



## UNSW Course Outline

# MECH9720 Solar Thermal Energy Design - 2024

Published on the 17 May 2024

## General Course Information

**Course Code :** MECH9720

**Year :** 2024

**Term :** Term 2

**Teaching Period :** T2

**Is a multi-term course? :** No

**Faculty :** Faculty of Engineering

**Academic Unit :** School of Mechanical and Manufacturing Engineering

**Delivery Mode :** In Person

**Delivery Format :** Standard

**Delivery Location :** Kensington

**Campus :** Sydney

**Study Level :** Postgraduate, Undergraduate

**Units of Credit :** 6

### Useful Links

[Handbook Class Timetable](#)

## Course Details & Outcomes

### Course Description

Solar thermal energy is created when radiation from the sun is either directly or indirectly (via electricity or a chemical intermediaries) converted to heat for applications in the residential, industrial, and commercial sectors. This course will give you an engineering perspective of the

solar technologies we use for these demands. The first section of the course deals with the characteristics of sunlight, along with some methods of analysis and measurement of solar radiation. The second section of the course covers the working principles of solar thermal technologies (ranging from low to high cost), introducing the general tools necessary to analyze heat and mass transfer within these devices. Lastly, we will cover how these technologies can be integrated into systems including control, circulation, and storage. The content reflects the experience of the lecturer/demonstrators/guests in the research, development, and installation of these systems.

It should be noted that the course deliberately stays away from photovoltaics (for which UNSW has several advanced courses) and instead focuses on the conversion and use of solar energy as *heat*.

## Course Aims

This course aims to provide students with an understanding and working knowledge of the terminology, principles and methods used in solar thermal engineering. It relies heavily on heat transfer analysis (convection, conduction, radiation), which underpins the quantitative components of the course (e.g. student will be required to apply knowledge from Advanced Thermofluids, MECH3610). The course aims to provide an overview of engineering solutions for a wide variety of applications, ranging from pool heating (e.g., heat water to  $\sim 30$  C) to processing minerals (e.g. Aluminum at  $>700$  C).

This course aims to provide technical analysis techniques for comparing the characteristics of solar radiation, solar collectors, and solar system. To do this, it will provide students with knowledge of the tools (experimental, analytical, simulation) for conducting solar thermal collector efficiency evaluations and for the prediction of long-term performance of solar thermal systems.

It is expected that upon completion of this course, students should be prepared to take on more classes, or pursue a career, in renewable energy technologies and/or the thermal sciences.

## Relationship to Other Courses

# Course Learning Outcomes

Course Learning Outcomes
CLO1 : Obtain a basic understanding of how to measure and calculate salient radiation properties and data that will allow you to solve solar thermal energy design problems
CLO2 : Be able to use engineering terminology associated with solar thermal energy systems
CLO3 : Understand and be able to use the terminology associated with solar thermal energy to create a professional report.
CLO4 : Apply the above to solar thermal systems from an engineering perspective

Course Learning Outcomes	Assessment Item
CLO1 : Obtain a basic understanding of how to measure and calculate salient radiation properties and data that will allow you to solve solar thermal energy design problems	<ul style="list-style-type: none"><li>• Weekly Quiz</li><li>• Laboratory Report</li><li>• System Advisor Model Report</li><li>• Exam</li></ul>
CLO2 : Be able to use engineering terminology associated with solar thermal energy systems	<ul style="list-style-type: none"><li>• Weekly Quiz</li><li>• Laboratory Report</li><li>• System Advisor Model Report</li><li>• Exam</li></ul>
CLO3 : Understand and be able to use the terminology associated with solar thermal energy to create a professional report.	<ul style="list-style-type: none"><li>• Laboratory Report</li><li>• System Advisor Model Report</li></ul>
CLO4 : Apply the above to solar thermal systems from an engineering perspective	<ul style="list-style-type: none"><li>• Exam</li><li>• Laboratory Report</li><li>• System Advisor Model Report</li></ul>

## Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams

## Learning and Teaching in this course

As an elective course, MECH 9720 will teach a mix of qualitative and quantitative material. The quantitative engineering calculations will involve heat and mass transfer analysis and performance vs cost vs efficiency design trade-offs for solar thermal technologies. Qualitative considerations of engineering design choices and the market for these technologies.

The teaching strategies that will be used include:

- Weekly Lectures and Workshop sessions (from Week 2, choice of in-person or on Teams).
- Online options for video recordings of past lectures and 25 interactive Lessons.

