University of Plymouth

Faculty of Arts, Humanities and Business
Plymouth Institute of Education

Programme Specification

Master of Arts in Mathematics Education

Definitive Document Approved: 20/5/19

Implementation Date: September 2019

Revised: Oct 2020 (incorporation of January intake)

1. MA Mathematics Education

Final award title
Master of Arts in Mathematics Education

Level 7 Intermediate award title(s)
Postgraduate Certificate in Mathematics Education
(Upon successful achievement of 60 identified M-level credits)

Postgraduate Diploma in Mathematics Education
(Upon successful achievement of 120 identified M-level credits)

UCAS code: N/A

JACS code: X300

2. Awarding Institution: University of Plymouth
Teaching institution(s): University of Plymouth

3. Accrediting body(ies)
n/a

4. Distinctive Features of the Programme and the Student Experience

- This programme is a fully online masters degree in mathematics education, the first such course based in a UK University, based on the expertise and experience of staff in the Centre for Innovation in Mathematics Teaching (CIMT); this is a research and development centre dedicated to helping and supporting teachers of mathematics in the Primary, Secondary and Tertiary sectors of education.
- The professional development innovations are supported through working with colleagues using Japanese-style lesson study for review, evaluation and sustainability.
- Evidence of innovative and motivating strategies for teaching will be based on video clips from the UK and, in particular, Finland, Japan and New Zealand.

- Overall the modules are designed to help teachers develop inspiring and motivating lessons, based on effective strategies from mathematically high performing countries with video clips illustrating these strategies.

5. Relevant QAA Subject Benchmark Group(s)

The programme is informed by the UK Quality Code for Higher Education, Level 7

6. Programme Structure

The programme has both a September and January intake each year and comprises four 30 M-Level credit modules and one 60 M-Level credit module:

MEMA701	**Teaching Mathematics through Problem Solving**
MEMA702	**Teaching and Learning Mathematics for Understanding**
MIEMA703	**Teaching Mathematics through its Applications**
MEMA704	**Reaching Educational Practice in Context**
MAED702	**Masters of Arts in Education Dissertation**

MEMA701-704 can be taken in either Semester 1 or 2 and MAED702 runs across both Semesters.

Successful completion of two of the 30 M-level credit modules (MEMA701, MEMA702 or MEMA703) will lead to a post graduate certificate (**PGCert**) in Mathematics Education. Successful completion of the first four 30 M-level credit modules (MEMA701, MEMA702, MEMA703, MEMA704) will lead to a post graduate diploma (**PGDip**) in Mathematics Education.
Successful completion of 180 credits (as above MAED702) achieves a Masters degree (**MA**) in Mathematics Education.

7. Programme Aims

The programme is intended to enable and encourage students to:

7.1 Understand the key aspects and issues in teaching and learning mathematics with particular emphasis on learning and experimenting using strategies from mathematically high performing countries;

7.2 Appreciate the importance of collaborative practice, working with colleagues using lesson study to enhance practice in their institution.

7.3 Recognise the importance of subject knowledge for effective teaching and understand how to recognise and remedy the misconceptions of their learners.

7.4 Appreciate the wider role of mathematics in the outside world and understand how this can help the design of motivational lessons and the STEM agenda in schools and colleges.

8. Programme Intended Learning Outcomes

8.1. Knowledge and understanding

On successful completion graduates should have developed:

1) competent mathematical knowledge for their level of teaching;
2) understanding of common misconceptions made by learners;
3) appreciation of the main mathematical concepts that underpin mathematical progress of learners.

8.2. Cognitive and intellectual skills

On successful completion graduates should have developed:

1) expertise as a reflective practitioner;
2) understanding of how to see a lesson through the eyes of the learner;
3) an ability to use appropriate techniques and intervention in teaching and learning situations.

8.3. Key and transferable skills

On successful completion graduates should have developed the ability to:

1) engage and motivate both learners and other teachers;
2) use lesson study principles to facilitate, evaluate and sustain innovation;
3) apply their teaching and learning skills in new teaching situations.

8.4. Employment related skills

On successful completion graduates should have developed:

1) leadership skills in mathematics education for schools and colleges;
2) improved planning and delivery for innovative lessons.

8.5. Practical skills

On successful completion graduates should have developed:

1) ability to motivate and engage learners in mathematics;
2) ability to sustain effective mathematics teaching and learning;
3) ability to help and support colleagues with mathematics teaching and learning in their institution.

9. Admissions Criteria

All applicants must have GCSE (or equivalent) Maths and English at Grade C or above. Candidates may be interviewed, including phone or skype (or equivalent), before an offer is made.

Entry Requirements for MA Mathematics Education	
Qualified Teacher	It would be expected that the candidate would have a first degree and, in England, QTS or its equivalent. Normal minimum entry requirements are a first degree class 2:1 but we will consider students below 2:1 if they can demonstrate a strong academic portfolio or a record of professional experience.
Others	Other educational staff can be considered for admission; for example, Higher Level Teaching Assistants (HLTAs) if they are teaching or tutoring classes and provided they can demonstrate a strong academic portfolio or a record of professional experience with an appropriate mathematical qualification. All applicants need to have access to an educational setting.
International	Normal minimum entry requirements are 2:1 (or equivalent) We will consider students below 2:1 if they can demonstrate a strong academic portfolio or a record of professional experience. IELTS score of 6.5 or equivalent required for overseas students.
APL, APEL and transferring students	The University also has substantial experience in supporting mature students and welcomes applicants in this category. Applicants with APL https://www.plymouth.ac.uk/uploads/production/document/path/9/9353/APL_case_studies.pdf will be considered on an individual basis according to the University Regulations Framework. Students interested in transferring postgraduate credits will be considered on merit and current University regulations regarding transfer of credits from other institutions will apply.

10. Progression criteria for Final and Intermediate Awards

Students achieving 60 credits at pass level on two of the following modules: MEMA701, MEMA702 and MEMA703 are eligible for the Intermediate Award: **PG Cert Mathematics Education**

Students achieving 120 credits at pass level (MEMA701, MEMA702, MEMA703 and MEMA704) are eligible for the Intermediate Award: **PGDip Mathematics Education**

Students achieving 180 credits at pass level (as per PGDip plus MAED702) are eligible for the Final Award: **MA Mathematics Education**

A student will be awarded a Masters degree with Merit or Distinction if they meet the criteria set out in the University's regulations.

11. Non Standard Regulations

N/A

12. Transitional Arrangements

N/A

Appendices

Programme Specification Mapping (UG) – core/elective modules

Assessment against Modules Mapping

	MA Mathematics Education			
	MODULE TITLE	**C1**	**P1**	
MEMA701	**Teaching Mathematics through Problem Solving**	100%		Portfolio
MEMA702	**Teaching and Learning Mathematics for Understanding**	100%		Portfolio
MIEMA703	**Teaching Mathematics through its Applications**	100%		Portfolio
MEMA704	**Reaching Educational Practice in Context**	100%		Portfolio
MAED702	**Masters of Arts in Education Dissertation**	100%		Dissertation

Students are allowed 2 attempts per module

Skills against Modules Mapping

The requirements for achieving awards are set out below.

Award	Elements	Credits
PGCert Mathematics Education	2 x 30 M-level credit Modules from MEMA70, MEMA702 and MEMA703	60 Credits
PGDip Mathematics Education	4 x 30 M-level credit Modules MEMA701, MEMA702, MEMA703 MEMA704	120 Credits
MA Mathematics Education	4 x 30 M-level credit Modules 1 x 60 M-level credit Module MEMA701, MEMA702, MEMA703 MEMA704, MAED702	180 Credits

Some participants may complete one or more module of the MA Mathematics Education and take their credits on to another programme/institution.

Appendix: Programme Specification Mapping (PGT): module contribution to the meeting of Award Learning Outcomes

Module	**Credits**	**C** core **E** elective	Award Learning Outcomes contributed to (for more information see Section 8)													Compensation Y/N	**Assessment element(s) and weightings** [use KIS definition] E1 - exam E2 - clinical exam T1 - test C1 - coursework A1 - generic assessment P1 – practical
			Knowledge & understanding			Cognitive & intellectual skills			Key & transferable skills			Employment related skills		Practical skills				
			1	2	3	1	2	3	1	2	3	1	2	1	2	3		
MEMA701	30	C	√	√		√	√		√	√			√	√	√	√	Y	C1
MEMA702	30	C	√	√		√	√		√	√			√	√	√	√	Y	C1
Learning Outcomes 60 credits																		
MEMA703	30	C	√	√	√	√	√	√	√	√	√	√	√	√	√	√	Y	C1
MEMA704	30	C		√	√			√	√			√			√		Y	C1
Learning Outcomes 120 credits																		
MAED702	60	C	√	√	√	√	√	√	√	√	√	√	√	√	√	√	N	C1
Learning Outcomes 180 credits																		
Confirmed Award LOs																		