

Master in Education Studies

Primary Mathematics Education



Programme Handbook

2026-2027



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 supports 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 around 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 Master of Education Through the Medium of Irish (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 research-informed teaching institution, we have always prioritised education and its associated values. We understand that our college provides real opportunities for students to build their identities, to establish educational relationships, and, along with staff, to form a binding community, where empathy, communication and connectivity enable friendships to grow and students to flourish. We encourage students to engage actively with their 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 on selecting to undertake your studies at Marino Institute of Education. Our core values of care, community, and commitment to excellence will ensure that you will be active and agentic learners on campus. .

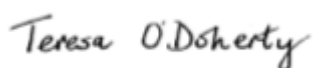
Although you are undertaking your course online, you will always be welcome to visit us on campus to use the library or enjoy other amenities our beautiful campus has to offer. Situated on a parkland site close to Dublin's city centre with expansive grounds and several playing fields, MIE has an inviting student lounge, several computer labs, a an early childhood education room, a designated art room, a modern library, a sports hall and student gym, and a café where students can relax and take time to chat.

Although Marino Institute of Education's roots are steeped in history, our ambition is to prepare our students for whatever changes and challenges the future holds

Our lecturers are 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 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



Professor Teresa O'Doherty

President

Staff Contact List*

Name	Role	Email	Phone	Office
Dr Clíodhna Martin	Dean of Education: Policy and Practice;	clíodhna.martin@mie.ie	805 7782	M112
Dr Seán Delaney	Registrar & Vice President of Academic Affairs; MES Primary Mathematics Education Course Leader	Sean.delaney@mie.ie	805 7722	M115
Dr David Aldridge	Dean of Education: Curriculum and Early Childhood.	david.aldridge@mie.ie		
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		reception@mie.ie	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 show 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, MIE's Disciplinary Procedure may be invoked, which may result in disciplinary action up to and including expulsion.

Academic Support Services

Library Services

Located in St. Patrick's building, MIE Library supports teaching, learning and research at MIE with a range of services and resources. These include interlibrary loans, digital extracts, reading list services, and a loanable 'library of things' offering equipment and teaching materials. The collection includes nearly 30,000 physical items including reference materials, short- and long-loan academic texts, adult fiction, and teaching resources. These are complemented by digital access to 14,000+ eBooks and 11,000+ e-Journal titles. Facilities include group study room, reading room, PC area and quiet reading nook. Library staff offer expert support in developing research skills and using scholarly resources. For more information and for opening hours please see the [library website](https://www.mie.ie/library/) (<https://www.mie.ie/library/>).

Course Management and Delivery

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 on instructional design principles, where a pedagogy-first approach to technology integration is preferred.

Moodle is MIE's learning management system (LMS). All programme learning content will be made available to students via Moodle and this platform is used to host online classes, manage assignments, provide learner supports and create interactive content.

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

MIE utilises Turn-it-in, a plagiarism checking and prevention service, for the submission of text-based assignments.

All students in MIE are provided with a free Office 365 licence for the duration of their studies. Office 365 allow access to online versions of Microsoft suite applications such as Word, Excel and PowerPoint for content creation, Outlook for email, OneDrive for cloud document storage and Teams for collaboration. Office 365 licence holders may sign into Office on any device or download Office to a device for offline access.

All students also have access to an online virtual induction before they can log into any of MIE's IT & e-Learning systems.

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Learning Tools

Student Support Services

For a comprehensive list and description of all student services at MIE, 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

The Student Counselling Service is free, confidential, and open to all registered MIE students. You can talk to a counsellor about anything that's on your mind—whether it's personal, academic, or something else that's affecting you.

Where to Find Us

The Student Counselling Service is based in Rooms 36, 41 & 42 on the top floor of St Patrick's Building (same building as the library).

 Bring your student ID card to access the building.

How to Make an Appointment

You can book your first appointment online here:

 <https://scs.mie.ie/firstappointment>

Or drop by during our Drop-In slot, Monday to Friday, 12:30pm–1:00pm (term time).

No need to book—just show up. It's first come, first served.

Appointment Times

 Counselling appointments run Monday to Friday, 09:30am – 5:00pm

 On Tuesdays during term time, we're open until 6:00pm for students who need a later slot.

Getting in Touch

 **Email:** marinocounselling@mie.ie

If something is urgent, include that in your message and we'll respond as soon as we can.

Support Outside Counselling

If you need support outside regular counselling hours, there are other options:

 **Crisis Text Line 50808** – Free, 24/7 support by text. Just text MIE to 50808 to connect with a trained volunteer.

 **TalkCampus** – A 24/7 global peer support platform available in multiple languages.

You can talk anonymously with other students around the world about whatever you're going through—day or night.

 It's free for MIE students and professionally moderated to keep the space safe.

Sign up here: <https://www.talkcampus.com/sign-up>

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Disability Services

Since 2012, MIE has partnered with Trinity College Dublin's Disability Service to support students with disabilities. We offer tailored support based on individual needs, including meetings with a Disability Officer and referrals to Assistive Technology (AT) and Occupational Therapy (OT) services in both MIE and Trinity.

If you have a disability that may impact your college experience, we encourage you to register with the MIE Disability Service. Visit our Disability Service Moodle page or email access@mie.ie to learn more.

Reasonable Accommodations

Reasonable Accommodations

MIE is committed to providing equal access to student life for all, in line with the Disability Act 2005, Equal Status Acts 2000 (as amended), and the Universities Act 1997.

We welcome applications from students with disabilities and support them through a range of reasonable accommodations that are designed to remove barriers and help every student reach their full potential as future educators.

Key supports include:

- Needs assessments on entry
- Assistive technology training
- Academic and pre-placement support
- Liaison with lecturers for accessible materials
- Extended library loans

To access support, students must register with the Disability Service and upload evidence of their disability via their MAESTRO student portal. Accommodations are arranged only after full registration is complete.

For more information, contact Laura Boyne, Access and Disability Liaison Officer at access@mie.ie or by phone on 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. The chaplain 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

Support for your academic writing is provided through your modules. Additional supports are available on request. Please contact the course leader, sean.delaney@mie.ie.

Careers Advisory Service

The aim of the 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.

You can use the Careers service throughout your studies. The service [can](#) support you with exploring your careers options as well as making applications for further study or employment.

Where to find us

The Careers advisor is based in Room P9 St Patrick's Building (same building as the library; you will need your student ID to access the building).

How to make an appointment

The service is available on Thursdays. You can book your appointment by contacting the email address below.

There is also a drop-in time for quick queries /CV checks Thursdays 1-2pm (term time).

Getting in touch

 Email: careersadvisor@mie.ie

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 2026 - 27

Year 1 students

Module 1

Tuesday, 1st September
Tuesday, 15th September
Tuesday, 29th September
Tuesday, 13th October
Tuesday, 20th October
Tuesday, 3rd November
Tuesday, 17th November
Tuesday, 1st December

Module 2

Wednesday, 2nd September
Wednesday, 16th September
Wednesday, 30th September
Wednesday, 14th October
Wednesday, 21st October
Wednesday, 4th November
Wednesday, 18th November
Wednesday, 2nd December

Module 3

Thursday, 3rd September
Thursday, 17th September
Thursday, 1st October
Thursday, 15th October
Thursday, 22nd October
Thursday, 5th November
Thursday, 19th November
Thursday, 3rd December

Module 4

Tuesday, 5th January
Tuesday, 12th January
Tuesday, 26th January
Tuesday, 9th February
Tuesday, 23rd February
Tuesday, 9th March
Tuesday, 6th April
Tuesday, 20th April

Module 5

Wednesday, 6th January
Wednesday, 13th January
Wednesday, 27th January
Wednesday, 10th February
Wednesday, 24th February
Wednesday, 10th March
Wednesday, 7th April
Wednesday, 21st April

Module 6

Thursday, 7th January
Thursday, 14th January
Thursday, 28th January
Thursday, 11th February
Thursday, 25th February
Thursday, 11th March
Thursday, 8th April
Thursday, 22nd 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	Module	Module	Module	Module	Module	Module
1	2	3	4	5	6	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 one, 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 only one taught module offered in year 1 may re-submit required work before progressing to year 2. Following the re-assessment, students who have failed to pass all 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.
5. Following the second year of study, where an overall degree result is on a passing, borderline mark (i.e. 59, or 69), for any of the following degrees
 - Master in Education Studies (Intercultural Learning and Leadership)
 - Master in Education Studies (Visual Arts)
 - Master in Education Studies (Early Childhood Education)
 - Master in Education Studies (Inquiry-Based Learning)
 - Master in Education Studies (Primary Maths Education)

- Master in Education Studies (Christian School Leadership)
- Master in Education Studies (Further Education)

The following process will be applied in determining whether the mark should remain as a borderline or whether it should be raised to the next higher grade (i.e. Pass II.1 or Distinction).

- If the student has the next higher-grade band in the dissertation, the overall degree borderline grade (i.e. 59 or 69) will be raised to 60 (II.1) or 70 First (I).

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](#).

What is Second/third Marking, & Double Blind Marking?

In addition to anonymous marking and marking scripts and assessment tasks based on the grading rubric provided to the student with the assessment guidelines, MIE applies second/third marking and double-blind marking in certain circumstances

Second/third marking

Second/third marking is the independent marking of an assessment by more than one marker. The second/third marker will have access to comments and feedback of the previous marker and to the grades awarded by that marker. The second/third marker may agree with the mark assigned by the first marker or may recommend that the mark be increased or decreased.

Double blind marking

Double blind marking is the second, third or simultaneous independent marking of an assessment by more than one marker. No marker has access to the grades or the comments and feedback of the other(s). Where the marks allocated vary, the markers discuss the reasons for assigning the marks they awarded.

When is second marking used?

Second/third marking is typically applied to all failing and borderline scripts. It may also be applied to a random selection of scripts or to scripts that receive a high grade. The purpose of the second/third marking is to review the professional opinion of the primary marker, and the process is informed by the first mark. Where a mark remains in dispute following the second marking process, in the first instance resolution should be sought through discussion between the first and second markers. Should the disagreement be still not resolved, a third opinion should be sought. Where the disagreement is still unresolved, the External Examiner's opinion will be considered (pg. 4 [18-guidelines-on-writing-and-marking-examination-papers-assignments-june-2023docx.pdf](#))

When is double blind marking used?

Double blind marking is typically applied in the following cases

- All final-year dissertations are double blind marked (pg.4 of [18-guidelines-on-writing-and-marking-examination-papers-assignments-june-2023docx.pdf](#))
- At the discretion of an MES course leader in relation to assessments for a module delivered on their programme.
- At the discretion of the President or Registrar
- As the outcome of a decision of an appeals' committee

- In the case of final year MES assessments where there is one and only one module mark that falls between 45-49 prior to the external examiner reviewing the assessment.

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.
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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 Examiner

Course	External Examiner	Affiliation
MES – Primary Mathematics Education	Dr Alf Coles	University of Bristol

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 apply 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 granted 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).

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 Masters level that students will carry out their own research using

relevant databases and that submitted course assignments and the 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 weekof 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: Essay 2:
Module 2	Learning log:
Module 3	Presentation: Essay:
Module 4	Mathematics learning profile:
Module 5	Task 1: Task 2: Task 3: Task 4: Task 5:
Module 6	Presentation: Professional Learning Plan:

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

MES (Primary Mathematics) – Year 1

Module 1	Understanding Primary Mathematics Education			
Name:				
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 2628 MIEOnline
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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 2628 MIEOnline
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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 <i>all</i> 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 2628 MIEOnline
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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
2628 | MIEOnline](#)

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 2628 | MIEOnline](#)

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 2628 MIEOnline
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1. MES (Primary Mathematics) – Year 2

Module 7	Research Methods and Dissertation			
Name:				
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:	See Dissertation Moodle page			

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.
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