



Mechanical and Manufacturing Engineering

Course Outline
Term 1 2019

MMAN3400

MECHANICS OF SOLIDS 2



1. Staff contact details	2
Contact details and consultation times for course convenor	2
Contact details and consultation times for additional lecturers/demonstrators/lab staff	2
2. Important links	2
3. Course details	2
Credit points	2
Contact hours	3
Summary and Aims of the course	3
Student learning outcomes	3
4. Teaching strategies	4
5. Course schedule	5
6. Assessment	7
Assessment overview	7
Assignments	8
Presentation	8
Submission	8
Marking	8
Examinations	8
Calculators	9
Special consideration and supplementary assessment	9
7. Expected resources for students	9
Recommended Textbook and Notes	9
Suggested Readings	9
8. Course evaluation and development	10
9. Academic honesty and plagiarism	10
10. Administrative matters and links	11
Appendix A: Engineers Australia (EA) Competencies	12

Contact hours

	Day	Time	Location
Lectures	Monday	1pm - 3pm	Ritchie Theatre
EMC questions	Thursday	1pm - 2pm	Law Theatre G04
Problem Solving Sessions	Wednesday (Session 1)	2pm – 3pm/3pm - 4pm/5pm - 6pm	Quad G44/45/Mat 103
	Friday (Session 2)	9am – 10am/10am – 11am/11am – 12pm	Webster 256/Elec Eng G03

5. ~~Course schedule~~

Block 1

Week

Block 2				
7	Torsion of thin-walled tubes having closed cross-sections	Hibbeler: Ch 5.7	Hibbeler: 5-103, 5-109 to 5-119	Block 1 Test Problem Solving Class
7	Principle of virtual work	Hibbeler: Ch 14.1 to 14.3	Hibbeler: 14-25 to 14-30	Problem Solving Class
8	Principle of virtual work			

6. Assessment

Assessment overview

Assignments

You must be available for all tests and examinations. Final examinations for each course are held during the University examination periods: February for Summer Term, May for T1, August for T2, and November/December for T3.

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 available at 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 [Engineering Student Support Services Centre](#) prior to the examination. Calculators not bearing an “Approved” sticker will not be allowed into the examination room.

Special consideration and supplementary assessment

If you have experienced an illness or misadventure beyond your control that has interfered with your assessment performance, you are eligible to apply for Special Consideration. For details of applying for Special Consideration and conditions for the award of supplementary assessment, please see the information on UNSW’s [Special Consideration page](#).

7. Expected resources for students

Recommended Textbook and Notes

- (1) R. C. Hibbeler, “Mechanics of Materials”, 9th Ed. In SI Units, 2013, Pearson/Prentice Hall (Book Store).
- (2) Notes on the Membrane Stresses in Thin Axisymmetric Shells – see Moodle.
- (3) Notes on the Mechanics of Fracture and Fatigue – see Moodle.
- (4) Supplementary in-class problems some of which are based on past exam questions – see Moodle.

Suggested Readings

There are numerous valuable resources available on the web, and additional sources will be provided in lectures and problem-solving sessions.

UNSW Library website: <https://www.library.unsw.edu.au/>

8. Course evaluation and development

Feedback on the course is gathered periodically using various means, including the UNSW myExperience process, informal discussion in the final class for the course, and the School's Student/Staff meetings. Your feedback is taken seriously, and continual improvements are made to the course based, in part, on such feedback.

In this course, recent improvements resulting from student feedback include more emphasis in highlighting the relevance of the theory to mechanical engineering practice.

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, visit: student.unsw.edu.au/plagiarism. The Learning Centre assists students with

10. ~~Administrative~~ matters

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:

[Attendance](#)

[UNSW Email Address](#)

[Computing Facilities](#)

[Special Consideration](#)

[Exams](#)

[Approved Calculators](#)

[Academic Honesty and Plagiarism](#)

[Student Equity and Disabilities Unit](#)

[Health and Safety](#)

[Lab Access](#)

[Makerspace](#)

[UNSW Timetable](#)

[UNSW Handbook](#)

[UNSW Mechanical and Manufacturing Engineering](#)

Appendix A: Engineers Australia (EA) Competencies