Unit title: CHEM30411/31411/61041

Unit code: Core Organic Chemistry

Unit co-ordinator: Simon Webb

Other teaching staff: John Gardiner, Andrew Regan

Response rate: 29.2% (63/216)

General University Questions	**Mean score**	**2015/16**
Overall, I would rate this unit as being excellent	3.71	3.95
The feedback that I received on my work was helpful	3.68	3.89
This unit was well organised	3.97	4.13
The eLearning resources provided in this unit enhanced my learning experience	3.86	4.03
I found the tutorials linked to this course useful	4.1	4.13

Please summarise the main themes from students' comments:

Positive comments: material was complete and well-organized, revision slides throughout course, extra material for distance learners, good at explaining/explains concepts well/openness to questions. A range of comment on notes/handouts, but on balance the students found them useful, especially Dr Regan's handouts. The additional information provided by Dr Webb was described as being useful.

Negative comments: There were a number of comments about the quality of the podcasting. Some students found the physical organic chemistry material challenging. Some students struggled with mechanism and wanted more information. Some students wanted reinforcement of common background mechanisms (e.g. imine formation and tautomerism) that are covered in abstract once and in general form a number times (as well as earlier in the course under Dr Regan).

Please provide feedback to students comments:

The problems with podcasting will be brought up again with the AV centre.
The content of the course will be assessed in 2017/2018 and again the year after. Although only 15% of 30411/61041 students attended the 1.5h workshop/revision session in January, we suggest this will continue.

For 2017/18, Dr Webb will revise his additional background material that is available on Blackboard.

Dr Gardiner will give links in handouts to repeated mechanisms or mechanisms from prior courses/lecture blocks, to ensure no potential ambiguity regarding where common mechanisms are required (such mechanisms are not always completed in full in every multistep synthesis e.g. imine, enamine and aldol condensations). The introduction of "in-lecture" mechanism problems may assist students, although this will be tensioned against lecture attendance and tutorial provision.

Unit title: CHEM30211/40221		
Unit code: Principles of Modern Physical Chemistry		
Unit co-ordinator: Mathias Nilsson		
Other teaching staff: Peter Budd, Neil Burton, Mathias Nilsson		
Response rate: 25.7% (48/187)		
General University Questions	**Mean score**	**2015/16**
Overall, I would rate this unit as being excellent	3.40	3.55
The feeback that I received on my work was helpful	3.54	3.64
This unit was well organised	3.81	3.91
The eLearning resources provided in this unit enhanced my learning experience	3.85	3.85
I found the tutorials linked to this course useful	4.19	4.04

Please summarise the main themes from students' comments:

Over all good feedback where the students seem to have enjoyed all parts of the course. The students were particularly positive about practical elements including tutorial and workshops. Some students point out that it may be better to have only 3 modules of 8 lectures. Not running the two last modules in parallel (as for previous year) seems to have worked very well, and facilitated by having the last Physical tutorial in week 12.

Please provide feedback to students comments:

The online content seems to have been appreciated. We will continue make sure this is of good quality. Helpful practical content, tutorials and workshops are also something we will continue to provide and improve.

Unit title: CHEM30311/40341/61521

Unit code: Coordination Chemistry

Unit co-ordinator: David Mills

Other teaching staff: Richard Layfield, Sarah Heath

Response rate: 31.6% (67/212)

General University Questions	**Mean score**	**2015/16**
Overall, I would rate this unit as being excellent	4.42	4.65
The feedback that I received on my work was helpful	4.28	4.48
This unit was well organised	4.51	4.71
The eLearning resources provided in this unit enhanced my learning experience	4.10	4.37
I found the tutorials linked to this course useful	4.39	4.6

Please summarise the main themes from students' comments:

We thank the students for their comments and we are delighted that they are in general overwhelmingly positive. Most students appear to have enjoyed the module in terms of content and the style of delivery of all three lecturers. All three lecturers delivered courses that were well received, with average marks received for all categories rated well above the School averages and comparable to the excellent scores that we received in 2015/16. There were relatively few suggestions for change or improvement. The key points which require attention are:

1. Problems with podcasts.
2. Scheduling of tutorials in relation to lecture material and timetables.
3. Availability of questions/answers on Blackboard for workshops and tutorials.
4. Requests for more workshop-style material/in-class tests.
5. Changes to the content of organometallics section.

