

The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2014– 2015

Part A: General Information

Subject area and awards being examined

Faculty / School of:	School of Molecular and Cellular Biology
Subject(s):	Biological Sciences
Programme(s) / Module(s):	Biological Sciences Programme, including Biotechnology with Enterprise, Industrial, International and Integrated Masters. Year 1 & 2 modules for Biological Sciences Year 3 modules: BIOL3112, BIOL3210, BIOL3211, BIOC3900, BIOL3305, BIOL3306
Awards (e.g. BA/BSc/MSc etc):	BSc/MBiol

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

None.

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.*

The aims and ILOs associated with the Biological Sciences programme and individual modules are entirely appropriate. These are clearly set out in the documentation that goes with this course and to which students have easy access. The standards that these require are entirely consistent with the award of a BSc or MBIol degree in Biological Sciences.

The BSc course structure has developed over many years and is regularly updated. There have been some important changes in recent years including the separation of practical skills modules away from other core modules, and the establishment of Advanced Topic Unit (ATU) modules for the third level. Whilst there are some issues that need to be ironed out with assessment of the ATUs, these elements are now well established and are considered attractive by the students. The extended course that includes a longer research project and an opportunity to write a model review article is commensurate with the more recently introduced MBIol degree.

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 Aims and ILOs of the Biological Sciences degree programme at Leeds meet and in many respects go beyond the national subject benchmarks. There is substantial training provided in both theoretical and practical aspects of biological sciences. The practical skills modules have been separated away from the theory modules, which are taught through lectures and tutorials. This has allowed a progressive and coherent approach to the development of introductory, intermediate and advanced practical skills. The theory modules have a strong focus on applied aspects of the subject right from level one, whilst still maintaining coverage of the core material. From the examination questions, it is clear that students are expected to develop a precise understanding of the taught material. In the third year, the ATU modules allow students to extend their learning towards the most up to date questions and challenges in a wide range of research fields with material that extends well beyond the textbook.

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.*

Looking at the programme as a whole then there are a wide range of assessment methods used that ensure students are tested in different ways. These include assessed coursework, examinations that are composed of multiple response questions (MRQs), short answers and essays, and extended project work. The MRQs are carefully worded to test the students' knowledge appropriately, while all of the exam work that contributes to final degree classifications is sample double-marked. Essay questions have model answers that, on the whole, are easy to follow and indicate clearly what is required. There were still just a few cases where the model answers were too brief.

The teaching is clearly of an excellent standard as a very high proportion of students obtain first or upper second class degrees. The University rules are carefully applied to determine final degree classification and, although I don't understand the 2 to 9 system, it is clear that the students deserve the degrees that they are awarded. The Final Exam Board gave very careful consideration to all students with particular care given to those on borderlines or with special consideration. The Exam Board also appreciates the limited degree of flexibility that it has over students with particular circumstances and I feel that this is entirely appropriate.

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.*

Based on the fact that 80% of students received either a first or upper second class degree then the student cohort this year had done exceedingly well. The high calibre is supported by the quality of the project dissertation work, which was generally of an excellent standard. On this basis, the quality compares very well indeed with students on comparable courses at other institutions. However, considering that these are final year students who in all other aspects of the course are performing very well, then I was somewhat disappointed by the quality of some of the essay answers in the ATUs. Although there were some good answers, there were also a significant number of poor answers including from a number of students who went on to get first class degrees. I suspect that the students are finding it difficult to revise up to 15 different topics (across the 3 ATU modules) to the depth expected for these exam answers. One possible solution might be to move away from a 'recall'-based assessment, to an Open Book exam where students focus more on synthesizing a critical response to a more general question within each particular topic. Alternatively, the Autumn semester ATU could be examined in January with a formal feedback session provided to allow students to see how well they have done and how they could improve. This would also reduce the number of topics they need to revise for the summer.

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.

There were no significant changes in the BSc programme or modules this year. One minor change for the better was that individual exam questions no longer asked for Diagrams but these were requested within the general rubric of the paper. The MBIol is just reaching the stage of having its first students graduate. This is an exciting new development with students now enrolling from year 1 as well as transferring at the start of year 3. The first cohort who have come through the Biochemistry degree programme have done very well indeed and it is expected that those coming through next year from the Biological Sciences degree will also be amongst the top students. One issue with the introduction of the MBIol course that staff need to monitor is a potential drop in the overall outcomes from the BSc course as more of the best students progress onto the MBIol. They must be careful that the BSc degree isn't weakened as a result. As more students complete a four year degree, there should also be careful and appropriate advice provided to students about the relative benefits of taking a BSc with year in industry or completing the MPhil degree.

