

# MMAN4020

Thesis B

Term 3, 2021



## Course Overview

### Staff Contact Details

#### Convenors

Name	Email	Availability	Location	Phone
Ang Liu	<a href="mailto:ang.liu@unsw.edu.au">ang.liu@unsw.edu.au</a>			92854080

#### Demonstrators

Name	Email	Availability	Location	Phone
Yan Wang	<a href="mailto:yan.wang9@unsw.edu.au">yan.wang9@unsw.edu.au</a>			
Boming Zhang	<a href="mailto:boming.zhang@unsw.edu.au">boming.zhang@unsw.edu.au</a>			
Muhammad Imran	<a href="mailto:muhammad.imran@unsw.edu.au">muhammad.imran@unsw.edu.au</a>			
Ali Ahmed	<a href="mailto:a.f.ahmed@unsw.edu.au">a.f.ahmed@unsw.edu.au</a>			

### 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](#)

## Course Details

### Units of Credit 6

### Summary of the Course

Thesis is usually completed in the final year of a student's degree. Thesis A and Thesis B are taken in consecutive terms. This course, together with MMAN4010 Thesis A, requires each student to demonstrate managerial, technical and professional skills in planning, executing and reporting on an approved engineering project within a stipulated time limit. Each student is also required to report on their project work at a thesis conference. The project on which each student works will be a direct continuation of the project on which that student worked in MMAN4010 Thesis A. Each student is guided by a supervisor, but successfully completing the project, writing the thesis and submitting the final thesis document by specified deadlines are the sole responsibility of each student.

Consultation should be arranged to allow both student and supervisor to regularly monitor the progress of the project.

### Course Learning Outcomes

After successfully completing this course, you should be able to:

Learning Outcome	EA Stage 1 Competencies
1. Conduct independent research and apply established theories to address an engineering problem that does not have a well-defined solution	
2. Analyse critically, reflect on and synthesise complex information, problems, concepts and theories.	PE2.1, PE2.3, PE2.4
3. Interpret and transmit knowledge, skills and ideas to specialist and non-specialist audiences.	PE2.4, PE3.2, PE3.4
4. Demonstrate managerial skills and individual responsibility to complete a project within limited time and resources.	PE3.4, PE3.5, PE3.6

### Teaching Strategies

Please refer to the information in Moodle

## Assessment

Marks and feedback will be returned in 2 weeks after report submission.

Assessment task	Weight	Due Date	Course Learning Outcomes Assessed
1. Final Thesis Report	80%	13/08/2021 05:00 PM	1, 2, 3, 4
2. Presentation at Thesis Conference	20%	19/11/2021 09:00 PM	1, 2, 3, 4

### Assessment 1: Final Thesis Report

**Start date:** 13/08/2021 05:00 PM

**Assessment length:** 15-20 pages per portfolio

**Due date:** 13/08/2021 05:00 PM

Final report submitted via Moodle.

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

### Assessment 2: Presentation at Thesis Conference

**Start date:** 13/09/2021 05:00 PM

**Due date:** 19/11/2021 09:00 PM

Individual presentation made at thesis conference.

This is not a Turnitin assignment

## Attendance Requirements

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

## Course Schedule

[View class timetable](#)

