Module Specification

Module Title	Pharmaceutical Chemistry MSci Research Project	Module Code	CHE751

Credit Value	60	Level	7	Mode of Delivery	On Campus	Semester A&B

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).

Students work independently on chemical research topics set by their project supervisors. Original experimental or theoretical work is the principal component of this advanced project. The work also involves critical evaluation of previously published results. A dissertation is prepared describing the research work undertaken, and placing it in the context of other research in the field. The dissertation is defended in an oral examination; students also present their work in the form of a poster and as a short oral presentation.

2) Module Aims

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

To provide students with the opportunity to plan and independently-conduct extended experiments, whilst working under supervision in a research environment

To enhance students' experimental, theoretical and analytical skills, and develop their ability to adapt and apply methodology to the solution of unfamiliar types of problems.

To develop students' time management and organisational skills, and their skills in the oral and written communication of research results and scientific concepts.

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:	
A1	Advanced knowledge of facts, theories and concepts relating to the specific field in which the project is undertaken.
A2	Safe laboratory practice, including risk assessment of novel experimental work
A3	Standard procedures in relation to the conduct of experiments and operation of laboratory instrumentation

A 4	Conventional styles for presenting scientific data in written reports, oral presentations and poster presentations.

Disciplinary skills - able to:	
B1	Carry out chemical research independently, with due consideration for safety and 'housekeeping' issues.
B2	Operate (after training) specialized equipment and advanced instrumentation appropriate to the project (e.g. high resolution magnetic resonance spectrometers, mass spectrometers, X-ray diffractometers etc).
B3	Select appropriate techniques and procedures
B4	Plan, design and execute new experiments
B5	Organize and critically evaluate scientific information and data
B6	To recognize and analyse problems, and plan strategies for their resolution
B7	To adapt and apply methodology to the solution of unfamiliar problems
B8	To assimilate, evaluate and objectively present research results
B9	Produce an extended piece of original writing to a deadline whilst following the conventions of scientific publishing.
B10	Deliver oral and poster presentations of their own research, to a style and standard that would be appropriate to a scientific conference.

Attributes:	
C1	Manage their time effectively, as evidenced by the ability to plan and implement efficient and effective modes of working.
C2	Learn independently, exercise initiative and personal responsibility.

4) Reading List

Provide an indicative reading list for the module. This should include key texts and/or journals but should not be an exhaustive list of materials.

Write Like a Chemist', M. S. Robinson, F. L. Stoller, M. S. Constanza-Robinson and J. K. Jones, OUP, 2008.

The ACS Style Guide - Effective Communication of Scientific Information', A. M. Coghill and L. R. Garson, OUP, 2006.

5) 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)
Lecture	Scheduled	4
Project Supervision	Scheduled	22
Supervised time in studio/workshop	Scheduled	432
	Total	458

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	458	76.3
Placement	0	0
Independent Study	142	23.7
Total	600	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.

6) 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
Dissertation	Dissertation	Coursework	15,000 words	50%	Yes	10%
Practical Work and Records	Project Output	Coursework		20%	No	
Seminar	Oral Assessment & Presentation	Practical	20 Minutes	7.5%	No	
Oral Examination	Coursework	Practical	1 Hour	15%	Yes	10%
Poster Presentation	Project Output	Coursework	2 Hours	7.5%	No	

Final element of assessment: The assessment that takes place last. There should normally be only one element of assessment marked as final unless two assessment or submission dates occur on the same day.
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