

**The University of Leeds****EXTERNAL EXAMINER'S REPORT**

ACADEMIC YEAR: 2012– 2013

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

Faculty / School of:	Biological Sciences
Subject(s):	<i>Genetics &amp; Human Genetics</i>
Programme(s) / Module(s):	
Awards (e.g. BA/BSc/MSc etc):	BSc

**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 Academic Quality and Standards**  
Academic Quality and Standards Team  
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

**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 current aims and ILOs are fully commensurate with the programme delivered and student achievement. The Genetics and Human Genetics programmes are well balanced, with clear evidence of high quality teaching and students developing a good level of understanding and knowledge. They are gaining an appropriate level of training and experience in both theoretical and practical aspects of the subject.

**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.*

Based primarily on a review of module descriptions, reading a sample of 3rd year examination scripts and assessing a selection of project reports and dissertations, I am satisfied that the aims and ILOs are being achieved by the majority of students. The student performance is fully consistent with those in similar research lead universities.

**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 final year modules are primarily assessed by a combination of in-course assessment and a final examination paper, whereas practical modules tend to have different components of continuous assessment. Final year project involve a full report and other components such as a poster. The use of a broad range of assessment types represents good practice and includes formative as well as summative assessment. However, for each module careful analysis of mark distribution between the components needs careful review for each module. As I noted last year, for theory modules there is a tendency for the in-course assessments to have a higher average mark than the final exam. There are instances where this is problematic but there is no clear evidence that such anomalies are being systematically addressed. I have noted three areas that should be looked at:

The Evolution and Population Genetics module(3246) had a very low average (50%), and the final exam had none of the students achieving a first class mark. I was assured that based on the student cohort taking this module the average final mark was not significantly out of line. However, this is the second year running that a very low average was achieved so I feel this module should be carefully reviewed.

The 2<sup>nd</sup> year module in Human Genetics (2182/2282) had low mark averages for both this and last year. The associated 3<sup>rd</sup> year module, Advanced Topics in Human Genetics (3152), also had a low average of 55% but most surprisingly none of the students achieve a 1<sup>st</sup> class mark – the highest final mark being 69% with the highest examination mark being 65%. Reviewing individual scripts there may be an argument for some minor adjustment but generally the marking was appropriate. It will be important to determine why the performance in both the second and third year modules is so poor. I was assured that these modules would be reviewed next year.

Finally, in a newly devised module (Advanced Plant Science - 3204) the in course MCQ had an average mark that was a fail (39%). The average final mark was 57% and due to the good average marks for the report. It is inevitable that when making changes some aberrations will occur, but it is important that where possible appropriate checks are in place to limit this - the question is did anyone carefully review this MCQ?

Secondly, it is important that such aberrations are seen to be dealt with appropriately. On this occasion it was ignored as the final marks were reasonable - this is not really fair on the students particularly as there is no scaling of marks. Personally, I would have recommended ignoring this component of assesment and reviewing the exam for next year.

**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 students have an extensive range of assessments allowing for a broad range of skills and knowledge to be appropriately rewarded. I was happy that the level of achievement for the majority of students was fully consistent with them having received an excellent training and tuition.  
As a group there was a shortage of outstanding performances which was reflected in the limited number of very high marks.

**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.*

As I suggested last year key criteria to be considered in awarding the mark for performance during the project were used, marking now being more transparent and clearly justified. This worked well and the project marking in general was very rigorous and well documented.

**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.*

The lecture content and particularly the projects clearly reflect the presence of a strong research base which is enriching the curriculum. The program is up to date and talking to the students, the staff are obviously enthusiastic about their work and areas of research, which is important and inspiring for the students.

**For Examiners involved in mentoring arrangements**

**8. 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

**9. 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.*

We were provided with all 3<sup>rd</sup> year examination scripts, dissertations and project reports. We were also able to ask for additional material if required. However, it would be appropriate to have access to samples of module course work (eg lab reports). We were not routinely provided with any of the first or second year work and I feel it would be appropriate to have this to allow for a small sample to be reviewed.

As we are formally reviewing a set of specific modules (1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> year) it would be appropriate if all the material was organised by module rather than by student. This should include examination scripts alongside any course manuals, examinations with model answers, the spread sheet of marks etc. It would then be very easy to review each module and report on each individually. Where required we could then follow specific students by taking the relevant material for each set of module material. Student feedback would also be useful. However, looking at the data available this is very patchy. One possibility is to get the 3<sup>rd</sup> year students to give a general program assessment – which will help identify key strengths and weaknesses.

We did not have a spread sheet of all the 3<sup>rd</sup> year students in the programme. This prevented us from reviewing the overall distribution of students and guiding our choice of individuals to track. I would suggest this is also made available next year (electronic or paper).

As there is no scaling of marks it would be very useful when reviewing each module to see the average mark for a period of time (eg 5 years). This would allow us to determine if there are specific modules that consistently perform out of line with the rest.

I would suggest these changes are considered for next year.

**10. 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.*

Generally all the material was made available at various times and via different formats. However, it was not all in place for the examiners on their visit. (see above)

**11. 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 the draft examination papers and these were modified appropriately where required. The nature and level of questions was fully appropriate. Model answers were generally provided with only a few exceptions. The examination papers are very rigorous and designed to cover a large part of the syllabus.

We are not currently seeing in-course assessment exercises – one example is the MCQ for Applied Plant Sciences, where the average mark was 39%. I would suggest that this should be done where new assessments are introduced.

