COURSE OUTLINE

ENG602 Engineering Project Execution

School: School of Science, Technology and Engineering

2026 | Trimester 1

UniSC Moreton Bay	BLENDED LEARNING	Most of your course is on campus but you may be able to do some components of this course online.
Online	ONLINE	You can do this course without coming onto campus, unless your program has specified a mandatory onsite requirement.

Please go to unisc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1. Description

In this course, students will explore the principles and develop the distinct technical skills of engineering project management that are needed to undertake and successfully implement a project.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Asynchronous weekly learning material	1hr	Week 1	12 times
Seminar – On campus	1hr	Week 1	3 times
Tutorial/Workshop 1 – On campus	2hrs	Week 1	10 times
ONLINE			
Learning materials – Asynchronous weekly learning material	1hr	Week 1	12 times
Seminar – Online	1hr	Week 1	3 times
Tutorial/Workshop 1 – Online	2hrs	Week 1	10 times

1.3. Course Topics

Topics may include:

- Project execution strategies
- Risk management
- Engineering ethics
- Engineering and enterprise
- Positive relationships
- Project leadership
- Monitoring and evaluation of project

2. What level is this course?

600 Level (Specialised)

Demonstrating a specialised body of knowledge and set of skills for professional practice or further learning. Advanced application of knowledge and skills in unfamiliar contexts.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES On successful completion of this course, you should be able to...	GRADUATE QUALITIES MAPPING Completing these tasks successfully will contribute to you becoming...	PROFESSIONAL STANDARD MAPPING * Engineers Australia Stage 1 Professional Engineer Competency Standards
1 Interpret modern project management theory and demonstrate relevant practice techniques.	Knowledgeable	1, 1.1.a, 1.1
2 Discuss issues in project management practices with regard to building clients and stakeholders' requirements.	Knowledgeable	1, 1.1.a, 1.1
3 Analyse the application of project management tools and techniques to meet complex contextual demands in different sectors.	Creative and critical thinker	1, 1.6.d, 1.6
4 Evaluate, analyse, and integrate professional approaches to managing projects within sector specialisations	Creative and critical thinker	1, 1.6.e, 1.6
5 Apply the latest management tools and techniques for effective and efficient implementation and completion of projects.	Empowered	2, 2.4.d, 2.4
6 Formulate the scope for a project that would be suitable to satisfy stakeholder needs.	Empowered	2, 2.4.b, 2.4

* Competencies by Professional Body

CODE	COMPETENCY
ENGINEERS AUSTRALIA STAGE 1 PROFESSIONAL ENGINEER COMPETENCY STANDARDS	
1	Elements of competency: Knowledge and Skill Base
1.1.a	Knowledge and Skill Base - Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline: Engages with the engineering discipline at a phenomenological level, applying sciences and engineering fundamentals to systematic investigation, interpretation, analysis and innovative solution of complex problems and broader aspects of engineering practice.
1.6.d	Knowledge and Skill Base - Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline: Understands the fundamental principles of engineering project management as a basis for planning, organising and managing resources.
1.6.e	Knowledge and Skill Base - Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline: Appreciates the formal structures and methodologies of systems engineering as a holistic basis for managing complexity and sustainability in engineering practice.
1.1	Knowledge and Skill Base: Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline.

CODE	COMPETENCY
1.6	Knowledge and Skill Base: Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline.
2	Elements of competency: Engineering Application Ability
2.4.d	Engineering Application Ability - Application of systematic approaches to the conduct and management of engineering projects: Proficiently applies basic systems engineering and/or project management tools and processes to the planning and execution of project work, targeting the delivery of a significant outcome to a professional standard.
2.4.b	Engineering Application Ability - Application of systematic approaches to the conduct and management of engineering projects: Seeks out the requirements and associated resources and realistically assesses the scope, dimensions, scale of effort and indicative costs of a complex engineering project.
2.4	Engineering Application Ability: Application of systematic approaches to the conduct and management of engineering projects.

5. Am I eligible to enrol in this course?

Refer to the UniSC Glossary of terms for definitions of "pre-requisites, co-requisites and anti-requisites".

