the end of term. Feedback is available via direct enquiry with the convenor.

You are required to achieve a mark of at least 11/30 in this final exam (and a mark of at least 22.5/50 for the mid term (out of 20) and final exam (out of 30) combined) to pass.

**Course Learning Outcomes**

- CLO1 : Quantify the composition and structure of materials at following scales: crystal structure, nanostructure, microstructure.
- CLO3 : Understand the real-world industrial applications of materials characterisation techniques and demonstrate proficiency in evaluating the suitability of different characterisation methods for specific materials, research questions and material properties.
- CLO4 : Select the appropriate materials characterisation technique(s) to determine the composition and structure of a given material.

**Detailed Assessment Description**

Refer to Moodle for detailed information about this assessment task.

**Assessment information**

**Before the exam**

The comprehensive final exam will encompass key topics, including Electron Microscopy, Orientation Imaging Microscopy, Atomic Force Microscopy, Synchrotron Spectroscopy and Microscopy, Neutron Diffraction, and In-situ Diffraction. The examination format will include a mix of multiple-choice questions and short-answer-style responses and calculations.

It's important to note that you are not obligated to memorize all equations, as they will be conveniently provided during the exam. This ensures you have access to necessary formulas, allowing you to focus on applying your understanding of the material rather than rote memorization.

Please familiarise yourself with the Inspera Student Resource Site, where you will find videos, guides, resources, and other information related to taking an exam on Inspera.

If you have any queries about your final exam or final exam conditions, please contact the **UNSW Exams Centre** on **exams@unsw.edu.au**.

**Final exam day**

Access your final exam by logging directly into Inspera **and locating your final exam under the 'My Test' tab.**

Exam-Day Support: During your final exam, support will be provided by the UNSW Exams Centre only. **Do not contact your course lecturer or school during your exam.**

Details for exam day support can be found in the Inspera Student Resources Site.

**Assignment submission Turnitin type**

Not Applicable

**Hurdle rules**

You are required to achieve a mark of at least 11/30 (35%) in this final exam (and a mark of at least 22.5/50 (45%) for the mid term (out of 20) and final exam (out of 30) combined) to pass. otherwise an Unsatisfactory Fail (UF) grade may be awarded.

# General Assessment Information

• Students must attend at least 80% of all classes, with the expectation that students only miss classes due to illness or unforeseen circumstances

• Students must read through lecture notes and lab sheets prior to class

• During class, students are expected to engage actively in class discussions

• Students should revise lecture notes and work through lecture examples, tutorials, and textbook questions.

• Students should read through the relevant chapters of the prescribed textbook.

• Students should complete all assessment tasks and submit them on time.

• Students are expected to participate in online discussions through the Moodle page.

• Students are expected to participate in tutorial session and submit assessment items.

**Short Extensions:**

The School of Materials Science and Engineering has reviewed its range of assignments and projects to determine their suitability for automatic short extensions as set out by the UNSW

Short Extension Policy. After consultation with teaching staff and examination of our course offerings, we consider our current deadline structures already accommodate the possibility of unexpected circumstances that may lead students to require additional days for submission. Consequently, the School does not offer the Short Extension provision in its MATS courses but students, if needed, can apply for formal Special Consideration via the usual procedure.

Grading Basis

Standard

Requirements to pass course

• Satisfactory completion of the course includes the requirement to achieve ≥35% in the mid-term exam and ≥35% in the final exam, and ≥45% weighted average over the two exams. Students who fail to achieve this will be awarded an Unsatisfactory Fail (UF) grade for the course, regardless of if they receive over 50% in total for the course.

