



EXTERNAL EXAMINER ANNUAL REPORT FORM

Guidance notes are available to support the completion of this Report via the Cardiff University Intranet [here](#) and from ExternalExaminers@cardiff.ac.uk.

	For completion by External Examiner:		
Name of External Examiner:	C R Hajarnavis		
Home Institution / Employer of External Examiner:	University of Warwick		
Programme and / or Modules Covered by this Report	Pure Mathematics		
Academic Year / Period Covered by this Report:	2016 - 2017	Date of Report:	07 July 2017

Please complete all information in the spaces provided and submit within **six weeks** of the Examining Board (the **taught stage** Examining Board in the case of **postgraduate Master's programmes**).

Please note this form will be published online and should not make any reference to any individual students or members of staff in accordance with the Data Protection Act (1998).

Please extend spaces where necessary.

1. Programme Structure (curriculum design, programme structure and level, methods of teaching and learning)

As mentioned in earlier reports, algebra needs strengthening in the curriculum. The third year module on Groups Rings and Fields covers the basics well but does not yet have the sophistication of algebra modules at this level in some other universities. I understand the module content will be upgraded as the students become familiar with the basics in earlier years. As resources permit, modules should be offered in areas such as Galois Theory and Ring Theory (both commutative and non-commutative). Such a module could be made available under the 'reading module' option.

All other examination papers in pure mathematics tested knowledge at the level appropriate for the B.Sc. or M.Math. degree.

2. Academic Standards (comparability with other UK HEIs, achievement of students, any PSRB requirements)

The academic standards for both B.Sc. and M.Math. programmes are comparable to those prevailing in UK universities. The students at the top end of the M. Math. degree clearly demonstrate the ability to undertake research in mathematics or an allied area.

The projects in pure mathematics submitted for the B.Sc. degree were particularly strong this year.

3. The Assessment Process (enabling achievement of aims and learning outcomes; stretch of assessment; comparability of standards between modules of the same level)

As observed in earlier reports, the assessment process is carefully designed, fair and transparent. The recommendations made by me in previous years have been mostly implemented. The process of internal checking of examination papers still needs some improvement. I had constructive discussions about this with the Director of Learning and Teaching. (See (iii) below.)

4. Year-on-Year Comments

[Previous External Examiner Reports are available from the Cardiff University Website [here](#).]

i) It was agreed last year that internal examiners' detailed comments concerning projects (normally written in the margin) would be made available to the external examiner. These are mostly factual in nature and assist the external examiner in judging that the specified criteria for awarding the mark have been correctly applied. A few projects did not come with these comments. However, the overall comments on the front sheet were very helpful in all cases.

ii) The odd question on the examination papers was not originally phrased in idiomatic English. This would have worried the students in interpreting the exact meaning. This aspect should be given due attention during internal checking.

iii) It transpired during correspondence this year with the Education and Students Manager that examination setters are not required to provide 'model solutions' to their questions, although most do. I recommend that this be made mandatory. A full answer allows both the internal checker and the external examiner to assess that (a) the answer is correct, (b) the question is set at an appropriate level and (c) it can be done in the time given.

5. Preparation for the role of External Examiner (for new External Examiners only) (appropriateness of briefing provided, visits to School, programme handbooks and supporting information)

6. Noteworthy Practice and Enhancement (good and innovative practice in learning, teaching and assessment; opportunities for enhancement of learning opportunities)

In judging borderlines, the SIMS programme produces outcomes which are fair and further discussion of individual cases is generally not needed. This allows the external examiner to devote greater time to read and assess the substantial number of M.Math. and BSc. projects. The examiners' meeting can spend greater time discussing the broader examination issues.

7. Appointment Overview (for retiring External Examiners only) (significant changes in standards, programme/discipline developments, implementation of recommendations, further areas of work)

It has been a privilege to act as an external examiner in pure mathematics at Cardiff. My appointment coincided with the first batch of M.Math students obtaining their degree. It is highly satisfactory to observe over four years that the programme is flourishing and attracts high calibre students. During this period all my recommendations have been considered by the mathematics department in a positive spirit and acted on accordingly. The administrative support has been outstanding. The strengthening of the algebra syllabus is 'work in progress' which ought to be finished over the next couple of 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?	Y		
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?		N	
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				
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		
Examination of Master's Dissertations (if applicable)				
8.23	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
8.24	Was the sample in accordance with the University's sampling guidelines (guidelines provided below)?			
8.25	Were you satisfied with the standard and consistency of marking applied by the Internal Examiners?			
8.26	Were you able to attend the Master's Degree (Dissertation) Stage Examining Board?			

8.27	If so, was the Examining Board conducted properly and in accordance with established procedures?			
8.28	Were the schemes for marking and classification correctly applied?			
8.29	Were the standards of the awards recommended appropriate?			
8.30	Comments on the Examination of Master's Dissertations. <i>Please provide any comments you may wish to make on the issues raised above.</i>			

Please return this Report, **in a Microsoft Word format**, by email to:
externalexaminers@cardiff.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