



Mahadmafa Or E r

C r O t
S or 2018

MMAN4020

THESIS B

1. Staff

All academic staff, together with some senior engineers from industry, act as supervisors to students undertaking BE thesis work. Support is also provided by the workshop and laboratory staff.

Contact details and consultation times for course convenor

Mr. David Lyons CEng FRINA MIEAust GCULT

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Moodle:

3. Credit

Credit Points

This is a 6 unit-of-credit (UoC) course and involves an unprescribed number of contact hours per week (h/w) with your supervisor. This varies on a case-by-case basis, as agreed with your supervisor.

The UNSW website states “The normal workload expectations of a student are approximately 25 hours per semester for each UoC, including class contact hours, other learning activities, preparation and time spent on all assessable work. Thus, for a full-time enrolled student, the normal workload, averaged across the 16 weeks of teaching, study and examination periods, is about 37.5 hours per week.”

Thesis differs. 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.

It is essential that you consult the Moodle site *throughout the semester* for the most up-to-date and detailed information relating to Thesis B. All announcements relating to Thesis B will be made via Moodle. Numerous announcements will be made, including in relation to:

- **Submission: your Thesis report submission via Moodle; changes to thesis report format or size etc.**
- **Your registration for the Thesis Conference. You must upload your presentation to Moodle. Attendance at the Conference is compulsory.**
- **The end-of-semester Thesis Conference timetable.**

Contact hours

There are no set contact hours for thesis. You must make your own arrangements for consultations with your supervisor, lab and workshop times etc.

Summary and Aims of the course

BE Thesis is usually completed in two weeks.

Thesis B is to be taken in the last semester required for the completion of all requirements for the award of the degree. This course—together with MMAN4010 Thesis A, which is to be taken in the previous semester—requires each student to demonstrate managerial, technical and professional skills in planning and executing an approved engineering project within a stipulated time limit. Each student is guided by their supervisor, but successfully planning, executing and reporting on the project are the sole responsibility of each student.

Laboratory Staff

The laboratories are the responsibility of the staff-in-charge and you must operate within the acc

Student learning outcomes

This course is designed to address the below learning outcomes 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. Develop a design or a process or investigate a hypothesis following industry and professional engineering standards.	PE2.1, PE2.2, PE2.3, PE2.4
2. Critically reflect on a specialist body of knowledge related to their thesis topic.	PE1.3
3. Apply scientific and engineering methods to solve an engineering problem.	PE2.1
4. Analyse data objectively using quantitative and mathematical methods.	PE1.2, PE2.1, P2.2

It is your responsibility to keep your project details (supervisor, title, working abstract) up to date in the *Your Project Details* section of Moodle. This is CRITICAL. Please enter your family name first, followed by your first (given) name(s) as shown in your official UNSW student record and zID e.g. SMITH, John Reginald. If you do not have information in there or the supervisor name is incorrect, your final thesis report will not get assigned for marking.

You are required to provide the final details (title, supervisor, abstract) of your project on Moodle before **Friday 5pm, Week 12. Failure to do so will incur late penalties, as your report will not be allocated for marking.**

Thesis Report Submission

Electronic copies (pdf format, no hardcopy!) due by Moodle submission in Week 13 at 5pm.

The quality of the presented work is very important and great care must be taken with the typing and presentation of graphs and diagrams; drawings should be to standard engineering practice. Drawings submitted to the Workshop must be approved by the Officer-in-Charge of the relevant laboratory. The English should be clear and grammatically correct with a high standard of spelling and punctuation.

There is no strict minimum length for a thesis. Your thesis report shall comprise a **maximum of 50 pages** excluding “front and end matter”, meaning pages before *Introduction* and after *Conclusion*. An originality statement must be included in the “front matter” (see Moodle for a template). Appendices must be brief and should contain only material which is indispensable but at the same time cannot be included in the text.

