

**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:	Faculty of Biological Sciences
Subject(s):	<i>Neuroscience</i>
Programme(s) / Module(s):	BSc Neuroscience, BSc Neuroscience in Relation to Medicine, MBIol, BSc (Integrated Masters) Neuroscience
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](mailto: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.*

Last year I commented on the content and assessment of a number of modules:

Systems Neurophysiology (year 3)

Inherited Disorders (year 3)

Advanced Topics in Neuroscience I (year 3)

Advanced Scientific Skills (year 3)

Advanced Topics in Neuroscience II (year 3)

Research Project in Biomedical Sciences (year 3)

Experimental Skills (year 2)

Scientific Skills (year 2)

Molecular Neuroscience (year 2)

..and the extent to which they met the ILOs. I remain satisfied this year that the course encompasses a breadth and depth of study commensurate with the ILOs and level of award.

This year I looked in more detail at a mix of second and third year modules:

2118- Neurobiology; This module is assessed by open book essay, an interesting approach, and an anatomy spot test, MCQ and more traditional examination. This is a good spread of assessments that has been well-designed to meet ILOs. Podcasts are available for lecture content on BB and also some links to advice about how to make best use of these recordings as a resource. This is excellent supporting resource for the students. I was provided with examples of coursework for each degree class. The students have received extensive written feedback. Particularly notable is the excellent use of mark sheets to indicate clearly and precisely the criteria against which they are being graded. Typically the students perform better in coursework than exam but overall the assessment seems fair and considered. The distribution of marks does not cause any concern in terms of grade creep. If anything there are slightly fewer first class performances than one might expect. However, I spot checked some of the coursework and I concur with the grading.

2120- Scientific Skills; I am impressed with the design of this second year course which revolves around 6 tutorials which cover the ability to read, digest, interpret and convey the scientific literature. Coursework has been changed to account for 24% of the assessment. In a very democratic manner this was voted for by students. The remainder of the assessment is unseen MCQ and short notes. The exam has been designed to be an excellent test of analytical skills. The coursework marks were very high overall nonetheless, compared to last 2 years the module mean had dropped slightly; a little surprising but the distribution overall was still heavily skewed towards the first class range. It would seem the course is delivering core concepts in a very rigorous and robust manner.

3139- Systems Neurophysiology 3<sup>rd</sup> year; This module is assessed by 100% unseen examination. In the past students have commented that they feel unprepared for unseen examination assessment so it is good to see this module incorporated a practice examination essay workshop with peer marking to provide guidance in this. I noted the tutor had made good use of the discussion forum in the VLE. The lectures had been recorded and also a guest lecture from a leading international expert in the field, Fran Ebling, provided superb additional content and resource for the students. The examination questions were very probing and required detailed knowledge. I viewed some examples of very strong first class work. For example, I looked at an exam essay marked as 90% on thermoregulation which was rigorously assessed and deserving of this mark. The distribution of marks provides no cause for concern with an average of 63%.

3144- Advance Topics in Neuroscience I; In this 3<sup>rd</sup> year module the students can choose from an interesting range of seminars to study a topic in depth. This is a great example of research led education and there is some really challenging and detailed content for the students. The examination paper is well constructed and tested knowledge of experimental approaches as well as topic detail. The average

mark for the course was 59% and distribution of marks causes no concern. Indeed, the marks are very similar compared to previous years.

5101M Advanced Research Topics; This module is organised around journal clubs and presentations. The ILOs are appropriate for an advanced course. I couldn't find the module profile on BB or examples of coursework. There were only four students on this module. Again, it is an excellent example of research led education.

2119 Experimental Skill 2119; Excellent assessment through MCQ and short answers.

From the third year scripts I viewed there was evidence of the moderation process with comments from 1<sup>st</sup> and 2<sup>nd</sup> marker on a subset of the scripts. Of the scripts that I viewed there was a varying level of written feedback for the students but overall it was good and informative. There were no comments on the 3<sup>rd</sup> year projects however examiners comments were incorporated onto a separate mark sheet. As I commented last year, it would be helpful if the projects were annotated with examiners comments.

**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 level of attainment of the students easily meets that in comparable institutions and is commensurate with national benchmarks.

**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.*

I commented on the assessment methods for each module in section 1. There are some excellent examples of assessment methods designed to meet learning outcomes. I note that there is quite a large variation in the type of assessment which is a very positive thing. However, this seems to impart a different assessment load for different students on the same programme dependent on which optional modules they take and this may be a point to pay attention to.

As noted last year, the distribution of marks does not cause any concern. I viewed examples of superb first class work commensurate with effective delivery of the module content. There are very few failures as one might expect from the intake of high achieving students.

**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 achievements of the student cohort are as one might expect for a strong Russell Group University. The very best students are very high achievers and have an in depth grasp of the topics they have studied. The inclusion of different types of assessment develops a range of key skills in the students encompassing analytical and problem solving capability and effective communication skills.

