Master in Education Studies
Primary Mathematics Education

Programme Handbook
2024-2025

INSTITIÚID OIDEACHAIS

MARINO

INSTITUTE OF EDUCATION

An Associated College of
Trinity College Dublin, the University of Dublin

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Welcome

Congratulations on choosing Marino Institute of Education for continuing your studies in education. The entire course team looks forward to working with you as together we explore practice and research in primary mathematics education. We hope you will have a rich, challenging and fulfilling experience on the course. Please contact us at any stage if you have suggestions about how your experience on the course can be enhanced.

A Note on this Handbook

This handbook applies to all students taking the Masters in Education Studies (Primary Mathematics Education). It provides a guide to what is expected of you on this programme, and the academic and personal support available to you. Please retain for future reference.

The information provided in this handbook is accurate at the time of preparation. Any necessary revisions will be notified to students via Moodle and/or email.

Introduction to Marino Institute of Education

Guiding Principles

Marino Institute of Education is a centre for teaching, learning and research in education under the co-trusteeship of the Irish Christian Brothers and Trinity College Dublin. The work of the Institute is under pinned by seven guiding principles. They are to:

- Be ecumenical and respectful of people of other faiths.

- Provide a strong element of teacher education.

- Be supportive of the mission of Catholic education by assisting the processes to articulate the ethos of Catholic education and by proposing models to implement it.

- Provide education programmes to encourage and empower the disadvantaged and the poor.

- Build a community of learning which is person-centred, respectful of differences and accessible to people who are disadvantaged.

- Assist parents to fulfil the responsibilities of their role as educators.

- Respect all truth seekers and defend their right to pursue new knowledge wherever it may lead.

General Information about Marino Institute of Education

Marino Institute of Education (MIE) is a teaching, learning and research community committed to promoting inclusion in education. We have a long and proud involvement with education, specifically initial teacher education (ITE).

Our association with Trinity College Dublin began in 1976, when the first intake of lay students registered for the Bachelor in Education (B.Ed.) course. In July 2011, this relationship was further strengthened with the formalisation of an agreement, which places MIE under the joint trusteeship of the Congregation of Christian Brothers European Province and Trinity College Dublin, the University of Dublin.

In the last decade, the academic mission and scope of MIE's activity has been re-envisioned to encompass a deeper understanding of education in and beyond the classroom, to incorporate the continuum of teacher education and the education of specialist education practitioners at early years, primary and further education levels. This is allied with a commitment to education studies encompassing non-traditional education settings and the wider education environment in a pluralist context.

Message from the President of Marino Institute of Education

A Mhac léinn, a chara,

On behalf of my colleagues I extend a warm welcome to you to Marino Institute of Education (MIE). I am very pleased that you have elected to continue your studies at MIE. Tá súil agam go mbainfidh tú taitneamh agus tairbhe as an am a bheas tú anseo linn.

As a student within MIE you are part of a vibrant and innovative community which continues to design and develop new courses. We now have more than 1450 students registered on our courses, which include:

Undergraduate Programmes:

- Bachelor in Science (Early Childhood Education).
- Bachelor in Education (Primary Teaching).
- Bachelor in Science (Education Studies).
- Baitsiléir san Oideachas Trí Mheán na Gaeilge (Bunmhúinteoireacht).
- Trinity International Foundation Programme.

Postgraduate Programmes

- Master in Education Studies (Primary Mathematics Education).
- Master in Education Studies (Intercultural Learning and Leadership).
- Master in Education Studies (Early Childhood Education).
- Master in Education Studies (Inquiry-Based Learning).
- Master in Education Studies (Visual Arts).
- Master in Education Studies (Christian School Leadership)
- Master in Education Studies (Further Education).
- Professional Master of Education (Primary).
- Professional Diploma in Education (Further Education).

We are committed to educating leaders for the twenty-first century who share a professional belief in and moral commitment to working towards excellence, equity,

diversity and social justice within educational settings and communities at home and abroad.
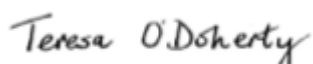
As a teaching institution, we have always realised the value of education. However the recent pandemic really brought home to us all the importance of the physical space of schooling, personal interaction and, more importantly, it has taught us the value of educational relationships where students and staff form a binding community albeit real or virtual, where empathy, communication and connectivity enable friendships to grow and students to flourish. We also renewed the importance of actively engaging with our peers, friends, families and communities in the arts, sports, social activities and all of the aspects of life that enrich us holistically. In this context, I congratulate you for selecting to undertake your studies here at MIE because of our core values of care, community, and commitment to excellence. We are committed to ensuring that you and your peers will be in a position to learn together, collaborate, and connect with staff and other students in an online environment. Whilst Marino Institute of Education's roots are steeped in history, we continue to strive to serve our students as best we can whatever the circumstances.

Although you are undertaking your course online, you will always be welcome to visit us on campus to use the library or enjoy other amenities our campus has to offer. Situated on a parkland site close to the city centre with beautiful grounds and several playing fields, MIE has several computer labs, a specifically designed early childhood education room, a designated art room, a modern library, a sports hall and gym, and an excellent canteen to cater for all tastes.

Our lecturers are very approachable and are dedicated to providing you with a top quality educational experience. Please engage with them and with your fellow students to enrich your own learning and to broaden your understanding of what it means to be a student. Our counselling and chaplaincy services are also available online to assist you any personal challenges that you may encounter on your learning journey.

We are with you every step of the way.

