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MODULE DESCRIPTOR

Module Title

Individual Engineering Research Investigation

Reference	ENM214	Version	9
Created	August 2021	SCQF Level	SCQF 11
Approved	April 2006	SCQF Points	60
Amended	August 2021	ECTS Points	30

Aims of Module

To develop skills in the investigation and analysis of engineering problems and creativity in devising effective solutions, through the detailed research of one selected topic.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Integrate material from the different areas of the course within the project work area.
- 2 Analyse, plan, execute and critically review a major project based on a brief drawn from the context of the course.
- 3 Report in writing and orally on the work undertaken and the approach adopted.

Indicative Module Content

The project constitutes a major component of the course of study for the MSc. Following a detailed literature review of the chosen research topic and a successful transition through the taught stage of the programme, the students will begin on the detailed project programme. Students are required to identify and source a project, subject to the approval of the University. Once a particular topic has been approved, student encouragement will be given by the project supervisor(s) to produce a project brief and planning programme of events for consideration. The student should also make every effort to establish industrial contacts at an early stage and keep the designated supervisor up to date on progress. Early attention should be devoted to the establishment of the project as a viable concern through a detailed literature review and summary of the importance aspects of the proposed study. On completion of the programme, the student is expected to: produce a detailed written report to specified standards and to present findings; produce a poster, again to specified standards, detailing the important aspects of the work undertaken and; give an oral presentation.

Module Delivery

The project will be carried out on an individual basis, with the student having access to a supervisor (s) to provide support, as required.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	20	20
Non-Contact Hours	580	580
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	600	600
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3
Description:	Report and presentation.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

Component 1 comprises 100% of the module grade. To pass the module, a D grade is required.

Module Grade	Minimum Requirements to achieve Module Grade:
A	A
B	B
C	C
D	D
E	E
F	F
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	The eight prior modules from the PgDiploma stage must have been satisfactorily completed. In addition, normally, a UK honours degree in Engineering or a related discipline, proficiency in English language for academic purposes (or IELTS score of 6.5 or equivalent), and (for certain MSc courses in the programme) several years of relevant industrial experience.
Corequisites for module	None.
Precluded Modules	None.

ADDITIONAL NOTES

Extensive specialised reading is required. Where necessary, arrangements can be made to protect commercial confidence.

INDICATIVE BIBLIOGRAPHY

- 1 CREAM P. and LEA M. 2000. Writing at University ? A Guide for Students. Open University Press.
- 2 DAVIES J. 1996. Communication for Engineering Students. Addison Wesley Longman.
- 3 HUCKLIN T. and OLSEN L. 1991. Technical Writing and Professional Communication for Non-native Speakers of English. McGraw-Hill.
- 4 MALMFORS B. GARNSWORTHY P. and GROSSMAN M. 2000. Writing and Presenting Scientific Papers. Nottingham University Press.
- 5 RGU MSc Energy Programme, "The Energy Programme MSc Project Handbook" and "Frequently Asked Questions" documents. (All Energy programme MSc project students are issued with copies of these documents).
- 6 GILLET A, HAMMOND A, MARTALA, M. 2009. Successful Academic Writing. Pearson.