Course Outline

Title: ENGINEERING PROJECT 1

Code: ENCOR4011

Faculty / Portfolio: Faculty of Science and Technology

Level: Advanced

Pre-requisites: (Completion of 3rd year B. Eng or eqv)

Co-requisites: Nil

Exclusions: Nil

Credit Points: 15

ASCED Code: 030999

Objectives:

After successfully completing this course, students should be able to:

Knowledge:

- **K1.** Understand the concepts underlining engineering projects
- **K2.** Develop an understanding for systematic problem solving approaches
- **K3.** Develop a professional work ethic
- **K4.** Present the results of their work in a logical and clear manner to others
- **K5.** Understand project management concepts

Skills:

- **S1.** Research, collect and critically review scientific materials
- **S2.** Develop a background in the project area
- **S3.** Analyse and apply design principles to the implementation of a project
- **S4.** Engage users and producers in the design process
- **S5.** Develop time management skills.
- **S6.** Learn to include sustainability as a major element of engineering projects

Values:

- **V1.** Enhancement of lifelong learning skills by the application of existing knowledge to the solution of new problems
- **V2.** Form an independent intellectual demeanour befitting an engineering graduate
- **V3.** Appreciate the importance of communication and a broader approach to engineering
- **V4.** Appreciate the need for adherence to deadlines for completion of work.
- **V5.** Highlight sustainability as future must for engineering developments

Content:

This course is intended to monitor studentsâ€™ progress while working on individual projects. As such, the course is highly individual in nature. However, some common key points are

proposed here for discussion to help students (as needed) improve their performance. During the course of the semester, some key points may be added or emphasised to fulfil the needs of this yearâ€™s cohort. The key points proposed for discussion are given hereunder, not in any specific order.

Topics may include:

- What aspects we consider in selecting our engineering projects?
- What are the problem solving techniques?
- What is literature review?
- How to search for literature?
- How to plan our project?
- What is meant by intellectual property?
- How to protect and commercialise your design ideas
- How to present work and ideas?

Assessment:

Assessment Task	Assessment Type	Weighting
Lectures	Research Proposal	20-35%
Lectures	Introductory Talk	15-25%
Lectures	Progress Report	20-35%
Lectures	Interview and Project Workbook	10-20%

Adopted Reference Style:

APA

Presentation of Academic Work: