School of Chemistry

Course Review: Unit Self-Evaluation 2014/15

SUMMARY OF RESPONSES – LEVEL 4

Unit code: CHEM40232	
Unit Title: Case Studies in Experimental Physical Chemistry	
Unit co-ordinator: Cinzia Casiraghi	
No of students taking unit: 33	
Other teaching staff: Vasudevan Ramesh, Simon Pimblott, Steve Yeates	
Response Rate: 45.45% (15/33)	
General University Questions	**Mean score**
Overall, I would rate this unit as being excellent	4.13
The feedback that I received on my work was helpful	3.00
This unit was well organised	4.07
The eLearning resources provided in this unit enhanced my learning experience	3.93

Please summarise the main themes from students' comments

The general feedback has been very good: the students like this unit because they can relate with current research in the school and/or applications in real life. All the lectures were well placed (both on content and delivery), with some minor complains, mainly related to the replacement of Steve Yeates (Dr Lewis), whose lectures have been difficult to understand and perceived as too much physics-based.

Please provide feedback to students comments:

Cinzia Casiraghi: a few students asked to have more space in the handouts to take notes. This will be implemented next year.

Simon Pimblott: major complaint is about use of a different teaching style; some students liked it, some not. However, the style is considered appropriate to 4th year students.

Vasudevan Ramesh: no complaints.

Steve Yeates: Scott Lewis has taught UG in Physics and despite working with him on content and lecture slides he obviously came across too physics-orientated. Will address next year by giving the whole module. Students appear to have been confused distinction between background and examinable content. This was clearly sign posted in lecture 1 and at the beginning and end of each lecture with summative given in lecture 6. Extensive questions provided which mapped onto learning outcomes. Unfortunate split in module due to university visit by myself and will ensure doesn't happen next time. It did however occur at a natural break point only obvious to cohort at the end and after census date.

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SUMMARY OF RESPONSES – LEVEL 4

Please provide generic feedback on exam performance (eg questions which were particularly well/poorly answered, common mistakes)

Ramesh: A couple of candidates got confused between proteins and nucleic acids, but this did NOT affect the answer.

Cinzia: some students did not know Beer-Lambert law and others used it in the wrong way. 4th year students should be expected to be very confident with Beer-Lambert law.

Steve: good students, liked the subject and did very well.

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SUMMARY OF RESPONSES – LEVEL 4

Unit code: CHEM40242	
Unit Title: Computational Modelling Techniques	
Unit co-ordinator: Neil Burton	
No of students taking unit: 26	
Other teaching staff: Joe McDouall	
Response Rate: 57.67% (15/26)	
General University Questions	**Mean score**
Overall, I would rate this unit as being excellent	3.47
The feedback that I received on my work was helpful	4.20
This unit was well organised	3.80
The eLearning resources provided in this unit enhanced my learning experience	4.13

Please summarise the main themes from students' comments

In general, the aspirations of the course and the practical/workshop format were the most appreciated aspects. The style and difficulty of some lecture material and its presentation were of concern to some and a slight change of balance in favour of more workshops was suggested by most. Some concerns were also raised regarding study time and the level of the course.

Please provide feedback to students comments:

As a new course, extending the chemistry curriculum into unchartered but topical computational territory, this course also proved to be a challenge for the instructors to deliver as well as for students to study. We appreciate that there were many aspects of the presentations and material which can be improved for the future, but we hope that the current course has provided some reward for the 'bravery' of the students who selected it.

We note that quite a few changes were made as the course progressed to adapt pre-conceived plans and expectations to some of the difficulties observed: additional workshops, open instructor availability, a change in emphasis in some material, additional revision material and a mock examination. Sample code (answers) was made available for all exercises via Blackboard.

We also believe that the aims and expectations were made clear throughout: the course required students to develop practical and academic skills which would enable them to solve model computational problems. Thus this was not just a programming/language course , nor was it just a computational chemistry course, and most importantly, it was not a standard lecture course where material was to be committed to memory for reproduction in the examination.

It should be appreciated that the course's learning objectives need to be commensurate with a 4th level course, and could not be just a trivial introduction [to programming]. The material was chosen and structured to be accessible to a wide range of experience and ability, but required students to work through the workshop material and engage with an appropriate amount of self-study, which was strongly dependent on the student's background and aspirations. We note that in some cases, attendance at workshops was minimal and the extent of self-study was observed to be very variable.