**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.*

The provision of marker's comments on exam scripts is mostly excellent and it would be good if this could be adopted by all markers. The use of 'flipped' learning would be something to consider adopting more widely.

**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 are some excellent examples of research led education. Of course, the third year projects are influenced by this but in addition there are other 3<sup>rd</sup> year modules which benefit from education being delivered in a research active environment e.g. as noted in section 1, Advanced Topics in Neuroscience.

**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.*

During my spring visit I was provided with exam papers, model answers, module handbooks, module spreadsheets and sample coursework for 4 modules taken by students on the Neuroscience programme and access to VLE. I note that I was asked to look at specific modules but the papers were organised by student.

The module spreadsheets incorporated some informative analysis including 3 year back tracking on module means.

In the summer visit I was provided with access to all the student's examination papers for year 3 and a sample of coursework.

I was also provided with careful guidance by the programme convenor.

Overall, this was sufficient for me to act effectively as external examiner.

**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, I was provided with all the necessary documentation.

**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 draft papers together with detailed model answers and sufficient time to provide comments which were managed effectively. The examination papers provide a good mix of quantitative and descriptive assessments and are sufficiently probing and challenging to address the learning outcomes and to stretch the very best students.

**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, I was provided with similar resources to last year: coursework and exam scripts for level 2 and 3; analyses of the distribution of marks for each module. I was impressed with the detail in the model answers.

I was satisfied from the annotation on the student's work and the detail in the mark sheets that assessment had been rigorous and fair. Where 3<sup>rd</sup> year work had been moderated with process was evident from the

paperwork provided. Compared to last year, from the samples that I viewed, it would seem there is more consistency in providing a good level of marker's comments on the scripts. I repeat my recommendation from last year, i.e. that markers annotate the project dissertations. This would be very helpful for the examiner in terms of highlighting, in the text, the strengths and weaknesses of the project, but would also be informative for the students.

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

I commented on the exceptional provision of 3<sup>rd</sup> year projects last year and am equally impressed this year.

**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 they were satisfactory. I appreciated the opportunity to visit in the Spring and to meet with students at that time. I attended the summer Examination Board Meeting and was satisfied with the recommendations of the Board of Examiners.

I was specifically asked to look at borderline students during my summer visit and this brought an aspect of the degree classification to my attention. Whilst I appreciate that the flexible weighting between year 2 and 3 is good mechanism for enabling trajectory to influence the overall degree classification awarded in the final year I am concerned that for some students, where there is a large disparity between year 2 and 3, this aspect of the algorithm is not sufficient. This may particularly be an issue where the student has taken a placement year and had the opportunity to mature their academic approach for their final year. I am pleased that the Board of Examiners has the ability to consider borderline students and the appropriateness of the algorithm on a case by case basis: I strongly recommend that this practise continue as, whilst the algorithm is very useful and accurate in the majority of cases I have looked at, it fails to give justice to a small subset of students.

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

Yes, I have no concerns in this regard. The mitigating circumstances cases had been evaluated prior to the Board of Examiners meeting and managed in an appropriate manner.

**Other comments**

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

I met with 5 students, 3 second year and 2 third years on the Neuroscience or Pharmacology programmes. A little different to last year when I met with about 20 students so it is harder to get a fair picture of the student experience from a small sample. Nonetheless, as last year, their comments were overwhelmingly positive. They are a confident and articulate group. We asked them about the content and delivery of their programmes, how they were prepared for assessment and about the guidance, feedback and support they received. They are great fans of recorded lectures and value the fact that most of the lectures are made available in this way. They are adamant that this does not affect their own motivation to attend lectures although they recognise that for about half of their cohort this is a factor. One student commented on the use of 'flipped' learning and was very positive about this as a way of delivering course content.

From discussion with the students it was clear that they enjoy the range of delivery of the module content and one commented on the use of tutorials every other week to discuss a scientific paper which they found particularly stimulating. We asked them about the range of third year project choices and they all thought that the range of lab and non-lab projects was a very attractive part of the course. They also commented that they thought it had positively influenced their employability with their specific project experience e.g. in public engagement, having a direct influence on their success in gaining a job in their chosen sphere. It would also seem they have excellent opportunities for placements and internships- one student had done 5 internships. This is supported by a dedicated member of staff but also by well-connected academics going the extra mile to assist the students. This is undoubtedly very beneficial to their career trajectory and employability.

They specifically mentioned a couple of modules: A third year unit Cellular Cardiology was thought to be particularly difficult and challenging. I would comment that having challenging content is absolutely fine, however students should not be disadvantaged by their choice of module in terms of the impact a relatively low mark might have on their overall grade average. I would recommend that this is investigated.

They made some interesting suggestions for how their experience might be improved further. Whilst they recognised some excellent pastoral support they also thought this was somewhat 'patchy' and rather dependent on who their personal tutors were. They suggested that a single nominated academic is given oversight of this important pastoral role and that students are made more fully aware of how they can access this support. I would like to see this implemented.