• Please refer to the UNSW guide to grades: https://student.unsw.edu.au/grades

# Course Schedule

| Teaching Week/Module | Activity Type | Content |
|---|---|---|
| Week 1 : 12 February - 18 February | Lecture | 14:00–16:00 Monday Rupert Myers Theatre<br>An introduction into MATS6112 and lecture on Specimen preparation by Dr Owen Standard<br>14:00–16:00 Thursday Electrical Engineering G23<br>Lecture on specimen preparation and crystallography by Dr Owen Standard<br>11:00–13:00 Friday Electrical Engineering G23<br>Lecture on crystallography by Dr Owen Standard |
| Week 2 : 19 February - 25 February | Lecture | 14:00–16:00 Monday Rupert Myers Theatre<br>Lecture on crystallography by Dr Owen Standard<br>14:00–16:00 Thursday Electrical Engineering G23<br>Lecture on crystallography by Dr Owen Standard<br>11:00–13:00 Friday Electrical Engineering G23<br>Lecture on crystallography by Dr Owen Standard |
| | Assessment | Crystallography assignment (Due date: Week 3) Students will determine basic crystallographic relationships and perform crystal structure calculations. |
| Week 3 : 26 February - 3 March | Lecture | 14:00–16:00 Monday Rupert Myers Theatre<br>Lecture on X-Ray Diffraction by Dr Owen Standard<br>14:00–16:00 Thursday Electrical Engineering G23<br>Lecture on X-Ray Diffraction by Dr Owen Standard<br>11:00–13:00 Friday Electrical Engineering G23<br>Lecture on X-Ray Diffraction by Dr Owen Standard |
| Week 4 : 4 March - 10 March | Lecture | 14:00–16:00 Monday Rupert Myers Theatre<br>Lecture on X-Ray Diffraction by Dr Owen Standard<br>14:00–16:00 Thursday Electrical Engineering G23<br>Lecture on X-Ray Diffraction by Dr Owen Standard<br>11:00–13:00 Friday Electrical Engineering G23<br>Lecture on X-Ray Diffraction by Dr Owen Standard |
| | Assessment | X-ray diffraction assignment (Due date: Week 5) The principle of operation of a powder X-ray diffractometer will be demonstrated to students by means of a video. Students will determine crystallographic structure factors and diffraction intensities of a selected material from first principles and will use them to compare with measured XRD patterns and to determine the lattice parameters and density of the material. Identification of phases in a mixed-phase sample will also be done. |
| Week 5 : 11 March - 17 March | Lecture | 14:00–16:00 Monday Rupert Myers Theatre<br>Lecture on Electron Microscopy by Apro Shery Chang<br>14:00–16:00 Thursday Electrical Engineering G23<br>Lecture on Electron Microscopy by Apro Shery Chang<br>11:00–13:00 Friday Electrical Engineering G23<br>Lecture on Electron Microscopy by Apro Shery Chang |
| | Assessment | Electron Microscopy Assignment and Online Tutorial (Due date: Week 8) Students will interpret topographical and compositional SEM images and data, plus use an online interactive SEM simulator to learn the basic operation of an SEM and to determine how image appearance is affected by SEM operating conditions. |
| Week 7 : 25 March - 31 March | Lecture | 14:00–16:00 Monday Rupert Myers Theatre<br>Lecture on Electron Microscopy by Apro Shery Chang<br>14:00–16:00 Thursday Electrical Engineering G23<br>Lecture on Electron Microscopy by Apro Shery Chang |
| | Assessment | Mid-term exam:<br>It is only offered in person on Thursday from 17:00 to 19:00 at E19 Patricia O'Shane 103. |
| Week 8 : 1 April - 7 April | Lecture | 14:00–16:00 Thursday Science & Engineering G07<br>Lecture on Orientation Imaging Microscopy by Dr Ehsan Farabi<br>11:00–13:00 Friday Science & Engineering B26<br>Lecture on Orientation Imaging Microscopy by Dr Ehsan Farabi |
| Week 9 : 8 April - 14 April | Lecture | 14:00–16:00 Monday Science & Engineering G07<br>Lecture on Atomic Force Microscopy by Dr Ehsan Farabi<br>14:00–16:00 Thursday Science & Engineering G07<br>Lecture on Synchrotron Microscopy by Dr Ehsan Farabi<br>11:00–13:00 Friday Science & Engineering B26<br>Lecture on Neutron Scattering by Dr Ehsan Farabi |
| | Assessment | First in-class test (face-to-face only): 11:00–13:00 Friday Science & Engineering B26<br>This multiple-choice quiz will test students' comprehension of orientation imaging-related techniques, atomic force microscopy, and synchrotron microscopy. |

