

MODULE DESCRIPTOR

Module Title

MSc Biomedical Technology Project and Industrial Placement

Reference	ENM401	Version	2
Created	August 2021	SCQF Level	SCQF 11
Approved	March 2018	SCQF Points	60
Amended	August 2021	ECTS Points	30

Aims of Module

To provide the student with initial experience of a real-world work environment, where students, as a part of team, are required to apply the knowledge and transferable skills acquired in the degree studies. To provide the student with the ability to undertake a major individual biomedical technology research project based on the aims and objectives established during industrial placement and to report the findings of the work.

Learning Outcomes for Module

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

- 1 Enhance and apply necessary skills in the following areas: major industrially linked biomedical project planning, team-working, technical, professional and personal development, communication, staff relations.
- 2 Apply, in the workplace, the knowledge of the theories, models, concepts and principles learned during the students' academic studies.
- 3 Recognise and appraise the students' own strengths and weaknesses as a potential Chartered Engineer/Engineering Manager.
- 4 Formulate own ideas for project through industrial placement, and define its aims and objectives and produce appropriate project specification, management and review documentation; maintain a logbook.
- 5 Independently, critically and creatively plan, formulate, analyze and generate solutions to complex problems identified in the project; conduct a focussed literature search and review to carry out detailed and comprehensive critical analysis of the outcomes and communicate them through a well-structured final project report, incorporating and justifying all aspects of the project work and by defending the work in an oral presentation.

Indicative Module Content

The content of the industrial placement will vary. The student will produce an agreed learning contract with the host organisation and devise a programme which will enable the learning outcomes specified above to be achieved. An important aspect of this phase of the placement is the identification and execution of a project, in tune with the technological development of the industrial host, which is undertaken on the student's return to University. The project element of the module should have research and development-related objectives to deliver a useful outcome relevant to a placement company, a research group or other equivalent scholarly activity. The scope of work must include both technical and non-technical aspects appropriate to the requirements of these stakeholders and the level of course. The final report should display clear evidence of transferable skills.

Module Delivery

Delivery is by means of on-the-job training. The student will be required to liaise with University staff or project supervisor, so that progress can be monitored, and to verify in due course that a suitable project has been identified. In addition the student may be required to attend specific staff development workshops as designated by the host organisation. As a part of the student-centred project, each student is allocated a member of academic staff who acts as the project supervisor. Students are expected to plan their own project activities and meet with their academic supervisor on a regular basis. Evidence of such meetings should be in the form of signed log book entries.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	30	N/A
Non-Contact Hours	270	N/A
Placement/Work-Based Learning Experience [Notional] Hours	300	N/A
TOTAL	600	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>	370	

ASSESSMENT PLAN

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

Component 1

Type:	Coursework	Weighting:	60%	Outcomes Assessed:	4, 5
Description:	MSc Project: project logbook, project report and oral presentation/poster.				

Component 2

Type:	Coursework	Weighting:	40%	Outcomes Assessed:	1, 2, 3
Description:	Industrial Placement: personal development portfolio, placement report and oral presentation/poster.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The module has 2 components and an overall grade D is required to pass the module. The component weighting is as follows: C1 is worth 60% and C2 is worth 40%.

		Coursework:						NS
		A	B	C	D	E	F	
Coursework:	A	A	A	B	B	C	E	
	B	B	B	B	C	C	E	
	C	B	C	C	C	D	E	
	D	C	C	D	D	D	E	
	E	C	D	D	E	E	E	
	F	E	E	E	E	F	F	
NS		Non-submission of work by published deadline or non-attendance for examination						

Module Requirements

Prerequisites for Module	The 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.

INDICATIVE BIBLIOGRAPHY

- 1 Introductory Guide to Industrial Placements.
- 2 Placement Operation and Assessment Guide.
- 3 CREME, P. and LEA, M., 2008. Writing at University: A Guide for Students. 3rd ed. Open University Press.
- 4 HUCKLIN, T. and OLSEN, L., 1991. Technical Writing and Professional Communication for Non-native Speakers of English. 2nd ed. New York, NY: McGraw-Hill.
- 5 MALMFORS, B., GARNSWORTHY, P. and GROSSMAN, M., 2004. Writing and Presenting Scientific Papers. 2nd ed. Nottingham: Nottingham University Press.
- 6 THIEL, D., 2014. Research Methods for Engineers. Cambridge: Cambridge University Press.