



EXTERNAL EXAMINER ANNUAL REPORT FORM

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|---|---|-----------------|----------------------------|
| | For completion by External Examiner: | | |
| Name of External Examiner: | Professor Gill Reid | | |
| Home Institution / Employer of External Examiner: | University of Southampton <i>Inorganic Chemistry modules on undergraduate programmes</i> | | |
| Programme and / or Subjects Covered by this Report: | UG Chemistry Taught Programmes | | |
| Academic Year / Period Covered by this Report: | 2015/16 | Date of Report: | 22 nd June 2016 |

For completion by External Examiner in the spaces provided. Please extend spaces where necessary. **Please note this Form will be published online.**

1. Programme Structure

The structure of the programmes in Cardiff aligns well with those I have experienced in other comparable courses in UK institutions, based upon coverage of fundamental chemistry topics in the early years (mainly through lectures and associated problem classes), together with associated training in practical chemistry. Moving through to the senior years sees more advanced practical skills and substantial research projects becoming major features, along with opportunity for MChem students to specialise in their areas of interest during Y4. The coverage of the research-led modules in the final year is guided by the research strengths in the department, and is highly appropriate, allowing students to have exposure to cutting-edge research topics, and preparing them for chemistry-based professions.

2. Academic Standards

The best students graduating from Cardiff Chemistry courses are competitive with those of other major institutions across the UK. It is clear that staff in Chemistry are serious about ensuring standards, supporting students and providing them with opportunities to broaden their experiences.

3. The Assessment Process

The assessment process appears to be robust, suitably challenging to the students, and with a range of elements that enable them to demonstrate their knowledge, understanding and skills. With regards to the examination papers associated with the Inorganic chemistry, I consider the papers to be well structured, and I encourage staff to continue to include components of 'seen', 'unseen' and 'problem-solving' within the papers.

The final year research projects form a major part of the assessment. We looked at several representative reports at the borderlines and at the extremes of the class. It is clear that the MChem students generally perform very well, and engage fully with the project. This is the area that the students indicated they enjoy most – and that is very important for a subject like Chemistry. The recommendations made last year concerning the assessment of the projects have been embraced by the staff.

Specifically:

- 1) Supervisors now provide a short commentary to justify the marks that they award
- 2) A moderation process has been introduced to check for consistency between marks awarded and comments; this helps to eliminate 'uncalibrated' marking.

I was really impressed by the quality of the paperwork associated with the project assessment this year. Each of the External Examiners explored several project reports and were fully persuaded by the rigor and consistency of the process. The justification of the marks was very good and differentiated readily between reports/project outcomes. The overall process was excellent this year, and I fully recommend that it is continued in future years.

I also appreciated that bar charts of marks distributions, and averages over several years were made available for all courses. This gave rise to constructive discussions regarding some modules with either low or high averages; it was clear that staff had also discussed these in detail, and we were generally content with the final conclusions.

As in my comments from last year, I would strongly encourage the University to adopt a policy of quoting overall marks to one decimal place. On this basis marks of 68.0 (58.0, 48.0) are the lower boundary, giving a 2% window. The current system of using rounded integral marks means that the borderline is 2.5% below – i.e. 67.5 is rounded to 68%... This is out of line with all other institutions I have experience of and is in my view too far below the 70/60/50% classifications. The borderline of 2.5% is extremely generous and seriously risks a decline in standards at Cardiff University. This is a decision that needs to be made centrally, rather than within Chemistry. In my view, a mark of 67.5% (etc.) really ought to be awarded the lower degree classification, rather than be subject to the 'secondary rule'.

4. Year-on-Year Comments

See 3. above – it is my opinion that the robustness of the assessments has improved, and I would like to thank the academic staff for their cooperation in giving all suggestions due consideration.

Regarding the exam paper preparation and the review process – the Inorganic papers were provided to me in very good order and in a timely fashion. I also appreciated receiving considered responses to my suggestions. The coverage of material was good, and the structure of the papers was mostly appropriate. As in previous years, I encourage examiners to continue to monitor the structure of the papers to ensure that there is some ‘entry level’ material that students who have engaged with the course should be able to score well on, even if they are not outstanding, some ‘medium level’ questions that are more stretching with regard to applying concepts/interpreting data and putting scientific arguments together. Then the final few marks are associated with the more challenging concepts to stretch the more able students and let them demonstrate their skills. This appears to have worked very well this year.

The overall quality of the assessment process this year is very high. I really appreciate the high level of commitment of staff to respond constructively to the suggestions made by the External Examiners.

5. Preparation / Induction Activity (for new External Examiners only)

n/a

6. Noteworthy Practice and Enhancement

The structure of the project assessment procedure is very good on the whole, ensuring parity in the marking procedures across the department. The current approach to project marking and moderation is an example of good practice.

The model answers were also in good order, and almost all of the papers also indicated whether the material was ‘seen’/‘unseen’, i.e. ‘bookwork’ or ‘application of knowledge to an unseen problem’.

I also consider the method employed in Chemistry to handle ECs to be an example of good practice

7. Appointment Overview (for retiring External Examiners only)

n/a

8. Annual Report Checklist

Please include appropriate comments within Sections 1-7 above for any answer of 'No'.

| | | Yes (Y) | No (N) | N/A (N/A) |
|--|---|---------|--------|-----------|
| Programme/Course Information | | | | |
| 8.1 | Did you receive sufficient information about the Programme and its contents, learning outcomes and assessments? | Y | | |
| 8.2 | Were you asked to comment on any changes to the assessment of the Programme? | | | N/A |
| Draft Examination Question Papers | | | | |
| 8.3 | Were you asked to approve all examination papers contributing to the final award? | Y | | |
| 8.4 | Were the nature, spread and level of the questions appropriate? | Y | | |
| 8.5 | Were suitable arrangements made to consider your comments? | Y | | |
| Marking Examination Scripts | | | | |
| 8.6 | Did you receive a sufficient number of scripts to be able to assess whether the internal marking and classifications were appropriate and consistent? | Y | | |
| 8.7 | Was the general standard and consistency of marking appropriate? | Y | | |
| 8.8 | Were the scripts marked in such a way as to enable you to see the reasons for the award of given marks? | Y | | |
| 8.9 | Were you satisfied with the standard and consistency of marking applied by the internal examiners? | Y | | |
| 8.10 | In your judgement, did you have the opportunity to examine a sufficient cross-section of candidates' work contributing to the final assessment? | Y | | |
| Coursework and Practical Assessments | | | | |
| 8.11 | Was the choice of subjects for coursework and / or practical assessments appropriate? | Y | | |
| 8.12 | Were you afforded access to an appropriate sample of coursework and / or practical assessments? | Y | | |
| 8.13 | Was the method and general standard of assessment appropriate? | Y | | |
| 8.14 | Is sufficient feedback provided to students on their assessed work? | Y | | |
| Clinical Examinations (if applicable) | | | | |
| 8.15 | Were satisfactory arrangements made for the conduct of clinical assessments? | | | N/A |
| Sampling of Work | | | | |
| 8.16 | Were you afforded sufficient time to consider samples of assessed work? | Y | | |
| Examining Board Meeting | | | | |

| | | Yes (Y) | No (N) | N/A (N/A) |
|--|---|---------|--------|-----------|
| 8.17 | Were you able to attend the Examining Board meeting? | Y | | |
| 8.18 | Was the Examining Board conducted properly, in accordance with established procedures and to your satisfaction? | Y | | |
| 8.19 | Cardiff University recognises the productive contribution of External Examiners to the assessment process and, in particular, to the work of the Examining Board. Have you had adequate opportunities to discuss the Programme and any outstanding concerns with the Examining Board or its officers? | Y | | |
| Joint Examining Board Meeting (if applicable) | | | | |
| 8.20 | Did you attend a Composite Examining Board, i.e. one convened to consider the award of Joint Honours degrees? | | | N/A |
| 8.21 | If so, were you made aware of the procedures and conventions for the award of Joint Honours degrees? | | | N/A |
| 8.22 | Was the Composite Examining Board conducted according to its rules? | | | N/A |

Please return this Report, preferably in a Microsoft Word format, by email to:

ExternalExaminers@cf.ac.uk

Your fee and expenses claim form and receipts, should be sent electronically to the above email address or in hard copy to:

Clive Brown, Registry Officer, Registry & Academic Services, Cardiff University,
McKenzie House, 30-36 Newport Road, Cardiff, CF24 0DE