- A detailed set of Course Notes for key equations and tables used in problem solving.
- A virtual 360 and face-to-face labs (to conduct testing in accordance with Australian standards for solar thermal collectors).
- The use of software tools (namely SAM) to solve solar engineering problems.

## Additional Course Information

In this course we will use the Teams channel for most communications (Lecture content discussions, Demonstration sessions, and Q&A). Moodle as the main file transfer medium (hosting the Lessons, recorded Lectures/Demos, assessment instructions, and also ALL assessment submissions will be submitted in Moodle).

**IMPORTANT NOTE:** For Teams communications, we will endeavor to respond to all questions within 1-2 business days.

Suggested approaches to learning in the course include:

- Careful reading of at least one mode of all course content (Lectures, Lessons, Note, Discussion)
- Carry out all the demonstration problem calculations
- Active participation in the Lab group assessment
- Complete SAM assignment Tasks early
- Additional reading related to the material presented in lectures to broaden the knowledge base
- Conscientiously going through ALL the worked problems
- Perusal of the past examination paper(s), sample Lesson problems, to practice typical Exam questions
- Asking questions and interaction with fellow students in Teams

## Assessments

### Assessment Structure

Assessment Item	Weight	Relevant Dates
Weekly Quiz Assessment Format: Individual	8%	Start Date: Not Applicable Due Date: Not Applicable
Laboratory Report Assessment Format: Group	25%	Start Date: 22/07/2024 08:00 AM Due Date: 26/07/2024 05:00 PM
System Advisor Model Report Assessment Format: Individual	27%	Start Date: Not Applicable Due Date: 3 Task reports. Due by 5pm on Fridays in Weeks 5, 7, and 10.
Exam Assessment Format: Individual	40%	Start Date: 12/08/2024 09:00 AM Due Date: 16/08/2024 05:00 PM

# **Assessment Details**

## **Weekly Quiz**

### Assessment Overview

**Assessment length:** 8 Quizzes, 1-5 questions each

**Marks returned:** after each Quiz closes

**Description:** Weekly Moodle quizzes. They will include a mixture of calculated questions, true/false, matching and multiple-choice questions which roughly follow along with the Lessons and lectures.

**Purpose:** To help students stay on track in terms of progress through the course content. Since there are multiple attempts allowed and each individual quiz has low weighting, it provides some feedback on student understanding of the content.

### Course Learning Outcomes

- CLO1 : Obtain a basic understanding of how to measure and calculate salient radiation properties and data that will allow you to solve solar thermal energy design problems
- CLO2 : Be able to use engineering terminology associated with solar thermal energy systems

### Assessment Length

8 Quizzes, 1-5 questions each

### Submission notes

Quizzes will open each week after the Lecture time and close before the start of the next week's Lecture time.

### Assignment submission Turnitin type

This is not a Turnitin assignment

## **Laboratory Report**

### Assessment Overview

**Assessment length:** Typically 25-30 pages

Students must also submit a peer review as part of the marking.

**Purpose:** The purpose of the Laboratory is to measure and calculate the efficiency of 3 types of solar thermal collectors (flat plate, evacuated tube, and parabolic concentrator).

**Skills:** Students will learn how to measure solar thermal performance data and the analytical procedures (e.g., outlier removal and regression analysis) required to create solar collector efficiency correlation equations, following a process similar to Australian (AS 2535) and International Standards (ISO 9806).

**Knowledge:** Knowledge of industry practice will be gained from doing the analysis. The final Report will contain the information required from an Accredited Test Lab, a key step that ALL solar thermal collectors sold in Australia must go through to obtain small-scale technology certificates (STCs).

**Task Summary:** The deliverable is a final Laboratory Report as a group assessment (4-6 students per group), which is similar to a solar collector standardized test report. Some of the marks for this assessment (10%) will come from peer assessment.

#### Assessment criteria

Marking will be done with a rubric. Group report feedback will be provided within 10 business days of the submission deadline (in Moodle).

#### Course Learning Outcomes

- CLO1 : Obtain a basic understanding of how to measure and calculate salient radiation properties and data that will allow you to solve solar thermal energy design problems
- CLO2 : Be able to use engineering terminology associated with solar thermal energy systems
- CLO3 : Understand and be able to use the terminology associated with solar thermal energy to create a professional report.
- CLO4 : Apply the above to solar thermal systems from an engineering perspective

#### Detailed Assessment Description

Groups are assigned by timetabled enrollment for the LAB sections.