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.

Consistent with what I observed last year, there is a clear influence of research on the curriculum. This is most evident in the third year, when students undertake both a research project as well as three taught modules that comprise sets of individual ATUs. Whilst the projects offer students the opportunity to engage in active research, the ATUs offer students a wide range of high level lecture courses that coincide with the research activities of the teaching staff.

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.

I was provided with appropriate guidance on my roles, powers and responsibilities as an external examiner by the University of Leeds.

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, all documentation relating to the Biological Sciences degree programmes was provided to me in the form of electronic or hard copies that were either sent to me by post or available upon visiting Leeds. I was provided with excellent support and guidance by the various staff involved in delivery of the Biological Sciences Programme, particularly from the Chair of Examiners<>, the Programme Leader, <>, and the Course Administrator, <>. I received the relevant documentation in good time and extend my sincere thanks to them all. My only request refers to the summer visit when I believe that external examiners could be given more guidance on potential areas for consideration. For example, students on borderlines, students with special circumstances, new modules, or particular concerns over module delivery or assessment. It would also be very helpful if they could, as routine at this time, receive the complete programme spreadsheet indicating the recommendations of the internal exam board. Of course, all material needs to be available for analysis at the discretion of the external examiner, but these pointers would enable examiners to use this visit more effectively.

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, I was provided with all exam papers with model answers well ahead of time and by post as requested. The questions were challenging but appropriate, and the model answers, with just a few exceptions, were clear and comprehensive. I had opportunity to feed back my comments before exam papers went to print.

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. All exam scripts and project dissertations were made available. Annotations on exam scripts, both at second and third year level, appeared to be generally better this year. However, where papers had been second marked, I sensed a tendency for second markers to often write "Agreed" at the end of the paper. It would be better if they added their own annotations and comments on the script.

More significantly, I was concerned this year about not enough use of the top end of marking, particularly in the ATUs even when evidence of outside reading was noted. For example, a mark of 72% with comment "Very good essay – most points covered in detail" makes one wonder what is required for 75, 80 or 85%? I suspect that it is the expectation of the tutor that the students should synthesize a critical answer to a question rather than simply describing the relevant detail. I can sympathize with this view as these are final year exams, but it wasn't clear to me how the students are prepared to deliver that sort of answer.

At the opposite end, I also felt the marking was quite harsh with little credit given when considerable effort was made but information provided was not of central relevance to the question. Clearly, this needs to be marked down appropriately but when the material is still related to the question it should be given more credit than an answer with nothing written.

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

Yes, there was a wide range of excellent laboratory and literature based topics that were entirely appropriate for the students on a Biological Sciences degree course. There was also opportunity to do distinct projects, either in Schools or other non-laboratory environments, which provide the students with a great choice and it would seem that the vast majority of students do get one of their preferred choices. The method and standard of assessment is very good with clear descriptors of mark schemes across the range of objectives associated with the projects helping to ensure students receive appropriate marks. Whilst in addition to the marks there was a useful written summary provided by the supervisor and assessor on the assessment form, I did feel that the extent of report annotation was rather patchy and that markers should be encouraged to write more comments directly onto the dissertations that can help inform students of how the marks were reached. Nevertheless, I commend the staff for taking on so many project students and almost uniformly giving them a very good experience.

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?

Yes, the administrative arrangements were excellent and again the Board of Examiners was chaired expertly by <>. I was able to attend the Board of Examiners meeting and there was a good turn out from members of staff. I was satisfied with the recommendations made.

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

Yes, mitigating circumstances were considered very carefully and with discretion by a panel chaired by <>. Students are clearly encouraged to use this system if appropriate and supporting evidence is always sort. The opportunity that students have for appeals is important as one can envisage times when mitigating circumstance forms are not submitted for legitimate reasons.

Other comments

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

Whilst I have been very impressed again with the quality of graduates produced at Leeds, my biggest disappointment this year was the meeting with undergraduate students in Spring when I only met a single student who happened to be the course rep! Unfortunately, this didn't enable me to get a spread of views from the student perspective. I suggest consideration is given to how this meeting is arranged. My visit is flexible at that time of year so could be arranged, for example, around a specific meeting with a designated set of students. I found the meeting I had last year to be particularly valuable and so was somewhat frustrated this year. Nevertheless, I heard many positive and only a few negative comments from the course rep.

