

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:	Biological Sciences
Subject(s):	<i>Medical Sciences</i>
Programme(s) / Module(s):	<i>BSc Medical Sciences; BSc Medical Sciences (Industrial); BSc Medical Sciences (International); MBiol, BSc Medical Sciences (Integrated Masters)</i>
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?

N/A

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

N/A

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 BSc Medical Science programme aims to provide students with comprehensive knowledge and understanding of major areas of medical science. Teaching is research-led and equips students with knowledge of research techniques and their practical application. Students are equipped with appropriate transferable skills for advanced study or employment in medical research. To achieve these programme specifications, students study a broad range of modules. In Year 1, all modules are compulsory, whereas in Years 2 and 3, there is a balance of compulsory and optional units. The compulsory modules in Year 1 provide an appropriate foundation covering a broad range of medical science topics complemented with training in relevant scientific skills. The compulsory modules in Year 2 further develop student knowledge in physiology, pharmacology and neuroscience and extend training in scientific skills. The optional modules not only build on this knowledge, but through their diversity provide students with excellent opportunities to explore their own interests in the medical sciences. The compulsory modules in Year 3 include training in advanced scientific skills and a laboratory/literature-based research project. The optional modules allow students to explore research frontiers in a broad range of medical science areas. I commend the structure of the BSc Medical Science programme over the three years of study and the opportunities it provides to students to explore widely medical science. I consider the ILOs entirely appropriate for this BSc Medical Science programme.

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.*

My own institution does not offer a BSc Medical Science programme. However, the general structure of the programme at the University of Leeds is highly comparable to equivalent degrees at my own institution. There is a strong emphasis on training in scientific skills and critical transferable skills, not just the acquisition of knowledge. In part this training is achieved through a research project, the largest single component of the Year 3 course. Importantly at the University of Leeds, like at my own institution teaching is research-led. Thus, through comparison with equivalent courses at my own institution as well as discussions with colleagues at other UK universities, I am confident that the Aims and ILOs of the BSc Medical Science programme more than meet the expectations of the national subject benchmark.

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.*

The BSc Medical Science programme employs a wide range of assessment methods. In Year 1 and 2, MCQs, EMQs and DI questions are widely used, but there are also some essay questions, particularly in Year 2. In Year 3, assessment of the research project includes a literature review, a supervisor's report on laboratory work and a dissertation. Other Year 3 assessments include essays and questions to explore data interpretation, experimental design and paper review skills, all fundamental skills that students at this level should have acquired. I was encouraged greatly to see that some assessments in Years 1 and 2 included short note format. My own view is that short note questions enable greater exploration of student knowledge and understanding than optically-marked questions. At all levels, I consider that student work was appropriately marked and the boundaries of different degree classes were correctly set. Marking of student work was rigorous, but fair with all work in Year 3 double marked and student scripts well annotated. Thus, I consider teaching quality to be high and assessment methods rigorous, but fair.

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.*

Like at my own institution, the research project provided an excellent opportunity for students to demonstrate their achievement. The research dissertation synthesized student skills in an important number of areas including literature review, data analysis and interpretation and scientific communication. The Year 3 examinations provided students with further opportunities to demonstrate their knowledge and understanding of specific areas of medical science as well as their skills in data interpretation, experimental design and paper review. I was greatly encouraged to see the full range of marks employed by academic staff when marking student work, with little bunching of marks at degree classification boundaries. I saw no evidence of grade inflation. My own marking of work was entirely consistent with that of the academic staff. The student work that I reviewed was of an equivalent standard to that of students at my own institution. I did not take a record of the distribution of marks across the different degree classes for the graduating cohort of students on the BSc Medical Science programme. However, my recollection is that it was as I expected it to be with a reasonable number of students attaining first class honours, the largest group attaining upper second class honours and no long tail to the distribution of marks. This distribution is consistent with the distribution of awarded degrees for similar programmes at my own institution.

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.

My impression is that lecture recording has become more widely adopted and effective over the last academic year. It was clear from my meeting with students studying on the programme that they valued greatly the recorded lectures and other online tools available to them to support student learning. I also had the impression that some small changes had been made to the Year 3 course to inform better students about the Advanced Topics and their assessment. The students that I met were enthusiastic about the opportunity to study Advanced Topics. As I commented last year, I am impressed by the peer assisted study scheme whereby Year 2 students assist Year 1 students with their studies. It was clear from the enthusiasm of the students that this scheme is a win-win for both groups of students. I commend strongly this scheme and encourage its wide adoption. Finally, I found the self-reflection exercise that Year 3 students undertook as part of their research dissertation excellent practice. I am keen to see a similar exercise adopted by my own Department for its degree programmes.

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.

It was very clear that teaching is research-led on the BSc Medical Science programme at the University of Leeds. In Year 3, student research projects were heavily based on the research expertise of the academic staff. These projects provided students with the opportunity to experience first-hand cutting-edge medical research competitive at an international level. The other modules in Year 3, particularly the advanced topics in medical sciences, took students to the limit of current knowledge in selected areas, challenging students with the latest ideas and newest hypotheses in these areas. In addition, in Year 2, I saw evidence of neuroscience research informing teaching. The standard of some student work in Year 2 was at an advanced level that I did not expect to see. Thus, it was very clear that research influences strongly teaching on the BSc Medical Science programme. I commend strongly this practice.

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.

I was provided with comprehensive information about my role as an external examiner. Staff at the University of Leeds were extremely helpful, clearly explaining about the BSc Medical Science programme and answering my questions thoroughly. I am very grateful to staff for their collegiality. I was made very welcome.

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.