Ní neart go cur le chéile

Teresa O'Doherty

Professor Teresa O'Doherty

President

Staff Contact List*

Name	Role	Email	Phone	Office
Dr Aimie Brennan	Dean of Education: Policy and Practice;	Aimie.brennan@mie.ie	805 7717	M112
Dr Seán Delaney	Registrar & Vice President of Academic Affairs; MES Primary Mathematics Education Course Leader	Sean.delaney@mie.ie	805 7722	M115
Dr Joan Kiely	Dean of Education: Curriculum and Early Childhood.	Joan.kiely@mie.ie	853 5157	M114
Dr Rory McDaid	Director of Research	Rory.mcdaid@mie.ie	805 7708	M224
Registrar's Office		registrars@mie.ie		M105
Education Office		educationoffice@mie.ie		M13
IT Department		Log on to www.mie.ie/helpdesk to log your query		M100
Library		librarydesk@mie.ie	805 7753	St Patrick's Building
Reception			805 7700	St Mary's Building

*For a full list of individual staff contact details please go to Staff Directory - Marino Institute of Education (mie.ie)

Communicating with staff members & fellow students

One of Marino Institute of Education's guiding principles is to build a community of learning which is person centred, respectful of individual differences and accessible to people who are disadvantaged. MIE expects students to have dignity and respect towards all people they engage with and interact with in the course of their studies in MIE. Students have a responsibility to promote an environment in which diversity and respect is practised, and to set standards of behaviour which are acceptable.

Behaviours such as the following will not be tolerated: any kind of verbal abuse/insults and name calling; demeaning remarks; persistent criticism; dissemination of malicious rumours, gossip or innuendo; written insults by electronic messaging; aggressive behaviour or physical intimidation; shouting in public and/or in private. The [MIE Dignity and Respect Policy (Students)](#) may be invoked in response to such behaviours. Where bullying, harassment or sexual harassment have been identified, the MIE's Disciplinary Procedure may be invoked, which may result in disciplinary action up to and including expulsion.

Academic Support Services

Library Services

Students on the Master in Education courses have full access to TCD library facilities. Many resources, especially research journals, are available to you online. You will receive details of how to access the Trinity Library materials early in your course.

The Trinity library is complemented by the MIE Library, which is housed in St. Patrick's building and provides a range of services and facilities to support teaching, learning and research at MIE. These include interlibrary loans, digital extract and reading list services as well as a loanable 'library of things' for equipment and teaching resources. The library holds just under 30,000 items on its shelves and subscribes to a growing number of electronic resources, including access to over 7,000+ eBooks and 14,000+ e-Journal titles across 8 academic databases, accessible through the library website. The library contains a reference collection, short-loan and long-loan academic text collections as well as adult fiction and teaching resources. A group study room, reading room, pc area and quiet reading nook complete the library's physical spaces. Library staff also provide expert support on developing research skills and accessing and using the library's collection of scholarly

resources. An introduction to the library facilities at MIE and TCD will form part of the student induction in September 2024 and students will be shown how to access electronic journals from the Trinity database. For more information and for opening hours please see the [library website](#).

Learning Tools

MIE uses a variety of online tools to deliver asynchronous and synchronous learning content to students. MIE utilises learning tools that are based on research in e-learning and instructional design principles, where pedagogy (and not the tools) leads the lecture.

Moodle is MIE's virtual learning environment (VLE). Programme learning content will be made available to students via Moodle and this platform is used to host your module content, online classes, manage assignments, provide supports and feedback.

MIE also uses the video conferencing platforms integrated into Moodle to support online classes online. Panopto is MIE's video content management software. All lectures that are recorded will be made available to students via Panopto and Moodle. Panopto's recording functionality will also enable students to submit video presentations for assignments.

MIE utilises Turn-it-in, a plagiarism checking and prevention software for your essay-based assignments.

All students in MIE are provided with a free Microsoft 365 licence for the duration of their studies. Microsoft 365 allow access to online versions of Microsoft suite applications such as Word, Excel and PowerPoint for content creation, Outlook for email, OneDrive for document storage and Teams for collaboration.All students have access to an online virtual induction before they can log into any of MIE's IT & eLearning systems.

Student Support Services

For all student services, see

https://www.mie.ie/en/student_life/student_support_services/

Student Medical Services

Fairview Medical Centre offers a health service for all MIE-registered students. The Medical Centre has a team of doctors and nurses on duty. Services available include illness review & fitness to attend college, phlebotomy, injections, clinical dressings, well woman services, asthma services, etc. Colds and flu are both viruses and do not generally need a doctor's visit. Each student can avail of three free visits – in person or online – for each academic year under this arrangement. Additional visits are possible at a reduced fee. Fairview Medical Centre is open from 9.00am -5.00pm on weekdays. There is an emergency service on Saturday mornings. The centre's website is https://fairviewmedicalcentre.com/

Student Counselling Service

Student Counselling Service

Registered MIE students can avail of the Student Counselling Service (SCS) to explore any issues that are of concern to them or that affect their studies.

To make your first appointment with a Student Counsellor, you can use the online booking system at: https://scs.mie.ie/firstappointment or attend the Drop-In Service, Monday to Friday 12:30pm – 1:30pm during term time. You do not need an appointment for the Drop-In Service; just turn up on the day (first come first serve basis).

Student Counselling appointments are offered Monday to Friday, 10:00am – 5:00pm. On Tuesdays a 5pm appointment is available for students who can't access the Service between 10:00am – 5:00pm.

The SCS is located at Rooms 41 & 42 on the top floor in St Patrick's building, where the library is also situated. Remember to bring your ID card to enter the building.

The email address for the SCS is marinocounselling@mie.ie. If you need to speak urgently to a Student Counsellor, please email requesting an urgent appointment.

