Mechanical and Manufacturing Engineering

Course Outline

Term 1 2019

MECH9420

COMPOSITE MATERIALS AND MECHANICS

Contact hours

	Day	Time	Location
Lectures (Weeks 1 ï 10)	Wednesday (PG +UG)	12pm ï 2pm	Colombo Theatre A
Problem Solving Sessions (Weeks 3 ï 8)	Tuesday (PG)	10am ï 12pm	Electrical ENG G03 (G17)
	Tuesday (UG)	4pm ï 6pm	Red Centre Central Wing 1040 (H13)
	Wednesday (UG)	2pm ï 4pm	Ainsworth 201 (J17)
	Wednesday (PG)	2pm ï 4pm	OMB G32 (K15)
	Wednesday (PG)	4pm ï 6pm	Ainsworth 201 (J17)
Laboratory	**(See Below)**		
Weeks 4 ï 8, 10	Friday	9am ï 11am	Willis Annexe J18 / Automated Composite Lab
	Friday	11am ï 1pm	Willis Annexe J18 / Automated Composite Lab
	Friday	1pm ï 3pm	Willis Annexe J18 / Automated Composite Lab
Weeks 4 ï 9	Thursday	3pm ï 5pm	Willis Annexe J18 / Automated Composite Lab

Lectures commence in week 1 and run until week 10. Problem Solving Sessions / Laboratory commence in week 2 and run until week 10. Please refer to your class timeta[/)]TJl

4. Teaching strategies

Component	Activities
Lectures	Find out what you must learn. See methods that are not in the textbook. Follow worked examples. Hear announcements on course changes.

PSS and Laboratory Schedule

	PSS			Automated Composites Lab (ACL)			
Week	Day	Time	Location	Day	Time	Location	Task
2				Wed	12-1 pm 1-	L102 & 103, Willis Annexe	Composites lab tour and demonstration will happen during 12-2 p.m. (Lecture time of this week only)

Assignments

Purpose

We need to find out how well you have:

grasped the fundamentals of micro-mechanics of composites
become proficient in developing your understanding for engineering applications
become proficient in calculation layout and development
developed correct, professional technique
become proficient in using composite materials fundamentals to solve practical problems and apply
come to see the world through ñengineersôeyesò
prepared yourself for your future career

Scheme

The final grade in MECH9420 will be based on the sum of the scores from each of the assessment components.

Final grades may be adjusted by scaling with the approval of the appropriate departmental meeting.

Submission

Work submitted late without an approved extension by the course coordinator or delegated authority is subject to a late penalty of 20 percent (20%) of the maximum mark possible for that assessment item, per calendar day.

The late penalty is applied per calendar day (including weekends and public holidays) that

Please visit myUNSW for Provisional Examination timetable publish dates.

For further information on exams, please see the Exams webpage.

Calculators

You will need to provide your own calculator, of a make and model approved by UNSW, for the examinations. The list of approved calculators is shown at student.unsw.edu.au/exam-approved-calculators-

Health and Safety
Lab Access
Makerspace
UNSW Timetable
UNSW Handbook
UNSW Mechanical and Manufacturing Engineering

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,