

The University of Leeds
EXTERNAL EXAMINER'S REPORT
ACADEMIC YEAR: 2013-2014

Part A: General Information**Subject area and awards being examined**

Faculty / School of:	School of Molecular and Cellular Biology
Subject(s):	<i>Biological Sciences</i>
Programme(s) / Module(s):	Biological Sciences programme 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?

Yes. These were very helpful in noting areas of best practise and seeing any possible areas of concern and how the School had responded to these.

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.*

The aims and intended learning outcomes associated with the overall Biological Sciences programme and the individual modules are entirely appropriate. These are clearly set out in the documentation that goes with this course and the standards that these require are entirely consistent with the award of a BSc degree with honours in Biological Sciences.

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 academic standards that have been set in Biological Sciences at Leeds through the aims and intended learning outcomes are excellent and more than match the national benchmarks as would be expected for a research-intensive Russell Group University.

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.*

A wide range of assessment methods have been designed that are appropriate to the subject. These include assessed coursework, including laboratory and transferable skills, examinations that are composed of multiple response questions (MRQs) and essays, and extended project work. The teaching is clearly of an excellent standard with a good proportion of students obtaining first or upper second class degrees. Essay questions now come with model answers that are, on the whole, easy to follow and indicate clearly what is required. There were though a few cases where the model answers were too brief.

Marking practices are appropriate with sample double marking used in all final year work. It wasn't clear to me whether second year work is also sample double-marked; it is important that it is given the opportunity for a 1:1 split in Y2:Y3 marks for final classification.

In terms of the classification of award, then the rules used to determine final degree classification seem quite complicated. However, I am satisfied that they lead to the appropriate degree. It wasn't explained to me though what the purpose of the 2.00 to 9.00 system is and why it is required.

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.*

The assessment methods provide ample opportunity for students to demonstrate that they have met the intended learning outcomes of the course. I met with second and third year students on my first visit in March and was very pleased to hear their very positive views of the course. I have also spent significant time reviewing the exam scripts and project reports of second and third year students. The student cohort is generally of an excellent standard and a quality that compares very well indeed with students on comparable courses at other institutions. There were, as is to be expected, a few weaker students but, despite performing poorly in exams, many of these still managed to perform well in skills and project work giving them an chance to make the most of these attributes. Talking to students, I was given the impression that they would have liked more opportunities to practice essay writing and oral presentations. The former would be useful for their final year ATU exams, whilst the latter is an important life skill well worth developing.

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.

This is difficult to answer as this is my first year as external examiner in Leeds, but I am told that the quality of the model answers has improved significantly.

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.

There is a very clear influence of research on the curriculum. This is most evident in the third year, when students undertake both a research project (usually laboratory or literature based) as well as three taught modules that comprise sets of individual Advanced Topic Units (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 generally coincide with the current research activities of the staff teaching these units.

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

This was my first time examining at Leeds and, whilst I'm not sure whether I had a nominated mentor, I received considerable and very welcome support from the external examiners of the other two programmes on this course, <> and <>.

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 excellent support and guidance by the various staff involved in delivery of the Biological Sciences degree programme and particularly from the programme leader, <>, and the course administrator, <>. They sent me the relevant documentation and explained the course upon my arrival. I was also given the opportunity to meet with other key personnel involving in delivering the course as well as the students and extend my sincere thanks to them all.

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 that I required was provided to me in the form of electronic or hard copies that were either sent to me my post or available upon visiting Leeds. The course administrator, <>, made sure that I received everything that I required in a prompt and straightforward manner.

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. It would though be helpful if just one copy was provided where exams were unchanged for resit papers; there is no need to receive multiple copies and it would save me looking for possible differences. 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. I didn't have the opportunity to look at assessed coursework but will do this upon my next visit. One concern though was the lack of sufficient annotations on many of the exam scripts, both at second and third year level. Almost invariably only one examiner had made any comments and they were often brief and didn't always make it clear how a mark had been arrived at. Indeed, this would not be helpful to students who wanted to review their papers to get formative feedback.

