

Module Details	
Module Title:	Research Skills, Professional Development and Commercial Awareness
Module Code:	CFS7025-B
Academic Year:	2019-20
Credit Rating:	20
School:	School of Chemistry and Biosciences
Subject Area:	Chemistry
FHEQ Level:	FHEQ Level 7 (Masters)
Pre-requisites:	
Co-requisites:	

Contact Hours	
Type	Hours
Lectures	10
Seminar	6
Directed Study	184

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 1 (Sep - Jan)

Module Aims
This course serves as the introduction to your MSc in Materials Chemistry and MSc in Analytical Sciences. Students will come to the programme with a variety of different backgrounds and this module will allow students to identify their areas of strength, and to propose appropriate training for any areas that require improvement. Students will be introduced to reflective practice and this module will provide a framework by which their other scholarship activities can be managed. The MSc in Materials Chemistry and MSc in Analytical Sciences are research-focused. This module will provide background on the research / commercial-world interface, and will introduce students to issues such as intellectual property and knowledge transfer. This module also serves as an introduction to the research project, thus project management as well as associated 'soft' research skills will also be covered.

Outline Syllabus

Developing reflective practice, identifying training needs. ICT skills – managing references, conducting searches, accessing the literature. Correct referencing styles. Selection of appropriate research and management theory. Practical skills of managing a project. Time management. Developing a scientific project plan. Principles of project planning. Project selection and specification. The project life cycle. Sustainability issues inherent in research. The role of the project manager. Project organisation and responsibilities. Cost estimation and control. Commercial considerations of research – Knowledge transfer, intellectual property. Case studies of successful and unsuccessful projects. Health and safety. Ethics.

Learning Outcomes

1	Evaluate the possibly conflicting requirements of commercial and academic research
2	Understand the role of reflective practice in their continuing professional development
3	Examine the role of IP and knowledge transfer in research
4	Apply project management tools
5	Identify training requirements needed for the completion of a piece of work
6	Design a research project plan
7	Write fully referenced scientific documents
8	Develop a strategy to organise and manage literature searches
9	Undertake project planning, and develop approaches to monitor and critically reflect on progress
10	Prepare Gantt charts

Learning, Teaching and Assessment Strategy

Through introductory lectures students will be introduced to the concept of reflective practice. At the start of the module students will be assigned to a project tutor and will discuss project outlines.

Students will complete a diagnostic questionnaire and with the help of their tutor will identify any requirements for further training, be it for a specific piece of equipment, or a CPD course offered by the university.

Directed study will provide students with the opportunity to undertake guided reading and to develop their own portfolio of learning to enhance transferable skills and knowledge relating to evaluation of own role and subject provision.

The VLE will be used to provide access to online resources, lecture notes and external links to websites of interest.

Assessment 1: Preparation of a project plan based on the student's proposed research area.

Assessment 2: Evidence of reflective practice:- Skills analysis, development of a training programme, and engagement with project management tools.

Mode of Assessment				
Type	Method	Description	Length	Weighting
Summative	Coursework	Preparation of a project plan	-2000 words	50%
Summative	Coursework	Training plan, and evidence of reflective practice	-2000 words	50%

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.