



Mechanical and Manufacturing Engineering

# Course Outline

Semester 2 2017

MMAN4020

THESIS B



# 1. Staff contact details

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 of the Course Coordinator

Name: A/Prof Tracie Barber

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If your project involves laboratory work, contact the officer-in-charge (OIC) of the laboratory in which you will be working as soon as possible to discuss your requirements. They will issue you with a Laboratory Access Approval (LAA) form, which you must complete and return to the OIC.

Before you start work in a laboratory or undertake any activity which might be considered hazardous in any way, you must read and understand the practices and procedures described in the OHS section of the School's intranet:

<https://eng-intranet.unsw.edu.au/mech-engineering/whs/SitePages/Home.aspx>

5.	Demonstrate oral and written communication in professional and lay domains.	PE3.2
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## 4. Teaching strategies

There is no formal teaching, but students learn from both internal and external sources. The supervisor, other academics and laboratory/workshop staff are the internal sources, whereas the Library, internet and industry mentors are the external sources.

## 5. Course schedule

There are no set lectures for this course, but a number of optional lectures will be provided to assist students to complete their thesis to a high standard. The date and time of the workshops will be announced on Moodle. All workshops will be recorded and made available to students on Moodle.

## 6. Assessment

The Thesis B grade will be made up from:

Thesis extended abstract / poster	5%
Thesis Conference	10%
Thesis Report	85%

For calculation of Honours, Thesis A is worth 25% and Thesis B is worth 75% of the total 12 unit course credit.

It is your responsibility to keep your project details (supervision, title, working abstract) up to date in the “your project details” section of Moodle.

### THESIS EXTENDED ABSTRACT / POSTER

PLEASE NOTE: This is a student-peer assessment task; supervisors are not required to take action here.

There are three tasks involved:

1. Mark the examples set for you, so that your overall marking accuracy can be calibrated. This works in your favour too! More accurate markers mean more marks for you, if your work is good.
2. Upload a “poster” to Moodle in whatever form you like. This could be a few PowerPoint slides, a plain document, a YouTube video ...etc. Be imaginative. You need to describe to your fellow students what your thesis is, what you have found,

what you still need to do, and it should take the viewer three minutes or less to get all this info.

3. Mark all of the submissions that are allocated to you. It is critical that your marking is fair, accurate, and provides feedback to the author. After all, both of you are getting marked when you mark a submission.

Your Submission Deadline : Wednesday, Week 5: August 23rd, 5pm.

Peer Assessment Deadline (for you to complete marking submissions assigned to you) : Friday, Week 6: September 1st, 5pm.

Poster

## THESIS SUBMISSION

Electronic copies (no hardcopy!) due Monday week 13, 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. 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, nor is there a maximum length. We impose a 'soft limit' of 50 pages and strongly recommend you aim for this. 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 School's BE Thesis Moodle Site—and submit this statement with your thesis. Discuss submission with the Thesis coordinator.

### Production and Submission Specifications

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

You MUST submit a PDF copy through the Thesis B Moodle page. Name this file 'z1234567\_LASTNAME\_Thesis', with '1234567' being your student ID number, and LASTNAME being your last name (as recorded in Moodle).

The submitted file should be less than 20MB – if you feel that your work would benefit from a larger, higher-res version, please submit this directly to your supervisor. The electronic version must have the copyright declaration included in it, as a scanned version of the signed original, though by your submission you will also agree that the work is all your own.

### Data

Your thesis mark will not be released until you have organised to pass on your thesis data to your supervisor. This can be Dropbox, USB stick, hard drive, etc. – discuss with your supervisor. However, it is now a legal requirement of research conducted at UNSW that the original data be archived, and so you must collate all the work that went into your thesis (drawings, excel files, CAD files, CFD/FEA result files, etc. – everything that went into creating your thesis, but not early work or dead-ends that did not make the cut). Your supervisor will mark this task complete on Moodle.

### Specifications for Thesis

Paper must be ISO size A4 (210 x 297mm). All text should be size 11 or 12 font Times New







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 – the work as it stands has no value because it doesn't "hold water".
Pass	10 – 12	No interesting results	The presented work is not at all challenging and yields entirely expected results – the student does not appear to appreciate this. The work doesn't really add any significant value.

Criteria 4:



Consequences if you fail in Thesis A and B

If you

## 8. Expected resources for students

There is no prescribed textbook for this course.

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:

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

Moodle: <https://moodle.telt.unsw.edu.au/login/index.php>

## 9. Course evaluation and development





# Appendix A: Engineers Australia (EA) Competencies

## 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
	PE1.4 Discernment of knowledge development and research directions
	PE1.5 Knowledge of engineering design practice
	PE1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice
PE2	PE2.1 Application of established engineering methods to complex problem solving
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