

School of Chemistry

Course Review: Unit Self-Evaluation 2015/16

Unit title: CHEM10021		
Unit code: Chemistry for Bioscientists		
Unit co-ordinator: Lu Shin Wong		
No of students taking unit: 221		
Other teaching staff: Gareth Law, Klaus Muller-Dethlefs		
General University Questions	Response	Mean score
Overall, I would rate this unit as being excellent	39.4% (100/254)	3.91
The feedback that I received on my work was helpful	39.4% (100/254)	3.59
This unit was well organised	39.4% (100/254)	4.25
The eLearning resources provided in this unit enhanced my learning experience	39.4% (100/254)	3.85
I found the supporting workshops for this course helpful	39% (99/254)	4.14
<i>Please summarise and provide feedback to students comments:</i>		
Overall, the students appeared to be satisfied with the delivery of the unit in all categories. Of these, the lowest (although still positive) was in the helpfulness of feedback. In this regard, we would like to reiterate that opportunities for the students to test their understanding and to get feedback is provided in the form of: (a) workshops, with model answers provided afterwards; (b) on-line quizzes, with model answers and explanations provided afterwards; (c) PASS sessions mentored by more senior students. In addition, all staff are available to meet to discuss the taught material. Nevertheless, we acknowledge there is always room for improvement. In future years, we will improve the feedback aspect by providing the PASS leaders with more guidance information, including copies of the lecture notes, so they can more clearly provide detailed explanations. In regards to the feedback for quizzes on Blackboard, the software currently does not support providing feedback on a question-by-question basis. Thus we have instead elected to provide the explanations either at the end of the quiz or separately. Another significant issue encountered this year was the timetabling. We acknowledge that the timetabling this year was far from ideal, with many last minute changes. This is due to alterations in the Faculty of Life Science teaching structure impacting on this course, which is delivered by the School of Chemistry (in a different faculty). The timetabling clashes were not apparent until very near the start of the academic year, making any adjustments difficult to implement at short notice. Every effort will be made to rectify this for the coming year. There are many comments that indicate that students are unable to use and manipulate mechanistic “curly” arrows. This is assumed knowledge from their pre-university studies and not covered in detail this this unit. The fact that students are expected to understand this topic prior to commencement is stated clearly in an email to students and posted on Blackboard. (See also comments below) We are investigating the possibility that students which did not take A-Level chemistry (or equivalent) had greater difficulties coping with this unit and may alter the course or course requirements in future years.		

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

Section A: Based on feedback the students enjoyed and engaged well with this section of the course and they performed very well in this section of the exam. No major knowledge gaps were evident from course materials although some students gave answers lacking in detail / working (which was requested) and thus lost valuable marks. The exam results do not dictate content overhaul.

Section B: In general, students performed well in this section. The question relating to acid/base equilibria was well answered, which was to be expected as this was to some extent a revision of pre-university material. Of the main weakness in this section was the students' difficulty manipulating "curly" arrows in order to demonstrate the progression of one structure to the next. Despite the fact that it was a major component of this unit, it appears that students that were weaker at this topic (as evidenced by their online quiz marks) failed to take remedial action with self-practice using the workshop questions and exercises from the recommended textbook. In addition, a help sheet detailing common errors in using curly arrows was also released after the relevant online quiz.

Section C: Compared to previous years the exam performance in section C has substantially worsened. This applies to all of the four questions. It seems that students do not take this part of the course serious enough. The workshop provided more than sufficient training for the students, but it was poorly attended.

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Course Review: Unit Self-Evaluation 2015/16

Unit title: CHEM10101		
Unit code: Introductory Chemistry		
Unit co-ordinator: Alan Brisdon		
No of students taking unit: 221		
Other teaching staff: Andrew Regan, Tim Wallace, Simon Pimblott		
General University Questions	Response	Mean score
Overall, I would rate this unit as being excellent	48.4%	4.08
The feedback that I received on my work was helpful	48.4%	4.11
This unit was well organised	48.4%	4.23
The eLearning resources provided in this unit enhanced my learning experience	48.4%	4.22
I found the tutorials linked to this course helpful	48.4%	4.51
I found the supporting workshops for this course helpful	48.4%	3.86
<i>Please provide feedback to students comments: (this will be published on the intranet and Blackboard):</i> We thank the students for their many pages of comments, the vast majority of which were very complimentary. Suggestions for improvements focussed mainly on problems with the variable up-take/ availability/usefulness of podcasts, and suggestions that video recordings would be even more useful to include boardwork etc. While the actual recording process is completely outside the control of the School we will address issues that we can control, such as an explanation of when podcasting will or will not be used, and when it is being used ensure that mobile mics are worn. There were a smaller number of comments on two issues (1) on-line tests should be made available all the time, rather than for limited periods – I would have thought that for formative tests this would be possible; (2) concerned workshops – specifically asking for consideration of workshops in terms of timing (in the day & relative to the delivery of material covered) and content – this will be considered, not only as our ongoing review of this course, but also as part of the wider review of 1st year teaching which is currently underway.		
<i>Please provide generic feedback on exam performance (eg questions which were particularly well/poorly answered, common mistakes)</i> Generally all sections of the exam paper were answered very well, there was a significant increase on last year's scores. There were a number of students that only attempted 3, rather than 4, questions from sections B-D and so had not read, or understood, the paper instructions correctly. A small number of common mistakes appeared a number of times, including the positioning of lone pairs in the structure of ClF_3, the fact that ClO does not have a centre of inversion for "u" or "g" labelling of MOs, and curly arrows being drawn the wrong way around. Sometimes parts of the question were not answered, and this may be due to over-looking what the question is asking. Examples of this were when a question stated "draw the intermediate" - often this was overlooked or forgotten, or "show that..." which requires a demonstration of getting to the answer, rather than just giving the answer. A good method for avoiding this problem is to highlight/underline the key parts of the question - this means a quick check can be made to ensure everything has been included. Sometimes a lot of sentences of explanation were used where a diagram would have been quicker – while not wrong this could lead to using more time than needed.		

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Finally, some students tended to “throw everything at a question”, rather than consider what might be the key factors, eg stabilisation of an anion versus a radical, or the fact that O_2 has a double bond (so higher bond order) than F_2 or Cl_2 .