Course Outline

Semester 2 2015

Never Stand Still

Engineering | Mechanical and Manufacturing Engineering

MMAN4020

THESIS B

For a standard 24 UoC in the semester, this means 600 hours, spread over an effective 15 weeks of the semester (thirteen weeks plus stuvac plus one effective exam week), or 40 hours per week, for an average student aiming for a credit grade. Various factors, such as your own ability, your target grade, etc., will influence the time needed in your case.

Some students spend much more than 40 h/w, but you should aim for not less than 40 h/w on coursework for 24 UoC.

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 this course.

Summary of the course

BE Thesis is usually completed in two consecutive semesters during the last academic year. This is the only course where the students have complete freedom to work on his/her chosen thesis projects from the initiation to the end – the project contains a large amount of original research and/or novel design work or analysis. 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 take responsibility for your thesis or carry out work for you. The laboratory staff are highly skilled and helpful; take full advantage of their experience.

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 website.

Workshop

All student activities requiring manufacture in the Workshop should be discussed with the Workshop personnel at the inception of the work. The Workshop personnel must have the opportunity to advise and influence the design to help minimise assembl0.5(r)4.9(k9.5(w)1.5(f)-6.ce.6(s)8.9(

Specifications for Thesis

Paper must be ISO size A4 (210 x 297mm).

Typing must be 1.5 to double-spaced and may be double sided only if the paper is of sufficient quality that the other side is not showing through and interfering with the readability of the text. All text should be size 11 or 12 font Times New Roman or close equivalent serif font, apart from titles and figures.

Margins must be not less than 30 mm at the left and right edge (before binding), 30 mm at the upper edge, and 20 mm at the lower edge.

The thesis must include a title sheet headed:

UNSW AUSTRALIA
SCHOOL OF MECHANICAL AND MANUFACTURING ENGINEERING
(The above are not to be abbreviated. Do not insert the UNSW crest — this is not an official UNSW publication, and so is not entitled to use the crest.)
Title of Thesis
Name of Author
Student ID
Bachelor of Engineering (or other degree for which the thesis is submitted)
Date of submission (Month and Year)
Supervisor's name

All sheets must be numbered. The main body of the thesis must be numbered consecutively from beginning to end in Arabic numerals. The preliminary pages (Abstract, List of Contents, List of Figures, List of Symbols) should be numbered using lower-case Roman numerals, commencing with the title page (but not shown on the title page). Pages in appendices may be numbered consecutively from the main text, or may have their own numbering system.

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

Computer programs and prints of engineering drawings may be bound into the thesis in such a way that they unfold easily for reference, or they may be enclosed in a pocket at the rear of the thesis, in which case an itemised list of the contents of the pocket should also be bound into the thesis. Each loose item must be identified by

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.	You will be able to plan a major engineering project and see it to completion.	PE1.5, PE2.1, PE2.3, PE2.4
2.	You will learn how to collect and synthesise relevant information for the project.	PE1.4, 2.1, 2.2, 2.4,
3.	You will learn to communicate with others involved in the project, including professional-level discussions with your supervisor, workshop staff, and others helping you.	PE3.6
4.	You'll be able to produce a detailed, professional-standard technical document describing your work and outcomes and the "why" as much as the "what".	PE3.2, PE3.3, PE3.4, PE3.5

3. Teaching strategies

There is no formal teaching but the 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.

7. Course schedule

There are no set lectures for this course.

5. Assessment

The Thesis B grade will be made up from

Thesis Conference	15%
Thesis Conference extended abstract / poster	5%
Thesis Report	80%

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. If you do not have information in here or the supervisor name is incorrect, your progress report will not get assigned for marking.

Thesis hard copies and electronic copies due Monday week 13, 5pm.

Please submit your 2 hard copies in person to the General Office, and your PDF copy through the Moodle Thesis B submission portal.

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

- re-enrol for Thesis A & B again with a new project and supervisor
- re-enrol for Thesis B again with the same project (needs consent of an appropriate supervisor & student)
- the student does further work and re-submits the thesis after a maximum of 6 weeks. The course mark is capped at 50%. If still not satisfactory, then the student needs to re-HQURO >7KLV RSWLRQ LV RQO\ DYDLODEOH LI isWKH RULJ in their last semester before graduation regardless of the original mark].

Late Procedure

In all cases, applications for late submission can be applied for before the due date. This is at the discretion of the thesis coordinator, but should only be granted in exceptional

Special Consideration and Supplementary Assessment

For details of applying for special consideration and conditions for the award of supplementary assessment, see Administrative Matters, available on the School website and on Moodle, and the information on UNSW's Special Consideration page.

6.

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:
http://www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf

Further information on School policy and procedures in the event of plagiarism is presented in a School handout, Administrative Matters, available on the School website.

9. Administrative Matters

You are expected to have read and be familiar with Administrative Matters, available on the School website: www.engineering.unsw.edu.au/mechanical-engineering/sites/mech/files/u41/S2-2015-Administrative-Matters_20150721.pdf

This document contains important information on student responsibilities and support, including special consideration, assessment, health and safety, and student equity and diversity.

A/Prof. Tracie Barber
July 2015

Appendix A