



give you opportunities to develop high-level analysis skills

This course will also provide you with opportunities to develop the following graduate attributes:

high level knowledge of structural engineering mechanics

skills in advanced computational modelling, linear, non-linear and fracture

application of fundamental knowledge to design with structural materials

development of core capabilities for undertaking of higher degree research in Structural Engineering

TEACHING STRATEGIES

This course is designed for student-centred learning. Students are encouraged to think critically to solve engineering problems and to ask questions in order to best achieve the learning outcomes

| | |
|----------------------|---|
| Private Study | Review lecture material and textbook Do set problems and assignments Join online discussions of problems Reflect on class problems and assignments Download materials from Moodle |
| Lectures | Find out what you must learn See methods that are not in the textbook Follow worked examples Hear announcements on course changes |
| Workshops | Be guided by Lectures Practice solving set problems Ask questions |
| Assessments | Demonstrate your knowledge and skills Demonstrate higher understanding and problem solving |

EXPECTED LEARNING OUTCOMES

This course is designed to address the learning outcomes below and the corresponding Engineers Australia Stage 1 Competency Standards for Professional Engineers as shown. The full list of Stage 1 Competency Standards may be found in Appendix A.

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

| Learning Outcome | | EA Stage 1 Competencies |
|------------------|---|-------------------------|
| 1. | Interpret and understand the application of advanced structural mechanics in engineering problems | PE1.1, PE2.1, PE2.3 |

| |
|-----------------------|
| COURSE PROGRAM |
|-----------------------|

Term 2 2020

| Date | Topic | Lecture and Demonstration Content |
|-------------|--------------|--|
| 02/06/2020 | | |

PENALTIES

Late work will be penalised at the rate of 15% per day after the o

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 |

