



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH

EPI-STEM

PDMT Report
National Consultative Forum on Teacher Supply, Thursday, 27 March 2021

Presented by Dr. Niamh O'Meara

Important Milestones

EPI-STEM

November 2020

UL Academic
Programme Review
Committee approved
the new PDMT
programme

January 2021

116 students enrolled
on the PDMT and
completed their online
induction

January 2021

Commencement of first
module on the PDMT



Important Milestones

EPI-STEM

March 2021

PDMT National Programme
Coordinator and Teaching
Coordinator appointed

March 2021

TC confirmed that registered
PP teachers who complete
the PDMT will be deemed to
meet the TCs PP curricular
subject requirements for
mathematics



Programme Design

The logo for EPI-STEM is a yellow speech bubble with a green tail pointing downwards and to the right. The text "EPI-STEM" is written in white, uppercase letters inside the bubble.

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- In line with current health guidelines the first three PDMT modules run online.
- Participants are allocated to tutorial groups based on school location, with re-allocation to ensure roughly equal numbers in each group. Possible due to the online delivery.
- A lead lecturer has been assigned to each module and s/he is responsible for preparing pre-recorded lectures and lecture notes, tutorial sheets and solutions, assignments and marking schemes and final examinations and marking schemes.
- 7 local centres in UL and each of our other partner institutes (NUIG, CIT, TU Dublin, WIT, DCU and LYIT) host tutorials for each module. These have been facilitated by a local lecturer in each institute.



Scheduling of Modules



Two-week cycle is repeated three times over the course of a six-week module.

All video lectures are pre-recorded and online tutorials are live every second week.

Assignments submitted online.

Week 1	3 May Bank Holiday	4 Video Lecture 1 MB5024 at 18:30 (Assignment 1 distributed)	5	6 Video Lecture 2 MB5024 at 18:30	7	8
Week 2	10	11 Video Lecture 3 MB5024 at 18:30	12	13 Tutorial 1 MB5024 Online 18:30 - 20:30	14	15
Week 3	17	18 Video Lecture 4 MB5024 at 18:30	19	20 Video Lecture 5 MB5024 at 18:30 (Assignment 2 distributed)	21	22
Week 4	24	25 Video Lecture 6 MB5024 at 18:30 (Assignment 1 electronic deadline)	26	27 Tutorial 2 MB5024 Online 18:30 - 20:30	28	29



Resources and Module Delivery

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- Student access to all lecture notes, tutorial sheets, assignments and lecture recordings is through UL's learning management system (SULIS).
- Lead lecturers use presentation software that is most familiar to them and suitable for teaching mathematics online when recording their lectures.
- Folders have been set up on SULIS to provide local lecturers with access to all notes, tutorial sheets and solutions and assignments and solutions. Local lecturers also provide students with assignment grades and feedback on this platform.
- MS Teams is used for the synchronous delivery of tutorials.



Additional Support

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- **Local Lecturer Office Hours:** On non-tutorial weeks local lecturers set aside a two-hour period when students, assigned to their tutorial groups, can contact them.
- **Support Tutor:** An additional tutor appointed to act as a support tutor. This tutor provides one-to-one support on request and support tutorials on a fortnightly basis.
- **Designated contact person on PDMT Course Board team:** One of the new PDMT appointees has been designated as a point of contact for students on the programme. If students encounter any IT issues, problems with assignment submissions or any general queries they contact the PDMT Teaching Co-Ordinator.



Programme Innovations

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- Feedback from teachers undertaking the previous PDMT indicated they wanted to see more authentic connections between university-level mathematics and the school mathematics curriculum they were teaching.
- Members of the UL PDMT team and three mathematics education experts are working on a series of videos (three for each module) to support the participants. These 'link-in' videos provide information on the link between the content provided in the mathematics module lectures and the content and pedagogy knowledge required for the mathematics classroom. The first video has been posted and two more are being finalised. Supporting resources for these videos are being produced.

A blue, multi-lobed cloud shape with a white outline. Inside the cloud, the text "Pedagogy Link In Videos" is written in white, sans-serif font.

Pedagogy Link
In Videos



Programme Innovations

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- A new mode of assessment has been introduced for the Pedagogy modules. The Action Research Project has been replaced with a Professional Portfolio.
- This Professional Portfolio will involve students selecting, reflecting on and linking evidence of their learning to the Teaching Council learning outcomes.
- It supports the concept of teacher as an inquiry-oriented reflective practitioner and life-long learner.
- A number of seminars in the summer school will introduce students to portfolio-based learning and provide them with exemplars of portfolio entries.

A blue, multi-lobed cloud shape with a white outline. The text "Professional Portfolio" is written in white, centered within the cloud.

Professional
Portfolio



Arrangements for Remainder of 2021

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- PDMT Summer School will be held from August 9th – 11th 2021. Planning is underway with partner institutions. It will be delivered online due to Covid-19. Nine interactive sessions are planned for. Colleagues in four HEIs are involved in the curriculum design, delivery and evaluation of the summer school.
- Preparation is underway for Semester 2 modules. Lead lecturers have been approached for leading the modules running in Autumn Semester.
- The first of five Pedagogy workshops due to begin Saturday October 15th. A pedagogy working group are currently designing and updating resources for these workshops. We hope to facilitate these pedagogy workshops in person (restrictions allowing) but will have an alternative online plan in place also.



Published PDMT Work

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- **Goos, M.,** Bennison, A., Quirke, S., **O'Meara, N.,** & Vale, C. (2020). Developing professional knowledge and identities of non-specialist teachers of mathematics. In D. Potari (Ed.), *International handbook of mathematics teacher education* (2nd ed.), Volume 1: Teacher knowledge, beliefs and identity in mathematics teaching and its development (pp. 211-240). Rotterdam, The Netherlands: Sense Publishers.
- **O'Meara, N.** & Faulkner, F. (2021) Professional development for out-of-field post-primary teachers of mathematics: an analysis of the impact of mathematics specific pedagogy training. *Irish Educational Studies*. DOI: 10.1080/03323315.2021.1899026
- **Goos, M.,** O'Donoghue, J., Ní Ríordáin, M., Faulkner, F., Hall, T., & **O'Meara, N.** (2020). Designing a national blended learning program for “out-of-field” mathematics teacher professional development. *ZDM Mathematics Education*. DOI 10.1007/s11858-020-01136-y



Published PDMT Work

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- **Goos, M., & O'Donoghue, J.** (2019). Designing effective professional learning programs for out-of-field mathematics teachers. In M. Graven, H. Venkat, A. Essien & P. Vale (Eds.), *Proceedings of the 43rd conference of the International Group for the Psychology of Mathematics Education* (Vol. 2, pp. 288-295). Pretoria, South Africa: PME.
- **Lane, C. & Ní Ríordáin, M.** (2019). Out-of-Field Mathematics Teachers' Beliefs and Practices: an Examination of Change and Tensions Using Zone Theory. *International Journal of Mathematical Education in Science and Technology*. 18, 337 – 355.



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