During the academic year, the SCS runs events on self-care, wellbeing, and positive mental health. You can also check out the self–help resources at the Lib Guide on Mental Health and Wellbeing - https://mie-ie.libguides.com/c.php?g=703489

 or in the library where books and online literature are available on:

- Worrying

- Confidence/Self Esteem

- Self – Compassion

- Difficult Times

- Time Management

- Effective Learning

- Self-Care

…and more

Additionally, you might like to reach out to the following **external services** who offer support during daytime and after hours:

- A 24/7 crisis text line. To start a conversation text MIE to 50808.

- Register with Togetherall, an online mental health and wellbeing peer support service that gives access to a safe, anonymous, and professionally moderated community 24/7/365: https://togetherall.com/en-ie/

Disability Services

MIE's Disability Service is delivered in conjunction with Trinity College Dublin Disability Service since 2012. The Disability Service operates on a disability needs basis, providing direct support to students who disclose a disability via both an online meeting with a Disability Officer and a referral to other disability supports such as Assistive Technology (AT) and Occupational Therapy (OT) services, as appropriate, in MIE or Trinity College Dublin (Trinity).

Students with a disability are encouraged to register with the Disability Service at MIE to seek supports where the disability could affect their ability to participate fully in all aspects of college life. To find out more about registering with the Disability Service or the supports that are available to you can check out our Moodle page MIE Disability Service or email access@mie.ie

Reasonable Accommodations

MIE is committed to ensuring that students with disabilities have as complete and equitable access to all facets of student life as can reasonably be provided. This is in accordance with the Disability Act 2005, the Equal Status Acts, 2000 (as amended), and the Universities Act, 1997. MIE welcomes applications from prospective students with disabilities and endeavours to assist all students in realising their potential as professional educators by offering a range of supports, including reasonable accommodations.

MIE has adopted a code of practice which is applicable to all students with disabilities studying at the Institute which can be found here Code of Practice for Students with Disabilities and Consent to Disclose and Share Disability Information.

Supports available to students with disabilities include:

- Needs assessment on entry to determine any additional learning requirements.
- Assistive technology training and support.
- Academic support.
- Pre-placement planning and support.
- Liaison with your assessors/lecturers to help arrange accessible programme materials.

- Extended library loans.

Students with a disability are encouraged to register with the MIE Disability Service to seek support where the disability could affect their ability to participate fully in all aspects of the course. To avail of supports from the Disability Service you must upload evidence of your disability. Reasonable Accommodations will be put in place only after a student has fully registered with the Disability Service. If you have any queries regarding any of the Student Support services, please be sure to contact our Access Officer, Simon Yeates, at access@mie.ie, or telephone: 01 805 7752.

Chaplaincy

MIE Chaplaincy Service has a full time Chaplain who works in close co-operation with other student support services on the College Campus. It offers pastoral and spiritual support to students and staff of all faiths and none in the MIE community.

The Chaplaincy Service offers support through a number of initiatives including:

- Pastoral care and wellbeing initiatives.

- Spiritual support.

- Regular creative rituals and Liturgies.

- Inter-faith initiatives.

- Bereavement support.

- Outreach projects – social justice and volunteering.

- Pilgrimages and immersion projects.

- Care of the Earth – supporting the sustainability vision of MIE.

The full time Chaplain is located in Room 109A and can be contacted at chaplaincy@mie.ie

Dr Marie Whelton may also be contacted especially at times of bereavement at (01) 8535158 or at marie.whelton@mie.ie.

Student Writing

MIE provides support for students developing study skills through our academic writing instructor. This is complemented by specific writing workshops, which are available to all students based on demand. For further information email writingworkshop@mie.ie.

Careers Advisory Service

The aim of the Marino institute of Education Careers Service is to support, guide and empower MIE students to develop the skills, competencies, attitudes, and self-belief to engage successfully with the world of work and to make informed career decisions. The Careers Service works alongside academic staff to encourage students to become confident and competent learners and take charge of their own professional development.

We provide careers information, education, and guidance to students in several ways to enable them to realise their potential and the opportunities available to them as they progress through MIE.

Further details can be found on the MIE Careers Service on the following webpage https://www.mie.ie/en/student_life/student_support_services/careers_service/one_to_one_career_advice.html

MIE Policies

For a review of all MIE academic policies and procedures related to the MES programmes and student progression, please consult the following link:

https://www.mie.ie/en/about_us/quality_assurance/policies_and_procedures/academic/

This page has links to many aspects of student life in MIE. It is the place to go to find out about policies on plagiarism and academic integrity, attendance, appeals and so much more.

MES Primary Maths Teaching and Learning Calendar 2024 - 25

Year 1 students

Module 1

Tuesday, 3rd September

Tuesday, 17th September

Tuesday, 1st October

Tuesday, 15th October

Tuesday, 22nd October

Tuesday, 5th November

Tuesday, 19th November

Tuesday, 3rd December

Module 2

Wednesday, 4th September

Wednesday, 18th September

Wednesday, 2nd October

Wednesday, 16th October

Wednesday, 23rd October

Wednesday, 6th November

Wednesday, 20th November

Wednesday, 4th December

Module 3

Thursday, 5th September

Thursday, 19th September

Thursday, 3rd October

Thursday, 17th October

Thursday, 24th October

Thursday, 7th November

Thursday, 21st November

Thursday, 5th December

Module 4

Tuesday, 7th January

Tuesday, 14th January

Tuesday, 28th January

Tuesday, 11th February

Tuesday, 25th February

Tuesday, 11th March

Tuesday, 25th March

Tuesday, 8th April

Module 5

Wednesday, 8th January

Wednesday, 15th January

Wednesday, 29th January

Wednesday, 12th February

Wednesday, 26th February

Wednesday, 12th March

Wednesday, 26th March

Wednesday, 9th April

Module 6

Thursday, 9th January

Thursday, 16th January

Thursday, 30th January

Thursday, 14th February

Thursday, 27th February

Thursday, 13th March

Thursday, 27th March

Thursday, 10th April

MES Primary Maths Delivery Format and Credit Weightings

The MES in Primary Mathematics Education programme is delivered online, part-time over two academic years. Its total credit weighting is 90 credits, and the programme has been structured to connect theory to practice.

