

Module Code	CE7M03
Module Name	Dissertation
ECTS Weighting¹	30 ECTS - Derogation
Semester taught	Semester 1 & 2
Module Coordinator/s	Your Supervisor
Module Learning Outcomes with reference to the Graduate Attributes and how they are developed in discipline	<p>On successful completion of this module, students should be able to:</p> <p>LO1. Contribute individually to the development of scientific/technological knowledge in one or more areas of Civil Engineering.</p> <p>LO2. Identify, assess and synthesize existing literature and research findings on an unfamiliar problem.</p> <p>LO3. Apply a range of standard and specialised research tools and techniques to provide innovative and appropriate solutions to engineering problems of significant complexity.</p> <p>LO4. Develop and apply theoretical, scientific and mathematical principles to effectively solve the research problem.</p> <p>LO5. Design and conduct unsupervised experiments and to analyse and interpret data.</p> <p>LO6. Apply and develop software to model engineering systems.</p> <p>LO7. Discuss and critically evaluate the research findings and reflect on the strength and limitations of the research. Assess the implications of the project outcomes for engineering practice.</p> <p>LO8. Write a research dissertation to professional and academic standards using appropriate graphics and references.</p> <p>LO9. Present complex ideas and material to peers and respond effectively to questions and criticism.</p> <p>Graduate Attributes: levels of attainment</p> <p>To act responsibly - Enhanced</p> <p>To think independently - Enhanced</p> <p>To develop continuously - Enhanced</p> <p>To communicate effectively - Enhanced</p>

Module Content

This module allows the students to complete an individual research project on a topic of contemporary engineering research interest.

The main objective of this module:

- To plan, execute and report on an individual engineering research project.

Research topics and project titles will be proposed by academic staff in the School of Engineering based on their ongoing research activity. Students may propose their own research topics if they can demonstrate adequate prior knowledge and experience of the field, and if they can identify an appropriate academic supervisor.

Students are required to choose a research topic in week 1, semester 1 in line with their chosen specialisation and start working on their individual research project under the supervision of an assigned supervisor.

Teaching and Learning Methods

Each individual project will be supervised by an academic staff member in the School of Engineering and may be undertaken independently or in conjunction with a research group or in connection with industry or another university, where circumstances are appropriate. Whenever a project involves significant collaboration with an industrial or other external partner, an external co-supervisor may also be appointed.

The students must meet their individual supervisor(s) in week 1, semester 1 or as soon as they are assigned a project title. There are no formal timetabled hours associated with the project but students are expected to spend the time it takes to make reasonable progress and to keep in regular contact with their supervisors. It is recommended that students make a formal arrangement with their supervisors to meet on a regular basis.

Assessment Details² Please include the following:	Assessment Component	Assessment Description	LO Addressed	% of total	Week due
<ul style="list-style-type: none"> • Assessment Component • Assessment description • Learning Outcome(s) addressed • % of total • Assessment due date 	Summative	Interim Project Presentation	LO1, LO 2, LO 9	10%	Wk 28
	Summative	Final Dissertation	LO1, LO2, LO3, LO4, LO5, LO6, LO7, LO8, LO9	90%	Wk 51
	Summative	Final Presentation	LO9		Wk 54
	Formative	<p>The Students are required to update the supervisor(S) on their progress in Week 1, Semester 2.</p> <p>Students are required to make a final presentation of their project to the external examiner</p>			
	<p>The dissertation is examined independently by the project supervisor and the second examiner; with a third examiner and the external examiner providing moderation when required. The interim project report and presentations also contribute to the overall assessment.</p> <p>The following are the brief guidelines, which will be considered in assessing the final dissertation:</p> <ul style="list-style-type: none"> • Presentation (25%) • Amount of work done (25%) • Difficulty and degree of understanding (25%) • Conclusions (25%) <p>Two copies of dissertation, prepared following the guidelines provided by college, are required to be submitted. The A copy is read and marked by the project supervisor, while a second marker marks the B copy. The marks from both are reported independently to the co-ordinator. If these marks do not agree within limits set by the Faculty, a third examiner may be asked to assess the project independently.</p>				

Reassessment Requirements	
Contact Hours and Indicative Student Workload²	<p>Contact hours: 20 hours: Have meeting with supervisors at least once every two weeks during the teaching weeks of the second semester and once a week during the research weeks</p> <p>Independent Study (preparation for course and review of materials): 400 hours: Review literatures, identify topics and objectives of the project, develop methodologies, setup experiments/develop models, collect data, analyse data and draw conclusions and recommendations.</p> <p>Independent Study (preparation for assessment, incl. completion of assessment): 180 hours: Prepare presentations and posters and write up the dissertation</p>
Recommended Reading List	Reading list will be suggested by the supervisor
Module Pre-requisite	
Module Co-requisite	
Module Website	
Are other Schools/Departments involved in the delivery of this module? If yes, please provide details.	
Module Approval Date	
Approved by	
Academic Start Year	1 st September 2020
Academic Year of Date	2020/2021