| | | |
|---|---|---|
| | | An overall review of the questions will also be provided. |
| Week 10 : 15 April - 21 April | Lecture | 14:00–16:00 Monday Science & Engineering G07<br>Lecture on Neutron Scattering by Dr Ehsan Farabi<br>14:00–16:00 Thursday Science & Engineering G07<br>Lecture on In Situ Diffraction by Dr Ehsan Farabi<br>11:00–13:00 Friday Science & Engineering B26<br>A review of the lectured materials and a critical analysis of characterisation techniques by Dr Ehsan Farabi |
| | Assessment | Second in-class test (face-to-face only): 11:00–13:00 Friday Science & Engineering B26<br>The students will be tested on their comprehension of the topics through a multiple-choice quiz.<br>An overall review of the questions will also be provided. |

## Attendance Requirements

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

## General Schedule Information

This course consists of 56 hours of class contact hours per term (lectures 52 hours, formal exams 4 hours).

You are expected to take an additional 56 hours of non-class contact hours to complete assessment tasks, study and readings, and exam preparation spread over the term.

# Course Resources

## Prescribed Resources

• C. Barrett and T.B. Massalski, Structure of Metals, 3rd Revised Edition. Pergamon Press, Oxford, 1980.

• B.D. Cullity and S.R. Stock, Elements of X-ray Diffraction, 3rd Revised Edition. Prentice-Hall Inc., 2001.

• R. Jenkins & R.L. Snyder, Introduction to X-ray Powder Diffractometry. John Wiley & Sons Inc., 1996

• N.F. Kennon, Patterns in Crystals. John Wiley, Chichester, 1980.

• M.H.Loretto, Electron Beam Analysis of Materials, Second Edition. Chapman and Hall, New York, 1994.

• Y. Waseda, E. Matsubara, and K. Shinoda, X-Ray Diffraction Crystallography: Introduction, Examples and Solved Problems. Springer, Berlin, 2011.

• E. Bauer, Surface Microscopy with Low Energy Electrons. Springer, New York, 2004.

• A. Ziegler, H. Graafsma, X.F. Zhang, J.W.M. Frenken, eds. In-situ Materials Characterization: Across Spatial and Temporal Scales. Springer, Berlin, Heidelberg, 2014.

• A. J. Schwartz et al., eds. Electron backscatter diffraction in materials science, Vol. 2. New York: Springer, 2009.

• O. Engler and V. Randle. Introduction to texture analysis: macrotexture, microtexture, and orientation mapping. CRC press, 2009.

## Course Evaluation and Development

Previous students (2023) told us to improve the course by:

- "More feedback on assignments"
- “Some resource uploaded to the MATS2003 was not shown at the MATS6112”.
- “We can’t see past years' final exam for MATS6112”.
- “Draw diagrams during explanations and perhaps be more animated”.

We have responded to this feedback (for 2023) by:

- Working to further improve the presentation slides to continue to aid students' learning.
- Have enhanced the two Moodle sites' layout and instructions to provide robust access to the resources.
- Providing additional animations, videos, and tutorials, we will discuss exam-type questions to aid students’ understanding of each lecture material.
- Reference texts, including ebooks available through the UNSW library, are clearly listed and will be emphasised during class. For advanced students, we have included further reading resources (books, journal articles, etc.) for a deeper understanding of the topics.

# Staff Details

| Position | Name | Email | Location | Phone | Availability | Equitable Learning Services Contact | Primary Contact |
|---|---|---|---|---|---|---|---|
| Convenor | Ehsan Farabi | | Level 3, Desk WS335.01 School of Materials Science and Engineering (Building E10), by appointment | Contact via MSTeams | Monday and Fridays | Yes | Yes |
| Lecturer | Owen Standard | | Room 243A, School of Materials Science and Engineering (Building E10), by appointment | 9065 5356 (or MSTeams) | | Yes | No |
| | Shery Chang | | Room B65, Chemical Sciences Building (Building F10) by appointment | Phone: 9385 6709 (or MSTeams) | | Yes | 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 Plagarism

**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