Table 1 lists the seven modules that make up the course.

Table 1: Overview of Master in Education Studies (Primary Mathematics Education) Modules

Module 1	Module 2	Module 3	Module 4	Module 5	Module 6	Module 7
Understanding Primary Mathematics Education (10 credits)	Contemporary Issues in Primary Mathematics Education (10 credits)	Inclusive Primary Mathematics Education (10 credits)	Mathematics Learning Difficulties and Interventions (10 credits)	Differentiation and Challenge in Primary Mathematics (10 credits)	Leadership in Primary Mathematics (10 credits)	Research Methods & Dissertation (30 credits)

Assessment and Progression

Assessment Regulations

1. In order to progress to year 2, students must successfully pass assessments for each of the six modules in Year 1. These assessments take different formats and the overall workload for each module is equivalent to a 5,000 word essay.

2. Assessments for individual modules will be graded as distinction, pass or fail. The pass mark for each module and each module assessment component is 50%.

3. A student who fails to meet the passing grade for one module may be permitted to repeat the module assessment. Where a module is assessed by more than one component, only the failed assessment component(s) must be re-submitted. Unless specified otherwise, each assessment component must be passed in order to pass the module. Re-submission of a failed assessment is normally done for consideration by the Re-Assessment Court of Examiners. The grade on a resubmission is capped at a pass level only. A student whose overall module mark on resubmission of the failed

component is at a failing level (i.e. below 50%) will be required to withdraw from the programme. Compensation between modules and within modules is not permitted.

4. Students may repeat <u>one</u>, and only one, module over the course of Year 1.

5. The final mark is based on a credit-weighted average of the mark awarded in each module.

6. In Year 2, the research methodology and dissertation module is assessed by means of a 15,000-word research dissertation on the theme of primary mathematics education

Progression

1. Students must obtain credit for each academic year of their course by full attendance at online lectures and tutorials, by carrying out the required course work, and by successful completion of examinations or other designated assignments.

2. Students may be required to attend a *viva voce* examination at the discretion of the Institute.

3. Students failing to pass taught modules offered in year 1 may re-submit required work before progressing to year 2. Following the re-assessment, students who have failed to pass taught modules will be deemed to have failed overall and may apply to repeat the full first year of the course.

4. The Court of Examiners, including the external examiner and the Programme Board, will meet at the end of Year 1 to moderate assignment marks from the taught modules of the course, in order to record end-of-year results and to confirm each student's progression from Year 1 to Year 2. Students who have achieved at least an average pass grade of 50% may progress to the second year of the course.

Degree Award:

1. The degree is awarded as "Pass" (overall average of 50% to 69%) or "Distinction" (overall average of 70% or higher).

2. To qualify for the award of the Masters degree, students must, as a minimum,
   - achieve an overall pass mark which is the credit-weighted average mark for all modules taken, and

- achieve a pass mark in all modules and

- pass taught modules amounting to 60 credits and

- achieve a pass mark in the dissertation.

3. In order to qualify for the award of Masters with Distinction students must as a minimum

- achieve a final overall average mark for the course of at least 70% and a mark of at least 70% in the dissertation

- have passed every module during the period of study. Distinction cannot be awarded if a candidate has failed any module during the period of study.

Exit award after Year 1:

Students who have successfully passed the six taught modules of the course and accumulated 60 credits and who do not wish to proceed to the dissertation stage in Year 2 will be considered for a Postgraduate Diploma in Primary Mathematics Education (exit award). The student may exit with the Postgraduate Diploma award, and within a five-year period apply to return to the same Masters course and rescind the postgraduate diploma award. Following successful completion of the Masters requirements, the student will inform the MIE Registrar of his or her intention to rescind the Postgraduate Diploma and have the credit obtained during the Postgraduate Diploma year integrated into the Masters degree. The time limit for re-registering to complete the credits required for the Masters degree will normally be five years following completion of the Postgraduate Diploma year. An application for re-entry will be considered by the Programme Board, taking into account course quotas, the academic and professional calibre of the candidate and the supervisory capacity for research dissertations.

An exit Postgraduate Diploma in Primary Mathematics Education award can be awarded as Pass or Pass with Distinction. Students who have achieved an average of at least 70% of the available marks in the six taught first-year modules passed will be eligible for consideration of the award of Postgraduate Diploma in Primary Mathematics Education with Distinction. A Postgraduate Diploma in Primary Mathematics Education with Distinction cannot be awarded if a candidate has failed (and repeated) any module or assessment component during the period of study. A Postgraduate Diploma in Primary Mathematics Education with Distinction is only awarded on exit from the course.

Should a student wish to exit the programme with a postgraduate diploma award, this should be notified to the MIE registrar's office prior to the annual court of examiners in June. Students may apply to defer proceeding to the second year of the MES programme up to 31 July following completion of their first year of the programme.

A student who marginally fails the dissertation with an earned grade of 40%-49% inclusive, may be permitted to resubmit the dissertation at reassessment time. They will not be required to pay fees, nor engage with their research supervisor.

A student who fails the dissertation with an earned grade of 39% or below, may be permitted to repeat Module 7, Research Methods and Dissertation, on books during the next academic year in which the module is offered. They will be required to pay full annual fees and to engage with their research supervisor as set out in the supervision schedule.

A student who fails the dissertation in year 2 and who has satisfactorily completed the required ECTS credits for a Postgraduate Diploma in Primary Mathematics Education (exit award), may exit with such an award. However, where the Postgraduate Diploma in Primary Mathematics Education is awarded as a result of a fail or unsatisfactory progression, it is not possible for the candidate to return with the Postgraduate Diploma award to work towards a Masters and rescind the Diploma.

2.8 Appeals Processes

The circumstances in which students on this programme are allowed to ask for a review of a decision relating to their academic progress are outlined in MIE Postgraduate Appeals Process Policy

Guideline Criteria for Marking Year One Assessments

Where no other criteria for marking assignments are provided by the module lecturer, the criteria below will be used.

Marking Criteria: MES Assignments

Distinction: 70%+

Structure / Organisation (organisation and structure of the text; logic)	Planning and structure is excellent. Text and argument systematically and explicitly organised; without any significant lacunae or repetition. Identifies and discusses pertinent issues in depth.
Analysis (Coherence of argument; reflection, distillation, criticality. Range and understanding of sources)	Critical review and synthesis of ideas; coherent, realistic and well-supported argument. Independent judgement and logical conclusions are consistently demonstrated. The student shows insight, imagination and creativity, with some evidence of original thinking. Critical coverage of all major sources; systematic, analytical use of these sources.
Application (perceptive appraisal of implications of theory in practice)	Demonstrates excellent ability to apply learning to their own practice. Excellent problem-solving skills are demonstrated with very strong application to practice and the ability to engage in critical reflection.
Presentation (length, use of presentation conventions, referencing, spelling, grammar, language)	Competent control of length. Clarity of language is consistently of a high standard throughout. Appropriate use of referencing conventions. Accurate grammar, spelling and use of language.
OVERALL	Work of outstanding quality, showing perceptive and critical insight.

Pass: 50% - 69%

Structure / Organisation (organisation and structure of the text; logic)	Planning and structure are clear. Text and argument structured in a sustained way; all major structural elements present.
Analysis (Coherence of argument; reflection, distillation, criticality. Range and understanding of sources)	Ideas organised and grouped into a coherent, realistic and well-supported argument; incorporating some critical analysis and relevant / appropriate use of supporting sources. Some critical thinking in evidence; independent judgement and logical conclusions are demonstrated; there is some evidence of insight, imagination and creativity. Use of a range of sources in the literature, though there may be some minor gaps; systematic, analytical use of these sources.
Application (perceptive appraisal of implications of theory in practice)	Demonstrates competent ability to apply learning to their own practice. Good problem solving skills are demonstrated with good application to practice and evidences some ability to engage in critical reflection.
Presentation (length, use of presentation conventions, referencing, spelling, grammar, language)	Length requirements observed. Satisfactory use of language. Appropriate presentation and use of referencing conventions although there may be some errors. Grammar and spelling are accurate in the main.
OVERALL	Work of good quality, showing knowledge and understanding.

Fail: 49% or below

Structure / Organisation (organisation and structure of the text; logic)	Poor or weak organisation / structure. Significant gaps or repetition in the argument.

Analysis **(Coherence of argument; reflection, distillation, criticality. Range and understanding of sources)**	Some evidence of understanding of ideas although mainly descriptive with limited critical analysis and support. Arguments and conclusions are weak. There is generally an absence of insight, imagination and creativity. Some evidence of reading in the field but largely descriptive. Little or no analysis or understanding evident.
Application **(perceptive appraisal of implications of theory in practice)**	Demonstrates unsatisfactory ability to apply learning to their own practice. Problem solving skills are not in evidence; there is no evidence of critical reflection on practice.
Presentation **(length, use of presentation conventions, referencing, spelling, grammar, language)**	Basic command of presentation conventions and referencing; presentation marred by language / spelling errors affecting comprehensibility. The essay generally lacks fluency.
OVERALL	The work does not achieve the standards required at MES level.

External Examiners

Course	External Examiner	Affiliation
MES – Primary Mathematics Education	Professor Gabriel Stylianides	University of Oxford

Submission of Course Work

All course work must be submitted by the due date to avoid imposition of penalties. Should work not be submitted by the due date, the penalties that applies are as follows:

- Ten percent (10%) of the marks awarded will be deducted from work that is submitted up to one week after the submission due date.
- Twenty percent (20%) of the marks awarded will be deducted from work submitted between one and two weeks after the submission due date.
- Assignments will not be accepted more than two weeks after the due date and the student will be returned as a non-submission (NS).

With advanced notice and good reason, due dates may be extended by the lecturer concerned at their discretion in consultation with the particular student and the course leader (and Registrar, if appropriate). Requests for an extension must be made in writing to the lecturer and may be gained on medical grounds (supported by a certificate from a medical doctor) or in respect of *ad misericordiam* situations (with the approval of the course leader).

If an assignment exceeds the prescribed word count by 10% or more, five marks will be deducted. Where the word limit is expressed as a range (e.g. 2000-2500), the penalty will be applied if the upper limit has been exceeded by 10% or more.

Word Count

If an assignment exceeds the prescribed word count by more than 10%, marks will be deducted. Where the word limit is expressed as a range (e.g. 2000-2500), the penalty will be applied if the upper limit has been exceeded by 10% or more. The same deduction applies if an assignment is more than 10% under the minimum prescribed word count.

Study Requirements

Use of Moodle

As stated previously, Moodle is the virtual learning environment (VLE) used to support teaching and learning on the MES. It contains course materials and is used to keep students informed and involved with all aspects of their course.

Moodle will also contain supplementary lecture material which is additional to the face-to-face contact. This includes a sample of papers and articles relevant to the module topic. Nevertheless, it is essential that students do not limit their study to the material available on Moodle. It is expected at Master's level that students will carry out their own research using the TCD search engines and that course assignments and research dissertation will reflect this in-depth engagement with literature in the field.

Self-Directed Learning

Self-directed learning is an essential element of the MES. Lecturers will ask students to read material between classes and to present their views on their reading during the face-to-face sessions.

Assignment Due Dates – Year 1

Assignment titles are usually give on the second weekend of each module. Local arrangements may be made from time to time to allow a change in the dates below.

Module	Due Date
Module 1	Essay 1: 11 October 2024 Essay 2: 13 December 2024
Module 2	Learning log: 13 December 2024
Module 3	Presentation: 5 Dec 2024 Essay: 13 December 2024
Module 4	Mathematics learning profile: 1 May 2025
Module 5	Task 1: 20 January 2025 Task 2: 3 February 2025 Task 3: 3 March 2025 Task 4: 17 March 2025 Task 5: 31 March 2025

| **Module 6** | Presentation: 7-8 May 2025 |
| | Professional Learning Plan: 9 May 2025 |

MES (Primary Mathematics Education)

Programme Content, Year 1

Course Leader Information

MES Primary Maths Course Leader	Dr Seán Delaney
Email	Sean.delaney@mie.ie
Office	M115
Telephone	01 8057722

Introduction

The Master in Education Studies (Primary Mathematics Education) prepares participants to advance primary mathematics education by building an online community where participants will interact with fellow teachers from a range of locations and diverse school settings. Course content follows an online, interactive approach where weekly synchronous and asynchronous classes are designed to promote collaboration, build knowledge and encourage students to interact effectively in a digital environment.

Course Learning Outcomes

On successful completion of the MES (Primary Mathematics Education), students should be able to:

1. Demonstrate strong mathematical knowledge for teaching primary mathematics curriculum topics
2. Use research and policy frameworks to evaluate primary mathematics teaching
3. Critique and conduct research in primary mathematics education
4. Design and evaluate teacher education courses or course components for pre-service and in-service teachers.
5. Design and implement primary mathematics education that is inclusive of all children regardless of linguistic, cultural or socio-economic backgrounds and different learning styles.

6. Lead the development of primary mathematics education policy, practice and research within and beyond their schools

7. Model innovative teaching strategies and disseminate insights and evidence-based practice in primary mathematics education

8. Demonstrate skills necessary to respond to technological, social, pedagogical and policy changes in education and mathematics education specifically

9. Demonstrate specialist research knowledge and associated skills in primary mathematics pedagogy, including the completion of a dissertation.

10. Use their dissertation research to critically evaluate issues related to the teaching and learning of primary mathematics

Module Information

1. MES (Primary Mathematics) – Year 1

Module 1 Name:	Understanding Primary Mathematics Education			
Module Code:	MA9101	ECTS:10	Module Type	Core
Module Description				

Module rationale

This module attempts to give a broad overview of primary mathematics education studies to students as they embark on the Masters programme. They will deepen their knowledge in the development of children's mathematical thinking and learning, theories of mathematical learning (as they pertain to primary education), epistemological frameworks in mathematics, and primary mathematics education research, and combine and integrate this knowledge with a broad survey of important ideas in primary mathematics education today. The module will strike notes that should resonate with students as they engage in subsequent course modules. It will lay the foundations for a comprehensive understanding of primary mathematics education and robust ethical research in the area.

Module philosophy:

For anyone who has engaged in or thought about education as a student, a teacher or a citizen, this module offers an opportunity to explore at an introductory level some deep ideas about primary mathematics education, its purpose, its vision, and its place in society.

This module will orientate students to postgraduate study in primary mathematics education by helping them write about education matters in light of their experience and their response to reading a diverse range of seminal texts in education. They will also begin to develop their ability to analyse research in education with a view to conducting their own research later in the programme

Link to full module:	Course: Module 1 : Understanding Primary Mathematics Education | MIEOnline (learnonline.ie) (learnonline.ie)

Module 2 Name:	Contemporary Issues and Teaching & Learning in Primary Maths			
Module Code:	MA9102	**ECTS: 10**	**Module Type**	**Core**

Module Description

Module Rationale

This module focuses on contemporary issues in the teaching and learning of primary mathematics. In an era of rapid technological advancement and fundamental social change, this module addresses changes and challenges in mathematics education. The module aligns with the first goal of mathematics professional development, outlined by the National Council for Teaching Mathematics (2010). The module builds on teachers' mathematical content knowledge, technological knowledge and pedagogical knowledge to support them in developing and implementing effective approaches in their professional practice of mathematics teaching.

Module philosophy

This module will strengthen educators' capacity to respond to the challenges of teaching mathematics in 21st century classrooms. Through engaging in problem-based tasks, students will develop their mathematical and technological knowledge. Collaborative engagement with contemporary research accompanied by independent opportunities to explore, create, implement, reflect and adapt instructional techniques will facilitate the educators to develop enhanced pedagogical approaches in their professional practice. Students will be encouraged to consider and critically reflect on the research methods used in the core module texts. Upon completion of this module, students will have developed an array of skills and knowledge which will enhance their individual practice, children's learning and their ability to utilise collaborative pedagogical tools with other professionals.

