

COURSE OUTLINE

ENG601 Engineering Contracts and Procurement

School: School of Science, Technology and Engineering

2026 Trimester 1					
UniSC Moreton Bay	BLENDED LEARNING	You can do this course without coming onto campus, unless your program has specified a mandatory onsite requirement.			
Online	ONLINE	You can do this course without coming onto campus.			

Please go to usc.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

This course covers the preparation of engineering contracts to deliver and procure engineering outcomes. Students will develop a knowledge of market analysis, tenders and work breakdown structure. Engineers in every field will have to work with engineering contracts in their career thus the content of this course will be directly applicable to everyone.

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:

- Commercial management of engineering projects
- Role and responsibilities of managers
- · Market analysis
- Planning procurement options
- Development of contracts
- · Tenders and work breakdown structure
- Cash flow management

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?

COU	RSE LEARNING OUTCOMES	GRADUATE QUALITIES MAPPING	PROFESSIONAL STANDARD MAPPING *	
	successful completion of this course, you ald be able to	Completing these tasks successfully will contribute to you becoming	Engineers Australia Stage 1 Professional Engineer Competency Standards	
1	Demonstrate a comprehensive understanding of engineering contract principles and procurement strategies, including the legal and ethical considerations involved in contract formation, negotiation, and management.	Knowledgeable	1, 1.5.b, 1.5	
2	Reflect on the development of competitive contracts which ensure procurement and stakeholder satisfaction.	Knowledgeable	1, 1.5.b, 1.5	
3	Evaluate the critical factors influencing contract development and recommend the best conditions.	Creative and critical thinker	2, 2.1.d, 2.1.f, 2.1	
4	Analyse the current market situation and make appropriate predictions relevant to proposed projects.	Creative and critical thinker	2, 2.1.d, 2.1.f, 2.1	
5	Develop effective contract management plans, including strategies for monitoring project performance, resolving disputes, and ensuring compliance with contractual obligations, while considering the dynamic nature of engineering projects and evolving industry standards.	Empowered	2, 2.4.b, 2.4.c, 2.4	
6	Apply advanced analytical skills to evaluate and select appropriate procurement methods and contract types for engineering projects, considering factors such as project scope, risk allocation, cost-effectiveness, and sustainability.	Empowered	2, 2.4.b, 2.4.c, 2.4.f, 2.4	

* Competencies by Professional Body

CODE COMPETENCY

ENGINEERS AUSTRALIA STAGE 1 PROFESSIONAL ENGINEER COMPETENCY STANDARDS

- 1 Elements of competency: Knowledge and Skill Base
- 1.5.b Knowledge and Skill Base Knowledge of engineering design practice and contextual factors impacting the engineering discipline: Identifies and understands the interactions between engineering systems and people in the social, cultural, environmental, commercial, legal and political contexts in which they operate, including both the positive role of engineering in sustainable development and the potentially adverse impacts of engineering activity in the engineering discipline.

CODE COMPETENCY

- 1.5 Knowledge and Skill Base: Knowledge of engineering design practice and contextual factors impacting the engineering discipline.
- 2 Elements of competency: Engineering Application Ability
- 2.1.d Engineering Application Ability Application of established engineering methods to complex engineering problem solving: Investigates complex problems using research-based knowledge and research methods.
- 2.1.f Engineering Application Ability Application of established engineering methods to complex engineering problem solving:

 Conceptualises alternative engineering approaches and evaluates potential outcomes against appropriate criteria to justify an optimal solution choice.
- 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.c Engineering Application Ability Application of systematic approaches to the conduct and management of engineering projects:

 Accommodates relevant contextual issues into all phases of engineering project work, including the fundamentals of business planning and financial management
- 2.4.f Engineering Application Ability Application of systematic approaches to the conduct and management of engineering projects: Demonstrates commitment to sustainable engineering practices and the achievement of sustainable outcomes in all facets of engineering project work.
- 2.1 Engineering Application Ability: Application of established engineering methods to complex engineering problem solving.
- 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

