



EXTERNAL EXAMINER ANNUAL REPORT FORM

Guidance notes are available to support the completion of this Report and are available at <http://learning.cf.ac.uk/quality/review/external-examiners/reports/>.

	For completion by External Examiner:		
Name of External Examiner:	Caroline Clewley		
Home Institution / Employer of External Examiner:	Imperial College London (Physics)		
Programme and / or Subjects Covered by this Report	MSc Physics		
Academic Year / Period Covered by this Report:	2015-2016	Date of Report:	21 st June 2016

For completion by External Examiner in the spaces provided. Please extend spaces where necessary. **Please note this Form will be published online and should not make any reference to any individual students or members of staff.**

1. Programme Structure

The MSc programme comprises two core taught modules of 20 credits each: one in the Autumn semester and one in the Spring semester. These modules are designed specifically for the MSc students. The core courses are supplemented by 8 elective modules of 10 credits each, which are shared with the MPhys students and spread over the two semesters. There are 18 modules to choose from, which represent a good spread of subjects. Students who have passed their taught modules, or who are likely to pass them in the summer, undertake a 60-credit research project over the summer.

Originally the Data Analysis module was meant as a core module; however as this relies on a working knowledge of Python it was decided to convert this into an elective. After speaking to the students I believe this was a good decision; only a few students took this module and it clearly carries a large work load during a time when students are also dedicated a lot of time to their Advanced Experimental Techniques module; unfamiliarity with the programming language would likely be detrimental to their performance in both modules. On the other hand Data Analysis can be a very useful subject to master for a research-focussed student. It could be considered therefore to offer students preliminary Python materials to enable them to get to grips with the language before the Data Analysis course.

2. Academic Standards

The minimum number of level 7 elective modules is 5 out of 8, with up to 3 level 6 modules allowed to be chosen. The elective exams have previously been seen by other external examiners and judged to be of appropriate academic standard. Having

looked through the students' work I am satisfied that this is clearly the case. The number of credits seems to represent the workload well.

The core modules entirely consist of coursework rather than exams. I have inspected the assignments and submissions and in my opinion the amount and nature of the work is appropriate for the programme level.

During our discussion with the students, it was apparent they tended to work full working days (9 – 5) every weekday; they spent most of this time on the work for the core modules, and some of it for the electives (which took up more time during the revision period). They felt they could finish their work to their satisfaction within the given time frames. This is in my mind a sign of an excellent workload for MSc students.

3. The Assessment Process

As discussed above, the elective modules have all been scrutinised by other external examiners; I therefore focus on the core modules in this section. The core modules are entirely coursework based and do not have an exam associated with them. This is appropriate, as they are designed to teach particular research skills that would not be tested well in an exam.

In the Advanced Experimental Techniques module, there are three different types of regular assessment, each well thought out. The lab exercises test how well the students have got to grip with the laboratory skills, the lab questionnaire encourages the students to read ahead in their course material, and the lab diaries aid students in the creation of their final microproject portfolio.

In the Study and Research Skills, students have two-weekly assessed work to hand in. The students themselves prefer to have weekly hand in deadlines, as they tend to work close to the deadline and underestimate the work. However, since time and project management are key transferable skills, it is in my opinion important to give them longer deadlines at times, particularly since their summer project will run over a much longer time scale. However, it is clear there is a need for a transition phase between shorter and longer hand-in periods; this was already recognised by the MSc programme director.

The marking schemes for these modules are extremely comprehensive and well set out. They are given to the students in advance, which means they know exactly how their work will be assessed. The students were very happy with this, as often in coursework (in other courses) students can feel that the assessment is variable and the marking criteria are unclear. Taken together with the excellent feedback students receive upon their work, including detailed comments on how to improve, this is a real strength of the programme.

The marks were very well recorded and monitored throughout the courses. It is clear students take suggestions for improvement on board, and are marked accordingly. The overall mark distribution for the core courses is high, but having looked through the material submitted and having heard from the students how much effort they put into these assignments, I am of the opinion the marks reflect the standard of work well.

The summer project have only just started, and therefore have not yet reached the assessment stage. However, looking ahead I am aware that the marks will be given on the basis of a dissertation, an oral presentation followed by a Q&A session, and continuous assessment from the supervisor. The dissertation will be double marked by people other than the supervisor. In light of this assessment procedure, I am satisfied the intended process is fair and appropriate for the nature of the project. The relative weighting of the three components is set to change next year, which sounds sensible and well motivated.

4. Year-on-Year Comments

N/A.

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

Unfortunately I could not be at the induction activity. However, both the University and the School have been very forthcoming with any relevant information so I could familiarise myself with the course programme and the external examiner's responsibilities.

6. Noteworthy Practice and Enhancement

One area that could be enhanced is the provision of industry projects: a number of students expressed an initial interest to undertake such a project, but unfortunately no such project could be found for them. Possibly there are other networks or contacts within the University that can help in securing such projects.

More on the strengths of the programme: the core modules are very well thought through and based on sound pedagogy and educational methods. They are innovative and very well executed, with the marking schemes and feedback constituting particular noteworthy practice. Furthermore, the students are encouraged to take ownership of their project, through flexibility and a negotiation process when it comes to summer project, even though they still feel uncertain about this at times in practice. The programme director is clearly dedicated to his students: they view him as a mentor who has their best interests at heart.