The examiners collectively discussed the 3<sup>rd</sup> year exam structure. My two colleagues were concerned about the use of short answer questions in the 3<sup>rd</sup> year as they felt long essays were preferable – requiring synthesis of ideas etc. However, I can see the value in short answers as they deter question spotting but also allow for different types of question, such as data analysis or problem solving to be introduced. My concern is that currently the short answer questions are often very similar to the essay questions and the consequence is that examiner expectations are possibly too high, limiting the possibility of achieving a very high mark. In a number of cases it appeared that students were providing all the necessary information requested but because they had not extended this they could not get a first class mark. This seemed unrealistic in the 15 min or so they had to answer the question. I would suggest that if short answer questions are retained these points are considered.

**12. 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?**

I feel confident that for 3<sup>rd</sup> year students enough material was available. As stated above this could be improved, especially in relation to years 1 and 2.

I was very pleased with the annotation of scripts and clear justification for marks associated with course work. Inevitably there were a few aberrations but these were the exception.

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

Yes to both questions.

**14. 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?**

In the examiners meeting the first item was to review the individual modules – this was relatively brief and unstructured. It would probably be appropriate that each 3<sup>rd</sup> year module is at least mentioned briefly to make sure all issues are raised. Then collectively mention 1<sup>st</sup> and 2<sup>nd</sup> year modules.

The second stage was to consider individual final year students, reviewing the marks for 2<sup>nd</sup> and 3<sup>rd</sup> year modules for all those at the borderline or with mitigating circumstances. Each case was presented and discussed in detail and I was happy with all the recommendations made. However, clear defined criteria were not in place to determine the award for students who were regarded as borderline. This apparent discretion has the danger of inconsistency. In agreement with the other two external examiners I feel a clear strategy for profiling and determining the final award should be decided prior to the meeting.

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

In relation to mitigating circumstances as externals we had been asked to review specific cases. It would have been useful if we had been briefed on each of these on first arriving rather than on the day of the examiners meeting. However, I feel these students were given full and appropriate consideration.

**Other comments**

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

In summary I was very impressed with the program. The staff clearly make a great effort to deliver a top quality program. The students I met on my visit were very complementary, and I am confident this is deserved.

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*External Examiner:*

*Programme Area:* **BSc Genetics**

*Academic Year:* **2012/13**

*Date of Response:* **28 August 2013**

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Dear

Thanks for acting once again as the external examiner for our BSc programme in Genetics. I'm very pleased to learn that you think that we are delivering a good programme that meets the needs of our students in terms of developing their understanding and preparing them for life post-graduation.

In relation to the specific comments you made:

- (i) You highlighted some modules where student achievement was generally lower than the average performance across the year. In particular, the 2<sup>nd</sup> year module in Human Genetics (2182/2282), and the 3<sup>rd</sup> year modules, Advanced Topics in Human Genetics (3152), Evolution and Population Genetics module (3246) and Applied Plant Science (3205).

In the case of the two Human Genetics modules (Human Genetics at Level 2 and Advanced Topics in Human Genetics at Level 3), these are instances where we expect to see an improvement in the future, as each module is now under new management, and a number of changes are being implemented that we hope will bring their assessment into line with the other modules. Evolution and Population Genetics is perceived as a more difficult module: I suspect that given the necessity for using mathematical concepts for population genetic analysis, this will always be challenging for some students. The module Applied Plant Science is a new module, and there were clearly some teething problems that can be put right in future years. In particular, the coursework element (worth 25% of the module) of BLGY3205 was a low scoring element. The matter was investigated in detail, including meetings between the exams officer, the Faculty Director of Undergraduate Student Education, the School Director for Learning and teaching and the module manager and meetings with student representatives. The questions in this MCQ were closely related to the practical and tested knowledge and application associated with the plant transformation work. As such, the assessment was appropriate and rewarded students who knew why they were performing techniques and attention to detail including, for example, the range of a pipette. While this knowledge is closely linked to good bench science, it is difficult to revise for, and this was the basis of some of the criticism from students. However, the marks and questions were reviewed and judged to be a sound assessment of the students' practical knowledge, with some students achieving good marks. Because of this, and the fact that the module average was not significantly different from what was expected, no action was taken to adjust the module marks in response to the low average of the MCQ element. If the MCQ mark had been ignored the module average would have been greater than expected. On the basis of student feedback and as part of the module review process changes will be made to improve this module, including moving the MCQ exam so that it does not coincide with the 40 credit project deadline, and ensuring that the students are better prepared for this component of the assessment.

In summary, our investigation concluded that the students taking this module had not been unduly disadvantaged and the assessment was appropriate for the practical nature of the module.

- (ii) You make some interesting remarks about obtaining student feedback: I think that one problem that we have is that students are now asked to complete so many end-of-module and end-of-year feedback questionnaires that they very quickly get demotivated to undertake these. I don't see any way around this, apart from substantially reducing this requirement on module/programme managers to elicit feedback – something that I doubt the University will do.
- (iii) You have asked that in future we provide more information (including coursework, module and programme spreadsheets, historic performance in modules etc.) – We shall implement these recommendations for your visit, next year.

Finally, on behalf of all the staff who contribute to the Genetics programme, we really do appreciate the effort that you put in on our behalf, and we are very pleased to learn that you feel that we, too are making “a great effort to deliver at top quality programme”.

Sincerely,

Programme Leader