

The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2015– 2016

Part A: General Information

Subject area and awards being examined

Faculty / School of:	Chemistry
Subject(s):	
Programme(s) / Module(s):	Degrees programme administered by the School of Chemistry
Awards (e.g. BA/BSc/MSc etc):	BSc, MChem, taught MSc

Name and home Institution / affiliation of Examiner

Completed report

The completed report should be attached to an e-mail and sent as soon as possible, and no later than six weeks after the relevant meeting of the Board of Examiners, to exexadmin@leeds.ac.uk.

Alternatively you can post your report to: **Head of Quality Assurance**
Room 12:81, EC Stoner Building
The University of Leeds, Leeds LS2 9JT

Part B: Comments for the Institution on the Examination Process and Standards

Matters for Urgent Attention

If there are any areas which you think require urgent attention before the programme is offered again please note them in this box

N/A

Only applicable in first year of appointment

Were you provided with copies of previous relevant External Examiners' reports and the response of the School to these?

Yes.

For Examiners completing their term of appointment

Please comment on your experience of the programme(s) over the period of your appointment, remarking in particular on changes from year to year and the progressive development and enhancement of the learning and teaching provision, on standards achieved, on marking and assessment and the procedures of the School

Standards

1. **Please indicate the extent to which the programme Aims and Intended Learning Outcomes (ILOs) were commensurate with the level of the award**
- *The appropriateness of the Intended Learning Outcomes for the programme(s)/modules and of the structure and content of the programme(s);*
 - *The extent to which standards are appropriate for the award or award element under consideration.*

I am very satisfied with the curriculum content and standard of the degree courses, which is in line with the expectation of the Royal Society of Chemistry.

2. **Did the Aims and ILOs meet the expectations of the national subject benchmark (where relevant)?**
- *The comparability of the programme(s) with similar programme(s) at other institutions and against national benchmarks and the Framework for Higher Education Qualifications.*

Yes, see previous response.

3. **Please comment on the assessment methods and the appropriateness of these to the ILOs**
- *The design and structure of the assessment methods, and the arrangements for the marking of modules and the classification of awards;*
 - *The quality of teaching, learning and assessment methods that may be indicated by student performance.*

Assessment is largely through written examination and laboratory work, with project work being used in final years. The examinations (questions set and answers obtained) and project reports are of an excellent standard.

4. **Were students given adequate opportunity to demonstrate their achievement of the Aims and ILOs?**
- *The academic standards demonstrated by the students and, where possible, their performance in relation to students on comparable courses;*
 - *The strengths and weaknesses of the students as a cohort.*

Yes, the examination questions probed their understanding and the project work gave students an opportunity to show considerable initiative.

5. **For Examiners responsible for programmes that include clinical practice components, please comment on the learning and assessment of practice components of the curriculum**

N/A

6. **Please comment on the nature and effectiveness of enhancements to the programme(s) and modules since the previous year**

It would be particularly helpful if you could also identify areas of good practice which are worthy of wider dissemination.

This is my first year as examiner at Leeds.

7. **Please comment on the influence of research on the curriculum and learning and teaching**
- This may include examples of curriculum design informed by current research in the subject; practice informed by research; students undertaking research.*

The project work is considerably influenced by the research undertaken by academic staff. Aspects of the examinations also rely on awareness of recent developments.

8. **Where the programme forms part of an Integrated PhD, please comment on the appropriateness of the programme as training for a PhD**

N/A

For Examiners involved in mentoring arrangements

9. If you have acted as a mentor to a new External Examiner or have received mentor support please comment here on the arrangements

N/A

The Examination/Assessment Process

10. The University and its Schools provide guidance for External Examiners as to their roles, powers and responsibilities. Please indicate whether this material was sufficient for you to act effectively as an External Examiner.

Whether External Examiners have sufficient access to the material needed to make the required judgements and whether they are encouraged to request additional information.

All necessary material was provided either at the outset or on request.

11. Did you receive appropriate documentation relating to the programmes and/or parts of programmes for which you have responsibility, e.g. programme specifications or module handbooks, marking criteria?

The coherence of the policies and procedures relating to External Examiners and whether they match the explicit roles they are asked to perform.

Yes.

12. Were you provided with all draft examination papers/assessments? Was the nature and level of the questions appropriate? If not, were suitable arrangements made to consider your comments?

Yes. The coverage and level of material was impressive with some challenging questions being set. Good problem solving. In some instances a little more care question setting was needed and this was commented on in my feedback to the School.

13. Was sufficient assessed / examined work made available to enable you to have confidence in your evaluation of the standard of student work? Were the scripts clearly marked/annotated?

Yes.

14. Was the choice of subjects for dissertations appropriate? Was the method and standard of assessment appropriate?

Yes. A few dissertations were selected for scrutiny and the examiners were happy with the marks they had been awarded.

15. Were the administrative arrangements satisfactory for the whole process, including the operation of the Board of Examiners? Were you able to attend the meeting? Were you satisfied with the recommendations of the Board?

The administrative staff were extremely helpful and responsive. The Board adopted the recommendations of the external examiners.

16. Were appropriate procedures in place to give due consideration to mitigating circumstances and medical evidence?

Yes, these were carefully considered.

Other comments

Please use this box if you wish to make any further comments not covered elsewhere on the form

1. The University procedures for dealing with borderline candidates are less prescriptive than those used in other institutions.
2. We greatly valued the opportunity to meet students and to attend their poster presentations. The students were very positive about the course and the School.
3. The external examiners felt that it would be preferable to sign off the marks for both semesters in one meeting and to

have the scripts from both semesters available simultaneously.

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20 December 2016

Dear <<>>

RE: Undergraduate Chemistry Programmes 2015/16

I am writing on behalf of the School of Chemistry to provide a formal response to your Examiner's report for 2015/16.

I have responded below to the key points raised in this year's report and I hope the responses provided address the comments made:

- [With regards to draft examination papers] In some instances a little more care question setting was needed and this was commented on in my feedback to the School
This has been noted, as a Section we will take this forwards to the next session
- The External Examiners felt that it would be preferable to sign off the marks for both semesters in one meeting and to have the scripts from both semesters available simultaneously
The examinations process for the May and June visits has been updated to facilitate this request.

On a final note, I would like to take this opportunity to thank you for your considered contributions and we look forward to working with you in the coming year.

Yours sincerely,

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Head of School

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The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2015– 2016

Part A: General Information

Subject area and awards being examined

Faculty / School of:	Chemistry
Subject(s):	<i>Chemistry –including joint honours programmes and natural sciences</i>
Programme(s) / Module(s):	
Awards (e.g. BA/BSc/MSc etc):	BSc, MChem

Name and home Institution / affiliation of Examiner

Completed report

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Part B: Comments for the Institution on the Examination Process and Standards

Matters for Urgent Attention

If there are any areas which you think require urgent attention before the programme is offered again please note them in this box

Not applicable

Only applicable in first year of appointment

Were you provided with copies of previous relevant External Examiners' reports and the response of the School to these?

Not applicable

For Examiners completing their term of appointment

Please comment on your experience of the programme(s) over the period of your appointment, remarking in particular on changes from year to year and the progressive development and enhancement of the learning and teaching provision, on standards achieved, on marking and assessment and the procedures of the School

Not applicable

Standards

1. Please indicate the extent to which the programme Aims and Intended Learning Outcomes (ILOs) were commensurate with the level of the award

- *The appropriateness of the Intended Learning Outcomes for the programme(s)/modules and of the structure and content of the programme(s);*
- *The extent to which standards are appropriate for the award or award element under consideration.*

All elements of teaching, assessment and pastoral care are high quality. The chemistry programmes are of the appropriate standard, stimulating, challenging and well balanced to enable students to gain scientific knowledge as well as transferable skills including problem-solving, team-working and communication skills.

