Module Specification

Module Title | Professional Skills for Chemists | Module Code | CHE401

Credit Value | 15 | Level | 7 | Mode of Delivery | On Campus | Semesters 1 & 2

Pre-requisite modules	Co-requisite modules	Overlapping modules

1) Content Description

Provide a description of the module, as it will appear in the Module Directory and on the Student Information

System (approx. 70-80 words).

This module aims at developing students' awareness of the role of chemistry in contemporary societal and global issues and at equipping final year students with the key skills required to address some of the challenges that they are likely to encounter as professional chemists. Topics such as green chemistry, industrial safety, intellectual property and ethical issues arising during professional practice of chemistry will be discussed. This module will particularly focus on developing communication skills that will allow students to evaluate, interpret, synthesise and discuss chemical information effectively and present scientific material to both specialist and non-specialist audiences.

2) Module Aims

Specify the aims of the module, i.e. the broad educational purposes for offering this module.

The module's aim is to broaden students perspective of contemporary chemistry whilst developing their general transferable professional skills, with a focus on communication.
More particularly the module aims to:
- develop an understanding of the role of chemistry in a range of contemporary global and societal issues;
- provide students with a basic understanding of intellectual property issues;
- provide students with an understanding of professional and ethical responsibility;
- develop skills required to present scientific material and arguments clearly and concisely in a style appropriate to the audience.

3) Learning Outcomes

Identify the learning outcomes for this module, i.e. knowledge, skills and attributes to be developed through completion of this module. Outcomes should be referenced to the relevant QAA benchmark statements and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008). The SEEC Credit Level Descriptors for Further and Higher Education 2003 and Queen Mary Statement of Graduate Attributes should also be used as a guiding framework for curriculum design.

Academic Content:	
A 1	Environmental impacts of the chemical industry and green chemistry.
A 2	Industrial safety and regulation
A 3	Intellectual property (IP) law
A 4	Ethics in professional practice

	Disciplinary skills - able to:
B1	Highlight the role of chemistry in the sustainable development of our society
B2	Demonstrate a sound understanding of the principles of Green Chemistry
B3	Present scientific material and arguments clearly and concisely in a style appropriate to the audience
B4	Demonstrate an awareness of ethical issues arising during professional practice of chemistry
B5	Participate in debate of chemical issues
B6	Demonstrate an understanding of safety issues related to industrial practice

	Attributes:
C1	Engage with the professional world

C2	Critically evaluate the reliability of difference sources of information
C3	Explain and argue clearly and concisely

4) Reading List
Provide an indicative reading list for the module. This should include key texts and/or journals but <u>should not</u> be an exhaustive list of materials.

Materials for a Sustainable Future, T M Letcher and J L Scott (ISBN: 978-1-84973-407-3)

Selected articles from "Chemistry World" (published by Royal Society of Chemistry)

Teaching and Learning Profile
Provide details of the method of delivery (lectures, seminars, fieldwork, practical classes, etc.) used to enable the achievement of learning outcomes and an indicative number of hours for each activity to give an overall picture of the workload a student taking the module would be expected to undertake. This information will form the Key Information Set for each undergraduate programme and will be used to populate the KIS widget found on the QMUL programme information pages. More information can be found online about KIS. You may also wish to refer to the QAA guidance on contact hours when completing this section.

Activity Type	KIS Category	Time Spent (in hours)
Seminar	Scheduled	22
Practical classes and Workshops	Scheduled	8
	Total	30

Specify the total module notional study hours. This should be a total of the hours given for each activity. The notional study hours for each academic credit point is 10. A 15 credit point module therefore represents 150 notional study hours.

Activity Type	Total Time Spent (in hours)	Percentage of Time Spent
Scheduled learning and teaching	30	20
Placement		
Independent Study	120	80
Total	150	100

Use the information provided in the box above to specify the total time spent and the percentage time spent in each category of teaching and learning activity.

Assessment Profile

Provide details of the assessment methods used to assess the achievement of learning outcomes.

Description of Assessment	Assessment Type	KIS Category	Duration / Length	Percentage Weighting	Final element of assessment?	Qualifying Mark
Coursework	Portfolio	Coursework		100	Yes	

Qualifying mark: A specified minimum mark that must be obtained in one or more elements of assessment in order to pass a module. This is in addition to, and distinct from, the requirement to achieve a pass in the module mark to pass the module.

Reassessment

Provide details of the reassessment methods used, specifying whether reassessment is either standard reassessment or synoptic reassessment.

○ Synoptic Reassessment   ◉ Standard Reassessment

Synoptic reassessment details (if you have indicated synoptic reassessment above, please give details)		
Brief Description of Assessment	Assessment Type	Duration / Length of Examination / Coursework
Not applicable	Written Exam	