### Timetable

Date	Type	Content
Week 2: 20 September - 24 September	Online Activity	<p>Week 1 - we will schedule kick-off Teams video meetings for all Groups with the convenor/research supervisor and mentor. The format will be a personal review and feedback "live" of your MMAN4010 reports and presentations, and help in laying out your Groups' roadmaps for MMAN4020. The timing of these Teams chats will be by Calendar invite in the usual way - your Group gets organised and then sends Research Supervisor and Mentor a time/date suggestion for acceptance/alteration.</p> <p>[Note - as much as possible, students should try to enroll in the same tutorial as their group members from MMAN4010] Re-establish contact with your group, Course Convenor/Research Supervisor and Mentor on Teams</p> <ul style="list-style-type: none"><li>• Reconvene with your Course Convenor/Research Supervisor and Mentor on Teams</li><li>• Deliverable: Minutes posted to Teams Group Channel</li></ul>
Week 3: 27 September - 1 October	Group Work	<p>Deliverable: Revisit your Portfolios in response to the Project Brief. Preapprove or modify.</p> <ul style="list-style-type: none"><li>• Have one group meeting with your Mentor on Teams.</li><li>• Deliverable: Produce group meeting minutes and post to your Teams Group Channel</li></ul>
Week 4: 4 October - 8 October	Group Work	<p>Regular weekly group meeting: your group to determine the agenda, demonstrating your initiative and management skills.</p> <ul style="list-style-type: none"><li>• Deliverable: Minutes posted to Teams</li></ul>

		<ul style="list-style-type: none"> <li>• Deliverable: Draft an updated Practice Thesis B <b>project</b> task timeline (Gantt) and post to Teams.</li> <li>• Have one group meeting with your Mentor on Teams.</li> </ul>
Week 5: 11 October - 15 October	Group Work	<p>Each group member to provide a brief verbal report on Teams on their area of Portfolio responsibility.</p> <p>Areas to be covered must include:</p> <ul style="list-style-type: none"> <li>• Time management – individual portfolio Gantt would be advisable.</li> <li>• Resources required to complete the project, if applicable.</li> <li>• Any issue with group members' performance: attendance, communication, effort, etc.</li> <li>• Have one group meeting with your Mentor and Supervisor on Teams.</li> </ul>
Week 6: 18 October - 22 October	Group Work	<p>Regular weekly group meeting: your group to determine the agenda, demonstrating your initiative and management skills.</p> <ul style="list-style-type: none"> <li>• Deliverable: Minutes posted to Teams</li> <li>• Have one group meeting with your Mentor on Teams.</li> </ul>
Week 7: 25 October - 29 October	Group Work	<p>Regular weekly group meeting: your group to determine the agenda, demonstrating your initiative and management skills.</p> <ul style="list-style-type: none"> <li>• Deliverable: Minutes posted to Teams</li> <li>• Have one group meeting with your Mentor and Supervisor on Teams.</li> </ul>
Week 8: 1 November - 5 November	Group Work	<p>Regular weekly group meeting: your group to determine the agenda, demonstrating your initiative and management skills.</p> <ul style="list-style-type: none"> <li>• Deliverable: Minutes posted to Teams</li> <li>• Have one group meeting with your Mentor on Teams.</li> </ul>
Week 9: 8 November - 12 November	Group Work	<p>Finalize the drafting of your settled Report.</p> <ul style="list-style-type: none"> <li>• Deliverable: Draft Report to Teams. Each group member responsible for a chapter, identified with author's name. Further details: refer to Moodle and/or Teams</li> <li>• Have one group meeting with your Mentor</li> </ul>

		on Teams.
Week 10: 15 November - 19 November	Group Work	Regular weekly group meeting: your group to determine the agenda, demonstrating your initiative and management skills. <ul style="list-style-type: none"> <li>• Deliverable: Minutes posted to Teams</li> <li>• Have one group meeting with your Mentor on Teams.</li> </ul>
Study Week: 20 November - 25 November	Presentation	The group makes a presentation at the thesis conference. The presentations will be reviewed by the mentors and course convenor.
	Assessment	Final thesis report is due in Week 11.



## **Resources**

### **Prescribed Resources**

Content on the course Teams is continually updated with tips, discussions and resources, so you are strongly advised to make sure you check for all updates.

In addition: UNSW Library website: <https://www.library.unsw.edu.au/>

### **Course Evaluation and Development**

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

# Submission of Assessment Tasks

## Assessment submission and marking criteria

Should the course have any non-electronic assessment submission, these should have a standard School cover sheet.

All submissions are expected to be neat and clearly set out. Your results are the pinnacle of all your hard work and should be treated with due respect. Presenting results clearly gives the marker the best chance of understanding your method; even if the numerical results are incorrect.

