Course Outline (Higher Education)



| School: | School of Science, Engineering and Information Technology | | | |
|------------------|---|--|--|--|
| Course Title: | RESEARCH PROJECT III | | | |
| Course ID: | ENCOR7030 | | | |
| Credit Points: | 30.00 | | | |
| Prerequisite(s): | (ENCOR7020) | | | |
| Co-requisite(s): | Nil | | | |
| Exclusion(s): | (EK873) | | | |
| ASCED Code: | 030701 | | | |

Description of the Course :

In this course, students will have to submit a research thesis for examination. The thesis should highlight their deep understanding of the topic being researched and the their ability to synthesis solutions and apply deep comprehension of theory to practice. The thesis should demonstrate advanced skills to engage in research work and highly developed communication skills.

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. Realise the importance of research for engineering development
- **K2.** Advanced understanding of the characteristics of research problems and the evolution of research process
- **K3.** Comprehend the various dimensions of critical thinking
- **K4.** Advanced knowledge of research principles and methods applicable to the field of particular engineering research project undertaken

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K5. Integrating understanding of a complex and advanced body of knowledge

Skills:

- **S1.** Research, collect and critically evaluate information required for the implementation of a research project
- **S2.** Practical and theoretical advanced expertise in the project area
- **S3.** Analyse and apply research design principles to the implementation of a project
- **S4.** Develop advanced technical research skills to justify and interpret theoretical propositions, methodologies and conclusions to specialist (supervisor and examiner) and non-specialist audience (fellow students)
- S5. Present results in a logical and clear manner to others
- S6. Ability to perform relevant risk and hazard assessments and management plans
- **S7.** High level of planning and time management skills

Application of knowledge and skills:

- A1. Perform independent research with high level personal autonomy and accountability
- A2. Apply knowledge and skill learnt from previous courses into an independent research project
- **A3.** Plan and execute a substantial research-based project with capstone experience and/or piece of scholarship

Course Content:

At this stage, students have been already introduced to the main aspects of the research process, wrote a progress report and working on research projects (picked up in ENCOR 4010, and continued through ENCOR 7020). This course is therefore intended to monitor students` progress in the semester and guide them through the process of writing, submitting and presenting a thesis. The highly individual nature of this stage means that each student will be given advice by the course coordinators and supervisors to suit their need.

Topics may include:

- Assessment Interview and Project Folder
- Thesis
- Presentation of Findings

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 a professional graduate
- **V3.** Appreciate the need for adherence to deadlines for completion of work.

Learning Task and Assessment:

| Learning Tasks | Assessment Type | Weighting |
|----------------|-----------------|-----------|
| final thesis | final thesis | 100% |

Adopted Reference Style:

APA