

The University of Leeds

EXTERNAL EXAMINER'S REPORT

ACADEMIC YEAR: 2010-2011

PART A: GENERAL INFORMATION

Subject area and awards being examined:

School of:	Subject(s):
Biology	
Programme(s) / Module(s):	awards: (e.g. BA/BSc/MSc etc.)
Zoology	BSc
Zoology (Animal Sciences)	BSc
Zoology (Int)	BSc
Zoology (Ind)	BSc
Zoology in Rel to Medicine and Vet Med	BSc
Ecology and Environmental Biology	BSc
Ecology and Environmental Biology (Int)	BSc
Ecology and Environmental Biology (Ind)	BSc

The completed report should be attached to an e-mail and sent as soon as possible, and no later than 6 weeks after the relevant meeting of the Board of Examiners, to 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.

N/A

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.

Teaching and assessment standards in the programs for which I have responsibility have been well maintained during the period of my appointment and remain comparable with other research-led universities. There is therefore the delivery of high quality teaching informed by research, with a sensible retention of field work elements, as well as practical and transferable skills, but with solid academic core. It is, in my opinion, a considerable strength that an emphasis on whole organism biology is retained and that the course is relatively diverse and reasonably broad despite recent staff changes.

Teaching practice has been enhanced in many ways over the period of my appointment. Notably:

- The VLE was introduced (although it was not available to external examiners this year due to software upgrade) and is liked by students, even though it is still necessary to ensure all staff use it effectively.
- There is better student mentoring (evidenced, for example, by the lack of students who fail to take the right L2 modules in L3).
- The tutorial system is better integrated with lectures and practicals.
- There is better time-alignment between L1 practicals and L1 lectures
- The use of Turnitin has become routine to deter plagiarism
- Students receive much clearer guidance regarding mitigating circumstances

More contentiously perhaps, the reduction in the number of programs offered seems sensible to me, as long as it has not affected student recruitment and as long as there has been an associated increase in teaching efficiency. No doubt the loss of staff has proved challenging, and care will have to be taken in future that staff losses do not undermine the strength of the degree programmes at Leeds. Care is also needed to ensure that staff work loads are not excessive and management needs to look at work load balancing to ensure the quality of the student experience is maintained. There may, however, be methods that can be used to reduce staff effort and increase effectiveness, such as running joint practical projects which, in my experience, benefit both staff and students.

Assessment processes have also improved during the time I have been external examiner, and are increasingly well thought out and professionally implemented. For instance:

- Exam paper formats have been standardized, but questions remain sensibly varied and challenge students in variety of ways. The mechanism of running them past external examiners for approval and comment has also improved markedly.
- Clearer marking criteria have been introduced both for coursework assessments and for exams.
- There are now much fuller model answers
- There is now much fuller commenting of exam scripts by examiners
- There are better procedures associated with mark data entry
- There is much better presentation of mark data to external examiners

Nevertheless, there is room for improvement and my report for this year is not dissimilar from last in this respect. For instance, assessment methods vary between modules (appropriately so to align the assessment methods with ILOs and Aims of modules) but greater parity is still needed between modules in terms of marks as there is still too much variation between means and variance and the source of these differences is not well understood. Better analysis of module marks means and variances etc. is needed to understand the basis for this, and to implement a system of mark balancing. Part of this will involve the sharing of information between markers so that they are more aware of the nature of the problem. Similarly, sharing model answers, which are still very varied, will encourage good practice, as will more open consideration of the level of commenting on examination scripts. Better analyses of marks are also still needed by external examiners in the form of summary sheets rather than raw data. In many areas procedures are much improved, but there is room for more change: e.g. when project marks are adjusted, more information should be given to justify the adjustment. e.g. student practical project diaries should be routinely filled in at meetings with supervisors to avoid confusion and later challenge.

Personally, I favour the abandonment of degree classifications, which I believe are of limited value, and are in fact the cause of some problems and anomalies in assessment (e.g. the complex criteria invoked for degree classification) but I appreciate that this is difficult for one institution to do in isolation.

Finally, I want to note how much I have enjoyed the experience of being an external examiner for the last four years and to thank all the staff involved for making the visits both interesting and painless. I also want to thank all staff who have addressed changes suggested over the years by me and fellow external examiners. We are aware of the significant efforts required and it is gratifying to see positive steps taken. I am confident that the quality of teaching and assessment will continue to be and improved as befits a university such as Leeds.

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 ILOs of modules and programmes are appropriate in both content and structure.
- Standards are commensurate with the levels of the awards made.

