School of Civil and Environmental Engineering

Term 3, 2020

CVEN9731 PROJECT MANAGEMENT FRAMEWORK

COURSE DETAILS

Units of Credit	6
Contact hours	4 hours per week
Lecture	Wednesday, 13:00 – 15:00
Workshop	Thursday, 15:00 – 17:00 or Friday, 12:00 – 14:00 or Friday, 15:00 – 17:00 or
Course Coordinator and Lecturer	Dr Ali Kashani email: ali.kashani@unsw.edu.au

INFORMATION ABOUT THE COURSE

This course provides an overview and introduction to project management and project selection. The role of a project manager in different phases of a project life cycle is discussed. Practical skills and tools for hands-on project management and project selection are provided.

HANDBOOK DESCRIPTION

See link to virtual handbook:

https://www.handbook.unsw.edu.au/postgraduate/courses/2020/CVEN9731

OBJECTIVES

List of programme attributes:

- Understand project management and life cycle of a project
- Understand the decision-making methodology for project selection
- Gain insight into practical project management skills
- An in-depth engagement with the relevant disciplinary knowledge in its interdisciplinary context
- Capacity for analytical and critical thinking and for creative problem solving
- Ability to engage independent and reflective learning
- Skills for collaborative, multi-disciplinary work, and effective communication
- Respect for ethical practice and social responsibility

TEACHING STRATEGIES

Private Study	• 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	• 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 Demonstrators • 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.	Be familiar with the scope of project management, project characteristics, project life cycle and different types of project	PE1.1, PE1.3, PE1.4, PE1.5, PE1.6
2.	Be familiar with the project selection process and able to apply project selection methods	PE1.3, PE1.5, PE1.6, P.E2.1, PE2.2, PE2.3, PE2.4, PE3.2, PE3.4, PE3.6
3.	Be familiar with factors affecting project success and failure as well as strategies to maximise the likelihood of project success	PE1.1, PE2.2, PE3.6
4.	Be familiar with activities performed by a project manager in project planning, project execution and project termination phases	PE1.3, PE1.5, PE1.6, P.E2.1, PE2.2, PE2.3, PE2.4, PE3.2, PE3.4, PE3.6

For each hour of contact, it is expected that you will put in at least 1.5 hours of private study.

COURSE PROGRAM

Term 3 2020

Date	Topic	Lecture Content	Demonstration Content
16/09/2020 (Week 1)	Project Management Introduction	- Definition and features of 'project' and 'project management' - Stages of 'project management lifecycle' - Factors affecting the success of a project	***No Workshop***
23/09/2020 (Week 2)	Project Planning – Part 2	- Project Charter - Project Stakeholders - Project goal, scope strategy, and SMART objective - Project requirement, risks, and assumptions - Analyse and manage the risks - Work Breakdown Structure (WBS) - Resource Management Plan	- Project stakeholders, - Assessment of Scope, - Indicators of project success, - Assessing project feasibility factors, - Assessing constraints and risks
30/09/2020 (Week 3)	Project Planning – Part 3	- Project Budget and Procurement Plan - Project Schedule - Quality Management and Resource Management Plan	- Stakeholder analysis and how to manage expectations from stakeholders - Assessing and mitigating risks - Requirement gathering and preparing WBS - Estimation of resources and staffing plan
08/10/2020 (Week 4)	Project Execution	- Effective communication and meetings - Team dynamics control - Agile Project Management	- Vendor selection criteria and cost estimation - Quality assurance and risk control measures - Communication and change management plan - Preparing staffing plan - Simple activity network diagram

14/10/2020 (Week 5)	Project Monitoring and Close	- Project monitoring - Project control - Lesson learnt	- Means to control and change project schedule - Scenario based problems related to selection of different project methodologies (agile or waterfall) - Preparing meeting and discussion agenda under agile planning - Idenitifying suitable project management methods for different cases.
Week 6	***Non-teaching week***		
28/10/2020 (Week 7)	Project Selection – Part 1	Project identification	Project identification
04/11/2020 (Week 8)	Project Selection – Part 2	Project appraisal	Project appraisal
11/11/2020 (Week 9)	Project Selection – Part 3	Decision making	Decision making
18/11/2020 (Week 10)	Project Selection – Part 4	Decision making	Decision making

ASSESSMENT

The final grade for this course will normally be based on the sum of the scores from each of the assessment tasks. The Final Examination is worth 60% of the Final Mark. Quiz 1 and Quiz 2 each is worth 20% of the Final Mark. A mark of at least 40% in the final examination is required before the class work (hand-in quizzes and online tasks) is included in the final mark. The formal exam scripts will not be returned but you are permitted to view the marked script.

Students who perform poorly in the quizzes and workshops are recommended to discuss progress with the lecturer during the term. There will be hand-in problems and quick quizzes in the workshops.

Note: The lecturer reserves the right to adjust the final scores by scaling if agreed by the Head of School.

Details of each assessment component, the marks assigned to it, the criteria by which marks will be assigned, and the dates of submission are set out below.

Supplementary Examinations for Term 3 2020 will be held on Monday 11th January – Friday 15th January 2021 (inclusive) should you be required to sit one. You are required to be available during these dates. Please do not to make any personal or travel arrangements during this period.

PENALTIES

Late work will be penalised with zero marks after the due time and date have expired.

ASSESSMENT OVERVIEW

Item	Length	Weighting	Learning outcomes assessed	Assessment Criteria	Due date and submission requirements	Deadline for absolute fail	Marks returned
1. Quiz 1	10-20 questions	15%	LO1, LO4	The quiz covers the lecture contents of Week 1, 2 and 3.	Week 4 (Moodle submission)	NA	Week 4
2. Quiz 2	10-20 questions	25%	LO1,LO2, LO3, LO4	The quiz covers the lecture contents of Week 4 to 8.	Week 9 (Moodle submission)	NA	Week 9
3.Final Exam	10-20 questions	60%	LO1,LO2, LO3, LO4	The exam covers the entire contents of the course.	TBA	TBA	TBA

RELEVANT RESOURCES

There is no prescribed textbook for this course. Recommended textbook:

J. R. Meredith and S. J. Mantel, "Project Management", Wiley (eight edition). Other references:

H. Kerzner, "Project Management", Van Nostrand Reinhold, any edition.

D. Lock, "Project Management", Gower, any edition.

Suggested collateral reading might include the journals:

Journal of Project and Construction Management

Engineering Management Journal

Journal of Construction Engineering and Management

Journal of Engineering, Construction and Architectural Management

Project Management Journal

Journal of Management in Engineering

PM Network

Also:

The Project Management Institute (PMI) Project Management Body of Knowledge (PMBOK) is available on the internet: http://www.pmi.org

ISO10006, Quality Management - Guidelines to Quality in Project Management, which is based on PMBOK.

CCTA, PRINCE2, Project Management for Business, The Stationery Office, 1996.

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 should adequately acknowledge whose words or ideas they are and where you found them (giving the complete reference details, including page number(s)). The Learning Centre provides further information on what constitutes Plagiarism at:

https://student.unsw.edu.au/plagiarism

ACADEMIC ADVICE

For information about:

- Notes on assessments and plagiarism;
- Special Considerations: student.unsw.edu.au/special-consideration;
- General and Program-specific questions: The Nucleus: Student Hub
- Year Managers and Grievance Officer of Teaching and Learning Committee, and
- CEVSOC/SURVSOC/CEPCA

Refer to Academic Advice on the School website available at:

https://www.engineering.unsw.edu.au/civil-engineering/student-resources/policies-procedures-and-forms/academic-advice

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 pro-active 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