Course Outline

GSOE9820

Engineering Project Management

Contents

Contact hours

	Day	Time	Location
Lectures	Monday (Commence in week 1)	6-9pm	Rex Vowels Theatre (K-F17-LG3)
Demonstrations	Are provided in the form of Web-based activities and require you to work in project teams over the duration of the semester. (Commence in week 2 of semester).		

Please refer to your class timetable for the learning activities you are enrolled in and attend only those classes.

Summary and Aims of the course

This course will introduce to you the fundamental principles of project management in an engineering context, enabling you to become a successful project manager.

This course takes an integrated approach to managing projects, exploring both technical and managerial challenges. It emphasises not only individual project implementation, but also provides a strategic perspective of how to manage projects at the program and portfolio levels.

The course will provide you with a powerful set of tools to improve your ability to plan, implement and manage activities to accomplish specific organisational objectives in often complex and challenging work environments.

The Project Management Standards (e.g. PMBOK) are also included in the course in order to comprehensively identify the critical knowledge areas that project managers must understand if they are to become successful managers. The course is also a pathway for Project Management Institute (PMI) certification since both the contents of the course, terminologies used and exposure to several real world cases will support your preparations.

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.	Know what a project is as well as understand the role and responsibilities of a project manager	PE1.1, 1.3, 1.6 PE2.4 PE3.1
2.	Be able to create project plans, schedules and budgets	PE1.1, 1.2, 1.3, 1.5

3.	Be able to select and use the appropriate tools to aid in managing a project	PE2.1, 2.2, 2.3, 2.4
4.	Be able to select and develop appropriate management styles to successfully complete a project.	PE3.1, 3.2, 3.3, 3.4, 3.5, 3.6

4. Teaching strategies

Lectures in the course are designed to cover the terminology and core concepts and theories in Project Management to help you develop a range of skills, such as managing project teams, project schedules, budgets as well as being aware of strategic topics, different environments, cultures and ethics of projects and community issues. They do not simply reiterate the texts, but build on the lecture topics using examples taken directly from industry to show how the theory is applied in practice and the details of when, where and how it should be applied.

Web-based activities are designed to provide you with the opportunity to put your learning into practice and allow you to strengthen your understanding of key concepts.

5. Course schedule

Date	Topics	Suggested Readings
24-Jul-17	Introduction to modern project management	Ch. 1
31-Jul-17	Organisational strategy and project selection	Ch. 2
07-Aug-17	Defining the project	Ch. 4
14-Aug-17	Dynamic Teams, Organisational structure and culture	Ch. 3, 11
21-Aug-17	Estimating project times and costs	Ch. 5
28-Aug-17	Developing a project plan	Ch. 6
04-Sep-17	Scheduling resources and costs	Ch. 8
11-Sep-17	Reducing project duration & Progress and Performance Measurement and Evaluation	Ch. 9, 13
18-Sep-17	Managing risk	Ch. 7
25-Sep-17	MID-SEMESTER BREAK (No Class)	
02-Oct-17	Public Holiday (No Class)	

6. Assessment

Assessment overview

Task	Assessment	Length	Weight	Learning outcomes assessed	Assessment criteria	Due date and submission requirements	Deadline for absolute fail	Marks returned
T1	Web-based activities - Project 1	2 weeks	10%	1, 2, 3 and 4	Refer to Web-based activities marking criteria	Refer to schedule for web-based activities	Refer to schedule for web-based activities	Two weeks after submission

Assignments

Presentation

All submissions are expected to be neat and clearly set out. Your results are the pinnacle of all your hard work and should be treated with due respect. Presenting results

3. Final Report
   a. Correct answers
   b. Presentation
   c. On time

4. Project Management Skills
   a. Early start
   b. Provide structured plan
   c. Follow up on deadlines
   d. Responses to posts
   e. Leadership

5. Team member skills
   a. Respond to PM's plan and requests
   b. Provide answers and discussion
   c. Interaction. Give feedback on posts
   d. Provide quality work, not quantity

There will be several web-based groups. Each of you will be randomly assigned to one of these web-based groups by the end of Week 2. You will be notified of your web-based facilitator name and contact details through UNSW Moodle.

Submission of web-based activities

Web-based projects commence in week 2 and are made available on Moodle during the semester.

Each project is due 1 hour before class (i.e. 5pm) on the date specified in Table 1.

ACTIVITIES	**Release Date (@ 9pm)**	**Due Date (@ 5pm)**

You must be available for all tests and examinations. Final examinations for each course are

Business Review case study for Project 3. Details of the actual case study will be provided on Moodle.

Additional materials provided in UNSW Moodle

This course uses UNSW Moodle (http://moodle.telt.unsw.edu.au).

Items found on UNSW Moodle include:

- Web-based activities;
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student.unsw.edu.au/plagiarism The Learning Centre assists students with understanding academic integrity and how not to plagiarise. They also hold workshops and can help students one-on-one.

You are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and the proper referencing of sources in preparing all assessment tasks.

If plagiarism is found in your work when you are in first year, your lecturer will offer you assistance to improve your academic skills. They may ask you to look at some online resources, attend the Learning Centre, or sometimes resubmit your work with the problem fixed. However more serious instances in first year, such as stealing another studentkreng r_0.60-6.6(kr)-6

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