

ENGR 1046 HUMAN CENTRED DESIGN RESEARCH METHODS

Credit Points 10

Legacy Code 301280

Coordinator Mauricio Novoa ([https://directory.westernsydney.edu.au/search/name/Mauricio Novoa/](https://directory.westernsydney.edu.au/search/name/Mauricio%20Novoa/))

Description Professional practice across many disciplines has evolved toward a co-creative model where stakeholders, human and environmental contexts and the integration of an interdisciplinary approach is seen to accelerate multiple solution developments and innovation. Students are introduced to design research methods and professional design practice in a human-centred discovery project gaining strategic problem solving and critical thinking skills as a core outcome. Special emphasis is placed on lifelong learning, academic literacy and professional skills including information literacy, leveraging knowledge sets, project management, and design innovation all of which equip students for future interactions in academic and professional contexts.

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 LGYA 5705 - Introduction to Professional Practice ENGR 1015 - Engineering Industrial Design Practice ENGR 1016 - Engineering Design Construction Practice ENGR 1033 - Engineering Design Construction Practice LGYB 0482 - Engineering Design Construction Practice ENGR 1027 - Introduction to Industrial Design methods

Learning Outcomes

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

1. Apply design literacy skills to investigate complex design problems in societal context and present alternate approaches and possible solutions with supporting argument
2. Seek and critically analyse academic, contextual and user research in relation to design problems and intent of the subjected Nations Sustainable Development Goals (UNSDGs) and ethical standards
3. Demonstrate standard academic literacy skills including, scholarly inquiry, academic writing, argument construction and referencing
4. Develop and communicate research and design solutions clearly and professionally in visual, verbal and written reports and presentations as an individual and in a team

Subject Content

People and context
Information literacy and the research process
Critical thinking
Design methodology
Problem-solving
Design Innovation

Professional responsibility and ethics
Academic literacy
Teamwork
Time and project management
Professional communication skills: written, visual and verbal presentations
Complex systems
Design actions responding to principles of United Nations Sustainable Development Goals (UNSDGs)

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
Report	Report 500 words per student (10%); Essay 1, 200 words (20%)	30	N	Both (Individual & Group)
Report	Report 500 words per student (20%); Presentation 7 minutes (10%)	30	N	Both (Individual & Group)
Applied Project	3 x A3 size (graphic posters)	40	N	Individual

Teaching Periods

Autumn

Parramatta - Victoria Rd

Day

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

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR1046_22-AUT_PS_D#subjects)