5.1. Pre-requisites

Enrolled in GC006, GD006 or MC006.

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

5.4. Specific assumed prior knowledge and skills (where applicable)

Not applicable

5.5. Microcredential Information

Not applicable

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

Early feedback will be provided through completion of weekly activities in workshops. Furthermore, feedback on each assessment will be provided which will be used to help with the following assessment.

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Written Piece	Individual	30%	2000 words	Week 3	Online Assignment Submission with plagiarism check
All	2	Oral	Individual	30%	1500 words	Week 7	Online Assignment Submission with plagiarism check
All	3	Report	Individual	40%	3500 words	Week 12	Online Assignment Submission with plagiarism check and in class

All - Assessment Task 1: Written Piece

GOAL:	In the context of a local recent engineering contract examine and explain key project initiation steps/procedures and why they are essential.
PRODUCT:	Written Piece
AUTHORSHIP STATEMENT:	
FORMAT:	The written piece should justify the evidenced based approach for an external audience/and or auditing purposes
CRITERIA:	

No.		Learning Outcome assessed
1	Analysis of the application of project management tools and techniques to meet complex contextual demands in different sectors.	3
2	Formulation of the scope for a project that would be suitable to satisfy stakeholder needs.	6
3	Discussion of issues in project management practices with regard to building clients and stakeholders' requirements.	2

GENERIC SKILLS:	Communication, Collaboration, Problem solving, Organisation

All - Assessment Task 2: Oral

GOAL:	In the context of a (different) recent engineering project examine and explain essential project execution steps/processes.
PRODUCT:	Oral
AUTHORSHIP STATEMENT:	
FORMAT:	You will be presenting the essential project execution steps/processes as if briefing a project team before implementation.
CRITERIA:	

No.		Learning Outcome assessed
1	Analysis of the application of project management tools and techniques to meet complex contextual demands in different sectors.	3
2	Application of the latest management tools and techniques for effective and efficient implementation and completion of projects.	5
3	Formulation of the scope for a project that would be suitable to satisfy stakeholder needs.	6
4	Discussion of issues in project management practices with regard to building clients and stakeholders' requirements.	2

GENERIC SKILLS:	Communication, Problem solving, Organisation

All - Assessment Task 3: Report

GOAL:	In the context of a major national engineering project develop a project execution and management plan, incorporating all facets discussed throughout Trimester.
PRODUCT:	Report
AUTHORSHIP STATEMENT:	
FORMAT:	You will be producing the report as if presenting to a client for consideration and contractual agreement

CRITERIA:

No.		Learning Outcome assessed
1	Evaluation, analysis, and integration of professional approaches to managing projects within sector specialisations	4
2	Application of the latest management tools and techniques for effective and efficient implementation and completion of projects.	5
3	Formulation of the the scope for a project that would be suitable to satisfy stakeholder needs.	6
4	Interpretation of modern project management theory and demonstrate relevant practice techniques.	1

GENERIC SKILLS:	Problem solving, Organisation, Information literacy

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

There are no required/recommended resources for this course.

8.2. Specific requirements

Not applicable

9. How are risks managed in this course?

Risk assessments have been performed for all field activities and a low level of health and safety risk exists. Some risks concerns may include working in an unknown environment as well as slip and trip hazards. It is your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the online induction training for students, and following the instructions of the University staff.

10. What administrative information is relevant to this course?

10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:
(a) The final mark is in the percentage range 47% to 49.4%; and
(b) The course is graded using the Standard Grading scale

10.3. Assessment: Submission penalties

Late submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:
(a) One day: deduct 5%;
(b) Two days: deduct 10%;
(c) Three days: deduct 20%;
(d) Four days: deduct 40%;
(e) Five days: deduct 60%;
(f) Six days: deduct 80%;
(g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:
Less than 15 minutes: No penalty
From 15 minutes to 30 minutes: 20% penalty
More than 30 minutes: 100% penalty

10.4. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching

10.5. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The Student Charter sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.6. General Enquiries

For course-specific questions, contact your teaching staff or Course Coordinator.

For other enquiries or to access support, please contact Student Central:

- UniSC Student Central
- UniSC Adelaide Student Central