

and welfare of individuals and communities in disadvantaged circumstances. At the end of the course, students will have developed:

- An understanding of humanitarian engineering, development and humanitarian action
- Skills for collaborative and multidisciplinary work
- A respect for ethical practice and social responsibility
- Skills for effective communication
- Capacity for analytical and critical thinking and for creative problem solving
- Ability to engage independent and reflective learning.

These objectives link to the following program outcomes:

- An in-depth engagement with the relevant disciplinary knowledge in its disciplinary context
- Capacity for analytical and critical thinking and for creative problem solving
- Ability to engage independent and reflective learning
- Information literacy
- Skills for effective communication
- Ethical conduct and professional accountability
- Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice
- Effective team membership and team leadership

TEACHING STRATEGIES

The course is based around a series of lectures highlighting a range of different fields of engineering where humanitarian engineering projects have been undertaken, including challenges and problems that need to be addressed, successful approaches and community engagement. Guest lecturers with recent experience of humanitarian engineering projects will be invited to provide lectures and case study. Workshops will promote group work as well as a cross cultural role play and group presentations. The following teaching strategies will be used in the course:

Private Study / Group Work	<ul style="list-style-type: none"> • Review lecture material and textbook • Do set problems and assignments • Join Moodle discussions of problems • Reflect on class problems and assignments • Download materials from Moodle • Keep up with notices and find out marks via Moodle
Lectures	<ul style="list-style-type: none"> • Actively participate in lecture discussions • Find out what you should learn • Cover content not provided in readings or notes
Workshops	<ul style="list-style-type: none"> • Be active in workshops and group activities • Participate in guest lecture / workshop activities • Ask questions on assessment tasks
Assessments	<ul style="list-style-type: none"> • 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. Demonstrate understanding of the principles of Humanitarian Engineering	PE1.3, PE1.6
2. Demonstrate understanding of the important design considerations in Humanitarian Engineering projects.	PE1.5
3. Evaluate the success of humanitarian engineering projects	PE2.4
4. Analyse the skills and attributes required to work in humanitarian engineering contexts	PE3.5, PE3.6
5. Demonstrate high level communication skills through effective oral presentation	PE3.2

6. Demonstrate cultural awareness and communication skills through effective oral presentation

PENALTIES

Late work will be penalised at the rate of 10% per day after the due time and date have expired. Penalisation will be calculated as 10% from the graded mark of the submitted work.

RELEVANT RESOURCES

There is no textbook for this course and required and recommended reading will be provided on Moodle.

DATES TO NOTE

Refer to MyUNSW for Important Dates available at:

<https://student.unsw.edu.au/dates>

PLAGIARISM

Beware! An assignment that includes plagiarised material will receive a 0% Fail, and students who plagiarise may fail the course. Students who plagiarise are also liable to disciplinary action, including exclusion from enrolment.

Plagiarism is the use of another person's work or ideas as if they were your own. When it is necessary or desirable to use other people's material you must acknowledge the source. This includes:

ASSESSMENT OVERVIEW

Item

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 (professional and lay domains)
	PE3.3 Creative, innovative and proactive demeanour
	PE3.4 Professional use and management of information
	PE3.5 Orderly management of self, and professional conduct
	PE3.6 Effective team membership and team leadership