



Mechanical and Manufacturing Engineering

Course Outline

Semester 2 2017

AERO3630

AERODYNAMICS

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1. Staff contact details



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

5. Course schedule

WK	Topics	Assessment/Experiment	Chapters
1	Introduction to course; Fundamentals, governing equations, fluid motion	-	1,2
2	Potential Flow	Assignment 1 Due	3
3	Incompressible flow over airfoils	-	4
4	Incompressible flow over wings	Assignment 2 Due	5,6
5	Compressible flow, Shock and Expansion Waves, Experimental/Wind Tunnel Testing	-	7,8,9
6	Nozzle Flows, Linearised compressible flow	Assignment 3 Due	10, 11,12,13

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6. Assessment

Assessment overview

Assignments

Presentation

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

On-

student.unsw.edu.au/exam-approved-calculators-and-computers

It is your responsibility to ensure that your calculator is of an approved make and model, and to obtain an “Approved” sticker for it from the School Office or the Engineering Student Centre prior to the examination. Calculators not bearing an “Approved” sticker will not be allowed into the examination room.

Special consideration and

10.

- [Academic Honesty and Plagiarism](#)
- [Student Equity and Disabilities Unit](#)
- [Health and Safety](#)
- [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 (-5.9(unt)4.3(o)11.3(t)-6.6(h)10.s96 44n ((stri