#### Assessment Length

Typically 25-30 pages

#### Submission notes

Students must also submit a peer review as part of the marking.

#### Assessment information

This is a Group assessment.

#### Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

# System Advisor Model Report

## Assessment Overview

**Assessment length:** 3 Tasks (varying pg. limit)

**Purpose:** The aim of this assessment is for students to learn how to do a pre-feasibility technoeconomic analysis of the 3 main solar thermal technologies (hot water, industrial process heat, and concentrated solar thermal electricity), assessed as 3 separate technical reports.

**Skills:** Use of a software package, the System Advisor Model, which can provide high-level transient analysis of renewable energy systems, utilizing global weather data inputs and detailed cost estimations.

**Knowledge:** Upon submission, students will know how to conduct a desktop parametric study, and present the findings for, solar thermal systems at a level close to what would be required from a preliminary feasibility report for an engineering procurement and construction (EPC) and/or an engineering consulting firm.

## Assessment criteria

Marking will be done with a rubric. Individual feedback will be provided for each Task within 10 business days of the submission deadline (in Moodle).

## Course Learning Outcomes

- CLO1 : Obtain a basic understanding of how to measure and calculate salient radiation properties and data that will allow you to solve solar thermal energy design problems
- CLO2 : Be able to use engineering terminology associated with solar thermal energy systems
- CLO3 : Understand and be able to use the terminology associated with solar thermal energy to create a professional report.
- CLO4 : Apply the above to solar thermal systems from an engineering perspective

## Detailed Assessment Description

See assessment handout(s) for more detail.

## Assessment Length

Varying page limits (see assessment description)

## Submission notes

Submit 3 Separate Task Reports in Moodle. Due at 5pm in Week 5 (28 June), Week 7 (12 July), Week 10 (2 Aug.).

## Assessment information

This is an individual assessment.

## Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

## **Exam**

### Assessment Overview

**Assessment length:** ~15 Questions (typically ~4 hours of effort)

**Marks returned:** Upon request, after Course marks posted.

**Purpose:** A final comprehensive assessment of the student knowledge gained throughout the course on solar thermal technologies.

**Format:** A randomised Quiz. Open notes, open book.

### Assessment criteria

This is an individual assessment with a mix of quantitative and qualitative questions. To obtain full marks, students will be expected to pull together knowledge gained during the course and go beyond this level to make engineering judgments on the feasibility of solar thermal technologies/applications.

Feedback available upon request, after Course marks are posted.

### Course Learning Outcomes

- CLO1 : Obtain a basic understanding of how to measure and calculate salient radiation properties and data that will allow you to solve solar thermal energy design problems
- CLO2 : Be able to use engineering terminology associated with solar thermal energy systems
- CLO4 : Apply the above to solar thermal systems from an engineering perspective

### Assessment Length

~15 Questions (typically ~3 hours of effort)

### Submission notes

Exam open for 5 business days. Submit at any time within the OPEN week (before the deadline). As mentioned, expected completion time is 3 hours.

## Assignment submission Turnitin type

This is not a Turnitin assignment

## **General Assessment Information**

Assignment instructions, marking guidelines (rubrics), and other details will be available on Moodle, please check in regularly. If deemed necessary, clarifications and/or hints may be provided via Teams, so please endeavor to check both Moodle and Teams regularly during the session.

