

Course Outline (Higher Education)

School:	School of Science, Engineering and Information Technology
Course Title:	DESIGN PROJECT 2
Course ID:	ETCOR3250
Credit Points:	15.00
Prerequisite(s):	(ETCOR3150, first and second year courses relevant to the stream of the candidate)
Co-requisite(s):	(ENCIV3050 (Civil students only))
Exclusion(s):	(ENCIV3070 and ENCOR3011)
ASCED Code:	039999

Description of the Course :

ETCOR 3250 is a continuation of a year-long project which commenced with ETCOR 3150. This is the final year capstone project for the 3 year Engineering Technology degree. Students will be expected to work as part of a team in a complex investigation and design task intended to allow students to demonstrate many core competencies expected of an Engineering Technologist.

Grade Scheme: Graded (HD, D, C, etc.)

Work Experience:

No work experience: Student is not undertaking work experience in industry.

Placement Component: No

Program Level:

AQF Level of Program						
	5	6	7	8	9	10
Level						
Introductory	■	■	■	■	■	■
Intermediate	■	■	■	■	■	■
Advanced	■	■	✓	■	■	■

Learning Outcomes:

Knowledge:

- K1.** Explain the basis for what makes complex team based projects successful.
- K2.** Perform in a team environment to produce design solutions and reports.
- K3.** Know how to approach, plan, research and complete all aspects of a complex design project.

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K4. Know how economic, safety and environmental aspects affect the project.

Skills:

- S1.** Develop time management skills.
- S2.** Demonstrate high level skills in the use of project management tools and use these on the project.
- S3.** Demonstrate the ability to undertake all aspects of a lengthy, difficult, complex design project commensurate with what is expected of an engineering technologist.
- S4.** Demonstrate written and oral communication skills via a substantial design report and seminar presentation.

Application of knowledge and skills:

- A1.** Apply a substantial part of previously learned coursework to a design project relevant to the students discipline area.

Course Content:

Detailed content of the project will vary from a stream to stream but will, in general, involve design tasks associated with an engineering project. Typically, tasks would involve: - Design of the project parameters, constraints and requirements. - Use of computer aided engineering both analytically and graphically. - Project management activities.

Values:

- V1.** Recognise the responsibility that goes with the trust placed in engineering designers by the community.
- V2.** Appreciate the importance of quality in engineering design.
- V3.** Appreciate sustainability as a factor which impacts the applicability of future designs.
- V4.** Understand the importance of clear and unambiguous written and graphical communication of design outcomes.

Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1-4, S1-4, A1	Project management task/s.	Production of a cost and/or time schedule estimate.	10% - 20%
K1-4, S1-4. A1	Design tasks.	Written and or oral report(s).	40% - 70%
K1-4, S1-4. A1	Integration of all design information, calculations, drawings and discussions and presentation of outcomes.	Major design report and oral presentation to an audience.	15% - 30%
S4, A1	Production of quality permanent record of project.	Final bound thesis copies.	Hurdle

Adopted Reference Style:

APA