They commented again that they don't feel fully prepared for the transition from first year assessment and MCQ to second and third year assessment by unseen exam essay. One suggestion is to include tutorials in the first year in which students answer practise exam essays. Whilst they appreciated the opportunity to view exam scripts to look at comments and feedback their impression is that the feedback is rather variable and there needs to be more justification for the mark awarded. Unfortunately it would seem they compare scripts amongst themselves and do not always understand the basis for different marks awarded. They don't have the same concern for coursework which is often accompanied by a tick sheet showing how they performed against each criterion for classification and one suggestion was that this approach could be incorporated into the exam marking/feedback.

**Faculty of Biological Sciences**  
**Student Education Service**

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 Leeds  
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**UNIVERSITY OF LEEDS**

7 November 2016

Dear

**RESPONSE TO EXTERNAL EXAMINER REPORT 2015/16**

**BSc Neuroscience – all programme variants**

**BSc Neuroscience in Relation to Medicine**

**MBiol, BSc Neuroscience (Integrated Masters) – all programme variants**

Firstly, thank you so much for all your commitment and effort in acting as our External Examiner for these courses. Your thoughtful input and wise comments are a reflection of your experience in these roles and thus with your feedback and suggestion, we feel happier that we are providing a course that is interesting to our students, appropriately assessed and equipping them for future employment.

Thank you for your detailed analysis of the specific modules highlighted for you – it is pleasing that there are no causes for concern and that you feel that we are delivering research-led teaching, especially at level 3, to our students. The inclusion of the practice exam essay workshop and discussion forum for BMSC3139 do seem to be making a difference to the overall module marks for BMSC3139 and we will continue to deliver this level of support. With respect to BMSC5101, I apologise that there was no module profile on the VLE – I will ensure that this is the case for next year – this was the first year that it had run, with just four students and two academics new to module management so we do need to improve on this access. This is now contributing 30 credits (rather than 20 credits) to the final year of the MBiol, so it is important to get right.

Your point regarding assessment loads on students taking different modules is an important one and certainly one that I have been aware of. We discuss this at internal exam boards and BMS meetings and have tried to ensure consistency across level 2 and level 3 modules for all programmes. Students do tend to choose optional modules based on their preference for different assessment types and they seem to be accommodated into their choices but I will continue to monitor this as closely as possible.

It is good that you feel that there is better consistency in the detail of feedback given by each assessor. As you mention, there is still room for improvement and perhaps the use of tick-sheets for all exams may help here. This could include boxes for supplementary reading (that is big enough to say whether it is relevant/extensive etc.), critical analysis and use of illustrative material. As mentioned in my reply to your last report, I did bring up the subject of annotation of dissertations, however, the Module Manager seemed very against this for a number of reasons. This year, however, your voice has been joined by the three other External Examiners and this really is an important point to re-address at the next BMS meeting. I have alerted the other Programme Leaders to this and will make it a priority.

Your comment regarding the borderline students and the need to maintain scrutiny on a case-by-case basis is a very pertinent point particularly regarding students with a good exit velocity, for example after a year in industry. We are glad that this method works well and will continue to apply the algorithm but look at each case individually to look for discrepancies.

I am glad that you find the meeting with students useful. We find your feedback on these meetings very helpful to us and it often fits well with issues or positive experiences brought up by the student representatives at the Student-Staff Forum. We are delighted that the students feel that there are plenty of opportunities for internships – the neuroscience academics have often provided students with such roles and they really thrive. In addition, I have set up a good contact for clinical work experience and we have strong links with our alumni, who act as mentors to our students and participate in employment events. It is also good to hear that they appreciate the diversity of research projects available that enable students to pick those that are relevant to their future career choices. The concerns regarding BMSC3138 (cellular cardiology) being more challenging than other modules actually do not seem to be a problem when you compare the module mean mark with those modules of a similar assessment format but it is something to be aware of and I will continue to monitor the module marks for parity across the modules.

The concerns regarding the transition from level 1 to level 2 are being constantly addressed, especially with respect to essay writing. We have a dedicated tutorial and feedback session in level 1, that the students find useful but this year, we hope to make the Peer Assisted Student Support Scheme more formalised to include essay discussion sessions and to try and maintain this into level 2. This, together with our formative assessments throughout semester 1 of level 2 and the inclusion of exemplar scripts and workshops where appropriate, should help to address students' concerns.

The level of pastoral care available to students is being addressed at faculty level since mental health is becoming a concern for all universities across the UK and the world. I will impress upon the neuroscience academics the importance of being supportive and knowing where to guide students for more formal or different advice or support if it is out of the expertise or comfort of academic staff.

I would just like to thank you again for being so thorough and caring as an External Examiner. You, like all the neuroscience academics, have the interests of the students uppermost and we really appreciate your efforts to ensure that we continue to provide an excellent degree course.

With warmest regards,

Programme Leader

Tel: 0113 34

Email: