

UNIVERSITY OF GLASGOW

Academic Standards Committee – 24 March 2017

Periodic Subject Review: Responses to the Recommendations arising from the Review of School of Mathematics and Statistics held on 17 and 18 March 2016

Mrs Catherine Omand, Clerk to the Review Panel

Conclusion

It was evident to the Panel that the School provided a supportive and friendly learning environment, managing to take into account two distinct subject areas, with Statistics being a smaller and cohesive subject with a strongly engaged student body and Mathematics, covering a substantial range of programmes and therefore dealing with a bigger and more diverse student population. From the meetings undertaken as part of the Review, the Panel had a general sense of a coherent, engaging School for its staff, students and GTAs. The School was committed to providing a wide range of degree programmes whilst undertaking a number of initiatives to enhance learning and teaching provision. The School was strongly committed to outreach activities as well as further developing its international portfolio. The School was responsive to student feedback having established good feedback mechanisms and linking this to other quality processes such as annual monitoring and annual teaching reviews. The previous six years has seen a great deal of change and transition for the School and the Review Panel commends the School for its excellent practices and encourages it to continue its excellent work in enhancing the student learning experience.

Recommendations

The following recommendations have been made to support the School in its reflection and to enhance provision in relation to teaching, learning and assessment. The recommendations have been cross-referenced to the paragraphs in the text of the report to which they refer and are **grouped together** by the areas for improvement/enhancement and are **ranked in order of priority within each section**.

Quality enhancement

Recommendation 1

The Panel **recommends** the School continues to develop a strategic approach to quality enhancement, adopting a more systematic approach to the sharing and dissemination of good practice between colleagues in Mathematics and Statistics. [Paragraph 3.1.3]

For Action: Head of School

Response:

The School is committed to continuing to develop a strategic approach to quality enhancement; it is encouraged that its success to date has been recognised throughout the Panel's report, particularly in its commendations. The main vehicle for quality enhancement will remain the School Learning and Teaching Committee (LTC), whose remit and membership encompasses the whole School (both subjects). From now on, at the end of each semester, year heads will be asked to submit a brief report to the LTC Convenor, outlining those aspects of their courses that have proved particularly successful or particularly challenging, so that good practice can be shared across the School. Other new

initiatives, summarised below, are being developed in response to specific recommendations from the Panel; these are all viewed as cross-School developments and will be overseen by the LTC.

Recommendation 2

The Panel **recommends** that the School consider mechanisms for ensuring that all staff developing and introducing new methods of teaching continue to be recognised. [Paragraph 3.2.1]. The Panel further **recommends** that staff should be encouraged to consider new teaching and assessment techniques, taking into consideration the evolving educational landscape. [Paragraph 5.2.7]

For Action: Head of School

Response:

The School fully implements the University of Glasgow's policies on Promotion and Recognition and Reward, for staff on the learning, teaching and scholarship track as well as the research track. The School treats members of staff on both tracks equally in terms of mentoring, workload allocation and access to CPD opportunities. In the past year, the School was successful in seeking one new post so that a University Teacher on a fixed-term contract could be transferred to a permanent position and in having two part-time posts merged into one further, permanent University Teacher post. P&DR objectives for academic staff on both tracks are routinely set in the area of learning and teaching, with the aim of promoting good practice and providing supportive measures where required. (See also our response to Recommendation 3, below.)

The School is working hard to maintain its excellent track record of innovation in teaching and assessment, which has recently been marked by several awards for the use of electronic assessment methods in Level-2 Mathematics. Since the PSR review, members of the Statistics group have built on their longstanding commitment to harnessing technological tools for learning by making a successful application under the BOLD initiative to develop a full Master's-level programme by online distance learning; this will undoubtedly change the style of teaching used with students who are on-campus as well as distance learners. For the past year, members of staff from across the School have been working with Estates and Buildings to develop plans for the temporary building to which the School will move in early 2017; central to these plans has been the School's desire to have teaching accommodation that will allow it to develop more flexible learning events, and colleagues from both subjects are looking forward to exploring those options together from Session 2017-18 onwards.

Recommendation 3

The Panel fully endorses the introduction of peer review for all staff and **recommends** that the School considers a reflective and structured process for staff, including established academics, with parameters established which would allow the School to recognise excellent teaching, promote good teaching practice as well as provide developmental and supportive measures. [Paragraph 5.2.2]

For Action: Head of School

Response:

The School is committed to creating opportunities for colleagues to learn about and reflect on best practice in learning and teaching. To that end, it will introduce a system of informal peer observation for all academic staff, initially on a voluntary basis. Allied to that, the School is introducing a series of occasional, lunchtime workshops in which colleagues will be

invited to share good and innovative teaching practice across the School and to discuss ongoing challenges. Invitations will be extended to distinguished external experts in learning and teaching in the mathematical sciences, as part of this workshop programme and possibly as part of the School Colloquium programme.

