

# ENGR 1049 INTRODUCTION TO ENGINEERING (BLOCK)PRACTICE

**Credit Points** 10

**Legacy Code** 500063

**Coordinator** Shubhekshya Basnet (<https://directory.westernsydney.edu.au/search/name/Shubhekshya Basnet/>)

**Description** This subject encourages students to explore the professional responsibilities and challenges faced by Engineers. Students are introduced to emerging issues and approaches in engineering profession, especially particular attention will be given to systems approach. Students engage in a term-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 contexts.

**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 1 subject

**Equivalent Subjects** ENGR 1024 Introduction to Engineering Practice  
ENGR 1025 Introduction to Engineering Practice (WSTC) ENGR 1026  
Introduction to Engineering Practice (UWSC)

## Restrictions

Students must be enrolled in 7178 Diploma of Aerotropolis Industry 4.0 (Mechatronic Skills) Or 7182 Undergraduate Certificate in Engineering

## 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

1.Sustainability

- 2.Complex systems
- 3.Innovation
- 4.Problem-solving
- 5.Professional responsibility
- 6.Information literacy and the research process
- 7.Critical thinking
- 8.Academic literacy
- 9.Teamwork
- 10.Time and project management
- 11.Professional communication skills: written, visual and verbal presentations
- 12.Systems approach
- 13.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.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Applied Project	3 minutes	15	N	Individual	N
Applied Project	1,000 words	20	N	Individual	N
Applied Project	1,200 words	35	N	Individual	N
Case Study	1,500 words/ 10-15 minutes	30	N	Individual	N