



Unit Outline (Higher Education)

Institute / School: Institute of Innovation, Science & Sustainability

Unit Title: Engineering Contracts and Procurement

Unit ID: ENGIN5206

Credit Points: 15.00

Prerequisite(s): Nil

Co-requisite(s): Nil

Exclusion(s): Nil

ASCED: 039999

Description of the Unit:

This unit covers the preparation of engineering contracts to deliver and procure engineering outcomes. Students will develop a knowledge of relevant contract law, market analysis, tenders and work breakdown structure. Engineers in most fields will have to work with contracts at some point in their career thus the content of this unit will be directly applicable to everyone.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

No work experience

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above, has completed all major assessment tasks (including all sub-components where a task has multiple parts) as specified in the Unit Description and is not eligible for any other form of supplementary assessment.

Course Level:

| Level of Unit in Course | AQF Level of Course | | | | | |
|-------------------------|---------------------|---|---|---|---|----|
| | 5 | 6 | 7 | 8 | 9 | 10 |
| Introductory | | | | | | |

| Level of Unit in Course | AQF Level of Course | | | | | |
|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 5 | 6 | 7 | 8 | 9 | 10 |
| Intermediate | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | ✓ | <input type="checkbox"/> |
| Advanced | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Learning Outcomes:

Knowledge:

- K1.** Evaluate the critical factors influencing contract development and recommend the best conditions.
- K2.** Infer the importance of work breakdown structure in preparation of contracts.

Skills:

- S1.** Analyse the current market situation and make appropriate predictions relevant to proposed projects.
- S2.** Prioritize planned activities and manage the cash flow throughout the project.

Application of knowledge and skills:

- A1.** Reflect on the development of competitive contracts which ensure procurement and stakeholder satisfaction.
- A2.** Utilise the role of managers for effective commercial management of projects.

Unit Content:

Topics will include: Commercial management of engineering projects Role and responsibilities of managers Contract law Market analysis Planning procurement options Development of contracts Tenders and work breakdown structure Cash flow management

FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**tttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are embedded within curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni Unit, and all must be directly assessed in each Course.*

| FEDTASK attribute and descriptor | Development and acquisition of FEDTASKS in the Unit | |
|----------------------------------|---|-----------------------|
| | Learning Outcomes (KSA) | Assessment task (AT#) |
| | | |

| FEDTASK attribute and descriptor | | Development and acquisition of FEDTASKS in the Unit | |
|---|--|---|-----------------------|
| | | Learning Outcomes (KSA) | Assessment task (AT#) |
| FEDTASK 1 Interpersonal | Students at this level will demonstrate an advanced ability in a range of contexts to effectively communicate, interact and work with others both individually and in groups. Students will be required to display high level skills in-person and/or online in: <ul style="list-style-type: none"> • Using and demonstrating a high level of verbal and non-verbal communication • Demonstrating a mastery of listening for meaning and influencing via active listening • Demonstrating and showing empathy for others • High order skills in negotiating and conflict resolution skills • Demonstrating mastery of working respectfully in cross-cultural and diverse teams. | Not applicable | Not applicable |
| FEDTASK 2 Leadership | Students at this level will demonstrate a mastery in professional skills and behaviours in leading others. <ul style="list-style-type: none"> • Creating and sustaining a collegial environment • Demonstrating a high level of self-awareness and the ability to self-reflect and justify decisions • Inspiring and initiating opportunities to lead others • Making informed professional decisions • Demonstrating initiative in new professional situations. | Not applicable | Not applicable |
| FEDTASK 3 Critical Thinking and Creativity | Students at this level will demonstrate high level skills in working in complexity and ambiguity using the imagination to create new ideas. Students will be required to display skills in: <ul style="list-style-type: none"> • Reflecting critically to generate and consider complex ideas and concepts at an abstract level • Analysing complex and abstract ideas, concepts and information • Communicate alternative perspectives to justify complex ideas • Demonstrate a mastery of challenging conventional thinking to clarify complex concepts • Forming creative solutions in problem solving to new situations for further learning. | Not applicable | Not applicable |
| FEDTASK 4 Digital Literacy | Students at this level will demonstrate the ability to work competently across a wide range of tools, platforms and applications to achieve a range of tasks. Students will be required to display skills in: <ul style="list-style-type: none"> • Mastering, exploring, evaluating, managing, curating, organising and sharing digital information professionally • Collating, managing complex data, accessing and using digital data securely • Receiving and responding professionally to messages in a range of professional digital media • Contributing competently and professionally to digital teams and working groups • Participating at a high level in digital learning opportunities. | Not applicable | Not applicable |
| FEDTASK 5 sustainable and Ethical Mindset | Students at this level will demonstrate a mastery of considering and assessing the consequences and impact of ideas and actions in enacting professional ethical and sustainable decisions. Students will be required to display skills in: <ul style="list-style-type: none"> • Demonstrate informed judgment making that considers the impact of devising complex solutions in ambiguous global economic environmental and societal contexts • Professionally committing to the promulgation of social responsibility • Demonstrate the ability to evaluate ethical, socially responsible and/or sustainable challenges and generating and articulating responses • Communicating lifelong, life-wide and life-deep learning to be open to the diverse professional others • Generating, leading and implementing required actions to foster sustainability in their professional and personal life | Not applicable | Not applicable |

Learning Task and Assessment:

| Learning Outcomes Assessed | Assessment Tasks | Assessment Type | Weighting |
|----------------------------|---|-----------------|-----------|
| K1, K2, S1, A1 | Problem based questions and design tasks pertinent to commercial management of projects | Assignment | 20 - 40% |
| K1, K2, S1, S2, A1 | Work breakdown structure and tenders | Assignment | 20 - 40% |
| K1, K2, S1, S2, A1, A2 | A combination of quantitative and qualitative problems. | Examination | 40 - 60% |

Adopted Reference Style:

Other (IEEE)

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)