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 programmes which I examined compare well with similar programmes in other universities with which I am familiar. Teaching is of a high quality and is valuably informed by research, sensibly retains field work elements, and includes both practical and transferable skills. Importantly, both for student recruitment and for a balanced biological education, the programmes retain an emphasis on whole organism biology.
- In the period of change currently faced by the University sector, careful management will be needed to ensure Aims and ILOs are met for current and future students, and that a positive student experience is maintained.

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;*
- Assessment methods vary between modules, but this diversity is appropriate and assessment methods should continue to be tailored to the modules' Aims and ILOs. Assessment is conducted professionally and openly and is to a high standard. Considerable efforts are made for fair and effective assessment. Process and procedures, including inbuilt data quality control, have been improved to eliminate data entry errors etc.
- Annotation of examination scripts remains very variable and annotation that is more consistent and directly related to the criteria in the code of Practice for Assessment is to be strongly encouraged. Model exam answers are useful but remain rather varied between lecturers: sharing model answers between teaching staff should be routine and will result in more uniformity and encourage best practice.
- There remains substantial variation in mean, variance, and distribution of marks between modules (despite the fact that efforts have been made to counter this in the last few years) and mark distributions are sometimes skewed. For some modules variance is also very low and low variance implies little student discrimination. These mark distributions need to be explored further in order to verify that fairness and equity of student assessment is not compromised by students' choice of modules (although significant effort has been made in this direction). Steps also now need to be taken to ensure parity between modules that carry the same number of credit points. If diversity of assessment method is found to underlie variation in mark distributions steps should be taken to revise the marking schedules used in 'outlier' modules.
- Efforts should also be made to ensure that students are appropriately prepared for all modules, particularly those in years 2 and 3: no module should not be 'too difficult' for students who select it.
- Arrangements for the classification of awards were very good and all steps were very professionally conducted. Nevertheless, in my opinion, the UK system of degree classification is archaic, anomalous, and difficult to justify. In my experience, employers are also increasingly interested in mark breakdowns, grade point averages, rank order and comments on year on year variation in such data, rather than simply degree class, as indicators of student achievement. As long as degree classifications are retained, however, I believe allocation of degree class should be entirely algorithmic and objective with academic input into the determination of degree categories being restricted to the design of the algorithm used, not to the consideration of individual students in the context of examiners' meetings.
- The University's centralised marks system generally works well though the output is somewhat hard to interpret and spreadsheets based on Banner output did not allow numerical manipulation due to the incorporation of text and numbers in spreadsheet cells. To identify anomalous marks it may also be helpful to consider practices used elsewhere, such as: (i) to regress a student's marks

in modules against module averages; (ii) list or plot how many standard deviations a student's marks are away from the mean for every module. Some steps towards this have been undertaken this year but more could be done. It may also be sensible to model the effect of a student's choice of modules may have had on their degree classification, mark, rank etc. given the variance in module marks. Such analyses are needed before external examiners visit.

- *The quality of teaching, learning and assessment methods that may be indicated by student performance.*
- The quality of teaching, and the quality of assessment of learning outcomes, were judged excellent in previous years, as judged from available documentation and on-line material (e.g. lecture notes, past papers, model exam answers etc.) available to students. This year, external examiners had no access to much of this material as the VLE was unavailable at the time of our visit due to software upgrade.

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 academic standards shown by students are comparable with those of students in similar programmes at other institutions with which I am familiar, and high academic standards are well maintained by teaching practices and the assessment process. My assessment of student strengths and weaknesses is based only on examination of written assessed work. The best student work is excellent and the 'tail' of low-achieving students appears to be less than in previous years, judging from module mark distributions and the spread of degree categories.

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. 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.

Since last year, continued efforts have been made to quantify and review the mean, variance and distribution of marks between modules within a level, and to understand how variation in assessed components contributes to mark variation between modules and this is welcome. However, this needs to be developed further to reduce differences between module mark means etc. (see above).

7. 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.

Teaching is informed by research but not excessively led by it, except in certain facets such as project work. This is an entirely appropriate balance that reflects the needs for a broad biological undergraduate training that also incorporates exposure to examples of specialist research.

The Examination Process

8. 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.*
- Material was generally sufficient. Some information was not initially available but requests for additional material were met quickly and efficiently, especially with respect to student marks etc.
- There was some confusion about the options open to the External Examiners with respect to specific student complaints associated with the Biology programme. All External Examiners had been asked to address this problem and reach a collective decision but the options available for mitigation were not at first made clear. This was, however, resolved during the process.

9. 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?

- *The coherence of the policies and procedures relating to external examiners and whether they match the explicit roles they are asked to perform.*

Yes.

10. Was sufficient assessed/examination work made available to enable you to have confidence in your evaluation of the standard of student work?