Confidential Theses

If your thesis contains confidential information: in order to restrict it from viewing for two years, you must complete a Confidentiality Form—available from the MMAN4010, MMAN4020 and School’s BE Thesis Moodle sites—and submit this statement with your thesis. Confidential theses should not be uploaded to the database but should be submitted in all other required formats. Discuss submission with the Thesis coordinator.

Production and Submission Specifications

All BE thesis students are required to submit copies of their thesis in the formats shown below. Students who do not submit as required will be denied graduation until the requirements have been met.

Your submission on Moodle indicates that the thesis is entirely your own original work, which is a binding statement.

One PDF copy through Moodle

**You MUST submit a PDF copy through the Thesis B Moodle page. Name this file
'Family name_First (given) name_'**

Graphs, diagrams and photographs should be inserted as close as possible to their first reference in the text. Graphs and tables which are printed in landscape format should be readable from the right-hand side.

Supplementary data (e.g. CFD animations) can also be uploaded within the size limit and can be referenced within the text. These are considered as extra material. The thesis must stand alone without them.

All quoted sources must be clearly referenced at the end of the thesan1.7(FD)1.7(ani)-1(m)3.4(ati)-1.3 en4D

Grade	Mark	Brief description	Explanation/Examples
Pass	25 – 30	"Thin" results, lacking intellectual engagement	The student has completed a body of work and presented some results but not succeeded in interpreting meaning from them (=intellectual input is largely absent from the discussion, which is essentially equivalent to observation of the results). Performance at this level may also indicate a lack of engagement with the project, sometimes evidenced as a "thin" or "one-dimensional" investigation characterised by attempted padding.
Credit	31 – 37	Several components to the research work, not coherently linked.	The student probably has a number of components to their research, such as literature, experiments, designs, simulations etc. They have interpreted meaning from the results but have overall not succeeded in linking the components of their research together as a coherent scientific story. There's no clear "big picture".
Distinction	38 – 44	Solid, coherent work, linking all the research components together into a consistent story.	At this level the student has assembled the pieces of their research project (which could include literature, different sets of experiments or measurements, simulations or analyses) into a coherent scientific story. Overall, you are left with a clear and convincing picture of what the research question was and what the answer is (along with its caveats). A student is generally not going to be able to achieve this if there are conceptual or methodological problems with their work, or if their review of literature is inadequate.
High Distinction	45 – 50	Solid, coherent and consistent story PLUS something unexpected.	Student would have to have achieved as at the previous level but additionally has achieved something unexpected, thoughtful and original, such as a novel perspective or theory. This requires deep thinking of the student.

Criteria 3: Conclusion, and value added (20%)

Grade	Mark	Brief description	Explanation/Examples
Fail	0 – 9	No value	There are obvious and substantial problems with what was presented [(pr)-3.4(es)DC -0.003 Tas Therpresith

Grade	Mark	Brief description	Explanation/Examples
High Distinction	19 – 20	Will have wider impact now.	This is valuable work. This work can easily form the basis of a peer-reviewed journal publication, or other form of professional dissemination/presentation appropriate to the field (i.e. patent application, best practice document at a company, trade publication, workshop, etc.).

Criteria 4: Document presentation (10%)