2. Did the Aims and ILOs meet the expectations of the national subject benchmark (where relevant)?

- *The comparability of the programme(s) with similar programme(s) at other institutions and against national benchmarks and the Framework for Higher Education Qualifications.*

The standards are high and compare well with other leading chemistry departments in the UK.

3. Please comment on the assessment methods and the appropriateness of these to the ILOs

- *The design and structure of the assessment methods, and the arrangements for the marking of modules and the classification of awards;*
- *The quality of teaching, learning and assessment methods that may be indicated by student performance.*

Please see sections below.

4. Were students given adequate opportunity to demonstrate their achievement of the Aims and ILOs?

- *The academic standards demonstrated by the students and, where possible, their performance in relation to students on comparable courses;*
- *The strengths and weaknesses of the students as a cohort.*

It was apparent from discussions with finalists that they had enjoyed their time in Leeds and spoke very highly of the commitment of staff. The majority of students perform to a high standard as reflected in the award of a significant number of firsts and upper second class honours degrees. As would be expected averages for different modules varied but this is not a cause for concern as overall the standard is appropriate. It was good to see within the level 2 cohort a good number of first class marks achieved by those on the BSc programme as well as the MChem.

5. For Examiners responsible for programmes that include clinical practice components, please comment on the learning and assessment of practice components of the curriculum

Not applicable

6. Please comment on the nature and effectiveness of enhancements to the programme(s) and modules since the previous year

It would be particularly helpful if you could also identify areas of good practice which are worthy of wider dissemination.

Last year it was recommended that for synthetic projects copies of spectra were included in an appendix in the thesis. This not only gives a guide to product purity but also in many journals copies of the spectra are required for publication. These have been included in many of the theses which also adds a degree of confidence when assessing practical skills.

7. Please comment on the influence of research on the curriculum and learning and teaching

This may include examples of curriculum design informed by current research in the subject; practice informed by research; students undertaking research.

Final year students conduct their projects within research groups. They have a diverse range of topics to select from and it is evident that the course is strongly influenced by current research.

8. Where the programme forms part of an Integrated PhD, please comment on the appropriateness of the programme as training for a PhD

Not applicable

For Examiners involved in mentoring arrangements

9. If you have acted as a mentor to a new External Examiner or have received mentor support please comment here on the arrangements

Not applicable

The Examination/Assessment Process

10. The University and its Schools provide guidance for External Examiners as to their roles, powers and responsibilities. Please indicate whether this material was sufficient for you to act effectively as an External Examiner.

Whether External Examiners have sufficient access to the material needed to make the required judgements and whether they are encouraged to request additional information.

All necessary information was provided.

11. Did you receive appropriate documentation relating to the programmes and/or parts of programmes for which you have responsibility, e.g. programme specifications or module handbooks, marking criteria?

The coherence of the policies and procedures relating to External Examiners and whether they match the explicit roles they are asked to perform.

During the year I received all the necessary information including regulations and handbooks. In addition, during our visit to the School of Chemistry, staff were very helpful in answering any queries and providing further requested information promptly.

12. Were you provided with all draft examination papers/assessments? Was the nature and level of the questions appropriate? If not, were suitable arrangements made to consider your comments?

Examination papers and model answers for semester 1 and semester 2 were sent for scrutiny in the Autumn 2015 and Spring 2016. These had been produced to a high standard and there was a good balance of questions requiring either problem-solving or more descriptive answers. The element of choice on the papers for organic and biological chemistry was appropriate. I was again impressed with the structure and variety of questions on the papers which included two equally weighted sections.

13. Was sufficient assessed / examined work made available to enable you to have confidence in your evaluation of the standard of student work? Were the scripts clearly marked/annotated?

The first semester papers were available for scrutiny in early May when we visited the Department for the final year poster presentations. During the visit in June projects and second semester papers were available. Marking the scripts in a distinctive colour was helpful.

