Term 2 2019

MECH4100

MECHANICAL DESIGN 2

courses/degree to a real, commercial design problem. To facilitate this, you will be working on a team p ***Industry Partners***.

The course requires the assembly of large amounts of high-level documentation and two instances of formal public presentation. The demonstration of team work and collaborative skills as well as meeting specified deliverables is essential for satisfactory completion. Interaction with the clients both in formal meetings and in your regular liaison throughout the term as well as the quality of your reporting of these events will be evaluated to the standards expected of professional consulting engineers.

You will nominate a preference for your project (and hence Industry Partner) during Week 0 (27-31 May 2019) on Moodle. Upon allocation to a Project (by the head demonstrator by Week 1), your Group of 10 members will engage in activities and negotiated learning with experts from both within and outside the university. Essentially, by the end of term your team must have:

Formulated the technical specifications for your design through a process of negotiation with your Industry Partner, Group Mentor/tutor and academic staff. The design must be completed with a high level of engineering rigour.
Understood and **demonstrated that you were responsible for defining and describing the organisational structure of your Group**, managing the project and coordinating the workload within your Group.

Student 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.	Implement the basic elements of managing a design project and be able to plan and schedule work activities in accordance with standard practice in a Group environment.	PE1.6, 2.1, 2.3, 2.4, 3.1, 3.4, 3.5, 3.6
2.	Apply an effective problem-solving approach that is deliverable in practice and justify and defend the selection.	PE1.1, 1.4, 1.6, 2.1, 2.2, 2.3, 3.3

3.

4. Teaching strategies

5. Course schedule

	Week
Lectures/disciplinary information seminars	Week 1 plus weeks 2,3,4 ***to be confirmed*** (see Moodle)
Group meetings	Weeks 1 to 10 Booking of space reserved for 1hr/Group (see Moodle and p3 Contact Hours)
CAD lab booking for MECH4100	Weeks 1 to 10: Booking of space reserved for 1hr/Group to use when needed (see Moodle and p3 Contact Hours)
Group progress review/ presentation	Week 5, 6 or 7 depending on your Group. Check Moodle.
Group final presentation /poster/report	Week 10 (rooms also reserved for MECH4100 in weeks 8 & 9; use as needed for practice)

6. Assessment

Assessment overview

Task	Length	Group/ Individual	Weight	Learning outcomes assessed	Assessment criteria	Due date and submission requirements	Deadline for absolute fail	Marks returned
T1: Industry Partner preference (not guaranteed)	N/A	Individual	N/A	N/A	N/A	Week 0 (27-31 May) via Moodle Poll	N/A	N/A
T2: Group meetings	N/A	Group	N/A	1 and 4	N/A	N/A	N/A	N/A

T3: ProgreW*n557

Assignments

Marking

Marking guidelines for assignment submissions may be provided on Moodle at the same time as assignment details to assist with meeting assessable requirements. Submissions will be marked according to marking guidelines provided.

Examinations

There is no examination for this course.

Special consideration and supplementary assessment

If you have experienced an illness or misadventure beyond your control that will interfere with your assessment performance, you are eligible to apply for Special Consideration prior to submitting an assessment or sitting an exam.

Please note that UNSW now has a Fit to Sit / Submit rule, which means that if you sit an exam or submit a piece of assessment, you are declaring yourself fit enough to do so and cannot later apply for Special Consideration.

For details of applying for Special Consideration and conditions for the award of supplementary assessment, please see the Special Consideration page.

7. Expected r[illegible]

Learning Management System

Moodle, the electronic Learning Management System (LMS) will be your main source of day-to-day information regarding administration of this course: https://moodle.telt.unsw.edu.au. *Moodle* will be used to distribute information relevant to the course and will also be used as a portal for online discussions both within your Group. *Moodle* should be checked at least weekly (preferably daily) throughout the duration of this course.

Client Meetings

Wisdom is gained most effectively by attempting to avoid the (often painful) mistakes of those who have come before you. Your client will be able to assist you within reason by

Suggested Reading

Whilst there is not a prescribed textbook for this course, you may find the following materials instructive:

Dym, C.L and Little, P. (2009). Engineering Design: A Project-Based Introduction.
Robert B. Cialdini (1993). Influence: The Psychology of Persuasion.
Carmen Simon (2016). Impossible to Ignore: Creating Memorable Content to Influence Decisions: Creating Memorable Content to Influence Decisions.
Robert B. Cialdini (2017). Pre-Suasion : A Revolutionary Way to Influence and Persuade.

There are numerous valuable resources available on the web and additional sources will be provided in lectures and group sessions.

UNSW Library website: https://www.library.unsw.edu.au/
Moodle: https://moodle.telt.unsw.edu.au/login/index.php

8. [illegible]

Feedback on the course is gathered periodically using various means, including the UNSW myExperience
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 the broadening of the range of Industry Partners and projects available. Reflective writing assignments have been removed. The group size (number of students per group) has been increased to reduce individual student workload.

9. [illegible]

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