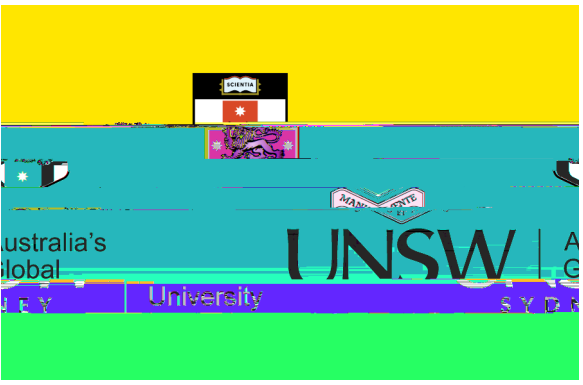

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MMAN9451

Masters Project A

1. Office Hours

Academic staff, sometimes together with some senior engineers from industry, act as supervisors to students undertaking Thesis work. Support is also provided by the workshop and laboratory staff. For any project-related issues, contact your thesis supervisor directly.

Contact details and consultation times for course convenors

Name: Susann Beier (first contact) and Pietro Borghesani
Office location: Ainsworth building (J17)
Tel: (02) 9385 7580 (Susann)
(02) 9385 7899 (Pietro)
Email: MMEresearchthesis@unsw.edu.au
Moodle: https://moodle.telt.unsw.edu.au/login/index.php

It is recommended you email the course conveners to make a specific appointment if you need to discuss any important organisational issues, particularly if you want to discuss extensions, supervisor issues, etc. Always consult the course Moodle first in case your questions have already been answered by information available online.

Contact details of the thesis administrator

Name: Ms Julisa Edwards
Office location: School Office, RM 112A, Level 1, Ainsworth building (J17)
Email: MMEresearchthesis@unsw.edu.au

Contact Ms Edwards directly, at the same email address, if you have issues relating to your enrolment, progress, or other administrative queries.

Please also see the course Moodle Announcements and Q&A sections.

2. Resources

- Moodle
- Lab Access
- Computing Facilities
- Student Resources
- Course Outlines
- Engineering Student Support Services Centre

3. Course

Credit points

your supervisor.

Various factors, such as your own ability, your target grade, etc., will influence the time needed in your case.

This means that you should aim to spend not less than about 10 h/w on this course, including consultation with supervisor and workshop/laboratory staff and library/internet search. However, most students spend more time on their thesis work.

Contact hours

There are no set contact hours for thesis.

Summary and Aims of the course

Aims

Note: the terms “thesis” and “project” are used interchangeably throughout this document.

The thesis provides an opportunity for the student to bring together engineering principles learned over their previous years of study and apply these principles to innovatively solve problems, such as the development of a specific design, process and/or the investigation of a hypothesis. Thesis projects must be complex, open-ended problems that allow room for student creativity, and the acquisition, analysis and interpretation of results. There must be multiple possible solutions or conclusions at the outset and sufficient complexity to require a degree of project planning from the student. The thesis requires the student to formulate problems in engineering terms, manage an engineering project and find solutions by applying engineering methods. Students also develop their ability to work in a research and development environment.

This course requires each student to demonstrate managerial, technical and professional skills in planning and executing an approved engineering project within a stipulated time limit. The student should show improved project management skills in the progression from Project A to B and C, as well as a deeper understanding of the specific research topic. Each student is guided by their supervisor, but successfully planning, executing and reporting on the project are the sole responsibility of each student.

It is not the responsibility of the supervisor to tell the student what to do, nor should it be assumed that the supervisor is an expert in all areas of engineering. They are there to offer guidance and advice, as are laboratory staff, workshop staff, and others in the school that may have expertise in the area of your project. The successful execution of the project is solely the responsibility of the student.

Organisation and prerequisites

The postgraduate Research Thesis is organised in three courses: Project A (MMAN9451), B (MMAN9452) and C (MMAN9453). By default, students must ordinarily take Project A, Project B and Project C in consecutive terms. Project A is therefore the first course you have

to undertake for the completion of the Research Thesis and can be started in any of the three terms. Project A is a prerequisite for Project B, and Project B is a prerequisite for Project C. If you need to complete your thesis in two terms only and your

The workshop is usually in very high demand. If you require the workshop to manufacture equipment essential to your thesis, then make sure that you discuss your requirements as early as possible with the Workshop/Laboratory Manager. You should provide engineering drawings which are first approved by the laboratory OIC. You should make every effort to minimise the Workshop load by modifying existing equipment rather than building from new, and by keeping your designs simple.

Safety Training

A full list of safety training requirements for thesis students is available on the School's intranet. Safety in any project is paramount and it is mandatory to complete risk paperwork for all activities. Always discuss with your supervisor what your plans are and what risk assessments will be required.

Student learning outcomes

This course is designed to address the learning outcomes below and the corresponding Engineers Australia Stage 1 Competency Standards for Professional Engineers as shown. The full list of Stage 1 Competency Standards may be found in Appendix A.

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

Learning Outcome	**EA Stage 1 Competencies**
1.	

Assessment overview

Assessment	Group Project?	Length	Weight (% of entire Project A+B+C grade)	Learning outcomes assessed	Assessment criteria	Due date and submission requirements	Deadline for absolute fail	Marks returned
Interim Report and Project Plan	No	25 pages max (excl. appendices and references)	15%	1, 2, 3 and 5	Rubric below	Friday 5 PM Week 10 In addition, students must **register their Project Details by 5pm Friday Week 5** (see details below)	5 PM Friday Week 11	Two weeks after submission

IMPORTANT: You are required to provide the final details (e.g. title, supervisor) of your project on Moodle before Friday 5 PM, Week 5. Failure to do so will incur in late penalties for your report , as your report will not be allocated for marking.

