

Faculty of Science and Health



Faculty Research Committee

Undergraduate Summer Research Internship Scheme 2019

Project Title: Analysis of attendance patterns in mathematics support

Principal Investigator: Assistant Professor Eabhnat Ni Fhloinn

School/Research Centre: School of Mathematical Sciences

I am currently supervising two PhD students, both of whom are in their 4th year of study (one full-time, one part-time). As Director of the Maths Learning Centre (MLC), I have supervised 8 interns before, on a range of projects involving the Maths Learning Centre and mathematics education research in general. I am organising the CETL-MSOR mathematics education conference in DCU in September – the first time it has been held outside the UK – and there would be a number of opportunities for the intern to be involved in the behind-the-scenes preparation for this event, in addition to the main work of their internship. The project could be structured over 5 or 10 weeks, as best suits the intern, as the Maths Learning Centre will be closed for the summer. The training they would receive and the exact nature of the analysis they undertake can be adapted based on their own interests and skill-set – in previous years, some interns translated mathematical resources into Portuguese (as they were Brazilian); one wrote a sign-in system for the MLC (as she was interesting in coding); one developed the social media outputs for a year (as he had extensive experience running social media accounts for clubs); and all learned how to analyse data effectively. I have produced a large number of journal papers (with 2 publications already appearing this year) and can provide an intern with a range of experience in research in mathematics education.

Project ad:

The Maths Learning Centre in DCU offers free mathematical support to DCU students who are studying any form of mathematics. Records are kept of those who attend, and these are analysed on an annual basis to determine patterns of attendance and help to improve the services offered. For this project, an intern will work on the database, extracting the relevant data, and learn how to analyse this effectively, using appropriate statistical tests. The intern will produce a report on the MLC for the past year, learning how to lay out such a document, along with the best use of charts and tables to report such data. In addition, there will be opportunities to be involved in the organisation of a large mathematics education conference which will take place in September in DCU, as well as a range of smaller sub-projects such as the Maths Learning Centre's social media presence; or the development of mathematical resources for those who are struggling with mathematics in higher education.