The students value the sense of community highly, which is aided by the very interactive style of teaching as well as the facilities offered to the students, such as having their own dedicated space to work in. Clearly they work collaboratively and accelerate each other's learning in this way. They also value how the course is adapted to their needs and according to their feedback.

Noting the above, it is important to look ahead and consider how the programme would evolve as it grows. The programme director would likely be unable to fulfil his current role (both as mentor and assessor for the core courses) by himself if the cohort would grow significantly. I would estimate that a cohort size of about 15 would be the threshold above which clearly more support is needed to maintain the current high standards and levels of student satisfaction. At a cohort size of about twice that, the cohort would probably benefit from subdivision into smaller groups, for example via specialisation streams, to maintain the collaborative learning component of the course. Also, the physical space would need to accommodate a larger cohort, to avoid students spreading out over the campus and losing their community spirit.

Finally, it needs to be noted that the students particularly stated that they believed that only a teaching and scholarship-focussed academic would be able to offer them the time and quality of support they received from the programme director. This is a belief I share: it would be difficult to envisage the programme being as successful if run by an academic who has less time and dedication for teaching. I would like to express my hope that the department will consider this when making future appointments.

7. Comments on the Examination of Master's Dissertations (External Examiners for postgraduate Master's Programmes only, see also 9.23-9.29 below)

The students have only just started their research project and have not yet written their dissertation.

8. Appointment Overview (for retiring External Examiners only)

N/A.

9. Annual Report Checklist

Please include appropriate comments within Sections 1-8 above for any answer of 'No'.

		Yes (Y)	No (N)	N/A (N/A)
Programme/Course Information				
9.1	Did you receive sufficient information about the Programme and its contents, learning outcomes and assessments?	Y		
9.2	Were you asked to comment on any changes to the assessment of the Programme?	Y		
Draft Examination Question Papers				
9.3	Were you asked to approve all examination papers contributing to the final award?		N	
9.4	Were the nature, spread and level of the questions appropriate?	Y		
9.5	Were suitable arrangements made to consider your comments?	Y		
Marking Examination Scripts				
9.6	Did you receive a sufficient number of scripts to be able to assess whether the internal marking and classifications were appropriate and consistent?	Y		
9.7	Was the general standard and consistency of marking appropriate?	Y		
9.8	Were the scripts marked in such a way as to enable you to see the reasons for the award of given marks?	Y		
9.9	Were you satisfied with the standard and consistency of marking applied by the internal examiners?	Y		
9.10	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				
9.11	Was the choice of subjects for coursework and / or practical assessments appropriate?	Y		
9.12	Were you afforded access to an appropriate sample of coursework and / or practical assessments?	Y		
9.13	Was the method and general standard of assessment appropriate?	Y		
9.14	Is sufficient feedback provided to students on their assessed work?	Y		
Clinical Examinations (if applicable)				
9.15	Were satisfactory arrangements made for the conduct of clinical assessments?			N/A
Sampling of Work				
9.16	Were you afforded sufficient time to consider samples of assessed work?	Y		
Examining Board Meeting				

		Yes (Y)	No (N)	N/A (N/A)
9.17	Were you able to attend the Examining Board meeting?	Y		
9.18	Was the Examining Board conducted properly, in accordance with established procedures and to your satisfaction?			N/A
9.19	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)				
9.20	Did you attend a Composite Examining Board, i.e. one convened to consider the award of Joint Honours degrees?		N	
9.21	If so, were you made aware of the procedures and conventions for the award of Joint Honours degrees?			N/A
9.22	Was the Composite Examining Board conducted according to its rules?			N/A
Examination of Master's Dissertations (if applicable)				
9.23	Did you receive a sufficient number of Dissertations to be able to assess whether the internal marking and classifications were appropriate and consistent?			N/A
9.24	Was the sample in accordance with the University's sampling guidelines (guidelines provided below)?			N/A
9.25	Were you satisfied with the standard and consistency of marking applied by the Internal Examiners?			N/A
9.26	Were you able to attend the Master's Degree (Dissertation) Stage Examining Board?			N/A
9.27	If so, was the Examining Board conducted properly and in accordance with established procedures?			N/A
9.28	Were the schemes for marking and classification correctly applied?			N/A
9.29	Were the standards of the awards recommended appropriate?			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:

External Examiners, Registry, Cardiff University, McKenzie House, 30-36 Newport Road, Cardiff, CF24 0DE

SAMPLING OF TAUGHT MASTER'S DISSERTATIONS BY EXTERNAL EXAMINERS

External Examiners shall be expected to see prescribed numbers and ranges of Dissertations, but not to mark them, on the following basis:

At least 10% of Dissertations for a postgraduate taught Master's Programme, or a minimum of 10 (whichever is the higher figure) must be seen by the External Examiner(s). Where the total number is less than 10, all Dissertations must be seen by the External Examiner(s) #.

Dissertations seen by External Examiners should include examples from across the whole range of achievement (i.e. Pass with Distinction, Pass, Fail).

External Examiners will retain the right to see other Dissertations at random.

Where more than one External Examiner is appointed on a Programme, at least 10% of Dissertations, or a minimum of 10 (whichever is the higher figure), should be seen collectively by the External Examiners.