Marking guidelines for assignment submissions will be provided at the same time as assignment details to assist with meeting assessable requirements. Submissions will be marked according to the marking guidelines provided.

## Late policy

Work submitted late without an approved extension by the course coordinator or delegated authority is subject to a late penalty of 20 percent (20%) of the maximum mark possible for that assessment item, per calendar day, for a minimum of zero marks.

The late penalty is applied per calendar day (or part thereof), including weekends and public holidays, that the assessment is overdue.

Work submitted after the 'deadline for absolute fail' is not accepted and a mark of zero will be awarded for that assessment item. For example:

- Your course has an assessment task worth a total of **30 marks (Max Possible Mark)**
- You submit the assessment **2 days after the due date**
- The assessment is marked as usual and achieves a score of **20 marks (Awarded Mark)**
- The late policy is applied using **Late Mark = Awarded Mark - (Days\*Penalty per Day)\*Max Possible Mark**. Your adjusted final score is **8 marks** ( $20 - ((2*0.2)*30)$ ).

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

1. Weekly online tests or laboratory work worth a small proportion of the subject mark, or
2. Online quizzes where answers are released to students on completion, or
3. Professional assessment tasks, where the intention is to create an authentic assessment that has an absolute submission date, or
4. Pass/Fail assessment tasks.

## Examinations

You must be available for all quizzes, tests and examinations. For courses that have final examinations, these are held during the University examination periods: February for Summer Term, May for T1, August for T2, and November/December for T3.

Please visit myUNSW for Provisional Examination timetable publish dates. For further information on

exams, please see the [Exams](#) webpage.

## Special Consideration

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 submitting an assessment or sitting an exam.

UNSW now has a [Fit to Sit / Submit rule](#), which means that if you attempt an exam or submit a piece of assessment, 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](#).

**Please note** that students will **not** be required to provide **any** documentary evidence to support absences from any classes missed **because of COVID-19 public health measures such as isolation**. UNSW will **not** be insisting on medical certificates from anyone deemed to be a positive case, or when they have recovered. Such certificates are difficult to obtain and put an unnecessary strain on students and medical staff.

Applications for special consideration **will** be required for assessment and participation absences – but no documentary evidence **for COVID-19 illness or isolation** will be required.

## Special Consideration Outcomes

Assessments have default Special Consideration outcomes. The default outcome for the assessment will be advised when you apply for Special Consideration. Below is the list of possible outcomes:

<b>Outcome</b>	<b>Explanation</b>	<b>Example</b>
Time extension	Student provided more time to submit the assessment	e.g. 1 more week of time granted to submit a report
Supplementary assessment	Student provided an alternate assessment at a later date/time	e.g. a supplementary exam is scheduled during the supplementary exam period of the term
Substitute item	The mark for the missed assessment is substituted with the mark of another assessment	e.g. mark for Quiz 1 applied also applied as mark for Quiz 2, meaning if a student achieved a mark of 20/30 for Quiz 1 and was granted Special Consideration for Quiz 2, a mark of 20/30 would be applied for Quiz 2, etc
Exemption	All course marks are recalculated excluding this assessment and its weighting	e.g. The course has an assessment structure of: - Assignments 30%, - Lab report 30%, - Final Exam 40%. If the Lab report is missed and student is granted Special Consideration, then the assessment structure may be reweighted as follows: - Assignments 50% - Final Exam 50% as though the Lab report did not exist
Non-standard	Course Coordinator is contacted for the outcome when special consideration is granted as the outcome differs on a case-by-case basis	e.g. typical for group assessments where time extension supplementary assessment could be granted to the group member, time extension could be granted to the whole group, etc. Clarify with your Course Convenor for

## 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](http://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.

If plagiarism is found in your work when you are in first year, your lecturer will offer you assistance to improve your academic skills. They may ask you to look at some online resources, attend the Learning Centre, or sometimes resubmit your work with the problem fixed. However more serious instances in first year, such as stealing another student's work or paying someone to do your work, may be investigated under the Student Misconduct Procedures.