Tutorials

Recommendation 4

The Review Panel, whilst sympathetic to constraints caused by infrastructure and aware that limited student engagement in mathematics tutorials was a universal problem and not restricted to Glasgow, **recommends** that the School considers further ways to engage students within tutorials. The Panel further **recommends** the School takes into consideration some of the suggestions raised by the students, in relation to breadth of style as well as good practice already established within the School (such as co-opting the students with tutorial design). [Paragraph 4.4.5]

For Action: Head of School

Response:

Following the PSR review, members of the School met with colleagues from the Learning and Teaching Centre to discuss a variety of ways in which tutorial attendance might be improved and several options are now under active consideration.

As a pilot project in Session 2016-17, weekly Help Rooms have been established in Level-2 Statistics to replace tutorials (alongside fortnightly workshops, which are continuing). This initiative was developed in response to comments elicited during extensive consultation with last year's class and, although attendance has been patchy, there appears to be better acceptance of the new arrangements from the student body. With the move to our new building, the School hopes to be able to develop more innovative approaches to tutorials across both subjects and all years.

This year, too, a small element of coursework (5%) has been introduced to all Level-3 Mathematics courses and this appears to have triggered a step increase in tutorial attendance.

The system of "town hall" meetings for student cohorts has been extended this year and has proved an excellent way of finding out what issues are affecting students, including their tutorial attendance, and how the School might address them. As a result of discussion in this forum (as well as others, such as the Student-Staff Liaison Committees) various initiatives are being tried, but there is not yet conclusive evidence that they improve attendance levels in the long term.

Graduate Attributes

Recommendation 5

The Review Panel, whilst acknowledging that students were obtaining a range of graduate attributes, these tended to be specific to particular programmes or tailored courses. The Panel **recommends** that the School considers ways of ensuring graduate attributes are embedded throughout the curriculum, in a manner which is clearly identifiable to the students. [Paragraph 4.4.9]

For Action: Head of School

Response:

The School acknowledges this important principle and is taking further action to ensure that all students in all programmes have opportunities to develop a range of graduate attributes. The School has combined honours degree programmes with more than 20 other subjects so it is challenging to find a way forward that ensures all cohorts are covered without duplicating material and activities covered elsewhere. In response, therefore, the School has established a working group, convened by the LTC Convenor, to consult with colleagues around the University and develop detailed proposals. Implementation of the new arrangements is expected from Session 2018-19.

GTA support

Recommendation 6

The Panel commends the use of peer observation used in Statistics to help Graduate Teaching Assistants develop their teaching skills and **recommends** that Mathematics considers adopting this good practice. In addition, the Panel **recommends** establishing more formal aspects to GTA support to ensure both sets of GTAs received the same level of assistance. [Paragraph 5.2.10]. The Panel **recommends** that any additional information provided to Statistics GTAs should also be provided to Mathematics GTAs. [Paragraph 5.2.11]

For Action: Head of School

Response:

For clarification, the 'additional information' previously given to Statistics GTAs was advice about marking Statistics lab reports, which was not seen as relevant to Mathematics GTAs. Going forward, the School has asked two of its University Teachers to take on the role of jointly mentoring all the tutors and demonstrators, which will involve working with them to establish a rolling programme of appropriate training (to supplement the generic training offered by the Learning and Teaching Centre) and overseeing a system of peer observation across the whole School.

Enhancing the Student Experience

Recommendation 7

The Panel **recommends** that the School considers offering a showcase event for Final Year undergraduate students, such as a poster presentation and/or talk session of their research projects or conference, thus providing an opportunity for both the students to display their work as well as provide a platform for the School to highlight a major success. [Paragraph 5.1.14]

For Action: Head of School

Response:

Most student cohorts in the School already have the opportunity to showcase their final project work, through a talk (all MSci students and Single Honours Statistics students) or poster session (Combined Honours Statistics). As an integral part of the Level-3 Writing and Presenting Mathematics course, all Single Honours Mathematics students are already required to give a group presentation based on projects they have worked on individually. The School will actively explore the possibility of introducing poster sessions or project talks for all Honours Mathematics students based on their final-year projects; the working group on graduate attributes will look into this.

In future, the School will dedicate display areas in its new building to showcase students' project work and try to engage final-year students in existing outreach events (such as Open Days) in ways that will allow them to share their research with a wider audience.