Grade	Mark	Brief description	Explanation/Examples
Fail	0 – 4	Impedes document reading	Presentation is poor to the extent that it impedes reading of the document. Examples include multiple inconsistent citation styles or incomplete citations, unintelligible grammar, figures or tables not labelled or badly inconsistent document formatting.
Pass	5	Poor formatting / document structure	Document is not at a professional level. Although figures and diagrams are labelled and references in text match reference list (and vice versa), formatting is unclear and inconsistent to the extent that the reader can lose track of the context when reading. The structure of the document is poor or illogical, with little discernible flow.
Credit	6 – 7	Poor judgement with respect to layout, possible padding	Document is not at a professional level. Figures and diagrams are labelled, formatting is consistent, references in text match reference list (and vice versa), pictures are clear and attributed, sections clearly labelled. Poor judgement has been exercised in placing data, tables or figures in the body of the work, and/or excessive figures/tables – some of which would have been better placed in an appendix or discarded. An attempt might have been made to "pad" the work or increase the page count using unnecessary, repetitive, or large figures, unnecessarily lengthy text, wide margins, etc. The language is not sophisticated or sufficient for describing the technical aspects clearly and rigorously, and there are disjointed aspects to the structure.
Distinction	8 – 9	Professional, may have issues with data presentation	Document is at a professional level. Figures and diagrams are correctly and clearly labelled, text spacing aids readability, consistent formatting, references in text match reference list (and vice versa), pictures are clear and attributed, sections clearly labelled, and good use made of appendices. Some of the graphical presentation of data is inappropriate - poor choice of axes, overcrowding, poor use of chart space etc. Padding is not a feature of work at this level. The structure is well thought out and logical, and there is a good command of descriptive and technical language – descriptions and explanations have depth but clarity, and are concisely worded.
High Distinction	10	Professional, concise and readable	Document is at a professional level. Figures and diagrams are correctly and clearly labelled, text spacing aids readability, consistent formatting, references in text match reference list (and vice versa), pictures are clear and attributed, sections clearly

Thesis Conference

Your thesis will also be assessed by a presentation that you will give during the School Thesis Conference. This will be held (subject to confirmation) between Monday to Wednesday in Week 14. See Moodle for announcements.

Thesis presentation marking rubrics

Aspect 1: Presentation skills (25%)

Criteria	Grade
Did the presenter speak with clarity (volume, speed, enunciation)?	/5
Did the presenter speak in an engaging way (tone, passion)?	/5
Did the presenter engage the audience (eye contact, body language)?	/5
Did the presenter deliver in a relaxed, confident manner?	/5
Did the speaker make good use of well-designed visual aids?	/5

Aspect 2: Knowledge base (25%)

Criteria	Grade
Was proper background information on the topic given?	/5
Was the material selected for presentation appropriate to the topic?	/5
Was enough essential information given to allow the audience to effectively evaluate the work done in context?	/5
Was the talk free of irrelevant or filler information?	/5
Did the presenter demonstrate a clear understanding of the material presented?	/5

Aspect 3: Critical thinking & planning (30%)

Criteria	Grade
Did the approach to the work demonstrate thought and planning?	/5
Were the strengths and weaknesses of the work, and the methods used to gather evidence/data, clearly explained?	/5
Did the presenter demonstrate they had completed progress on their topic?	/15
Did answers to questions show an understanding of the project and background?	/5

Aspect 4: Overall impression (20%)

Criteria	Grade
Overall impression of the presentation	/20

Consequences if you fail in Thesis A and B

If you Fail in Thesis B, you have two options:

- re-enrol for Thesis A & B again with a new project and supervisor, or;
- re-enrol for Thesis B again with the same project (needs the consent of an appropriate supervisor & student).

Late Procedure

In all cases, applications for late submission must be applied for through myUNSW for Special Consideration in advance of the due date. This is at the discretion of the thesis coordinator but will only be granted in exceptional circumstances.

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

- Any thesis not turned in within 6 weeks after the initial deadline (exclusive of any extension granted) will be finalised at zero (0) marks.

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.

Special consideration and supplementary assessment

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

7. E

Of course, there is no prescribed textbook.

Content on the Moodle page will be updated often with tips, discussions and resources, so you are strongly advised to make sure you are able to receive updates.

Students may find other resources on their particular project at the UNSW library:
<https://www.library.unsw.edu.au/>

8. C

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 in this course include the omission of the Poster student peer review.

9. A

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: 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

Further information on School policy and procedures in the event of plagiarism is available on the [intranet](#).

10. Ad a d a d a d

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

- [Attendance, Participation and Class Etiquette](#)
- [UNSW Email Address](#)
- [Computing Facilities](#)
- [Assessment Matters](#) (including guidelines for assignments, exams and special consideration)
- [Exams](#)
- [Approved Calculators](#)

