



Mechanical and Manufacturing Engineering

Course Outline

Semester 2 2017

Contents



5. Course schedule

Week	Topic	Major Assessment Due Dates
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6. Assessment

Assessment overview

Tasks	Assessment	Length	Weight	Learning outcomes assessed	Assessment criteria	Due date and submission requirements	Marks returned	Deadline for absolute fail
T1	Design Report 1	5-10 pages	25%	1, 2 and 3	As per rubric provided on Moodle	Thursday Week 5	2 weeks after submission	1 week after submission
	Final Design Report	Max. 50 pages	50%	All	As per rubric provided on Moodle	Thursday Week 14	Released with final marks	2 days after submission
T2	Final Design Group Presentation	45mins	15%	2 and 3	As per rubric provided on Moodle	Week 13 Day TBA	Released with final marks	Has to be done on the day.
T3	Logbooks	N/A	5%	All	TBA	Sprung on you without warning	Released with final marks	Has to be handed in on the spot. No extension at all.
T4	Peer Assessment	N/A	5%	All	TBA	Thursday Week 14	Released with final marks	2 days after submission

Assignments

Presentation

All submissions should have a standard School cover sheet which is available from this course's Moodle page.

All submissions are expected to be neat and clearly set out. Your results are the pinnacle of all your hard work. Presenting them clearly gives the marker the best chance of understanding your method; even if the numerical results are incorrect.

Submission

Late submissions will be penalised 5 marks per calendar day (including weekends). An extension may only be granted in exceptional circumstances. Where an assessment task is worth less than 20% of the total course mark and you have a compelling reason for being

the required attendance. Please see the [School intranet](#) and the [UNSW attendance page](#) for more information.

8. Expected resources for students

Recommended reading:

E. Torenbeek, *Advanced Aircraft Design, Conceptual design, analysis and optimisation of subsonic civil airplanes*, Aerospace Series, Wiley, 2013.

Suggestions:

E. Torenbeek & H. Wittenberg, *Flight Physics, Essentials of aeronautical disciplines and technology, with historical notes*, Springer, 2002.

J. Roskam, *Airplane Design*, Roskam Aviation and Engineering Corporation, Kansas, 1989.

A. Filippone, *Advanced Aircraft Flight Performance*, Cambridge University Press, 2012.

D.P. Raymer, *Aircraft Design: a conceptual approach*, 4th edition, AIAA Education Series, 2006.

N. Cumpsty & A. Hayes, *Jet Propulsion, a simple guide to the aerodynamics and thermodynamic design and performance of jet engines*, 3rd edition, Cambridge University Press, 2015.

J.G. Leishman, *Principles of Helicopter Aerodynamics*, 2nd edition, Cambridge Aerospace Series, Cambridge University Press, 2006.

10. 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: 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](#).

11 Administrative matters and links

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:

- x [Attendance, Participation and Class Etiquette](#)
- x [UNSW Email Address](#)
- x [Computing Facilities](#)

- x [Assessment Matters](#) (including guidelines for assignments, exams and special consideration)
- x [Academic Honesty and Plagiarism](#)
- x [Student Equity and Disabilities Unit](#)
- x [Health and Safety](#)
- x [Student Support Services](#)

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: Engineering Application Ability	PE2.1 Application of established engineering methods to complex 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
PE3: Professional and Personal Attributes	PE3.1 Ethical conduct and professional accountability
	PE3.2 Effective oral and written communication (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