I received very detailed information about the BSc Medical Science programme. Marking criteria were clearly explained.

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?

I was provided with all draft examination papers in a timely fashion. I consider that the nature and level of difficulty of the questions was appropriate for each of the three Years of study. The level of difficulty of the questions increased appropriately from one year to the next. The Year 3 examination papers provided students with opportunities to demonstrate the depth and breadth of their knowledge and understanding, their powers of data analysis and interpretation and their ability to advocate a viewpoint. The breadth of examination questions appropriately reflected the wide-ranging opportunities the

course design provides for students to explore medical science. I provided some comments on the examination papers. However, the vast majority of these comments were minor in nature, focusing on ensuring that the meaning of questions were clear and correcting some minor typographical errors.

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?

Definitely, more than sufficient student work was made available to me to allow me to have strong confidence in the standard of work on the BSc Medical Science programme. Thankfully, staff provided helpful direction as to which scripts I should focus my attention on first. In general, the scripts were clearly marked with comments, indicating correct / incorrect / irrelevant information and justifying the awarded mark. This level of information is particularly valuable because of the breadth of material examined on the BSc Medical Science programme. I was also encouraged to see that some second markers provided a good level of comments on scripts. Perhaps a few markers should be encouraged to provide further comments, particularly when they are the first marker. However, this is a universal problem.

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

I recognise fully that it is a major challenge to provide sufficient numbers and a wide range of subjects for dissertations. Breadth can be limited because research in University Departments is concentrated in specific areas to achieve international excellence and the number of research-active staff puts pressure on the number of laboratory projects that can be offered. Inviting outside staff to contribute research projects for student dissertations is one solution, but there are then challenges ensuring parity of marking across dissertations. For the BSc Medical Science programme, I was greatly encouraged to see a wide range of subjects offered for dissertations consistent with the breadth of the course. I was further encouraged to see a substantial number of laboratory-based research projects offered to students, not just literature-based dissertations. The method and standard of assessment was appropriate. I commend the use of a marking matrix. I found this tool particularly useful for judging the standard of work. It was appropriate that supervisors provide comments on student performance, while the dissertation is marked independently by the supervisor and another academic. I encourage the annotation of dissertations by supervisors to assist the second marker and external examiner.

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 standard of administrative arrangements was excellent. The whole process was conducted in a highly professional manner from the review of draft examination papers, to arrangements for visits to the University of Leeds, review of marked examination scripts and dissertations and finally the conduct of the Board of Examiners meeting. I attended the Board of Examiners meeting, which was also attended by the appropriate University staff and all other external examiners, except one, who provided written comments. All University academic staff and external examiners participated actively in the meeting. Individual students were considered in turn with adequate time allowed for full discussion of each student's performance, particularly those with mitigating circumstances and those at degree classification boundaries. All students were fairly treated and the whole process was fully transparent. Importantly, there was consistency and uniformity of standards across the different degree programmes considered by the Board of Examiners. I was fully satisfied with the recommendations of the Board of Examiners. The process was professionally conducted and the awarded marks fully justified.

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

Appropriate procedures were used for students with mitigating circumstances. A Special Cases Committee evaluated the evidence for all students with mitigating circumstances, then external examiners scrutinised student work with special care ahead of the Board of Examiners meeting. At the Board of Examiners meeting, the case of students with mitigating circumstances was discussed fully and where appropriate there was an adjustment of marks. As for all other students, students with mitigating circumstances were treated fairly and there was full transparency. There was consistency and uniformity of standards across the different degree programmes. Thus, the marks awarded to students with mitigating circumstances were rigorously reviewed and fully justified.

Other comments

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

I welcomed very much the opportunity to meet students studying on the BSc Medical Science programme when I visited the University of Leeds on Tuesday 10th March 2015. I was impressed greatly by the enthusiasm of students from each of the three years of study for the course. They highlighted the breadth of choice available to them, the high standard of organisation of the course and the commitment, dedication and accessibility of the academic staff.

Students studying on the BSc Medical Science programme and related degree programmes at the University of Leeds have first class opportunities for hands on practical training. With ever increasing time and resource pressures being placed on University Departments across the country, it is refreshing to see commitment to the provision of practical teaching. I applaud strongly staff at the University of Leeds for the excellent practical training that they are giving to undergraduate students.

Faculty of Biological Sciences
Student Education Service

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UNIVERSITY OF LEEDS

8 October 2015

Dear

RESPONSE TO EXTERNAL EXAMINER REPORT 2014/15

BSc Medical Sciences – all programme variants

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

On behalf of the programme team, I'd like to extend our thanks for your continuing hard work as External Examiner for the Medical Sciences programmes at Leeds. It was a pleasure to host your visit and, as ever, extremely helpful to receive your comments and to talk with you about your experiences at Bristol.

We were pleased that there were no particular issues to resolve – perhaps this is reflected in our recent NSS satisfaction scores, which were excellent. Of course, there is no room for complacency, and we will continue to put every effort into key areas where significant improvements can be made, such as timeliness and quality of feedback, and better provision of academic guidance and career planning through our personal tutor system. The lecture recording system you highlighted has now been pretty much universally adopted by our lecturers. Clearly very popular with our students, it will be interesting to see if it leads to improved performance in exams.

We were also pleased that you also flagged our focus on research-led teaching (an important strand in all our programmes) and our commitment to practical training. With regard to this latter area, we hope to be able to invest in significant improvements in practical teaching equipment over the next few years, giving our students the opportunity to develop even better laboratory and data analysis skills.

I look forward to your next visit to Leeds.

Yours sincerely,

Programme Leader, Medical Sciences

Tel:
Email: