UNIVERSITY of BRADFORD

Module Descriptor

Module Details	
Module Title	Advanced MEng Research Project
Module Code	CPE7010-D
Academic Year	2023/4
Credits	40
School	Department of Chemical Engineering
FHEQ Level	FHEQ Level 7

Contact Hours	
Type	Hours
Lectures	4
Directed Study	396

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Academic Year

Module Aims

1. To provide a student-selected project of either industrial or academic research relevance utilising skills developed at all stages of academic study
2. Further develop discipline-specific skills in a research environment including data acquisition, data analysis, result interpretation and project management
3. To further develop personal skills in oral and written communication to an advanced level

Outline Syllabus

It is not possible to be prescriptive about the activities that each student should undertake in each semester as this relates to the specific investigation being undertaken. The project may take a variety of forms, and may include:
1. Critical reference to previous work on the project topic, competing theories, processes and methodologies, economic, social and market considerations.
2. Analysis and modelling, which may involve computer aided engineering in its broadest sense.
3. System and organisation design.
4. Manufacture and Implementation.
5. Experimentation, verification and/or other testing and evaluation.
6. Interpretation of results and concluding analysis.
The balance of the elements above will depend on the type of project work undertaken.

Learning Outcomes	
Outcome Number	Description
LO1	Make a contribution to knowledge of a specific field of chemical engineering, the exact nature of which depends on the project.
LO2	Employ current scientific understanding of a chemical or petroleum engineering subject to solve a substantial research problem. Write a lengthy piece of research-based analysis and discussion, structured around a coherent intellectual thesis, and presented in line with scholarly expectations about standards of accuracy, style, and documentation.
LO3	Interpretation of data: solve problems systematically and creatively.
LO4	Consider any health and safety, ethical or sustainability issues which relate to the particular field of research

Learning, Teaching and Assessment Strategy

Students will be expected to take ownership of their project, employing independent and directed study hours to achieve their project goals. Academic support will be in the form of one to one tutorials with a designated member of academic staff. Learning methods will depend on the nature of the project being undertaken. Students may engage with advanced Computer-Aided Engineering applications, research-focused laboratory equipment.

Oral feedback will be given throughout the project during timetabled tutorial sessions with the project supervisor. You will have regular weekly meetings with your supervisor to discuss the progress of your research. Learning support is provided by either their academic supervisor, research or technical staff.

Students will prepare a written project report (dissertation) outlining their project and associated findings. The structure of the report will depend on the research project undertaken and will be defined in conjunction with academic tutors. Any supporting evidence including computer models, test data, etc. will be submitted as an asset folder with the associated table of contents. The dissertation contributes 80% to the grade.

Students will also present their work in the form of an oral presentation, once in semester 1 as a formative assessment and once in semester 2 as a summative to the Chemical Engineering team and their peers. The presentation contributes 20% to the grade.

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Presentation	Oral presentation (20 mins)	20%
Summative	Dissertation or Project Report	Written report (8000 words excluding appendices and references). Supporting evidence submitted as project assets.	80%
Formative	Presentation	Oral presentation for formative feedback (sem 1) including peer review (10 mins).	N/A
Formative	Coursework - Written	Dissertation progress report (sem 1) for formative feedback (1600 words)	N/A

Reading List

To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html

Please note:
This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.

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