GSOE9820

Engineering Project Management

Term One // 2021

Course Overview

Staff Contact Details

Convenors

Name	Email	Availability	Location	Phone
Edward Obbard	e.obbard@unsw.edu.au	Mondays 13:00 -15:00. Please schedule an appointment during this time at least 24 hrs in advance.	Ainsworth Bld. J17	(02) 9385 7625

Lecturers

Name	Email	Availability	Location	Phone
Shiva Abdoli	s.abdoli@unsw.edu.au	Tuesdays 13:00 -15:00. Please schedule an appointment during this time at least 24 hrs in advance.	Ainsworth Bld. J17	

School Contact Information

Location

UNSW Mechanical and Manufacturing Engineering

Ainsworth building J17, Level 1

Above Coffee on Campus

Hours

9:00–5:00pm, Monday–Friday*

*Closed on public holidays, School scheduled events and University Shutdown

Web

[School of Mechanical and Manufacturing Engineering](#)

[Engineering Student Support Services](#)

[Engineering Industrial Training](#)

[UNSW Study Abroad and Exchange](#) (for inbound students)

[UNSW Future Students](#)

Phone

(+61 2) 9385 8500 – Nucleus Student Hub

(+61 2) 9385 7661 – Engineering Industrial Training

(+61 2) 9385 3179 – UNSW Study Abroad and UNSW Exchange (for inbound students)

(+61 2) 9385 4097 – School Office**

**Please note that the School Office will not know when/if your course convenor is on campus or available

Email

[Engineering Student Support Services](#) – current student enquiries

- e.g. enrolment, progression, clash requests, course issues or program-related queries

[Engineering Industrial Training](#) – Industrial training questions

[UNSW Study Abroad](#) – study abroad student enquiries (for inbound students)

[UNSW Exchange](#) – student exchange enquiries (for inbound students)

[UNSW Future Students](#) – potential student enquiries

- e.g. admissions, fees, programs, credit transfer

[School Office](#) – School general office administration enquiries

- NB: the relevant teams listed above must be contacted for all student enquiries

Course Details

Credit Points 6

Summary of the Course

The course will show you how to plan, execute and monitor project based activities in a professional way.

The Project Management discipline grew out of the field of systems engineering for managing large and complex procurement and engineering programs. However nowadays almost any unique, temporary and coordinated team-based activity can be called a Project, and project management has become ubiquitous in construction, innovation, research, information technology, change management and business processes, to name just a few areas of application.

Course Aims

The aims of the course are to help students achieve and embody the Course Learning Outcomes, listed below. Students can understand the learning outcomes by prefixing each learning outcome with, "After I take this course, I will be able to..."

Course Learning Outcomes

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

Learning Outcome	EA Stage 1 Competencies
1. Translate from organisational strategy into project deliverables	PE1.5, PE2.4
2. Formulate project scope	PE1.5, PE2.4
3. Select project management methods	PE1.3, PE2.1, PE2.2
4. Integrate and justify project plans	PE3.6, PE2.3
5. Evaluate progress and interpret success in projects	PE3.4, PE3.2

Teaching Strategies

The course is taught by full-time UNSW lecturers with assistance from a large team of demonstrators to ensure everyone receives the individual help they need to succeed on the course. Industry guest lecturers contribute their experienced perspectives for certain topics.

For delivery, the course uses live, online lectures. All the lectures are recorded so students can watch them later if they wish.

There is a significant amount of group work, reflecting the reality that in a professional context project work is always group work. The course facilitates group work by (a) scheduling group tutorials in class time, when everyone can attend, (b) by providing a choice of assignment project so that students are

likely to be grouped with others of similar discipline, (c) wherever possible, by keeping group membership constant through the course and (d) assigning a single demonstrator to each group to help the team build a working relationship.

The tutorials are provided to help students complete the assignments. Each hand-in of a significant assignment is preceded by an associated tutorial opportunity to help groups check they are on the right track. Moreover, the main assignment is structured sequentially, so that feedback from part one will help the group to complete part two, and so on.