Marking criteria and rubrics for Interim Report and Project Plan

Note: The points in the marking criteria will be scaled by the associated weighting in the Marking Criteria Summary below on Moodle.

Marking Criteria Summary

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Criterion	Tasks

Criterion 1: Literature Review

Grade	Mark	Brief description	Longer explanation / examples
Fail	0-49%	Deficient	Deficient work may be characterised by a number of features, including inappropriate reliance on sources not peer reviewed (such as the internet), not reviewing what should be the core of the literature in a particular area, or not reviewing any recent work (within, for example, the last 5 years although this will depend somewhat on the field).
Pass	50-64%	Adequate	The literature reviewed is sufficient (and includes recent work) to inform the proposed research, although it is likely that further review will be required as the work progresses. What distinguishes work at this level from work at the next level up is quantity: an adequate review of the literature sketches enough that the reader can see what the picture is about, but neglects significant aspects. i.e., are there significant holes in this review?
Credit	65-74%	Solid	The most significant areas of literature relevant to the proposed work have been reviewed (including recent work). There are no major "holes". What is generally missing in this band, but present in higher quality work, is the student showing that they understand the conceptual relationships between the different reviewed works.
Distinction	75-84%	Solid, and linked	The most significant areas of literature relevant to the proposed work have been reviewed (including recent work) and the student has clearly identified one or more knowledge gaps. The student will have shown that they understand the conceptual relationships between reviewed works and between reviewed works and the student's research project, i.e., the student makes intellectual connections between the different parts of the review and puts their work in context.
High distinction	85-100%	Of review paper quality	In addition to meeting the quality at the previous band, the student has made a critical assessment of

Criterion 2: Research Question and Project Plan

Grade	Mark	Brief description	Longer explanation / examples
Fail	0-49%	Broad context missing	The research question is not explained and there is no clear demonstration of student understanding. The research plan is not present, or does not have sufficient detail to demonstrate that the student can successfully complete a thesis project. No thesis outline is presented (i.e., thesis chapter heading

0-49%

Criterion 3: Project Dependent Preparations

Grade	Mark	Brief description	Longer explanation / examples
Fail	0-49%	Insufficient preparations%	

Submission

Please submit your report electronically, directly through the submission inbox which will be made available on the Moodle page of the course, unless you have been granted "confidential submission".

Your Project Details (e.g. title, supervisors) are still to be available to UNSW personnel for organisational and assessment allocation purposes.

Confidential Submission

Confidential submission of reports can be granted by the course conveners in case of confidential projects (i.e. with sensitive data from company partners). This must be requested from the course conveners at the beginning of Project A (not later than Week 4 of Project A) by the student and have the support of the supervisor (email explaining reason). If you have been granted "confidential submission", you should SUBMIT DIRECTLY TO YOUR SUPERVISOR (not using this Moodle submission inbox) by means of a medium agreed with your supervisor, still within the same assignment deadline.

Please note that Project C will require two markers, so you and your supervisor will need to propose a solution that satisfies your confidentiality constraints. The convenors will have to approve your proposed solution before the beginning of Project C.

It is always the student's responsibility (in discussion with the primary supervisor) to ensure that the confidentiality constraints are met in the processes of submission, marking and thesis document management.

Late submission of the report

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 (weekends count as days). The late penalty is applied per calendar day (including weekends and public holidays) that the assessment is sponsior9 (o)10..6 (on)6.6 (o)10.5 (f)-6luding a 0β(her)2S 88 0at O (t)-6.6 (y)-6 (du) (endar)4.9 (da48 0 T

1. The request for extension must come from the supervisor. That is, it is written by, and justified, by the supervisor.
2. Request must be lodged by week 7 of term.

Please note that UNSW now 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 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.

Feedback and Template use

The supervisor (or a delegated marker in case of supervisor unavailability) will assess the assignments and grade the work. The supervisor will provide feedback on the student's progress and may ask for additional material. It is up to you to discuss with your supervisor the exact layout of the report, but it should be based on the template that will be made available on Moodle.

7. u c f uf fh r ca

If you Fail in MMAN9451 Research Project A, you must enrol in MMAN9001 Master of Engineering Science Project A (Practice thesis) in a future term (unless you are required to take Research Thesis in your program, i.e. 8621 postgraduate students).

If you believe your case has extenuating circumstances and you would like to re-enrol in MMAN9451, you will need to schedule an appointment to discuss your case with the course convenor(s) and your supervisor.

8. cO r uf fr Ou O

UNSW Library website: https://www.library.unsw.edu.au/
Moodle: https://moodle.telt.unsw.edu.au/login/index.php

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

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

- Attendance
- UNSW Email Address
- Computing Facilities
- Special Consideration
- Exams
- Approved Calculators
- Academic Honesty and Plagiarism

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Stage 1 Competencies for Professional Engineers

	Program Intended Learning Outcomes
PE1: Knowledge and Skill Base	PE1.1 Comprehensive, theory-based understanding of underpinning fundamentals
	PE1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing
	PE1.3 In-depth understanding of specialist bodies of knowledge