

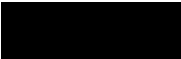


Mechanical and Manufacturing Engineering

Course Outline

ENGG3002

Automotive Engineering



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1. Staff contact

Contact details and consultation times for course convenor

Name: Daniel Egger
Office location: 402H
Email: d.egger@unsw.edu.au
Consultation time: Thursday 2-3pm

Generally, problem-solving session time should be used for direct consultation. If you require further consultation beyond problem-solving sessions, then you may contact me via email to set up a consultation appointment.

Contact details and consultation times for additional lecturers/demonstrators/lab staff

Please see the course [Moodle](#).

2. Important links

[Moodle](#)

[Lab Access](#)

[Computing Facilities](#)

[Student Resources](#)

[Course Outlines](#)

[Engineering Student Support Services Centre](#)

[Makerspace](#)

[UNSW Timetable](#)

[UNSW Handbook](#)

[UNSW Mechanical and Manufacturing Engineering](#)

3. Course details

Credit points

This is a 6 unit-of-credit (UoC) course and involves 12 hours per week of lecture and practical work.

Contact hours

	Day	Time	Location
Lectures	Monday	10am – 12noon	Ainsworth G01
	Tuesday	10am – 12noon	Ainsworth G01
	Wednesday	10am – 12noon	Ainsworth G01
	Thursday	10am – 12noon	Ainsworth 201

Monday

Problem-Solving Class

Learning Outcome	EA Stage 1 Competencies
3. Define the key components used in vehicle design and how these affect automotive performance outcomes.	1.1,

A case study will be used to help students enhance their understanding of the fundamental course concepts. A field trip will be organised to provide a hands-on experience to enrich the learning experience. Upon completion of the field trip, students will complete a technical report. The students will be provided with guided questions and feedback to support their technical writing.

5. ~~Course schedule~~

Week	Topic	Location	Day and Time
1a	Introduction to automotive engineering	AW G01	Mon 10am-12noon
1b	Engine Technology	AW G01	Tue 10am-12noon
1c	Transmissions and Drivelines	AW G01	Wed 10am-12noon
1d	Transmissions and Drivelines	AW 201	Thur 10am-12noon
2a	Vehicle handling	AW G01	Mon 10am-12noon
2b	Industry Guest Speaker	AW G01	Tue 10am-12noon
2c	Tyres	AW G01	Wed 10am-12noon
2d	Brakes	AW 201	Thur 10am-12noon
3a	Ride and Vibration	AW G01	Mon 10am-12noon
3b	Suspension	AW G01	Tue 10am-12noon
3c	Vehicle Aerodynamics	AW G01	Wed 10am-12noon
3d	Revision	AW 201	Thur 10am-12noon



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