Feedback and closing the feedback loop

Recommendation 8

The Review Panel **recommends** that, where action was taken to resolve issues, this should be clearly evidenced and communicated to the students. [Paragraph 4.5.3]. The Panel **recommends** that the reasons for not introducing a standard policy on the provision of solutions should be clearly communicated to students, including an explanation of why, in some instances, it was beneficial not to receive them, thus ensuring closure of the feedback loop. [Paragraph 4.5.4]

For Action: Head of School

Response:

The School is committed to full implementation of the University's new Course Evaluation Policy, which requires a Summary & Response Document for each course to be made available to students on the course Moodle page. Additionally, the School takes the opportunity to respond to student feedback at "town hall" meetings with whole cohorts of students, and issues such as the provision or non-provision of solutions are discussed there.

Recommendation 9

The Review Panel **recommends** that the additional informal mechanism for obtaining feedback at the beginning of a course used by some members of staff be considered for adoption across the School. [Paragraph 4.5.2]

For Action: Head of School

Response:

This is being rolled out across the School.

Service teaching

Recommendation 10

The Panel **recommends** that the School considers establishing a more formal relationship with 'client' subjects and Engineering to discuss teaching provision and possible alternative ways to support students from outside of the School [Paragraph 3.2.4]. The Panel **recommends** that client subjects are given an opportunity to provide feedback in any review undertaken. [Paragraph 5.1.1]

For Action: Head of School

Response:

The School will continue to build on its existing policy to ensure the best possible relationships with other subjects, in a context where it has combined honours degrees with over twenty other subjects across the University and contributes to degree programmes in yet more disciplines. There is already a well-established annual meeting of staff from the School and the Adam Smith Business School to review the workings of joint UG and PGT programmes with Accounting and Finance. The current Level-1 Mathematics review has explicitly invited comment from several Schools (for example, Physics and Astronomy) whose students take Mathematics courses to support the study of their principal subject, and will consult them again before implementing the outcomes of the review.

In recent times, the School of Engineering has taken increasing responsibility for teaching Mathematics to its own students. The last Level-2 Mathematics course for Engineers that was taught by the School of Mathematics and Statistics was recently withdrawn, with effect from Session 2017-18. The School of Mathematics and Statistics continues to teach one third of the 40-credit Engineering Mathematics 1 course (which is owned and organised by the School of Engineering). We will continue to co-operate closely with the School of Engineering in delivering this.

Members of Mathematics staff have been working with the School of Chemistry on the BOLD initiative arising out of the Science Fundamentals course (on which the School is responsible for Mathematics teaching). In another development, the School's Learning and Teaching Convenor has been part of a group brought together by colleagues in the School of Education to propose and implement a suite of accredited "... and Education" degrees that will prepare graduates to teach Science subjects at secondary school.

Examination Board procedures**Recommendation 11**

The Panel **recommends** that the standard practice of student anonymity should be applied at Examination Boards, where practical, following University policy. [Paragraph 6.6]

For Action: Head of School

Response:

The Examination Boards in January 2017 were conducted anonymously, as recommended, and future ones shall be too.

Probationary Lecturers**Recommendation 12**

The Review Panel **recommends** that the Academic Development Unit gives consideration to introducing further cohorts to allow all new members of staff to enrol on the PGCAP when they first commence at the University. [Paragraph 5.2.6]

For Action: Director of Learning and Teaching Centre and Head of Academic Development Unit

For Information: Head of School

Response:

We have considered this and are looking at how we can accommodate more participants either by increasing class size or offering an online alternative.

Marketing and Recruitment

Recommendation 13

The Panel **recommends** that the Senate Office bring the issue of recruitment material to the attention of the Marketing, Recruitment and International Office and the issue of limited flexibility of choice between Colleges to Academic Standards Committee. [Paragraph 4.1.1]

For Action: Clerk of the Panel

For Information: Head of School

Response:

In relation to recruitment material, the above recommendation was brought to the attention of Mr Jonathan Jones, Head of UK/EU Recruitment & Widening Participation, Marketing, Recruitment and International Office. His response is noted below.

Thanks for letting me know, however it is more to do with those students not remembering, reading or listening since the message about the flexible degree structure is and has been a core message since well before my time. It continues to be in the UG prospectus and [online](#), is highlighted in presentations that we make to school and college students, at Open Days and other recruitment events, including the large UCAS Recruitment Conventions. It also features in our online profiles across a wide range of student websites, as well as in our email, telephone and postal communications.

It is not surprising that they don't remember, it's not unusual for us to get questions about it despite all of the above, but I don't think we can do any more than we already do.

In addition to Mr Jones comments, the Learning and Teaching Committee has established a Transitions Working Group and part of its remit is to examine how students are supported on entering the University and how this can be improved. An Induction and Orientation Network, managed by the Positive Student Journey Project team, has also been established and its remit is to improve the quality of information provided as well as the format of induction sessions and to promote best practice.

In relation to limited flexibility of choice between Colleges, Academic Standards Committee **is invited** to discuss this¹.

¹ As the Report was approved under Summer Powers, ASC did not previously have an opportunity to discuss this part of the recommendation