### **Grading Basis**

Standard

# Course Schedule

Teaching Week/Module	Activity Type	Content
Week 0 : 20 May - 26 May	Online Activity	Teams and Moodle course visible to students, including orientation video and Course Notes.
Week 1 : 27 May - 2 June	Online Activity	Solar Thermal Overview / 3 Moodle Lessons: Introduction to Solar Energy Systems; Non-Concentrating Solar Thermal Collectors; Concentrating Solar Thermal Collectors
	Lecture	Lecture: Solar Thermal Technologies Overview
	Online Activity	Virtual lab (lab safety and orientation experience).
Week 2 : 3 June - 9 June	Online Activity	2 Moodle Lessons: The Solar Resource Black Bodies and Radiation
	Lecture	Week 2 Content
	Workshop	Problem solving workshop with demonstrator.
	Laboratory	Start of Laboratory, as per enrollment timetable. Labs are only 1 hour, but may get rescheduled to following weeks based on the weather (if we do not have enough sun). [Please do the 360 Virtual lab before attending in-person.]
	Assessment	Weekly Quiz: Quiz OPENS after the Lecture and CLOSES before the next scheduled lecture time.
Week 3 : 10 June - 16 June	Online Activity	2 Moodle Lessons: Solar Instruments Measurements Part 1 & Part 2
	Lecture	Week 3 Content
	Workshop	Problem solving workshop with demonstrator.
	Laboratory	Held during timetabled slots, IF not already completed in previous week.
	Assessment	Weekly Quiz: Quiz OPENS after the Lecture and CLOSES before the next scheduled lecture time.
Week 4 : 17 June - 23 June	Online Activity	2 Moodle Lessons: Inclined Surfaces and Diffuse Radiation Models; Applications of Inclined Surfaces
	Lecture	Week 4 Lecture Content.
	Workshop	Problem solving workshop with demonstrator.
	Laboratory	Held during timetabled slots, IF not already completed in previous weeks.
	Assessment	Weekly Quiz: Quiz OPENS after the Lecture and CLOSES before the next scheduled lecture time.
Week 5 : 24 June - 30 June	Online Activity	4 Moodle Lessons: Absorber Plates and Reflection; Collector Efficiency and Operation; Solar Collector Heat Losses; Evaluating the Solar Collector Efficiency Factor
	Lecture	Week 5 Lecture Content
	Workshop	Problem solving workshop with demonstrator.
	Laboratory	Held during timetabled slots, IF not already completed in previous weeks.
	Assessment	Weekly Quiz: Quiz OPENS after the Lecture and CLOSES before the next scheduled lecture time.
	Assessment	System Advisor Model Report: Task 1 Report (Submit in Moodle by 5pm on Friday).
Week 6 : 1 July - 7 July	Online Activity	Flexibility week. Revision of previous content.
Week 7 : 8 July - 14 July	Online Activity	2 Moodle Lessons: Collector Stagnation Temperature, Part 1 & Part 2
	Lecture	Week 7 Lecture Content
	Workshop	Problem solving workshop with Demonstrator.
	Assessment	Weekly Quiz: Quiz OPENS after the Lecture and CLOSES before the next scheduled lecture time.
	Assessment	System Advisor Model Report: Task 2 Report (Submit in Moodle by 5pm on Friday)
Week 8 : 15 July - 21 July	Online Activity	3 Moodle Lessons:

		Flat Plate Solar Collector Optimisation; TRNSYS & Other Solar Modelling Software; Solar Hot Water Systems Part 1
	Lecture	Week 8 Lecture Content
	Workshop	Problem solving workshop with demonstrator.
	Assessment	Weekly Quiz: Quiz OPENS after the Lecture and CLOSES before the next scheduled lecture time.
Week 9 : 22 July - 28 July	Online Activity	2 Moodle Lesson: Evacuated Tubes; Solar Hot Water Systems Part 2
	Lecture	Week 9 Lecture Content
	Workshop	Problem solving workshop with demonstrator.
	Assessment	Weekly Quiz: Quiz OPENS after the Lecture and CLOSES before the next scheduled lecture time.
	Assessment	Laboratory Report Due: Students must also submit a peer review as part of the marking (submit in Moodle by 5pm on Friday)
Week 10 : 29 July - 4 August	Online Activity	2 Moodle Lessons: Large Scale Solar Thermal Development, Part 1 and Part 2
	Lecture	Week 10 Lecture Content
	Workshop	Problem solving workshop with demonstrator.
	Assessment	Weekly Quiz: Quiz OPENS after the Lecture and CLOSES before the next scheduled lecture time.
	Assessment	System Advisor Model Report: Task 3 Report (Submit in Moodle by 5pm on Friday)
Week 11 : 5 August - 11 August	Workshop	Exam Consultation: Times/locations TBD
Week 12 : 12 August - 18 August	Assessment	Exam opens Monday morning and closes Friday evening. (The Exam is designed for ~3 hours of working time for it during the week.)