Link to full module:	Course: Module 2 : Contemporary Issues in the Teaching & Learning of Primary Mathematics | MIEOnline (learnonline.ie)

Module 3 Name:	**Inclusive Primary Maths Education**			
Module Code:	MA9103	**ECTS: 10**	**Module Type**	**Core**
Module Description				

Module rationale:

The underlying theoretical belief that both social and cultural perspectives are vital when exploring the learning of children is somewhat downplayed when it comes to mathematics. Mathematics is often incorrectly considered 'acultural' or a discipline without cultural significance. However, research shows that social and cultural contexts can significantly impact children's mathematical development. Considering this, and the increasing diversity of primary school classrooms, teachers, policy makers and curriculum experts require the skills and expertise to develop and implement a mathematics education programme that supports the learning needs of ethnically, linguistically, and culturally diverse populations. Mathematics is a tool that can be used to understand life, power and societal issues; therefore educators must strive for equity and the improvement of mathematical outcomes for *all* children. To achieve this, teachers must re-examine mathematics education through a social-justice lens, exploring the factors that contribute to differential outcomes among groups and recognising how to address them.

Module philosophy:

Through the exploration of six key themes, this module will equip participants with the knowledge and skills to re-examine and critically evaluate the traditional practices in mathematics teaching which do not meet the learning needs of most diverse students, and which have contributed to their low levels of engagement and lack of success in mathematics learning. Participants will engage in collaborative discussion and critique of

pertinent research (including methods) and will be encouraged to explore opportunities to implement and reflect upon new pedagogical strategies arising from the literature. Observation and analysis of video clips, group text book and lesson appraisal, and critical self-reflection will form key aspects of this module, with key learning and teaching strategies underpinned by the learning theories explored in module 1. Throughout this module the lecturers will promote the ideas and principles of inclusive education, by valuing the different experiences the students bring to the course and by creating a collaborative atmosphere.

| Link to full module: | Course: Module 3 : Inclusive Primary Mathematics Education | MIEOnline (learnonline.ie) |

Module 4 Name:	Maths Learning Difficulties and Interventions			
Module Code:	MA9104	ECTS: 10	Module Type	Core
Module Description				

Module rationale:

The United Nations Convention on the Rights of the Child (UNCRC) states that all children, including those with disabilities and special educational needs, have a right to education. In light of this, national and international policy has placed a renewed emphasis on inclusive education. At present, more children with disabilities and additional needs are being placed in mainstream education instead of special schools, as was traditionally the case (Lodge, et al., 2004; ONS, 2019,). For example, one in four children in Irish primary schools has some form of special educational need (Banks, et al., 2013). Considering this, it is imperative that primary teachers can identify mathematical learning difficulties and common disabilities that may impair a child's ability to learn maths, perform basic maths skills and problem solve. Furthermore, upon recognising a learning difficulty, teachers need to be able to identify specific maths intervention programmes designed for use in primary schools to help overcome these difficulties.

Module philosophy:

Through the exploration of six key themes, this module will explore the role of teachers in adopting pedagogical approaches which can help alleviate the difficulties that may hinder children's mathematical learning. The module will examine the diverse learning needs of students in the primary mathematics classroom with a particular focus on learning difficulties. Participants will engage in collaborative discussion and critique of primary maths interventions. Observation and analysis of video clips, group appraisal of intervention programmes, exploration and evaluation of assistive technologies, and critical self-reflection will form key aspects of this module, with key learning and teaching strategies underpinned by the learning theories explored in module 1 and understandings of inclusion in module 3.

Link to full module:	Course: Module 4 : Mathematics Learning Difficulties and Interventions | MIEOnline (learnonline.ie)

Module 5 Name:	Differentiation and Challenge in Primary Maths			
Module Code:	MA9105	**ECTS:10**	**Module Type**	**Core**
Module Description				

Module rationale

This module attempts to introduce students to two key topics in primary mathematics education: differentiation and challenge. Sometimes these topics are treated separately. However, in this module they are looked at together on the grounds that all pupils can experience challenge in primary mathematics class and differentiation benefits all pupils. Students will learn about conceptual and practical aspects of these topics and will apply their learning to a range of mathematics education tasks. The module content is based on original research developed by the Erasmus+ EDUCATE project, a multi-country mathematics education research project of which the module coordinator was the national leader for Ireland.

Module philosophy

Competence in mathematics is a key life skill and a pre-requisite for many careers. A constructivist approach to primary mathematics education posits that children learn mathematics by engaging with ideas and relating them to ideas they already have on a topic or related topics. In a public-school classroom, it would be naïve to expect all pupils to have the same prior knowledge or capacity for learning new mathematical ideas. This may be compounded where children in a classroom are in different grade levels or where some have specific learning needs that affect their performance in mathematics.

This module assumes that children in classrooms are diverse in terms of their prior knowledge, readiness and capacity to learn new mathematics. It offers students a conceptual and practical introduction to differentiating instruction and challenging all children at an optimal level. Students will analyse existing research on the topic and apply it to situations with which they are familiar and they will devise strategies they can use and share with other mathematics educators. Students will focus on evaluating the effectiveness of research methods used to investigate various research questions in the core texts.

Link to full module:	Course: Module 5 : Differentiation and Challenge in Primary Mathematics | MIEOnline (learnonline.ie)

Module 6 Name:	**Leadership in Primary Maths**			
Module Code:	MA9106	**ECTS:10**	**Module Type**	**Core**
Module Description				
Module rationale				

This module focuses on leadership in primary mathematics education. Subject leaders in the primary education system are frequently tasked with securing and sustaining educational improvements in curricular areas. The formal and informal roles of primary mathematics education leaders require individuals who can offer leadership and expertise

and ultimately support the provision of effective learning experiences in mathematics. Primary mathematics leaders also have a critical role to play in the implementation of STEM Education Policy (DES, 2017a) in primary settings. Research highlights the need for professional supports to be available for mathematics leaders in order to enable them to enhance teacher capacity in schools and several education policies prioritise the provision of professional development opportunities for mathematics leaders. This module supports current and aspiring primary mathematics leaders to develop their leadership skills, become familiar with models of mathematics leadership and develop an understanding of the relationship between policy and change.

Module philosophy

Quality leadership in primary mathematics education supports improving teachers' practice and children's outcomes. By exploring the concept of leadership, becoming familiar with models of leadership in mathematics education and drawing on research to lead a professional development initiative, students will develop the knowledge and skills required by mathematics leaders in order to secure and sustain educational improvements in primary mathematics.

This module will strengthen educators' capacity to lead primary mathematics. This module recognises that the contexts within which mathematics leaders operate in the primary education sector can vary considerably, ranging from leading a small group of children through a learning activity at one end of the spectrum to leading mathematics education across schools at the other. Students will read, discuss and evaluate relevant research and policies before undertaking a leadership task where they will design a professional development initiative. This will sharpen students' awareness of connections between research and policymaking.

| Link to full module: | Course: Module 6 : Leadership in Primary Mathematics Education \| MIEOnline (learnonline.ie) |

2. MES (Primary Mathematics) – Year 2

Module 7 Name:	Research Methods and Dissertation			
Module Code:	MA9201	**ECTS:30**	**Module Type**	**Core**
Module Description				

Module rationale:

A critical component of the MES in Primary Mathematics Education is the development of the necessary research skills towards the completion of a research dissertation. In Year 2, students will be provided with a comprehensive introduction to the research methods most commonly employed by researchers in the field of education. Qualitative and quantitative approaches particularly suitable to research and study in primary mathematics education will be explored. This module aims to ensure that students have the opportunity to conduct and write a quality research dissertation and any future independent research projects relevant to primary mathematics education. In this module, students will be provided with:

a) a series of small group tutorials that will focus on data analysis protocols, validity, reliability and trustworthiness, academic writing, referencing and the use of statistical and qualitative software packages (such as NVivo and SPSS), as required

b) individual supervision by members of the MES primary mathematics supervision team

c) the opportunity to work independently on a research project of their choice.

Link to full module:	[Course: Module 7 : Research Methods and Dissertation	MIEOnline (learnonline.ie)](learnonline.ie)

Guideline Criteria for Marking: Research Dissertations

	F (Fail) <50%	2:2 (Pass) 50-59%	2:1 (Pass) 60-69%	First (Distinction) >70%
Introduction 15%	The student does not clearly outline the focus of the study. The context is not well established. The student does not obviously identify how the project relates to their own practice.	The student clearly states the focus of the study. The context within which the study takes places is well-established. The student provides a good account of how the project relates to their own practice.	The focus of the study is very well articulated. The research context is very well established. The student provides a very good account of how the study relates to their own practice.	The focus of the study is excellently articulated. The purpose of the study is clearly related to the student's own practice, the context of which has been excellently outlined.
Literature Review 25%	While some literature has been reviewed, the scope is unacceptably narrow, much of the relevant literature has been omitted. There is a lack of critique of any of the literature.	The literature is good in terms of relevance and consistency with the research topic. Some of the literature is up-to-date and good in terms of breadth and depth. There is occasional critique of the literature chosen.	The chosen literature is very good in terms of its relevance and its consistency with the research topic. The literature is up-to-date and is very good in terms of breadth and depth. The paper contains very good critique of the literature.	Literature is excellently chosen in terms of relevance and consistency with the research topic. The literature is up-to-date and is outstanding in terms of breadth and depth. The author demonstrates an excellent level of critique in engaging with the literature.
Research Methodology 15%	The methodology chosen is not well suited to the research topic. While choice of methodology is discussed, the	The methodology is quite relevant to the research topic. A good review of the methodology literature is	The methodology has been very well chosen in terms of relevance to research topic, taking into consideration a very	The methodology has been excellently chosen in terms of relevance to research topic, taking into consideration a wide range of

	selection of methodology literature is too limited. Discussions of the limitations and ethical implications of the methodology are too limited.	provided with some arguments made in support of the methodology. The author provides good discussion of the limitations and ethical implications of this methodology.	good range of methodological literature. The arguments made in support of the choice of methodology are logical and very well made. Any pertinent ethical issues are coherently discussed.	methodological literature. A comprehensive argument is made in support of the choice of methodology. The limitations of the methodology are clearly outlined. Any pertinent ethical issues are excellently discussed.
Findings, Analysis and Discussion **30%**	The data are not presented in a coherent manner. There is very little integration of the literature in the discussion of the data, with scant critical examination of the data. Links between the data and conclusions are weak.	The data are presented in a clear and unambiguous manner. The author makes good use of the literature to offer some critical examination of the data. Some insightful arguments are made within the discussion and appropriate links are evident between the conclusions and the data.	The data are presented very clearly and cogently. Very good use is made of the literature in order to offer critical examination of the data. A range of insightful arguments are made within the discussion and very good links are established between the conclusions and the data.	The author presents the data in an excellent manner. The use of literature to critically examine the data is superb. The author is highly insightful in terms of the arguments made within the discussion and there is a clear link between the conclusions and the data.
Presentation and Format **15%**	Academic conventions are adhered to in a sporadic fashion. The dissertation is not well organised. The bibliography is weak, and many mistakes are evident in the	The author displays good use of academic conventions with format and structure followed well and relatively consistently throughout. The dissertation is organised well throughout. The	The author displays very good use of academic conventions with format and structure followed consistently throughout. The dissertation is systematically organised. The	The author displays skilled use of academic conventions with format and structure followed superbly and consistently throughout. The dissertation is systematically and clearly organised. The author has

	references presented.	bibliography is relatively well presented, and the referencing system is relatively well followed. However, some mistakes are evident.	author has paid very good attention to the accurate formation of the bibliography and referencing system.	paid excellent attention to the accurate formation of the bibliography and referencing system.