Module Specification

Module Title	odule Title Grand challenges in the Natural Sciences (15 credits) Module Code SBC5211									
Credit Value:	15	Level:	5	Mode of Delivery:		On Campus	Sem	ester:	А	
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).

Human society in the 21st century faces major challenges, which science can help to find solutions for - for example, climate change, population growth & consumption, healthy aging, dementia, conservation biology, resilience to natural disaster, antibiotic resistance, etc.

In this module, students will identify a contemporary 'grand challenge' for science about which they are passionate, and will develop a student-led group project which addresses an aspect of their challenge. Group projects will develop an outcome in relation to their chosen grand challenge - for example: an application for grant funding, development of a public engagement video or website, or a conference presentation. Students will be expected to present their findings in a public forum, and to engage with the public or other relevant stakeholders dependent on the topic area.

2) Module Aims

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

- To develop an understanding of the science involved in addressing the chosen grand challenge.

- To develop ability and confidence in communicating science in public and/or professional spheres.

- To develop independent research (learning) and team-working skills.
- To develop critical thinking and creativity.

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 <u>QAA benchmark statements</u> and the <u>Framework for Higher Education Qualifications in England</u>, <u>Wales and Northern Ireland (2008)</u>. The <u>SEEC</u> <u>Credit Level Descriptors for Further and Higher Education 2003</u> and <u>Queen Mary Statement of Graduate</u> <u>Attributes</u> should also be used as a guiding framework for curriculum design.

Academic Content:				
A1	Demonstrate a knowledge of the science behind the chosen grand challenge			

Discipli	Disciplinary skills - able to:				
B1	Critically evaluate approaches to mitigate/resolve the grand challenge				
B2	Communicate effectively				
B3	Conduct independent research				

Attributes	Attributes:					
C1	Ability to collaboratively work with people					
C2	Articulating and effectively explaining information					
C3	Creativity in proposals and communication					

QM Model Outcomes (available in QMPlus <u>here</u>):					
D1	(Networking) Evaluate and demonstrate evidence of their skills to support networking and how these have influenced their practice, their subject discipline and their career aspirations				
D2	(Multi/Inter-Disciplinarity) Demonstrate how discipline specific problem solving techniques or approaches may be generalised or applied in a broader context				
D3	(Enterprising Perspectives) Demonstrate and evaluate how they have enhanced their own learning through engaging in enterprising skills and behaviours				

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.

Information will be posted in the module homepage in QMPlus.

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
Seminar	Scheduled	10
Tutorials	Scheduled	6
	Total	

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	20	20	
Placement	0	0	
Independent Study	80	80	
Total	100	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
'Elevator pitch'	Oral assessment & presentation	Practical	3 min	15	No	
Written proposal	Written assignment, inc Essay	Coursework	2 pages	15	No	

Group	Oral	Practical	5 min	70	Yes	
presentation	assessment					
	&					
	presentation					

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.

\bigcirc	Standard Reassessment	lacksquare	Synoptic Reassessment
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Synoptic reassessment details (if you have indicated synoptic reassessment above, please give details)

Brief Description of Assessment	Assessment Type	Duration/Length of Examination/ Coursework
Written proposal	Written assignment, inc Essay	2 pages
'Elevator pitch'	Oral assessment & presentation	3 mins