



EXTERNAL EXAMINER ANNUAL REPORT FORM

The completion of this Report is supported by *Annual Report Form – Guidance to External Examiners*. The Guidance and this Form are available at: <http://www.cardiff.ac.uk/regis/ifs/exex/rep/index.html>. Fee information and claim forms are available at: <http://www.cardiff.ac.uk/regis/ifs/exex/fees/index.html> .

	For completion by External Examiner:		
Name of External Examiner:	C. R. Hajarnavis		
Home Institution / Employer of External Examiner:	University of Warwick		
Programme and / or Subjects Covered by this Report:	Pure Mathematics		
Academic Year / Period Covered by this Report:	2014-2015	Date of Report:	17 - 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

The strength of the department is in analysis and the modules provided in pure mathematics reflects this. The programme will benefit by being broadened. Some recommendations for achieving this were made by the previous external examiner and by me last year. I am pleased to note that a beginning in this direction has been made by the introduction of two new “Fundamentals of Pure Mathematics” modules at level 4 in 2015 – 16. I commend the fact that students will learn elementary Group Theory in the first year itself. This will give them better insight when they take more advanced modules in algebra, number theory and topology. I also note that it is planned to provide follow on modules progressively.

The continued success of the M.Math. programme will depend upon the ability to attract and retain good students. Every effort should be made to broaden this programme and resources given so that modules in pure mathematics outside of analysis can be provided in the final year. In particular, a beginning can be made by offering more options under the ‘reading module’ title.

2. Academic Standards

The academic standards of the modules in pure mathematics and the criteria used for degree classification are in line with the standard expected in a UK university. The M.Math. programme, now in its second year, is a success. The project dissertations in pure mathematics were of a high standard. The successful

candidates are well trained to pursue research in mathematics or in a related area or to take up responsible positions in business, finance or industry.

3. The Assessment Process (including dissertations, if appropriate)

The assessment process is carefully designed, transparent and continues to be well managed. All information required for the conduct of external assessment was readily provided. Internal examiners were available to discuss the marking of specific scripts. The SIMS programme once again produced satisfactory outcomes although the classification of two borderline candidates had to be adjusted. In view of the fact that the borderlines are now drawn by SIMS, it was recommended last year that while scaling each individual module, the effect on borderline candidates should be considered. I note (quoting from the response to last year's comments) that 'The School has also recently agreed to utilise future examination boards to review modules and their assessment in more detail ...'

4. Year-on-Year Comments

- i) Last year the copies of the projects that I saw had comments written in the margin by an internal examiner. These were very useful in judging whether the published criteria were correctly applied in awarding the mark.

I understand that a policy has been introduced instructing internal examiners not to write these comments. I would like to recommend that the previous practice be restored. In mathematics such comments are unlikely to be prejudicial; they mostly point to errors, incompleteness or originality. The external examiner is not an expert in every area nor is there the time to check where the mistakes, if any, are.

- ii) This year the length of projects that I looked at varied between 42 and 174 pages. While not denying the merit of the very long dissertations, the difference in lengths makes it hard compare the performance of different candidates. A range that the School considers appropriate – say between 40 to 60 pages – should be specified and candidates told to stay within this limit.

- lii) Since last year the class borderlines have been determined using the SIMS programme. This seems to work well. However, this year there were two candidates who were, in our opinion, unduly harshly treated by the system. A review of their performance in individual papers pushed both candidates to a higher classification. In future, the department should try to locate such cases beforehand, so that appropriate action can be taken by internal and external examiners reviewing each case together.

- iv) The performance of the third year M.Math. students was not as good as the results achieved by the previous two batches. I am sure the department will give all help to these students to achieve their full potential.

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

6. Noteworthy Practice and Enhancement

In the papers that were sent to me, the standard of examination setting and internal checking was commendable this year. Most examination questions were clear to understand and typographical errors were few. Once again the administrative support was excellent.

7. Appointment Overview (for retiring External Examiners only)

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?			N/A
8.12	Were you afforded access to an appropriate sample of coursework and / or practical assessments?			N/A
8.13	Was the method and general standard of assessment appropriate?			N/A
8.14	Is sufficient feedback provided to students on their assessed work?			N/A
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?			N/A
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?	Y		
8.21	If so, were you made aware of the procedures and conventions for the award of Joint Honours degrees?	Y		
8.22	Was the Composite Examining Board conducted according to its rules?	Y		

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:

Quality and Standards, Registry Officer, Registry & Academic Services, Cardiff University, McKenzie House, 30-36 Newport Road, Cardiff, CF24 0DE