The changes planned for 2017/18 to address these points are outlined below.

Please provide feedback to students comments:

1. Poor quality podcasts.

Lecture capture is the responsibility of the central timetabling unit (CTU) and this is beyond the control of individual lecturers.

2. Scheduling of tutorials in relation to lecture material/timing of tutorials.

CHEM30311/40341 tutorials must fit in a schedule alongside other module slots and one module will always be assigned an unfavourable slot. Tutorial times must then fit in with both staff workloads and student timetables. The combination of tutorials and workshops provided by provides coverage of the whole unit, with the later material covered by workshops.

3. Availability of questions/answers on Blackboard to workshops and tutorials.

We will make sure tutorial question sheets are provided well in advance and all answers are available promptly online after tutorials for next year. Workshop questions and answers are given out at the workshops themselves to encourage attendance and engagement, as was advertised during lectures.

4. More practice workshop/tutorial/online material.

The current spilt is for one workshop and seven lectures for organometallics and supramolecular, and two workshops and six lectures for f-block. We will review the former two components to see if another workshop is feasible at the expense of a lecture. We will also review tutorial/online material to see if more practice questions can be provided.

5. Changes to course content/delivery.

This course is going to run in its current guise for one more year (17/18), after which there will be wholesale changes to content and learning outcomes following the findings of the curriculum review. Such concerns (e.g. content of the organometallics course) have been raised previously and are being acted upon but there will be a 1 year delay in acting upon this fully due to the constraints of bringing in a new curriculum on a year-by-year basis.

Unit title: CHEM30441

Unit code: Advanced Drug Discovery

Unit co-ordinator: John Gardiner (*8 sessions*)

Other teaching staff: *Paterson – 8 sessions*: Allan Jordan, Ali Raoof, James Hithcin; *Pharmacy – 8 sessions*: Doug Steinke, Aleksandra Galetin, Zahraa Al-Ahmady

Response rate: 20% (4/25)

General University Questions	**Mean score**	**2015/16**
Overall, I would rate this unit as being excellent	3.25	4.29
The feedback that I received on my work was helpful	3.50	3.86
This unit was well organised	2.50	3.57
The eLearning resources provided in this unit enhanced my learning experience	3.50	4.29
I found the tutorials linked to this course useful	3.25	4.29

Please summarise the main themes from students' comments:

Only four students responded. Statistics and comments are not therefore as useful as they could be in formulating a response.

Organization comment: The BB9 site was reorganized. A list of individual files across 7 staff in various orders were consolidated into folders for each of the three block areas with explanations of each subsection, staffing information and a lecture timetable introduced. Staff from each section were engaged in creating an accurate descriptor (previously did not include full course details).

There were no issues with rooms, or other known organizational problems outside of one technical presentation problem (LG Chem room projector would not connect and IT was called, which delayed lecture by 20 minutes). Handouts were all available online (in advance for DASS) and slides and hand-outs were all made available across all sections. Very few queries were received regarding these during the course and all were resolved so our response is that this unit was suitably-organized.

One comment was that AG 'got through content quickly' and that helped, and one that ZA content was 'a lot of content'. From the four possible student commentaries it is not clear whether action is viable however, the level of (what was new for 2016-7) content in ZA's section has been reviewed and the feedback is we have agreed that the material provided next year should be more concise to ensure that adequate time will be given.

Two commented that there were workshop questions but no answers (re AJ and JMG) and one that workshops (JMG) were useful but not clear what was needed for exam. The workshop answers were in fact provided via Blackboard for these workshops –set as student visible after the workshops, so maybe these two students were looking for the solutions before the workshops. In response to exam relevance, it was made clear (in the workshop) that the workshop examples were the style of format and challenge level for the exam but that content would be related largely to examples in lectures (the workshop in question involved three examples taken from a recent review of routes to recently clinically approved drugs). About ≤50% attended lecture sessions or drug reactions workshop itself.

Staffing: This course had four changes to staff, some with relatively short notice. Content on the Chemistry-led section was modified and some content removed and replaced/updated where relevant. Pharmacy section content was changed due to loss of staff with relevant area of interest

and a new member of staff assigned thus providing new content.
Please provide feedback to students comments: The workshop questions had guideline solutions on Blackboard and this will be continued in future – solutions will appear after workshops have run. Attendance at the workshops provides access to important additional advise on the relevance to exams. Content on new Pharmacy section is being revised and content level will be modified. Feedback on specific exam answers questions under separate cover.

Unit title: CHEM30531

Unit code: Environmental Chemistry

Unit co-ordinator: Gareth Law

Other teaching staff: Andrew Horn

Response rate: 28.9% (28/97)

General University Questions	**Mean score**	**2015/16**
Overall, I would rate this unit as being excellent	4.07	4.29
The feeback that I received on my work was helpful	4.04	3.86
This unit was well organised	4.39	3.57
The eLearning resources provided in this unit enhanced my learning experience	4.25	4.29

Please summarise the main themes from students' comments:

Dr Law convened the module for the first time and the content was overhauled during the summer of 2016 reflecting the fact that Dr Pearce left the University. In this respect, Dr Law taught new content on pollutant behaviour / remediation and Prof. Horn extended his lectures on atmospheric chemistry. The students seem to have enjoyed the new iteration of the course and engaged with its content. Teaching quality was generally perceived to be high and communication, organisation of the course, and workshops were all deemed good. Podcasting and online content, as well as exam preparation exercises were also well received. We are pleased with this outcome.

Please provide feedback to students comments:

Feedback generally addressed two topics: Lecture / lecture note clarity and online quizzes. Regarding quizzes we will strive to include more weekly 'practice' quizzes in the second part of the course and improve feedback for existing quizzes. For lecture notes in section 2 of the course we will strive to make handouts and annotations clearer. We will also ensure these are uploaded to blackboard at the start of each new topic. Dr Law will also investigate whether he can add more student 'write-in' components to his lecture notes. We feel that the current number of exam practice questions is adequate.

Unit title: CHEM31331

Unit code: Bioinorganic Chemistry

Unit co-ordinator: David Collison

Other teaching staff: Alistair Fielding, Alex Jones, Louise Natrajan

Response rate: 31.7% (13/41)

General University Questions	**Mean score**	**2015/16**
Overall, I would rate this unit as being excellent	2.77	3.70
The feedback that I received on my work was helpful	2.77	3.60
This unit was well organised	3.23	4.40
The eLearning resources provided in this unit enhanced my learning experience	2.85	4.20

Please summarise the main themes from students' comments:

We thank the students for their comments.

The students generally enjoyed the content of the course, but found too much detail was crammed into each topic, aside from Alex Jones' component. The students would appreciate more from project and/or teamwork in the course. They suggest a greater focus on theory and on analytical methods employed. The interest in and enthusiasm of the lecturers for their material was recognised. Some students were comfortable with the rate of delivery of material and others found this too hurried. There was more general comment that the choice of optional courses is too restricted, and that not all lectures were podcasted.

Please provide feedback to students comments:

This course unit will run for one more year, in 2017-18, and will then probably be replaced following the outcome of the ongoing curriculum review, from which changes are scheduled to occur for year 3 units in 2018-19. Lecturers will take account of the comments about the balance between detailed facts and theory/methods and make some modifications next year, but there will not be wholesale changes because that will be the course unit's final year. If feasible we will instigate one or more of: less content, more lectures in one topic, group working on a workshop/past exam paper. Note that whether a component of a course unit is made into a podcast is at the discretion of the lecturer.

A very unexpected observation in the statistical data for this unit is that the mean score on all the "General University Questions" dropped by *ca.* 1 unit compared to 2015-16, but the overall examination performance increased by over a class (unit average up by 11.5%). This might imply that the students did not like their learning experience, but that experience was very effective, alternatively the validity of these metrics might be questioned.