



EXTERNAL EXAMINER ANNUAL REPORT FORM

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	For completion by External Examiner:		
Name of External Examiner:	DR IAIN BARBER		
Home Institution / Employer of External Examiner:	UNIVERSITY OF LEICESTER		
Programme and / or Subjects Covered by this Report:	Biosciences (BSc Biology, BSc Ecology, BSc Zoology (Animal Biology/Ecology/Evolution))		
Academic Year / Period Covered by this Report:	2014/15	Date of Report:	02/07/2015

For completion by External Examiner in the spaces provided. Please extend spaces where necessary. **Please note this Form will be published online.**

1. Programme Structure

As I have previously reported, my overall impression is that the structure and content of the BSc (Hons) programmes offered by Cardiff is entirely consistent with the stated aims, learning outcomes and programme specifications. The diversity of modules from which students registered for Biology, Ecology and Zoology degrees is excellent and the content of these modules is kept up to date and relevant because all of the staff who teach on them have internationally recognised research programmes and are working at the cutting edge of the fields they are teaching. To its credit, the School of Biosciences at Cardiff has not gone down the route of using junior or teaching-only staff to deliver undergraduate modules. Across all three years, academic staff members teach on or lead modules within their areas of research expertise, and especially in the more in-depth modules offered in years 2 and 3 students are taught by leading experts. The modules offered at years 1, 2 and 3 are mostly distinctive in terms of the depth of coverage they provide: first year modules address fundamental concepts to give students a broad understanding of the modern biological sciences, second year modules consolidate this knowledge and allow students to delve more deeply into all major topics relevant to their degree, and third year modules typically allow develop a detailed understanding of topics that they are particularly interested in. However there were a couple of final year modules that I looked at in which student numbers were very high, and this appears to limit the extent to which a high level 3rd year teaching and learning experience can be delivered. It is important that such popular modules are managed carefully to ensure that students taking them can be given the opportunity to engage with cutting edge research topics in a manner that is consistent with their final year expectations. This was a point also raised by students during my visit early in the year.

All students have the option of undertaking a year-long professional training placement, which can be held either at an industrial or commercial partner, or at the University, between

years 2 and 3, and many students avail themselves of this valuable opportunity. In their final year all students undertake a substantial independent research project under the supervision of an academic member of staff. The range of projects – in terms of styles, approaches and topics – is very wide and allows students an opportunity to engage in primary research. This is a critically important part of an honours degree, and the general quality of the project reports that I was able to look through this year was very high.

2. Academic Standards

The programme continues to maintain high academic standards in relation to those offered by other equivalent institutions in the UK, and in relation to benchmark statements. This year I was able to review coursework and exam scripts from a wide range of final year modules across the degree schemes I was examining, and the quality of the work produced by Cardiff students is consistently of high quality, with some examples of outstanding achievement.

I was especially impressed this year with the quality of some pieces of coursework produced on the **BI3114 Conservation Biology** module, particularly some of the reports produced for the Vortex modelling practical, which is a high-level and challenging activity that really stretches the students. Coursework on the **BI3134 Aquatic Resource Management and Conservation** module was also of high quality, with some outstanding 'Briefing Papers' on topics of significant interest being produced by a number of students.

Students typically achieve well on the modules that they take, and the proportion of 'good' marks (i.e. 1st and 2.1 marks, >60%) awarded across the modules that I looked at was impressive. My review of the coursework and exam scripts across the range of marks awarded gave confidence that students were being awarded marks that were consistent with detailed University guidance, and also were consistent with marks that would be given in other UK universities of equivalent standing.

Last year I felt the need to express some concern that standards had dipped slightly in the production and presentation of scientific data, particularly in terms of the production of results sections and I made a recommendation that further work was needed during years 1 and 2 to ensure the satisfactory development of these skills by all students. It appears that this has now been implemented and it is gratifying to see this year that the standard of presentation of scientific data was notably improved across the modules I looked at. This is not an easy thing to turn around, so staff should be congratulated on this; these standards now need to be maintained, or perhaps even improved still further, for future cohorts of students.

I was able to meet with a group of final year undergraduates during a visit to the department in January and I found this to be a really valuable experience. The students that I met with were bright, engaging and expressed candid and positive opinions of their experiences in Cardiff. They were especially complimentary about the quality of teaching they received and recognised the quality of the staff that were contributing to their modules. The few niggles that were raised – about the speed of return of feedback on some modules, and about a perceived relative lack of module choice in some specialised degree streams, for example – were not unusual or unique to Cardiff, and actually were not upheld by my independent scrutiny and understanding of the programme at Cardiff.