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. I discussed the mechanisms of project allocation and assessment at some length with the project coordinator, <>, on my first visit and was happy to see that these were transparent and aimed to ensure that all students got one of their choices. There was also opportunity to do other related project work, either in Schools or other non-laboratory environments, which provides the students with an excellent choice. Having said this, I was informed that apparently 50% or less students opt to perform a laboratory-based project, which I find surprising for a research-based biomedical science programme at an institution such as Leeds. I would have thought that laboratory projects would be strongly encouraged and receive a higher uptake assuming that these are available. Nevertheless, there were some excellent aspects to the literature projects, most notably the extended exercise of writing a grant proposal which provides the project with a clear goal and teaches an excellent skill.

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 superbly coordinated by the chair of examiners, <>. I was able to attend the Board of Examiners meeting and where there was an excellent turn out from members of staff and robust discussions held. I was asked for my thoughts and opinions and was able to provide a verbal report on my views of the course. I was satisfied with the recommendations made. However, on reflection, I'm not entirely happy with the fact there seems to be a small boundary where discretion can be applied which means that the decision for one or two students came down to a vote. Having introduced a detailed system of rules, for there then to be discretion applied to some students (that do not have specific mitigating circumstances) but not others seems rather unsatisfactory.

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

Yes, it was clear that mitigating circumstances were considered very carefully by a panel chaired by <> and that decisions were sensitive and generous when the cases were supported by appropriate documentation.

Other comments

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

The ATUs are an exciting way to teach advanced subjects to students and I commend the staff for this aspiration. However, the fact that they have been separated away from the skills model, where the coursework is assessed, means that the ATUs are assessed by exam only. This inevitably leads to significantly lower marks for these modules than a module that carries both exam and coursework elements. How this is dealt with needs some careful consideration as students need to gain a set number of credits at a particular level to gain a certain degree.

There is also considerable inconsistency in the average marks across the ATUs, meaning that students that take one set of ATUs may be significantly disadvantaged compared to a student taking a different set of ATUs. Furthermore, students from different degree streams can do better or worse than others. How much guidance are students given as to which ATUs they should take? For example, this year Biological Sciences students did comparatively less well than Biochemistry students in 'Emerging Infections' and 'Machiavellian Viruses'. An additional consideration here is that the exam scripts indicate degree stream if not student, which could allow, albeit inadvertently, an element of bias in marking.

Another consequence of the ATUs is that students are often getting a lower Y3 average than Y2 average. The current allowance for students to have the best of either a 1:1 split or a 1:2 split for Y2:Y3 allows for this dip in performance. However, this said, I would much prefer a system whereby more weight was given to year 3 marks to demonstrate a progressive degree and it is not particularly satisfactory for students to be finishing their degree on a downward trend with a lower Y3 average than Y2.

Possible mechanisms to ensure a more consistent and improved outcome from the ATUs could be to examine one of the ATUs in January, to have an element of coursework within the ATUs, or to have one ATU assessed by coursework only. However, if the overall average mark for the ATUs was increased then this may lead to a disproportionate increase in the number of high-class degrees and may need to be balanced with a more rigorous assessment within the Advanced Skills Module (BIOL3305) where students are generally averaging much higher marks.

There are also a couple of other points about certain ATUs. Firstly, some ATUs are delivered by a single lecturer, presumably allowing a more coherent progression of material and the option of an exam question that draws from multiple lectures, whilst some ATUs are delivered by up to six different people, potentially making them six quite distinct topics. Secondly, I was concerned with a couple of the ATU marking schemes: the *RNA World* question was divided into four parts without it being made clear how this would be marked, whilst *Machiavellian World of Viruses* had a very prescriptive mark scheme opening the possibility for students to write excellent and relevant answers but end up with a low mark as they missed a couple of the key points. Ironing out these issues may also help to improve consistency and standards within the ATUs.

Faculty of Biological Sciences
Student Education Service

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UNIVERSITY OF LEEDS

30 September 2014

Dear

RESPONSE TO EXTERNAL EXAMINER REPORT 2013/14
BSc Biological Sciences
BSc Biological Sciences (Industrial)
BSc Biological Sciences (International)
MBiol, BSc Biological Sciences (Integrated Masters)

Thank you very much for your report on teaching and assessment in the Biological Sciences programme for academic year 2013-14. This is your first report and formal visit to the Faculty. On behalf of the Programme Team, I would like to thank you for taking on the role of External Examiner in Biological Sciences and generously giving us your time and expertise, which we are sure will help us in further developing the programme.

In your report, you have made many good and supportive points regarding our overall academic standards, our curriculum and procedures for assessment as well as the positive feedback that you received when you met some of our students earlier this year. We derive encouragement from your views on these areas.

