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Quality Implementation Plan
Department of Mathematics and Statistics
Final: 24 March 2021

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This document is a response to the Peer Review Group (PRG) Report written by the PRG following their visit to review the Department in February 2019. We address each of the recommendations that begin on page 7 of the PRG.

0. Introduction

The Department of Mathematics and Statistics is a research active department whose student numbers are growing quickly. Indeed, total student FTEs have grown from 425 in 2018-19 when the PRG visit took place, to 529 in 2020-21. Since we have had a net increase of only one staff member since then (a position that is currently temporary only), the departmental student-staff ratio (SSR) has also increased considerably from 24.7 in 2018-19 to 29.4 in 2020-21. These increases have increased pressure on departmental resources and lend extra weight to some of the recommendations below.

1. Institutional/Strategic Recommendations

S.1: Additional staffing in statistics will be required to meet the needs of expanding programmes in Data Science. *The department is engaged in an expansion to their Data Science programme which will require additional staffing to successfully deliver on the plans.*

The University will engage with the Department through the Annual Staffing Review about securing additional staff in the area of Statistics. New staff may also be considered in the context of new programme offerings.

S.2 Consultation with departments regarding audio-visual requirements for teaching spaces is vital. *The requirements for mathematics teaching are often different to those of other faculties. For example, the PRG noted that the provision of good quality blackboards with good lighting was a modest requirement and was something both staff and students identified as a need. Some rooms in particular do not allow for the use of both a projector and a blackboard at the same time. Minor modifications to teaching spaces would be needed to accommodate these.*

The University through the Office of Estates and Campus Development engages with all Departments on their requirements for audio-visual equipment. With the new buildings under construction, there will be engagement with the Department to ensure that the requirements for teaching Mathematics is supported.

S.3: Opportunities for promotion of staff are overdue. *The PRG noted that the schedule for promotions had been delayed in recent years. As a consequence, some staff are losing out on opportunities which colleagues in other universities are benefitting from. For example, only certain grades of staff can apply for national and international training opportunities and some staff cannot apply for these because of the lack of a promotions process. This has an impact on the visibility of the discipline and the university nationally and internationally.*

The University now operates regular bi-annual schemes for promotion to the grades of Associate Professor and Professor.

S.4: Additional space requirements for staff, expanding student numbers. *In common with the first recommendation above, it is noted that additional teaching and laboratory space will be required for the expanding programmes.*

The Office of Estates and Campus Development regularly assess space usage on campus and engages with all Departments on their requirements for staff accommodation. To date, all staff have been appropriately supported and co-located with their home Department as far as possible. In Maynooth University, most teaching facilities are a shared resource and centrally timetabled. There is an ongoing programme for expanding capacity to support the growth in student numbers at undergraduate and postgraduate level.

S.5: Clarification on the institutional strategy for the maintenance and expansion of departmental computing facilities. *The computing facilities within the department are due for replacement and upgrade. Previously, funding had been available through central funds for investment in this area, but this has changed in recent years. The institution should clarify how such investment is managed in the future, noting that computing facilities are a particular need of this department.*

The University is currently undergoing a significant upgrade of all computer teaching facilities, including those in Department laboratories. This can be supplemented by Department resources. The Institution will work with the Department to support it in developing a process for scheduled refreshing of the computing facilities.

S.6: Website and communications could be improved. *The centralisation of website and communications (moving away from local webpages) means that the department finds itself unable to participate as it once had in communicating with external stakeholders.*

The University allows Departments the opportunity to engage in Social Media and post news items to their local pages. The University has centralised repositories of academic information that is used to provide easy access for students. The University will work with the Department to ensure that all information is accurate and updated in a timely fashion.

S.7: Address systems risks. *The computer systems used for the collation of student results require a lot of manual effort on the part of staff to enter marks. When transcribing results between systems there are always risks of errors as well as a waste of resource in carrying out the process. These processes should be reviewed to ensure maximum efficiency and to minimise risks.*

The University will work with the Department to identify methods to simplify the identified tasks and adopt best practice from within the University.

