

# ENGR 3014 ENGINEERING SCIENCE PROJECT 2

**Credit Points** 10

**Legacy Code** 300968

**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** In this unit, the focus will be on development of research and presentation skills of students, which will be achieved through employment of appropriate research skills on a capstone project. It will demonstrate student's knowledge by conducting an engineering project and completion of a technical report.

**School** Eng, Design & Built Env

**Discipline** Other Engineering And Related Technologies

**Student Contribution Band** HECS Band 2 10cp

Check your fees via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 3 subject

**Pre-requisite(s)** ENGR 3013

## Restrictions

Students must be enrolled in 3691 Bachelor of Engineering Science, 6033 Diploma in Engineering/Bachelor of Engineering Studies or 7117 Diploma in Engineering/Bachelor of Engineering Studies and must have successfully completed 180 credit points.

## Learning Outcomes

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

1. apply theoretical knowledge gained during the course to develop practical engineering solutions;
2. apply project management principles to an engineering project;
3. demonstrate a understanding of the importance of client/end-user consultation and satisfaction;
4. develop engineering communication skills related to oral presentation and engineering report writing; and
5. implement the ethical, social, economic and environmental responsibilities of an engineer in the context of an engineering project.

## Subject Content

1. Development of integrated practical and innovative solutions to engineering problems.
2. Application of engineering project management skills.
3. Client/end-user consultation process and satisfaction assessment.
4. Development of good oral and written presentation skills appropriate for an engineer.
5. Evaluation of the social, economic and environmental impacts of an engineering project.
6. Application of risk analysis, time and financial management skills to an engineering project
7. Development of research skills.

## 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.

Type	Length	Percent	Threshold	Individual/ Group Task
Report	30-40 pages	15	N	Group
Presentation	20 minutes each group, 20 PowerPoint Slides, group work	20	N	Both (Individual & Group)
Report	50-70 pages.	65	Y	Both (Individual & Group)

## Prescribed Texts

- Smith, K. A.. and Imbrie, P. K. 2007, Teamwork and Project Management, 3rd ed., Mc-Graw Hill, NY, USA
- Finkelstein, L, 2008 Pocket Book of Technical Writing: for Engineers and Scientists, 3rd ed., Mc-Graw Hill, NY, USA.

## Teaching Periods

## Spring (2023)

### Penrith (Kingswood)

#### On-site

**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/odd/timetable/?subject\\_code=ENGR3014\\_23-SPR\\_KW\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR3014_23-SPR_KW_1#subjects))

### Parramatta City - Macquarie St

#### On-site

**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/odd/timetable/?subject\\_code=ENGR3014\\_23-SPR\\_PC\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR3014_23-SPR_PC_1#subjects))

## Sydney City Campus - Term 3 (2023)

### Sydney City

#### On-site

**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/odd/timetable/?subject\\_code=ENGR3014\\_23-SC3\\_SC\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR3014_23-SC3_SC_1#subjects))

## Autumn (2024)

### Penrith (Kingswood)

#### On-site

**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=ENGR3014\\_24-AUT\\_KW\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR3014_24-AUT_KW_1#subjects))

## Sydney City Campus - Term 2 (2024)

### Sydney City

#### On-site

**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=ENGR3014\\_24-SC2\\_SC\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR3014_24-SC2_SC_1#subjects))

## Spring (2024)

### Penrith (Kingswood)

#### On-site

**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=ENGR3014\\_24-SPR\\_KW\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR3014_24-SPR_KW_1#subjects))

### Parramatta City - Macquarie St

#### On-site

**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=ENGR3014\\_24-SPR\\_PC\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR3014_24-SPR_PC_1#subjects))