One other broad question is whether an institution can justify allowing the best degree classification to be selected from either a 1:1 or 1:2 split between level 2 and level 3. Looking across the students this year roughly half have used the 1:1 average and half the 1:2 average. If one agrees that exit velocity is the best marker and one only allows the 1:2 average to be used, then there may be a fear of dropping degree grade outputs. However, at the same time, there is a clear recognition that the marks for the ATUs are below average. So if a mechanism could be found to raise the average ATU mark, then most students would be seen to have a good exit velocity and could rely with confidence on the 1:2 split without significantly altering the overall classification spread.

To summarise, there are areas mostly related to the ATUs that need some thought and attention, but the commitment from all staff, both academic and administrative, to ensuring their students receive an outstanding education is without question.

Faculty of Biological Sciences
Student Education Service

Student Education Office
Irene Manton Building
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Leeds
LS2 9JT, UK



UNIVERSITY OF LEEDS

8 October 2015

Dear

RESPONSE TO EXTERNAL EXAMINER REPORT 2014/15

BSc Biological Sciences – all programme variants

BSc Biological Sciences (Biotechnology with Enterprise)

MBiol, BSc Biological Sciences (Integrated Masters) – all programme variants

MBiol, BSc Biological Sciences (Biotechnology with Enterprise) (Integrated Masters) – all programme variants

Thank you for your External Examiner's report for the academic year 2014-15, and for helpful discussions during your visits. We are very encouraged by the numerous positive and supportive comments about the degree programmes in your report.

You raise some issues with the assessment of the ATU modules, in relation to disappointing performance by some students, and marking by staff at both the top and bottom end of the marking scale. In response to your comments last year, we discussed the assessment of these modules within the programme team, and there was a general consensus that a return to examination of the first ATU in January should be considered. However, these topics are taught across a number of programmes in the Faculty, so any changes require decisions at School and Faculty level. At School level we introduced a seminar for students to improve their understanding of what examiners are looking for in essay answers at this level; it was run for the first time this year, but was not well attended. We plan to increase the level of guidance to students in the coming year, and let students know that we will monitor attendance at these sessions.

Following your detailed comments and suggestions this year, the issue of ATU assessment has been discussed by the School of Molecular and Cellular Biology (SMCB) Programme Leaders, our Director of Student Education and the Module Manager for the ATUs. The guidance offered to staff for marking essay answers, and possible alternative modes and timings for examining these modules will be discussed at staff meetings during the early part of next academic year, with the aim of engaging staff with the points you raise about marking at the upper and lower regions of the mark scale, and reaching a decision on changes to module assessment.

You note that we will have our first cohort of students graduating from the MBiol programme next year. As you recommend, we will monitor any effect of this on the outcomes of the BSc programme, to ensure that the BSc is not weakened as a consequence of the best students being attracted to the MBiol. We will also ensure that we give appropriate advice to students about the relative benefits of the MBiol and the year in Industry, supported by the advice of our Employability Officer Tim Goodall, and the outcomes of a recent study undertaken to investigate the views of industrial and PhD recruiters on this topic.

You request that external examiners are given guidance on potential areas for special consideration, e.g. borderline students & new modules, and a complete spreadsheet indicating the recommendations of the internal examination board. Currently, the internal exam board meets on the day prior to the External board, i.e. after our External Examiners have arrived. We will discuss with _____ whether it would be

possible to bring the internal board meeting forward, so that you can have this information on arrival, together with pointers to specific areas where we would appreciate your comments.

We are pleased that you saw an improvement in annotation of exam scripts, but note your request for more comments by second markers. Second markers are explicitly asked to write comments on scripts, but we can re-emphasise the need for this. You also raise the issue of inconsistent annotation of dissertations. Students have already received detailed feedback on their draft dissertation submissions, which may account for the lower level of feedback on the final assessment; if you would like to see examples of feedback on draft submissions, we would be happy to arrange this.

We will give some thought to how we can arrange your visit in spring next year to ensure that you are able to meet a larger number of students.

You also commented on the use of either a 1:1 or 1:2 split when determining degree classification. This is determined at Institutional level, with the aim of ensuring fair treatment of students whether they perform consistently throughout both years 2 and 3, or improve their performance in final year. You note that only about half of our students are classified on the 1:2 split, and we agree that were the University to consider changing the policy on classification to a 1:2 split, this would disadvantage a significant proportion of the cohort. However, we are not aware of any discussions at University level around this issue. As you point out, the ATU module marks are a little below average, so this situation may alter as we work to improve student performance on these modules. However, we are also aware of the need to maintain an appropriate spread of classification. This is an area that we will continue to monitor closely in future years.

Thank you once again for your insightful comments and suggestions, and we look forward to continuing to work with you next year.

With best wishes,

Programme Leader

Tel:

Email: