

ENGR 3024 DESIGN RESEARCH METHODS (ADVANCED)

Credit Points 10

Legacy Code 301291

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

Description Design and user research methods are critical in establishing efficient and effective processes around resource utilisation in designing, conducting and presenting research findings that are succinct yet open to new innovations. A range of advanced research design methods are presented and students are guided to the strategic selection of methods appropriate to their own self-sourced project theme. Data collection instruments are designed, operationalised, data coded and analysed via both qualitative and quantitative techniques and discussed in a vibrant peer environment inspired by design thinking and other research methods unique to the design profession and within university human ethics policy protocols.

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 3 subject

Equivalent Subjects ENGR 3012 - Designed Inquiry ENGR 3005 - Contextual Inquiry

Restrictions

Students must have completed 160 credit points before enrolling into this subject.

Learning Outcomes

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

1. Develop a research proposal based on a design literature review and analysis of contextual problems.
2. Visualise a research design using conceptual diagrams, and apply in managing a research project.
3. Carry out field research into user needs following approved ethics protocols and contextual considerations.
4. Synthesise outcomes emerging from qualitative and quantitative data into design guidelines and recommendations.
5. Develop and apply a methodological research design as part of an iterative design enquiry.
6. Reflect upon and evaluate self-directed research processes.

Subject Content

- Advanced Design Research
- Research topics and design opportunities
- Creating a research design/plan
- Designing an appropriate research methodology
- Literature Review and Annotated Bibliography in design research
- Designing a Research Question

- Advanced referencing, written and oral communication
- Unobtrusive research and documentation
- Research Through Design
- University Human Ethics Protocol in observing and engaging product or service user research
- Field Research
- Designing an appropriate data collection instrument
- Quantitative and qualitative data analysis, reporting and evaluation
- Making and presenting a Research Proposal that meets Ethics Approval requirements
- On-going reflection upon, assessment and management of self-directed research

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
Literature Review	1,500 words	20	N	Individual
Presentation	A/V Presentation (10 slides) and 1 x A3 graphic poster	40	N	Individual
Report	2000 words	40	N	Individual

Teaching Periods

Autumn (2022)

Parramatta - Victoria Rd

Online

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR3024_22-AUT_PS_0#subjects)

Autumn (2023)

Parramatta City - Macquarie St

Online

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