## Attendance Requirements

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

## General Schedule Information

Key course activities are listed below:

## Course Resources

### Prescribed Resources

Restating the above, the following represents a list of the most useful resources for this course:

- MECH9720 Course Notes\* (in Moodle), needed to solve the quantitative problems and roughly follow along with the course content.
- Online Lessons (in Moodle)
- Video recordings of lectures from previous years (in Moodle)
- Video recordings of problem solving demonstrations (in Moodle)
- Live in-person/online problem solving demonstrations (Teams or in-person)
- A Virtual 360 Lab tool
- Assignment details (templates, examples, rubrics) in Moodle
- Lecture notes/slides in Moodle

- Worked and numeric solutions to selected problems in Moodle
- An ongoing discussion in Teams (with Live access during scheduled lecture times)
- Links to solar resources and other supplementary information

## Recommended Resources

Aside from the Course Notes, which are provided on Moodle, the following are suggested for further reading:

- Duffie J.A. & Beckman, W.A. Solar Engineering of Thermal Processes, Wiley 2013 [4th edition available from <https://library.unsw.edu.au> in the Wiley eBooks Collection]
- Cengal, Y.A. and Ghajar, A.J., Heat and Mass Transfer, McGraw Hill, 2011
- Academic Journals: Solar Energy, J. Solar Energy Engineering, Applied Energy, Energy Renewable Energy, Renewable and Sustainable Energy Reviews.

## Course Evaluation and Development

Feedback on the course is gathered periodically using various means, including the UNSW myExperience process, informal discussion in the final class for the course, and the School's Student/Staff meetings. Your feedback is taken seriously, and continual improvements are made to the course based, in part, on such feedback.

In this course, recent improvements resulting from student feedback include removal of the PG report (additional work for PG students), the addition online quizzes (in lieu of a test), resources and feedback (including the adaptive lecture lessons), new laboratory facilities (now as a virtual lab as well), and changes to the assessments to manage student workload (the Lab is now a group report), more worked problems have been made available, and additional feedback on progress throughout the course has been implemented.

## Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Robert Taylor		402C Ainsworth Building	02 9385 5400	By Appointment	No	No
Head demonstrator	Amr Omar		SEB		By Appointment	No	Yes
Demonstrator	Qiyuan Li				By appointment	No	No
	Ahmed Eissa				By appointment	No	No
	Laili (Andy) Yu				By Appointment	No	No

# Other Useful Information

## Academic Information

### I. Special consideration and supplementary assessment

If you have experienced an illness or misadventure beyond your control that will interfere with your assessment performance, you are eligible to apply for Special Consideration prior to, or within 3 working days of, submitting an assessment or sitting an exam.

Please note that UNSW has a Fit to Sit rule, which means that if you sit an exam, you are declaring yourself fit enough to do so and cannot later apply for Special Consideration.

For details of applying for Special Consideration and conditions for the award of supplementary assessment, please see the information on UNSW's [Special Consideration page](#).

### II. Administrative matters and links

All students are expected to read and be familiar with UNSW guidelines and polices. In particular, students should be familiar with the following:

- [Attendance](#)
- [UNSW Email Address](#)
- [Special Consideration](#)
- [Exams](#)
- [Approved Calculators](#)
- [Academic Honesty and Plagiarism](#)
- [Equitable Learning Services](#)

### III. Equity and diversity

Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course convener prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equitable Learning Services. Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.

### IV. Professional Outcomes and Program Design

Students are able to review the relevant professional outcomes and program designs for their

streams by going to the following link: <https://www.unsw.edu.au/engineering/student-life/student-resources/program-design>.

*Note: This course outline sets out the description of classes at the date the Course Outline is published. The nature of classes may change during the Term after the Course Outline is published. Moodle or your primary learning management system (LMS) should be consulted for the up-to-date class descriptions. If there is any inconsistency in the description of activities between the University timetable and the Course Outline/Moodle/LMS, the description in the Course Outline/Moodle/LMS applies.*

## Academic Honesty and Plagiarism

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW students have a responsibility to adhere to this principle of academic integrity. Plagiarism undermines academic integrity and is not tolerated at UNSW. *Plagiarism at UNSW is defined as using the words or ideas of others and passing them off as your own.*

Plagiarism is a type of intellectual theft. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. UNSW has produced a website with a wealth of resources to support students to understand and avoid plagiarism, visit: <student.unsw.edu.au/plagiarism>. The Learning Centre assists students with understanding academic integrity and how not to plagiarise. They also hold workshops and can help students one-on-one.

You are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and the proper referencing of sources in preparing all assessment tasks.