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SUMMARY OF RESPONSES – LEVEL 4

Please provide generic feedback on exam performance (eg questions which were particularly well/poorly answered, common mistakes)

For most, who did engage with the aims, the course was both successful and rewarding: ~36% obtained first class marks, 20%, 20% and 8% obtained 2.1, 2.2 or 3rd class marks respectively, broadly in-line with class expectations.

In general, perhaps the main difficulty which was encountered by the students was the change of emphasis from book learning to practical problem solving and a practical examination. Many of the poorer answers in the examination appeared to be based on reproduction of incorrect fragments where a student had clearly not understood the material but had instead attempted to commit specific code to memory. In question 3 there was also evidence that a lack of basic chemical kinetics was a limiting factor for some.

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Course Review: Unit Self-Evaluation 2014/15

SUMMARY OF RESPONSES – LEVEL 4

Unit code: CHEM40252	
Unit Title: Advanced Magnetic Resonance	
Unit co-ordinator: Mathias Nilsson	
No of students taking unit: 17	
Other teaching staff: Vasudevan Ramesh, Alex Jones, Mike Anderson, Jonathan Agger, Alistair Fielding, David Collison	
Response Rate: 35.29% (6/17)	
General University Questions	**Mean score**
Overall, I would rate this unit as being excellent	3.83
The feedback that I received on my work was helpful	2.83
This unit was well organised	4.33
The eLearning resources provided in this unit enhanced my learning experience	4.33

Please summarise the main themes from students' comments

Students generally happy. One complaint about too much content.

Please provide feedback to students comments:

As the course has many parts, we shall review the amount of content in each module.

Please provide generic feedback on exam performance (eg questions which were particularly well/poorly answered, common mistakes)

Satisfactory exam performance.

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Course Review: Unit Self-Evaluation 2014/15

SUMMARY OF RESPONSES – LEVEL 4

Unit code: CHEM40322	
Unit Title: Topics in Inorganic Chemistry	
Unit co-ordinator: Alan Brisdon	
No of students taking unit: 81	
Other teaching staff: Mike Ingleson, Richard Winpenny, Louise Natrajan, Martin Attfield, David Mills	
Response Rate: 48.15% (39/81)	
General University Questions	**Mean score**
Overall, I would rate this unit as being excellent	4.15
The feedback that I received on my work was helpful	3.59
This unit was well organised	4.44
The eLearning resources provided in this unit enhanced my learning experience	4.10

Please summarise the main themes from students' comments

Very high degree of student satisfaction with the course, topics & lecturers.

Requests to increase the number of workshops or have tutorials

Too much information for 4 lecture slots per topic.

Lectures being rearranged.

Please provide feedback to students comments:

Firstly we were pleased to again receive a very positive set of results and comments for this course; it is clear that the advanced topics format and the way they are examined is well liked. We note the suggestions regarding making each topic longer & more workshop/tutorial sessions. These will be considered at the next Inorganic Section meeting.

We apologise for having to rearrange some lectures at short notice this year; this is never something we do lightly, and arose because of staff illness and timings associated with external events over which we had no control.

Please provide generic feedback on exam performance (eg questions which were particularly well/poorly answered, common mistakes)

The overall course average was very similar to previous years. There was clear evidence of excellent answers in many cases, but also a number of very basic mistakes, eg in common oxidation states, or very limited answers, this was disappointing at the 4th year level.

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Course Review: Unit Self-Evaluation 2014/15

SUMMARY OF RESPONSES – LEVEL 4

Unit code: CHEM40422	
Unit Title: Molecular Interactions in Organic Chemistry	
Unit co-ordinator: Simon Webb	
No of students taking unit: 59	
Other teaching staff: Mike Turner, David Leigh, Guillame De Bo	
Response Rate: 40.68% (24/59)	
General University Questions	**Mean score**
Overall, I would rate this unit as being excellent	3.79
The feedback that I received on my work was helpful	3.46
This unit was well organised	4.13
The eLearning resources provided in this unit enhanced my learning experience	3.79

Please summarise the main themes from students' comments

The students were generally happy, and enjoyed being exposed to some of the latest areas of chemical research. There seemed to be some concern over the examination as two of the three lecturing staff were new on this unit. There was also some concern expressed about the amount of material delivered in the "Molecular Machines" part of the course.

Please provide feedback to students comments:

Despite the concern over the new sections in the exam, practice exam questions were provided for these new sections during the course.

The exam results for the Molecular Machines part of the course were not out of line with the averages for the Molecular Interactions part of the course, or averages in this course from previous years.

