

ENGR 1024 INTRODUCTION TO ENGINEERING PRACTICE

Credit Points 10

Legacy Code 300964

Coordinator Ee Loon Tan ([https://directory.westernsydney.edu.au/search/name/Ee Loon Tan/](https://directory.westernsydney.edu.au/search/name/Ee%20Loon%20Tan/))

Description This unit encourages students to explore the professional responsibilities and challenges faced by Engineers. Students are introduced to emerging issues and approaches in the engineering profession, with particular attention given to using a systems approach to solve engineering problems. Students engage in a semester-long research and problem solving task that addresses technical, environmental and social sustainability imperatives and fosters fundamental research, communication skills. Special emphasis is placed on lifelong learning, academic literacy and professional skills including information literacy, project management, engineering drawing and teamwork which equip students for subsequent academic and professional pursuits.

School Eng, Design & Built Env

Discipline Other Engineering And Related Technologies

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 1 subject

Equivalent Subjects ENGR 1015 Engineering and Industrial Design Practice LGYA 5705 Introduction to Professional Practice ENGR 1016 Engineering Design and Construction Practice ENGR 1033 Engineering Design and Construction Practice LGYB 0482 Engineering Design and Construction Practice ENGR 1026 Introduction to Engineering Practice and ENGR 1025 Introduction to Engineering Practice

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Solve an engineering problem using systems approach.
2. Identify and reflect upon the professional responsibilities of the Engineer.
3. Deploy information literacy skills to investigate a complex problem context, alternate approaches and possible solutions.
4. Deploy academic standard literacy skills including academic writing, argument construction and referencing.
5. Communicate research and solutions clearly and professionally in visual and verbal presentations and an illustrated report.
6. Plan, manage, actively contribute to and assess a team based project.
7. Identify and apply environmentally and socially sustainable design criteria to a complex problem.
8. Produce and read an engineering drawing representing simple structures, landscapes, and electric circuit.

Subject Content

Sustainability
Complex systems
Innovation

Problem-solving
Professional responsibility
Information literacy and the research process
Critical thinking
Academic literacy
Teamwork
Time and project management
Professional communication skills: written, visual and verbal presentations
Systems approach
Engineering Drawing

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

| Item | Length | Percent | Threshold | Individual/ Group Task |
|-------------------|---|---------|-----------|---------------------------|
| Literature Review | (A1) 1,000 words (A2) 5 minute presentation (A3) 15 minutes (per quiz) | 30 | N | Both (Individual & Group) |
| Report | (B1) 2,000 word first report (B2) 3,000 word final group report (B3) 15 minute presentation | 55 | N | Both (Individual & Group) |
| Reflection | (C1) 500 words reflective writing (C2) Minuted records of team meeting | 15 | N | Individual |

Prescribed Texts

- No prescribed text required

Teaching Periods

Autumn

Penrith (Kingswood)

Day

Subject Contact Ee Loon Tan ([https://directory.westernsydney.edu.au/search/name/Ee Loon Tan/](https://directory.westernsydney.edu.au/search/name/Ee%20Loon%20Tan/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR1024_22-AUT_KW_D#subjects)

Parramatta - Victoria Rd

Day

Subject Contact Ee Loon Tan ([https://directory.westernsydney.edu.au/search/name/Ee Loon Tan/](https://directory.westernsydney.edu.au/search/name/Ee%20Loon%20Tan/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR1024_22-AUT_PS_D#subjects)

Sydney City Campus - Term 2

Sydney City

Day

Subject Contact Ankit Agarwal ([https://directory.westernsydney.edu.au/search/name/Ankit Agarwal/](https://directory.westernsydney.edu.au/search/name/Ankit%20Agarwal/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR1024_22-SC2_SC_D#subjects)

Spring

Penrith (Kingswood)

Day

Subject Contact Ee Loon Tan ([https://directory.westernsydney.edu.au/search/name/Ee Loon Tan/](https://directory.westernsydney.edu.au/search/name/Ee%20Loon%20Tan/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR1024_22-SPR_KW_D#subjects)

Parramatta City - Macquarie St

Day

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR1024_22-SPR_PC_D#subjects)