The visit in May was very enjoyable and included listening to the flash presentations, talking to students at their posters as well as meeting BSc students. However it left very little time to scrutinise the marked first semester papers and so next year it would be useful if these are also made available during our visit in June.

14. Was the choice of subjects for dissertations appropriate? Was the method and standard of assessment appropriate?

There is an impressive range of topics available for both the literature dissertations and the final year MChem research projects. The assessment was fair with guidance criteria to ensure marking is consistent. Following the recommendation from last year regarding project assessment (repeated below), it was evident from discussions with academic staff that these proposed new arrangements will be introduced for 2016-17.

Recommendation

Whilst the project assessment was fair and transparent, there is a concern that for a 60 cp unit one person, the project supervisor, is involved in awarding 80% of the mark - the practical component and, along with a second assessor, the initial

and final report. In my department, as well as many others in the UK, whilst the project supervisor assesses the practical component, there has been a move to have the report marked by 2 academic staff, neither of whom is the supervisor. However the supervisor does complete a form commenting on any particular issues which occurred during the project (e.g. problems with instrumentation, the appropriateness of the introduction etc) to assist the thesis assessors.

15. Were the administrative arrangements satisfactory for the whole process, including the operation of the Board of Examiners? Were you able to attend the meeting? Were you satisfied with the recommendations of the Board?

The management of the exam process was excellent. It was particularly useful to have a meeting with the appropriate Section Heads/ course co-ordinators early on the first day.

We have made a few minor recommendations directly to the School regarding the presentation of results to assist the External Examiners assimilate the vast amount of data. It was very helpful to be sent the spreadsheets in advance and any further queries were dealt with promptly and professionally. I attended the meeting of the Progression and Awards Board and the recommendations were appropriate. It was a little disappointing not to have opportunity to give our feedback directly to all academic staff.

16. Were appropriate procedures in place to give due consideration to mitigating circumstances and medical evidence?

The cases of candidates with mitigating circumstances had been well documented and were handled professionally.

Other comments

Please use this box if you wish to make any further comments not covered elsewhere on the form

A flagship course in chemistry is the MChem with Industrial Experience in which the students spend the 3rd year in industry. In general marks are high, in part due to the fact that the course tends to attract excellent students. However, it is important to ensure that assessment of the year is robust as it counts for a significant proportion of the degree. It is interesting to note that >85% of students on this course had a better mark at 3rd year than 4th year (albeit in some case the marks were very close) whereas for those who remained in Leeds for all 4 years <40% of students had a better mark at level 3 than level 4.

There was one particular case which was a cause for concern. A student on the MChem with Industrial Experience had an average of 75% in their 3rd year but only 62.5% in the final year and yet was awarded a first class honours. This final year performance was clearly not even close to first class.

For consideration:

The weighting given to each year of this programme is reconsidered as well as the distance learning component at level 3...is this challenging the students sufficiently? Is the mode of assessment for distance learning the best?

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20 December 2016

Dear <<>>

RE: Undergraduate Chemistry Programmes 2015/16

I am writing on behalf of the School of Chemistry to provide a formal response to your Examiner's report for 2015/16.

I have responded below to the key points raised in this year's report and I hope the responses provided address the comments made:

- Next year it would be useful if these [Semester 1 marked papers] are also made available during our visit in June
The examinations process for the May and June visits has been updated to facilitate this request
- Whilst the project assessment is fair and transparent, there is a concern that for a 60 credit project unit one person, the project supervisor is involved in weighting 80% of the mark – the practical component and, along with a second assessor the initial and final report
The marking protocol has been updated from this current session.
- I attended the meeting of the Progression and Awards Board and recommendations were appropriate. It was a little disappointing not to have the opportunity to give our feedback directly to all academic staff
We have updated the P&A Board meeting schedule to ensure that all staff are invited to attend the unreserved business at the end including your summary comments

On a final note, I would like to take this opportunity to thank you for your considered contributions. We look forward to working with you in the future.

Yours sincerely,

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Head of School

Cc <<>>