You have raised several points about marking of examination scripts, in particular annotation of scripts, double-marking and allocation of marks within questions. We are constantly requesting markers to provide appropriate annotation and a brief rationale at the end of the question for the mark that they have given. We will re-double our efforts on this front and also request the second marker to provide comments and a similar rationale. I can assure you that all second year examination scripts are marked in exactly the same way as in the third (final) year i.e. double-marking in an identical manner to the final year scripts. We will also ensure that the model answers or mark schemes are sufficiently comprehensive both for your and the second marker's use.

You raised questions regarding the choice of topics within the Advanced Topic Unit (ATU) modules as well as the structure and assessment of these modules. We try to advise students to pick topics for which they have appropriate background from levels 1 and 2. For example, if students have not done a module in immunology in level 2, we advise them to think very carefully about taking advanced immunology topics. You have commented on a possible disparity of marks, even between programmes, between certain questions (i.e. topics) within the ATU modules, possibly because of over-prescriptive marking schemes. We will aim to avoid such marking schemes in the future and encourage markers to give candidates due credit for material which could be relevant.

You raised several matters regarding the choice and allocation of final year research projects. I think it is important to bear in mind that a considerable number of our second year students do a placement year in industry or in an international university. Such students (who have done an extensive research project

outside the University) often do not want to take a laboratory-based project in their final year and choose a literature-based project. This may go some way to explain what you feel to be a lower than expected uptake of laboratory-based research projects. We allow students to make a free choice of laboratory or literature project and currently around 60% of students are given their first or second choice of project. Very few students who request a laboratory-based project are unable to be allocated one. Overall, we consider that we have a reasonable approach to research project allocation but we look forward to discussing this further with you in the future.

You raised questions about the examination of ATU modules and the possible influence of ATUs (which do not have assessed coursework) on the apparent decrease in performance of students in final, compared to second year. You have made a number of good suggestions to address these matters, including examining semester 1 ATUs in January, examining one ATU by assessed coursework only or introducing an element of assessed coursework into each ATU. These are excellent suggestions and we will be discussing them in the forthcoming academic year. We are aiming to reduce, where possible, the number of lecturers delivering an ATU module to achieve greater consistency, as you have suggested.

Thank you also for your suggestion that the name of the degree programme should not be given on the front of the examination answer book to avoid possible bias. We will pass this suggestion on to the University as it has implications for printing these books; however we could simply request students not to fill in this part of the examination book in future. We will raise this matter for discussion within the Faculty.

You raised the matter of the 2 to 9 classification scale, what its purpose is and why it is required. I will ask our Examinations Officer to go over this with you when you next visit. This is a University policy and, despite disquiet about from within this Faculty, we have not been able to effect any changes. Thank you for raising the matter, which we will again draw to the University's attention.

You mentioned that, when you visited earlier in the year and talked to students, they said they would like more practice in answering exam questions and in giving presentations. Students must give four assessed oral presentations on research papers to a small group of their colleagues in the Skills module (BIOL3305). In the BIOL3211 (ATU3) and BIOC3900 (Cancer Biology) modules, we posted examples of marked essays along with the mark scheme, to help students understand what is required of essays at each degree class. We hold an exam answer workshop in semester 1 in BIOL3305 where students get advice in constructing essay-type exam answers and have the opportunity to plan exam answers in the presence of two staff members. Many of these activities took place after you had met the students, which might explain their comments. We will be aiming to build on these resources in the coming academic year to give students more help and advice with essay-type exam questions.

Finally, you were concerned about discussion at the Examination Board regarding the degree classification for two students to which discretion had been applied. Without going into the details of the cases, one student had a project mark that had been the matter of some discussion between markers and had just failed to achieve the higher class mark for the project. Had the student been given a slightly higher project mark, elevation to the higher class would have happened according to our procedures. I think that we were trying to "bend over backwards" to give the maximum scope for the Board to reach a fair decision on the student's degree classification. The matter of the vote was, I think, simply reflecting the Chair's aim of discerning the consensus of the Board on the student's classification following a lengthy discussion of the case. We would value any further comments or suggestions that you may have on this aspect of our procedures.

Thank you again for your very constructive comments and suggestions and we look forward to working with you in the forthcoming academic year.

With best wishes,