Additional Course Information

The course, and the Course Learning Outcomes (CLO) listed above, are structured according to Bloom's Taxonomy of Educational Objectives, from the most basic to instill Knowledge, moving on to Understanding it, then Applying it and Analysing results, and finally the most challenging which are to Synthesise new knowledge and learn to Evaluate information for ourselves. Thus CLO 1-3 are more basic, while CLO 4 and 5 are the most challenging.

The course aims to always provide students with Knowledge and Understanding, before asking students to carry out something more complex like Analysis or Evaluation. Different assignments deal with different kinds of Educational Objectives, such that for example individual quizzes are used to assess Knowledge, while a team assignment assess the integration of a project plan (which is a kind of Synthesis).

To achieve high marks in the course students must succeed at all the different kinds of these educational objectives, from the basic ones to the most challenging.

Assessment

Assessment Tasks

Assessment task	Weight	Due Date	Student Learning Outcomes Assessed
Assignment Parts 1-3	50%	13/04/2021 11:59 PM	1, 2, 3, 4
Team Based Learning Activites	10%	In class, weeks 8 & 10	1, 2, 3, 5
Individual Knowledge Quiz (Exam)	20%	Scheduled in exam time	1, 2, 3
Interview	20%	Weeks 9-10, outside class time	4, 5

Assessment Details

Assessment 1: Assignment Parts 1-3

Start date: 17/02/2021 06:00 PM

Length: 10-15 pages

Details:

In the project assignment student teams work together to complete a three-part Engineering Project Management Plan (EPMP). Feedback is given at each stage to help teams work on the next step. Assessment is by a grading rubric which reflects the course learning outcomes. Late submissions will attract a penalty of 20% absolute reduction in marks per calendar day. Marks and feedback are returned within one week of the submission deadline (or hand-in date, for late submission).

Turnitin setting: This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

Assessment 2: Team Based Learning Activites

Start date: First team quiz released wk 2

Details:

Team Based Learning (TBL) activities are graded, timed group assessments that take place during scheduled class time in weeks 8 and 10. All team members must be present online at the scheduled time and communicate with each other to take part in these activities with their group. The quizzes are assessed by right/wrong answers. Marks are returned immediately and late submissions are not possible. Further, ungraded quizzes are spaced throughout the course, and can be completed at any time.

Turnitin setting: This is not a Turnitin assignment

Assessment 3: Individual Knowledge Quiz (Exam)

Start date: Scheduled in exam time

Details:

The Knowledge Quiz is scheduled during exam time. 50 multiple choice questions must be completed in 60 minutes. The quiz is similar in structure and timing to the well-known Project Management Professional (PMP) exam. The quiz is assessed by right/wrong answers and late completion is not possible. Feedback on the quiz is not returned.

Turnitin setting: This is not a Turnitin assignment

Assessment 4: Interview

Start date: Weeks 9-10, outside class time

Length: 6 minutes

Details:

Each student will be interviewed by an academic staff member or demonstrator and asked to discuss their group assignment in terms of achieving integration in their project planning and the definition of project success. Grading is by a rubric that reflects the learning outcomes. Rescheduling the interview time after its initial selection is not possible except in exceptional circumstances and by approval of the course convener. No-shows in the interview will receive zero marks for the interview.

Turnitin setting: This is not a Turnitin assignment

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

In addition, Team Based Learning (TBL) activities are graded, timed group assessments that take place during scheduled class time in weeks 8 and 10. Students who do not appear (or do not take part at all) will not receive marks for the TBL activities, unless their absence has been agreed in advance with their group and the course authority.

Course Schedule

[View class timetable](#)

Timetable

Date	Type	Content
O Week: 8 February - 12 February		
Week 1: 15 February - 19 February	Lecture	1.A Introduction to Projects
	Online Activity	1.B Choose your Project
	Lecture	1.C The Project Charter
Week 2: 22 February - 26 February	Lecture	2.A Projects in Organisations
	Lecture	2.B Project Scope
	Tutorial	2.C Preparing your Charter Presentation
Week 3: 1 March - 5 March	Topic	3. Design Thinking
Week 4: 8 March - 12 March	Lecture	4.A Estimating
	Lecture	4.B Scheduling
	Lecture	4.C Risk
Week 5: 15 March - 19 March	Topic	Agile
Week 6: 22 March - 26 March	Tutorial	Assignment tutorials
Week 7: 29 March - 2 April	Topic	Project Controls
Week 8: 5 April - 9 April	Assessment	Project Controls Application Exercise
Week 9: 12 April - 16 April	Topic	Project Success Panel Discussion
Week 10: 19 April - 23 April	Assessment	Practice Quiz and Team Quiz

Resources

Prescribed Resources

Textbook

Project Management Institute, issuing body. A Guide to the Project Management Body of Knowledge (PMBOK Guide) : and, Agile Practice Guide. Sixth edition. Newtown Square, Pennsylvania: Project Management Institute, 2017.

Recommended Resources

Additional instructional videos

Linked-in Learning accessed through
UNSW: https://www.myit.unsw.edu.au/services/staff/educational-technology/linkedin-learning

Course Evaluation and Development

Feedback on the course is gathered periodically using various means, including the UNSW myExperience process, feedback surveys used through the course, and the School's Student/Staff meetings. Your feedback is taken seriously, and continual improvements are made to the course taking into account such feedback.

Changes made this term in response to feedback from 2020:

- Removed weekly graded quizzes (replaced by practice quizzes)
- Less TBL - now concentrated in one main session, allowing more time and less pressure to complete.
- More opportunities to learn from lecturers' professional PM experiences (Panel discussion wk 9)
- More content relating to information technology industry (Agile workshop wk 5)
- Choice of project topic

Changes made this term to improve online education and assessments

- Final interview assessment
- Simpler marking structure
- More opportunities for feedback during preparation of the assignment

Successful aspects of the course that have been kept:

- Maximum flexibility around attendance where possible
- Practical assignment planning a realistic project
- TBL workshop
- Large demonstrator support team and scheduled tutorial opportunities.

Submission of Assessment Tasks

Assessment submission and marking criteria

Should the course have any non-electronic assessment submission, these should have a standard School cover sheet.

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 clearly gives the marker the best chance of understanding your method; even if the numerical results are incorrect.

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

Late policy

Work submitted late without an approved extension by the course coordinator or delegated authority is subject to a late penalty of 20 percent (20%) of the maximum mark possible for that assessment item, per calendar day.

The late penalty is applied per calendar day (including weekends and public holidays) that the assessment is overdue. There is no pro-rata of the late penalty for submissions made part way through a day.

Work submitted after the 'deadline for absolute fail' is not accepted and a mark of zero will be awarded for that assessment item.

For some assessment items, a late penalty may not be appropriate. These are clearly indicated in the course outline, and such assessments receive a mark of zero if not completed by the specified date. Examples include:

1. Weekly online tests or laboratory work worth a small proportion of the subject mark, or
2. Online quizzes where answers are released to students on completion, or
3. Professional assessment tasks, where the intention is to create an authentic assessment that has an absolute submission date, or
4. Pass/Fail assessment tasks.

Examinations

You must be available for all quizzes, tests and examinations. For courses that have final examinations, these are held during the University examination periods: February for Summer Term, May for T1, August for T2, and November/December for T3.

Please visit myUNSW for Provisional Examination timetable publish dates. For further information on exams, please see the [Exams](#) webpage.

Special Consideration

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.

UNSW now has a [Fit to Sit / Submit rule](), which means that if you attempt 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 information on UNSW's [Special Consideration page]().

Please note that students will **not** be required to provide **any** documentary evidence to support absences from any classes missed **because of COVID-19 public health measures such as isolation**. UNSW will **not** be insisting on medical certificates from anyone deemed to be a positive case, or when they have recovered. Such certificates are difficult to obtain and put an unnecessary strain on students and medical staff.

Applications for special consideration **will** be required for assessment and participation absences – but no documentary evidence **for COVID 19 illness or isolation** will be required.

Academic Honesty and Plagiarism

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, visit: 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 student's work or paying someone to do your work, may be investigated under the Student Misconduct Procedures.

Repeated plagiarism (even in first year), plagiarism after first year, or serious instances, may also be investigated under the Student Misconduct Procedures. The penalties under the procedures can include a reduction in marks, failing a course or for the most serious matters (like plagiarism in an honours thesis) even suspension from the university. The Student Misconduct Procedures are available here:

www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf

Academic Information

Credit points

Course credit is calculated in Units-Of-Credit (UOC). The normal workload expectation for one UOC is approximately 25 hours per term. This includes class contact hours, private study, other learning activities, preparation and time spent on all assessable work.

Most coursework courses at UNSW are 6 UOC and involve an estimated 150 hours to complete, for both regular and intensive terms. Each course includes a prescribed number of hours per week (h/w) of scheduled face-to-face and/or online contact. Any additional time beyond the prescribed contact hours should be spent in making sure that you understand the lecture material, completing the set assignments, further reading, and revising for any examinations.

On-campus class attendance

Public distancing conditions must be followed for all face-to-face classes. To ensure this, only students enrolled in those classes will be allowed in the room. Class rosters will be attached to corresponding rooms and circulated among lab demonstrators. No over-enrolment is allowed in face-to-face class. Students enrolled in online classes can swap their enrolment from online to a **limited** number of on-campus classes by Sunday, Week 1. Please refer to your course's Microsoft Teams and Moodle sites for more information about class attendance for in-person and online class sections/activities.

Your health and the health of those in your class is critically important. You must stay at home if you are sick or have been advised to self-isolate by [NSW health](#) or government authorities. Current alerts and a list of hotspots can be found [here](#). **You will not be penalised for missing a face-to-face activity due to illness or a requirement to self-isolate.** We will work with you to ensure continuity of learning during your isolation and have plans in place for you to catch up on any content or learning activities you may miss. Where this might not be possible, an application for fee remission may be discussed. Further information is available on any course Moodle or Teams site.

In certain classroom and laboratory situations where physical distancing cannot be maintained or there is a high risk that it cannot be maintained, face masks will be considered **mandatory PPE** for students and staff.

For more information, please refer to the FAQs: https://www.covid-19.unsw.edu.au/safe-return-campus-faqs

Guidelines

All students are expected to read and be familiar with UNSW guidelines and polices. In particular, students should be familiar with the following:

- [Attendance](#)
- [UNSW Email Address](#)
- [Special Consideration](#)
- [Exams](#)
- [Approved Calculators](#)
- [Academic Honesty and Plagiarism](#)

Important Links

- [Moodle](#)
- [Lab Access](#)
- [Health and Safety](#)
- [Computing Facilities](#)
- [Student Resources](#)
- [Course Outlines](#)
- [Engineering Student Support Services Centre](#)
- [Makerspace](#)
- [UNSW Timetable](#)
- [UNSW Handbook](#)
- [UNSW Mechanical and Manufacturing Engineering](#)
- [Equitable Learning Services](#)

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CRICOS

CRICOS Provider Code: 00098G

Acknowledgement of Country

We acknowledge the Bedegal people who are the traditional custodians of the lands on which UNSW Kensington campus is located.

Appendix: Engineers Australia (EA) Professional Engineer Competency Standard

Program Intended Learning Outcomes	
Knowledge and skill base	
PE1.1 Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline	
PE1.2 Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline	
PE1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline	✓
PE1.4 Discernment of knowledge development and research directions within the engineering discipline	
PE1.5 Knowledge of engineering design practice and contextual factors impacting the engineering discipline	✓
PE1.6 Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline	
Engineering application ability	
PE2.1 Application of established engineering methods to complex engineering 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	✓
Professional and personal attributes	
PE3.1 Ethical conduct and professional accountability	
PE3.2 Effective oral and written communication in 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	✓