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) 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)

## Academic Information

### Credit points

Course credit is calculated in Units-Of-Credit (UOC). The normal workload expectation for one UOC is approximately 25 hours per term. This includes class contact hours, private study, other learning activities, preparation and time spent on all assessable work.

Most coursework courses at UNSW are 6 UOC and involve an estimated 150 hours to complete, for both regular and intensive terms. Each course includes a prescribed number of hours per week (h/w) of scheduled face-to-face and/or online contact. Any additional time beyond the prescribed contact hours should be spent in making sure that you understand the lecture material, completing the set assignments, further reading, and revising for any examinations.

### On-campus class attendance

#### **\*\*T3-2021 UPDATE\*\***

Classes will be entirely ONLINE until at least Week 6, after which we will receive further advice from UNSW about the return of face-to-face classes. Students who are enrolled in face-to-face classes will have access to the course's online content but NO classes will be changed to reflect online delivery until Week 6 due to uncertainty regarding delivery mode for the rest of the term. Please go to your course's Moodle modules and MS Teams sites for further information about accessing course resources and content.

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Public distancing conditions must be followed for all face-to-face classes. To ensure this, only students enrolled in those classes will be allowed in the room. No over-enrolment is allowed in face-to-face classes. Students enrolled in online classes can swap their enrolment from online to a **limited** number of on-campus classes by Sunday, Week 1. Please refer to your course's Microsoft Teams and Moodle sites for more information about class attendance for in-person and online class sections/activities.

Your health and the health of those in your class is critically important. You must stay at home if you are sick or have been advised to self-isolate by [NSW health](#) or government authorities. Current alerts and a list of hotspots can be found [here](#). **You will not be penalised for missing a face-to-face activity due to illness or a requirement to self-isolate.** We will work with you to ensure continuity of learning during your isolation and have plans in place for you to catch up on any content or learning activities you may miss. Where this might not be possible, an application for fee remission may be discussed. Further information is available on any course Moodle or Teams site.

In certain classroom and laboratory situations where physical distancing cannot be maintained or there is a high risk that it cannot be maintained, face masks will be considered **mandatory PPE** for students and staff.

For more information, please refer to the  
FAQs: <https://www.covid-19.unsw.edu.au/safe-return-campus-faqs>

## Guidelines

All students are expected to read and be familiar with UNSW guidelines and policies. In particular,

students should be familiar with the following:

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

## **Image Credit**

Photo by Stephen Blake March 2017, Willis Annexe (J18) Thermofluids lab

## **CRICOS**

CRICOS Provider Code: 00098G

## **Acknowledgement of Country**

We acknowledge the Bedegal people who are the traditional custodians of the lands on which UNSW Kensington campus is located.

## Appendix: Engineers Australia (EA) Professional Engineer Competency Standard

Program Intended Learning Outcomes	
Knowledge and skill base	
PE1.1 Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline	
PE1.2 Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline	
PE1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline	
PE1.4 Discernment of knowledge development and research directions within the engineering discipline	
PE1.5 Knowledge of engineering design practice and contextual factors impacting the engineering discipline	
PE1.6 Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline	
Engineering application ability	
PE2.1 Application of established engineering methods to complex engineering problem solving	✓
PE2.2 Fluent application of engineering techniques, tools and resources	
PE2.3 Application of systematic engineering synthesis and design processes	✓
PE2.4 Application of systematic approaches to the conduct and management of engineering projects	✓
Professional and personal attributes	
PE3.1 Ethical conduct and professional accountability	
PE3.2 Effective oral and written communication in professional and lay domains	✓
PE3.3 Creative, innovative and pro-active demeanour	
PE3.4 Professional use and management of information	✓
PE3.5 Orderly management of self, and professional conduct	✓
PE3.6 Effective team membership and team leadership	✓