

Module Details	
Module Title	Advanced MEng Research Project
Module Code	CPE7010-D
Academic Year	2021/2
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
The module has 3 main 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
01	Make a contribution to knowledge of a specific field of chemical engineering (the exact nature of which depends on the project).
02	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.
03	interpretation data, solve problems systematically and creatively
04	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. Learning support is provided by either their academic supervisor, research or technical staff Students will prepare a written 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 associated table of contents 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. Oral feedback will be given throughout the project during timetabled tutorial sessions with the project supervisor. You will have regular weekly meeting with your supervisor to discuss the progress of your research.

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Presentation	Oral Presentation with the attendance of the whole chemical engineering team and their peers (20 Mins)	20%
Summative	Dissertation or Project Report	Dissertation (written report) excluding appendices and references with supporting evidence submitted as a project asset	80%
Referral	Dissertation or Project Report	Dissertation (written report) excluding appendices and references (8000 Words)	100%
Formative	Presentation	Oral presentation for formative feedback (sem 1) including peer review. In the case of continuation of the lockdown, this will be online. (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.

© University of Bradford 2021

<https://bradford.ac.uk>