Repeated plagiarism (even in first year), plagiarism after first year, or serious instances, may also be investigated under the Student Misconduct Procedures. The penalties under the procedures can include a reduction in marks, failing a course or for the most serious matters (like plagiarism in an honours thesis or contract cheating) even suspension from the university. The Student Misconduct Procedures are available here:

[www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf](http://www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf)

## **Submission of Assessment Tasks**

Work submitted late without an approved extension by the course coordinator or delegated authority is subject to a late penalty of five percent (5%) of the maximum mark possible for that assessment item, per calendar day.

The late penalty is applied per calendar day (including weekends and public holidays) that the assessment is overdue. There is no pro-rata of the late penalty for submissions made part way through a day. This is for all assessments where a penalty applies.

Work submitted after five days (120 hours) will not be accepted and a mark of zero will be awarded for that assessment item.

For some assessment items, a late penalty may not be appropriate. These will be clearly indicated in the course outline, and such assessments will receive a mark of zero if not completed by the specified date. Examples include:

- Weekly online tests or laboratory work worth a small proportion of the subject mark;
- Exams, peer feedback and team evaluation surveys;
- Online quizzes where answers are released to students on completion;
- Professional assessment tasks, where the intention is to create an authentic assessment that has an absolute submission date; and,
- Pass/Fail assessment tasks.

### **Faculty-specific Information**

[Engineering Student Support Services](#) – The Nucleus - enrolment, progression checks, clash requests, course issues or program-related queries

[Engineering Industrial Training](#) – Industrial training questions

[UNSW Study Abroad](#) – study abroad student enquiries (for inbound students)

[UNSW Exchange](#) – student exchange enquiries (for inbound students)

[UNSW Future Students](#) – potential student enquiries e.g. admissions, fees, programs, credit transfer

### **Phone**

(+61 2) 9385 8500 – Nucleus Student Hub

(+61 2) 9385 7661 – Engineering Industrial Training

(+61 2) 9385 3179 – UNSW Study Abroad and UNSW Exchange (for inbound students)

## School-specific Information

### Short Extensions

Short extensions are not currently applicable to Mechanical and Manufacturing Engineering Courses.

### Review of Results

The purpose of a review of results is if there was a marking error. Review of results is for when you have cause to believe that there is a marking error. Review of Results cannot be used to get feedback. If you would like feedback for assessments prior to the final exam, you are welcome to contact the course convenor directly. No feedback will be provided on final exams.

### Use of AI

The use of AI is prohibited unless explicitly permitted by the course convenor. Please respect this and be aware that penalties will apply when unauthorised use is detected, such as through Turnitin. If the use of generative AI, such as ChatGPT, is allowed in a specific assessment, they must be properly credited, and your submissions must be substantially your own work.

## School Contact Information

### Location

UNSW Mechanical and Manufacturing Engineering

Ainsworth building J17, Level 1

Above Coffee on Campus

### Hours

9:00–5:00pm, Monday–Friday\*

\*Closed on public holidays, School scheduled events and University Shutdown

## Web

[School of Mechanical and Manufacturing Engineering](#)

[Engineering Student Support Services](#)

[Engineering Industrial Training](#)

[UNSW Study Abroad and Exchange \(for inbound students\)](#)

[UNSW Future Students](#)

## Phone

(+61 2) 9385 8500 – Nucleus Student Hub

(+61 2) 9385 7661 – Engineering Industrial Training

(+61 2) 9385 3179 – UNSW Study Abroad and UNSW Exchange (for inbound students)

(+61 2) 9385 4097 – School Office\*\*

\*\*Please note that the School Office will not know when/if your course convenor is on campus or available

## Email

[Engineering Student Support Services](#) – current student enquiries

- e.g. enrolment, progression, clash requests, course issues or program-related queries

[Engineering Industrial Training](#) – Industrial training questions

[UNSW Study Abroad](#) – study abroad student enquiries (for inbound students)

[UNSW Exchange](#) – student exchange enquiries (for inbound students)

[UNSW Future Students](#) – potential student enquiries

- e.g. admissions, fees, programs, credit transfer

## School Office – School general office administration enquiries

- NB: the relevant teams listed above must be contacted for all student enquiries. The School will only be able to refer students on to the relevant team if contacted

## Important Links

- [Student Wellbeing](#)
- [Urgent Mental Health & Support](#)
- [Equitable Learning Services](#)
- [Faculty Transitional Arrangements for COVID-19](#)
- [Moodle](#)
- [Lab Access](#)
- [Computing Facilities](#)
- [Student Resources](#)
- [Course Outlines](#)
- [Makerspace](#)
- [UNSW Timetable](#)
- [UNSW Handbook](#)