- Yes, though there was a large quantity of material to examine in the time available. The University's centralised marks system generally works well though the output is somewhat hard to interpret as BANNER output could not be easily manipulated in spreadsheets provided to the external examiners. Better reports (in the database sense) are needed in order better to review students' attainments as individuals. To identify anomalous marks it may be helpful to consider practices used elsewhere such as: (i) to regress a student's marks in modules against module averages; (ii) list of plot how many standard deviations a student's marks are away from the mean for every module. It may also be sensible to model the effect of a student's choice of modules may have had on their degree classification, mark, rank etc. given the variance in module marks.
- The VLE was unavailable during the external examiners' visit due to VLE upgrade, so it was not possible to see the resources available to students

11. Were the administrative arrangements satisfactory for the whole process, including the operation of the Board of Examiners?

Administrative arrangements were very good. The operation of the Board of Examiners meeting was conducted professionally.

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

Yes. It is always preferable for special circumstances to be considered entirely separately from the examiners' meeting, especially as such circumstances are often personal and private. Adjustments should be algorithmic and invisible in examiners' meetings. In view of my comments relating to degree classification (see section 3), all students with special circumstances should have marks adjusted (or considered for adjustment), not those just at borders of degree classification.

For Examiners involved in Mentoring Arrangements

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

Other Comments

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

I am very grateful to all of those who helped to make my visit to Leeds pleasant and, I hope, effective.

External Examiner:

Programme Area: **BSc Zoology**
BSc Zoology (Animal Science)
BSc Ecology and Environmental Biology
BSc Zoology in Relation to Medicine and Veterinary Science

Academic Year: **2010/11**

Date of Response: **5th August 2011**

Dear

Thank you for your thorough and thoughtful review of the Zoology and Ecology and Environmental Biology degree programmes. Your continued support and encouragement of the high standards we hope to deliver is much appreciated, as is your recognition of the somewhat turbulent times in the Faculty. The areas of concern that you raise will undoubtedly help us to improve our programmes. We shall pay particular attention to the following points that you raised:

1. **Comment:** "Assessment methods vary appropriately between modules, but greater parity is needed between modules as there is too much variation between means and variance. The source of these differences is not well understood".

Response: *As with last year, we will strive to undertake a better analysis of module marks, means and variances and consider how to implement a system of mark balancing. As you point out, we acknowledge that we could improve this situation by sharing information between markers. Additionally, the sharing of model answers would encourage good practice as well as promote better commenting on exam scripts.*

2. **Comment:** "The mark distributions need to be explored further in order to verify that fairness and equity of student assessment is not compromised by students' choice of modules"

Response: *Again, whilst progress has been made towards this, we shall strive to improve our understanding in order to remedy problems associated with uneven distributions.*

3. **Comment:** "Better analyses of marks are needed by external examiners in the form of summary sheets rather than raw data. In many areas procedures are much improved, but there is room for more change: e.g. more information should be given to justify mark adjustments."

Response: *This has been noted and we hope more useful data will be supplied next time. This year we have put in place a system for adjusting and justifying changes to marks, but this has been associated largely with Level 3 projects. We can broaden this process where appropriate.*

4. **Comment:** "Degree classifications are the cause of some problems and anomalies in assessment (e.g. the complex criteria invoked for degree classification) but I appreciate that this is difficult for one institution to do in isolation."

Response: *We appreciate and perhaps sympathetic to this suggestion and will take it on board given, as you say, the implications of undertaking such an action in isolation.*

5. **Comment:** "Ensure that students are appropriately prepared for all modules, particularly those in years 2 and 3: no module should not be 'too difficult' for students who select it."

Response: *This point is well-taken and we shall endeavour to provide more information via module handbooks, but also provide further guidance via the personal tutorial system.*

Best wishes,

Programme Leader Zoology

Programme Leader Ecology and Environmental Biology

Faculty of Biological Sciences

University of Leeds
Garstang Building
Leeds LS2 9JT



UNIVERSITY OF LEEDS

26 September 2011

Dear

EXTERNAL EXAMINER REPORT 2010/11: BSc Zoology and BSc Ecology

Many thanks for all your efforts throughout your four year tenure as External Examiner for the Zoology and Ecology and Environmental Biology degree programmes - we are very grateful for your input and support. The changes implemented have greatly improved the programme and the student experience. It is great to see the hard work of staff reflected in the positive comments included in your report.

I am pleased you note improvements in assessment processes over the last four years but it is clear that further work needs to be done in this regard. As [redacted] and [redacted] point out in their response to your report, we are investigating variance in module marks across the Faculty and in addition, working on improving guidance to staff about marks assigned below 40%. I am glad you found administrative and support processes of a high standard during your tenure- staff will be very encouraged by your comments.

With best wishes,

Faculty Director of Undergraduate Student Education