2. Recommendations to the Department

U.1: Consider broader sharing of leadership responsibilities. *During the review process the PRG noted that a large amount of work in the day to day running of the department either fell directly on or required the direct input of the head of department and departmental administrator. For example, the majority of the work of preparing the initial draft of the self-evaluation report fell to the head of department, despite there being a group established for this purpose.*

Various roles in the Department are already shared. The extra demands of teaching during pandemic mean that many aspects of management and administration are rather different than they normally are. Once the pandemic is over, a review of departmental responsibilities will be undertaken.

U.2: Formally institute a role of 'Head of Statistics'. *The department has expanded in recent years, especially in the statistics discipline. Large increases in student numbers studying statistics also means there will be increased demand for planning and coordination in coming years. The formal establishment of the role of 'Head of Statistics' would allow a designated individual to be directly involved with the HoD in the day to day running of the department.*

Currently, the Head of Department consults the permanent statisticians in the Department on matters pertaining to statistics. We agree that the role of a "Head of Statistics" would be worthwhile, especially once things get back to normal after the pandemic.

U.3: Engage explicitly with the Equality Diversity and Athena Swan. *The PRG noted that whereas there was engagement with the institutional strategy in connection to Athena Swan, there was no explicit department involvement with this initiative. More generally there are important issues where an awareness of family commitments should be considered in day to day matters. For example, there should be an awareness that the timing of meetings or seminars and indeed teaching may impact on the ability of staff members to fully participate in activities. It was noted that informal discussions have taken place around for example the timing of seminars.*

The timing of meetings and colloquia has been adjusted to better suit staff with family commitments.

After we return to campus, we will work with the Equality and Diversity Office on an application for Athena Swan or equivalent.

We are part of the initiative lead by Niall Madden in NUIG to collect data to facilitate departmental Athena SWAN applications. This has resulted in a successful application to the HEA's Gender Equality Enhancement Fund, and we expect work to begin later in 2021.

U.4: Consider the format of examinations and tutorials. *Both students and staff noted that short examinations (90 minutes) do not give sufficient time to exam some courses in enough depth as they would like. To this end, it was suggested that consideration be given to extending the duration or considering alternative formats of examination. Likewise, some tutorials consist mainly of providing model solutions to work which had already been corrected. It was felt by tutorial assistants and students alike that alternative formats of tutorial (e.g. questions on material for future assignments or students working through solutions) may be beneficial.*

The recommended extension of 90-minute exams has been carried out: our standard 5-ECTS exam is now 120 minutes long.

The changes to tutorial format suggested above have also been instituted. In particular, additional practice sheets for tutorials have been given in many large classes this year to help with the demands of remote learning. Some of the other innovations brought in to address the challenges of Covid will likely be continued into the future, such as an expansion of automatically graded assessment materials. We also hope to be able to produce additional adaptive online learning materials.

U.5: Consider the curriculum of jointly shared programmes. *It was noted that in a minor number of cases there seemed to be duplication of content, or repetition of topics with other departments. This could be easily resolved by coordinating on how these topics are delivered or emphasised by each department.*

The Department hopes to discuss any duplication of content with other departments once things get back to normal after Covid. It is unlikely that teaching post-Covid will be the exact same as pre-Covid, so it seems prudent first to see where things settle down before we agree on possible reorganisation.

U.6: Develop a sabbatical culture. *The sabbatical system presents academic staff with an opportunity for growth. This then ultimately strengthens and provides a broader research perspective to the department. Few have taken up the opportunity, which could be due to a lack of flexibility in the implementation of the existing schemes, or barriers for some to travel (e.g. due to family constraints). By considering alternative models of sabbatical it may be possible for more to take advantage of this.*

We are supportive of staff taking sabbatical. We will make staff aware that the MU scheme has been revised to be more attractive: staff can now use individual GRAs to contribute to the cost of approved research leave.