Please provide generic feedback on exam performance (eg questions which were particularly well/poorly answered, common mistakes)

Overall the exam was well answered, with an increase in the paper average of nearly 10%. The question on OLEDs was particularly well answered. Questions that required recall of lecture material were well answered, questions that required problem solving were less well answered. Part of the overall improvement in exam performance may have stemmed from the introduction this year of workshops for all parts of the course.

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Course Review: Unit Self-Evaluation 2014/15

SUMMARY OF RESPONSES – LEVEL 4

Unit code: CHEM41412	
Unit Title: Advanced Bioorganic Chemistry	
Unit co-ordinator: Roger Whitehead	
No of students taking unit: 35	
Other teaching staff: Jason Micklefield, Nick Turner	
Response Rate: 48.52% (17/35)	
General University Questions	**Mean score**
Overall, I would rate this unit as being excellent	4.35
The feedback that I received on my work was helpful	4.24
This unit was well organised	4.47
The eLearning resources provided in this unit enhanced my learning experience	4.12

Please summarise the main themes from students' comments

The responses from the students were generally very positive and indicate that they found the module to be well lectured and to contain interesting material which built on previous courses. The inclusion of revision questions throughout the course was particularly well received. There was a minor issue with material on Blackboard from 2014 not being replaced in time for the beginning of one set of lectures. There was also some discontent regarding the lack of provision of handouts in lectures for that particular section of the course.

Please provide feedback to students comments:

Material will be uploaded in a timely manner onto Blackboard in 2016 and hard copies of lecture handouts will be provided for all sections of the course.

Please provide generic feedback on exam performance (eg questions which were particularly well/poorly answered, common mistakes)

All questions were answered well and the course had a good average overall mark (>60%).

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Course Review: Unit Self-Evaluation 2014/15

SUMMARY OF RESPONSES – LEVEL 4

Unit code: CHEM41600/42600/43600	
Unit Title: MChem Project	
Unit co-ordinator: Ben Coe	
No of students taking unit: 108	
Response Rate: 49.07% (53/108)	
General University Questions	**Mean score**
Overall, I would rate this unit as being excellent	4.11
The feedback that I received on my work was helpful	4.17
This unit was well organised	4.00
The eLearning resources provided in this unit were helpful	3.53
The supervision and guidance I received were appropriate	4.32
The facilities provided were excellent	4.13
I was able to balance the demands of my project with taught course units	3.92

Please summarise the main themes from students' comments

NB: the overall response rate of below 50% is rather disappointing, especially for such important course units. Given that the return rates for the details are much lower, the comments received may not represent majority views.

• Many students enjoyed their projects and learned a lot from them; they appreciate the efforts of diligent staff and others who help in various ways.

• Projects are often a good preparation for future research studies.

• There is too much variability in the way projects are managed, *e.g.* the extent of organisation and level of support provided, the amount of time spent on practical work.

• Staff should know the rules and obey them, *e.g.* relating to the amount of help provided with report writing.

• Presentations should be better attended and possibly scheduled for after the reports have been submitted.

• It can be difficult balancing the demands of lectures, *etc.* with project work.

• Clearer guidelines on report writing style, *etc.* could be helpful.

• A few staff do not seem to take their project supervision duties seriously and are reluctant to engage with students.

Please provide feedback to students comments:

• Positive comments are received with thanks, and the efforts of many academic staff and others who help are acknowledged.

• We are delighted that some students are inspired by their projects to pursue further research studies.

• We accept that there is a need to improve the overall consistency of the project experience, but this entails many challenges.

• We will increase our efforts to ensure that all students are treated equally in relation to various aspects including supervisory help with report writing, working hours, and the

assessment of presentations.

• The arrangements for presentations will be given careful consideration and modified as appropriate.

• Learning effective time management skills is key to success in year 4, but we do realise that in some cases too much is expected of students in terms of project practical work. Clearer guidelines will be issued and staff, together with any other helpers, will be reminded strongly to adhere to them.

• More detailed and rigid guidelines concerning report writing can be provided, but it should be recognised that some of the requirements in terms of layout, *etc.* can vary according to the nature of the project. In general, we believe it is helpful to have some flexibility of approach.

• It is recognised that staff attitudes, availability and commitment to projects do vary, but every effort will be made to ensure that all staff know their obligations and are ready to honour them.

NOTE: comments for CHEM40222 and CHEM40442 can be found on the level 3 summary (as these are jointly taught units)