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/) 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
Applied Project	3 minutes	15	N	Individual
Applied Project	1,000 words	20	N	Individual
Applied Project	1,200 words	35	N	Individual
Case Study	1,500 words/ 10-15 minutes	30	N	Individual

Teaching Periods

Block D Session (2023)

Online

Online

Subject Contact Mitchell Liddle (https://directory.westernsydney.edu.au/search/name/Mitchell Liddle/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR1049_23-BD_ON_2#subjects)