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	50%	3500 words	Week 7	Online Assignment Submission with plagiarism check
All	2	Written Piece	Individual	50%	3500 words	Week 12	Online Assignment Submission with plagiarism check

All - Assessment Task 1: Proposal

GOAL:	Develop and design a proposed solution to the management of a commercial engineering project.						
PRODUCT:	Written Piece						
FORMAT:	Develop and design a proposed solution to the management of a commercial engineering project.						
CRITERIA:	No.	Learning Outcome assessed					
	Evaluation of critical factors influencing contract development and recommendations for best conditions.	3					
	2 Analysis of current market situation and appropriate predictions relevant to proposed projects.	4					
	3 Development of effective contract management plans, including strategies for monitoring project performance, resolving disputes, and ensuring compliance with contractual obligations.	5					
	4 Application of advanced analytical skills to evaluate and select appropriate procurement methods and contract types for engineering projects, considering factors such as project scope, risk allocation, cost-effectiveness, and sustainability	6					
	Demonstration of comprehensive understanding of engineering contract principles and procurement strategies, including the legal and ethical considerations involved in contract formation, negotiation, and management.	1					
	6 Reflection on the development of competitive contracts which ensure procurement and stakeholder satisfaction.	2					
GENERIC SKILLS:	Problem solving, Organisation, Information literacy						

All - Assessment Task 2: Proposal

GOAL:	Develop a proposed work breakdown structure and tender for an engineering project proposal					
PRODUCT:	Written Piece					
FORMAT:	Develop a proposed work breakdown structure and tender for an engineering project proposal					
CRITERIA:	No.	Learning Outcome assessed				
	Evaluation of critical factors influencing contract development and recommendations for best conditions.	3				
	2 Analysis of current market situation and appropriate predictions relevant to proposed projects.	4				
	3 Development of effective contract management plans, including strategies for monitoring project performance, resolving disputes, and ensuring compliance with contractual obligations	5				
	4 Application of advanced analytical skills to evaluate and select appropriate procurement methods and contract types for engineering projects, considering factors such as project scope, risk allocation, cost-effectiveness, and sustainability.	6				
	Demonstration of comprehensive understanding of engineering contract principles and procurement strategies, including the legal and ethical considerations involved in contract formation, negotiation, and management.	0				
	6 Reflection on the development of competitive contracts which ensure procurement and stakeholder satisfaction.	2				
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?

Health and safety risks for this course have been assessed as low. 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

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

- The final mark is in the percentage range 47% to 49.4%
- The course is graded using the Standard Grading scale
- You have not failed an assessment task in the course due to academic misconduct

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. SafeUniSC

UniSC is committed to a culture of respect and providing a safe and supportive environment for all members of our community. For immediate assistance on campus contact SafeUniSC by phone: 0754301168 or using the SafeZone app. For general enquires contact the SafeUniSC team by phone 0754563864 or email safe@usc.edu.au.

The SafeUniSC Specialist Service is a Student Wellbeing service that provides free and confidential support to students who may have experienced or observed behaviour that could cause fear, offence or trauma. To contact the service call 0754301226 or email studentwellbeing@usc.edu.au.

10.5. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the <u>Learning Advisers</u> web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or <u>studentcentral@usc.edu.au</u>.

10.6. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to Student Hub, email studentwellbeing@usc.edu.au or call 07 5430 1226.

10.7. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, AccessAbility Services can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to Student Hub, email AccessAbility@usc.edu.au or call 07 5430 2890.

10.8. 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

10.9. Student Charter

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

10.10.General Enquiries

In person:

- UniSC Sunshine Coast Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- UniSC Moreton Bay Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- UniSC SouthBank Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- UniSC Gympie Student Central, 71 Cartwright Road, Gympie
- UniSC Fraser Coast Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- UniSC Caboolture Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au