3. The Assessment Process

The assessment process adopted by the School of Biosciences is robust and this year, as with other years, I have no doubts whatsoever that the students have left Cardiff with the degrees that they deserve. Academic assessment standards remain generally high and both exam scripts and coursework were typically extensively annotated, giving students helpful

feedback on their work and a clear indication of the reason for the mark awarded. Students are assessed in a wide range of skills across the three years, though in my opinion there is still perhaps too much focus on extended essay writing in the final year.

There is usually very clear evidence of moderation and / or second marking, in terms of both script annotations and marks awarded. In general, scripts are generally very well annotated by markers, and a very useful system of abbreviations is used to indicate various elements that can be used to guide grading (such as the inclusion of information gained from reading outside of the lecture material). Excellent examples of this included the coursework essays in **BI3136 Global Climate Change Ecology**, the coursework reports in **BI3132 Advanced Topics in Animal Behaviour** and especially the Vortex modelling exercise in **BI3114 Conservation Biology**, which also included very detailed summary comments, providing great feedback for students as to the strengths and weaknesses of their work. Fewer modules than last year could be identified in which inconsistency or lack of annotation was a problem, and it is excellent to see this good practice spreading widely throughout the programme.

I am rather surprised to see that the majority of coursework is still being handed in in hard copy, and marked by hand, rather than being submitted electronically and marked online using GradeMark or similar. Although academic staff can sometimes resist such innovations, experience from my own institution has convinced me of the many benefits that electronic hand in and marking can deliver, and once staff realise that it can speed up the job of marking coursework, as well as allow students access to more useful (and sometimes legible!) feedback, any such resistance soon disappears. In addition, this year I noticed that on a couple of modules students were penalized for images / figures that were not judged to be of high enough quality or not printed out clearly. In at least one case this was due to a student printing out work using a low-quality printer. Such problems would be avoided using electronic submission. I would even go so far as urging the School to consider electronic project submission.

4. Year-on-Year Comments

As with previous years, I received a detailed response to the report I submitted for 2013/14. I have already mentioned some of the positive responses to issues from last year in my comments above, so I will briefly mention some others here:

- (a) Previous limited use of the upper end of the mark range in **BI3132 Advanced Topics in Animal Behaviour** has been addressed, and it was good to see some higher marks being awarded this year for excellent and outstanding work – five scripts were awarded >75% this time, and a top mark of 82%.
- (b) There is still a rather more obvious skew than would be ideal in terms of the popularity of questions being set in some modules. I previously raised this as an issue because there were some modules with really extreme patterns; this year the patterns were not so extreme, but still some questions on certain topics proved unpopular. Notably, in at least two modules (**BI3132 Advanced Topics in Animal Behaviour** and **BI3114 Conservation Biology**) these questions pertained to applied aspects of the module, where students were asked to move away from the relative comfort of theory and example-based answers and talk about the application of ideas to real-world problems. This is a shame, and it would be great to see module convenors think about how they can increase student engagement and confidence in these important aspects of modules.
- (c) Last year, as a result of a very short lead in time between the end of exams and the arrival of external examiners, the availability of marksheets, scripts and coursework and the general level of organisation, was below the high standards set in my previous visits. This year, I am very pleased to say that level of preparedness was

excellent, and all materials that were needed for my visit were available immediately. Module mark sheets still do not provide a breakdown of module marks by degree class, which is apparently a limitation of the software being used, but it was very useful this year to have access to direct comparisons between modules, with a sheet that summarised performance across all modules and highlighted modules with especially high or low levels of attainment.

- (d) Last year I commented on the relatively poor level of referencing across many modules, and unfortunately this is one area in which it is not clear that there has been much of an improvement. In a number of modules, students were allowed to get away with submitting work with incorrectly and inconsistently formatted reference lists. Markers must pick students up on these issues, which are being allowed to slide a little too far at present. Has any consideration been given to training students in the use of bibliographic software packages such as Endnote or Mendeley?

5. Preparation / Induction Activity (for new External Examiners only)

N/A

6. Noteworthy Practice and Enhancement

There are numerous examples of best practice across the School, and I identify below some of the key things that I think Cardiff does especially well:

- a. Consistently extensive annotation of exam scripts and coursework. There are now very few modules for which this is not the case. The systems of annotation very clearly identifies the reasons for particular marks being awarded.
- b. Detailed criteria for ascribing particular marks. I especially like your way of marking projects, whereby markers highlight particular phrases from different grade boxes to describe the quality of the various sections of the report. This is an elegant solution to the problem of marking an often complex piece of work, and leads to reliable and repeatable marking.
- c. Markers are increasingly prepared to use the full spectrum of marks, especially at the top end for outstanding work.
- d. Really helpful and instructive feedback to students is now being provided in more modules.
- e. Some really innovative and challenging coursework exercises are being devised and developed that really push students and allow the very best (as well as the weaker) students to be differentiated.
- f. I especially like the use of a detailed coursework brief in many modules, which gives substantial detail to the students about the purpose and aims of the coursework as well as providing practical assistance for completion of the work. Providing such documentation both aids the students and also aids staff, who should not then need to answer high volumes of student queries about coursework exercises. I would recommend such briefs are used across all modules.

