

The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2013-2014

Part A: General Information

Subject area and awards being examined

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| 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?

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

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, 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 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. 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. 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 and the largest group upper second class honours. 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

provides for students to explore medical science. I provided some comments on the examination papers. However, the vast majority of the 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?

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. If anything, in this my first year as an external examiner, I was somewhat overwhelmed by the number and choice of scripts made available to me. However, staff were quick to provide 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, I recognise that this is a universal problem. For example, some of my own colleagues provide terse comments on examination scripts, whereas other diligently annotate scripts.

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

I recognise fully that it is a 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. As for the examination scripts, a few supervisors should be encouraged to annotate the dissertation, not just use the marking matrix.

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 a 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 the opportunity to meet students studying on the BSc Medical Science programme when I visited the University of Leeds on Wednesday 12th March 2014. 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 and dedication of the academic staff.

Faculty of Biological Sciences
Student Education Service

Student Education Office
Irene Manton Building
University of Leeds
Leeds
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UNIVERSITY OF LEEDS

30 September 2014

Dear

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

Thank you for your comprehensive and very positive report. In particular, I note the comments you make, both on your own behalf and reporting the results of meetings with students, that the course offers a good breadth and depth, and recognising the commitment and dedication of the staff teaching on the course. I will pass these comments on to them.

I am glad that you found the course broad, well-structured, and research-led, and that it contained a good range of scientific and transferrable skills. I also note your confirmation that the aims and learning outcomes are appropriate, and met by the course. These are all aspects we consider very important in preparing our students for the wide range of careers they move on to.

I note your comments that in general exam scripts were well-annotated and fairly marked, but that occasionally markers could provide slightly more detail. Again, I will pass this on. You comment that annotation of final year project scripts would sometimes be useful. At present our policy is not to do this, so they can be returned to the students as "clean copies" that they can show to prospective employers, for example. As you say, comments are provided via a printed matrix with space for free comments. We will revisit this practice in the light of your comments, but I don't promise that we will change it!

I am glad that you appreciated the opportunity to meet with students to discuss the course. We feel that this is a valuable opportunity for you to get a feel for what the course is like "from the inside", and also provides a very useful route for obtaining feedback from the students, who often say things to you that they don't say to us! Fortunately, as you say, this is generally very positive, and I will pass their enthusiasm on to my colleagues.

Finally, as you finish your first year as our external examiner, may I thank you for the enthusiasm and conscientiousness you have brought to the role. Your comments and advice have been much valued, and I look forward to working with you further over the next few years.

Yours sincerely,