



MMAN4020

Thesis B

Term Three // 2020

Course Overview

Staff Contact Details

Convenors

Name	Email	Availability	Location	Phone
David Lyons	david.lyons@unsw.edu.au	via Teams or Outlook Calendar meeting invitation	Online via email or course's Teams page	

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

Course Details

Credit Points 6

Summary of the Course

Thesis is usually completed in the final year of a student's degree. Thesis A (Practice) and Thesis B (Practice) are taken in two consecutive terms. This course, together with MMAN4010 Thesis A (Practice), 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.

Thesis (Practice) allows each student to work under the guidance of the course convenor and mentor. The nominated Project involves research-based investigations, industrial problem-solving and engineering design, with the possibility of virtual prototyping/simulation/proof-of-concept.

This course enhances the student's skills for undertaking scholarly and professional enquiry by attempting to achieve a specific project objective within a defined period of time. A significant component of the course relates to the review of literature, which promotes independent and reflective learning as well as increases students' capacity to develop information literacy. The thesis report is expected to reinforce the student's ability and confidence in the written communication of technical information. Verbal presentation skills are tested during the online YouTube presentation and at group/mentor meetings.

Course Aims

This course is the second of two parts and is undertaken following MMAN4010 Thesis A (Practice) in the preceding term. They are two parts of a whole. The project involves formulating the design for, and solution to, the Project Brief provided. The problem is multi-disciplinary, involving the application of material learnt throughout your undergraduate program and will require a lot of creative thought. Part A included the formulation of a report, which included a review of the relevant literature and other professional engineering documents.

The full text of the Thesis B Project Brief is the same as that for Thesis A.

MMAN4020 is the detailed, executable design and delivery stage for you and your Group.

The group project is to be completed in two consecutive trimesters during the last academic year before graduation. It is not the responsibility of the course coordinator or mentor to tell the student what to do, nor should it be assumed that your mentor is an expert in all areas of engineering. Your convenor and mentor are there to offer guidance and advice. The successful execution of the project is solely the responsibility of the student.

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-	PE2.1, PE2.3, PE2.4, PE3.3

Learning Outcome	EA Stage 1 Competencies
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

Online advice and strategies to assist your Group and Individual project work will be provided via Microsoft Teams. Student groups are expected to meet their mentors via Teams video Chat, to provide updates on progress and to seek feedback and guidance. Online contact with your other Group members, course convenor and mentors via Teams is to be conducted on a very regular, ongoing and as-needed basis – weekly in-person online video attendance and contribution is also mandatory. Video is to be switched on. Group meeting Minutes, file sharing and work-in-progress are to be uploaded to your Group's Teams Channel weekly.

Additional Course Information

This is a 6 unit-of-credit (UoC) course and involves a variable number of hours per week (h/w) of scheduled online contact.

The normal workload expectations of a student are approximately 25 hours per term for each UOC, including online contact hours, other learning activities, preparation and time spent on all assessable work.

You should aim to spend about 9 h/w on this course. The additional time should be spent in making sure that you understand the material, completing the set work, further reading, and revising for any examinations (no examination).

All classes in T3 2020 will be online. Please consult this course's Teams for details about delivery.

Assessment

Assessment Tasks

Assessment task	Weight	Due Date	Student Learning Outcomes Assessed
Final Thesis Report	80%	30/11/2020 09:00 AM	1, 2, 3, 4
Presentation video on YouTube	20%	04/12/2020 11:55 PM	1, 2, 3, 4

Assessment Details

Assessment 1: Final Thesis Report

Start date: Not Applicable

Length: Refer Teams Report specification and rubric

Details:

Final report submitted via Teams Group private Channel.

Additional details:

Refer Teams Report specification and rubric

Turnitin setting: This is not a Turnitin assignment

Assessment 2: Presentation video on YouTube

Start date: Not Applicable

Length: Refer Teams Presentation specification and rubric

Details:

Group video file.

Additional details:

Refer Teams Presentation specification and rubric.

Turnitin setting: 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 1: 14 September - 18 September	Online Activity	<p>Week 1 - we will schedule kick-off Teams video meetings for all Groups with the convenor. 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 the convenor a time/date suggestion for acceptance/alteration.</p> <p>Draft schedule for the Term (further updates in Teams) is shown at:</p> <p>https://teams.microsoft.com/_#/school/files/General?threadId=19%3Aa5ae9119a65b43fdbd9c4e5f0650f941%40thread.tacv2&ctx=channel&context=MMAN4020-T3-2020%2520files&rootfolder=%252Fsites%252FCLS-MMAN4012%252FShared%2520Documents%252FGeneral%252FMMAN4020-T3-2020%2520files</p> <p>[Note - Students must organise to enrol in the same tutorial as their group members from MMAN4010]</p>

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/>

Recommended Resources

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.

Migration to an online Teams environment was instigated for T2-2020 and will be universal for T3-2020.

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.

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.

Work submitted after the 'deadline for absolute fail' is not 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 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 in T3.

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.

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

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. 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

Public distancing conditions must be followed for all T3 face-to-face classes. To ensure this, only students enrolled in those classes will be allowed in the room. Class rosters will be attached to corresponding rooms and circulated among lab demonstrators. No over-enrolment is allowed in face-to-face class. Students enrolled in online classes can swap their enrolment from online to other additional, **but 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 1.5 metres 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](#)

Important Links

- [Moodle](#)
- [Lab Access](#)
- [Health and Safety](#)
- [Computing Facilities](#)
- [Student Resources](#)
- [Course Outlines](#)
- [Engineering Student Support Services Centre](#)
- [Makerspace](#)
- [UNSW Timetable](#)
- [UNSW Handbook](#)
- [UNSW Mechanical and Manufacturing Engineering](#)
- [Equitable Learning Services](#)

Image Credit

Synergies in Sound 2016

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	✓