7. Appointment Overview (for retiring External Examiners only)

I have thoroughly enjoyed my time as external examiner for the Biosciences degrees at Cardiff, and have a very high opinion of the quality of the degrees that are awarded by the University to students on the BSc Biology, BSc Ecology, BSc Zoology (Animal Biology/Ecology/Evolution) programmes. The professionalism of the undergraduate administration team in handling the very large volume of work generated by such a sizeable and increasingly demanding undergraduate population, together with the dedication,

expertise and caring attitude of the academic staff delivering the teaching is key to the success of your programmes. From meeting with them on a number of occasions it is clear that students at Cardiff really enjoy their time in the School of Biosciences, and it is easy to see why from my review, over four years, of the academic experience they receive. In common with similar departments at all UK universities, the School will face some significant challenges in the future – perhaps most notably how teaching quality can be maintained during a time of increasing student demand at a time of likely static (at best) teaching income – but the School of Biosciences at Cardiff is well positioned to manage such challenges effectively. I wish you and your students all the best over the coming years.

8. Annual Report Checklist

Please include appropriate comments within Sections 1-7 above for any answer of 'No'.

		Yes (Y)	No (N)	N/A (N/A)
Programme/Course Information				
8.1	Did you receive sufficient information about the Programme and its contents, learning outcomes and assessments?	Y		
8.2	Were you asked to comment on any changes to the assessment of the Programme?			N/A
Draft Examination Question Papers				
8.3	Were you asked to approve all examination papers contributing to the final award?	Y		
8.4	Were the nature, spread and level of the questions appropriate?	Y		
8.5	Were suitable arrangements made to consider your comments?	Y		
Marking Examination Scripts				
8.6	Did you receive a sufficient number of scripts to be able to assess whether the internal marking and classifications were appropriate and consistent?	Y		
8.7	Was the general standard and consistency of marking appropriate?	Y		
8.8	Were the scripts marked in such a way as to enable you to see the reasons for the award of given marks?	Y		
8.9	Were you satisfied with the standard and consistency of marking applied by the internal examiners?	Y		
8.10	In your judgement, did you have the opportunity to examine a sufficient cross-section of candidates' work contributing to the final assessment?	Y		
Coursework and Practical Assessments				
8.11	Was the choice of subjects for coursework and / or practical assessments appropriate?	Y		
8.12	Were you afforded access to an appropriate sample of coursework and / or practical assessments?	Y		
8.13	Was the method and general standard of assessment appropriate?	Y		
8.14	Is sufficient feedback provided to students on their assessed work?	Y		
Clinical Examinations (if applicable)				
8.15	Were satisfactory arrangements made for the conduct of clinical assessments?			N/A
Sampling of Work				
8.16	Were you afforded sufficient time to consider samples of assessed work?	Y		
Examining Board Meeting				

		Yes (Y)	No (N)	N/A (N/A)
8.17	Were you able to attend the Examining Board meeting?	Y		
8.18	Was the Examining Board conducted properly, in accordance with established procedures and to your satisfaction?	Y		
8.19	Cardiff University recognises the productive contribution of External Examiners to the assessment process and, in particular, to the work of the Examining Board. Have you had adequate opportunities to discuss the Programme and any outstanding concerns with the Examining Board or its officers?	Y		
Joint Examining Board Meeting (if applicable)				
8.20	Did you attend a Composite Examining Board, i.e. one convened to consider the award of Joint Honours degrees?			N/A
8.21	If so, were you made aware of the procedures and conventions for the award of Joint Honours degrees?			N/A
8.22	Was the Composite Examining Board conducted according to its rules?			N/A

Please return this Report, preferably in a Microsoft Word format, by email to:

ExternalExaminers@cf.ac.uk

Your fee and expenses claim form and receipts, should be sent electronically to the above email address or in hard copy to:

Clive Brown, Registry Officer, Registry & Academic Services, Cardiff University,
McKenzie House, 30-36 Newport Road, Cardiff, CF24 0DE