



## Module Descriptor

<b>Title</b>	Mathematics		
<b>Session</b>	2025/26	<b>Status</b>	
<b>Code</b>	UGED 08002	<b>SCQF Level</b>	8
<b>Credit Points</b>	20	<b>ECTS (European Credit Transfer Scheme)</b>	10
<b>School</b>	Education and Social Sciences		
<b>Module Co-ordinator</b>	R Egan		

### Summary of Module

This module is an Education Option at level 8 of the B.A. in Education. This module seeks to provide students with knowledge, understanding and skills necessary to critically examine and further develop the main theories, concepts and principles underlying Mathematics. There will be further development of knowledge, skills and understanding, as well as critical analysis and evaluation of contemporary issues within Mathematics education. The module will engage students in investigative approaches to learning Mathematics and will further develop their own mathematical thinking.

Through studying this module, students will know how to access and apply relevant findings from educational research (2.3.2) and will work collaboratively to share their professional learning and development with colleagues (1.2).

In relation to learning for sustainability, students will engage in critical reflection and use enquiring/critical approaches. They will also work collaboratively to develop their participatory competence.

Through participating in the module, students will develop UWS Graduate Attributes and will demonstrate that they are critical thinkers, effective communicators, collaborative and research minded. They will also develop as problem solvers and be provided with experiences to develop their analytical skills.

Module Delivery Method	On-Campus <sup>1</sup>	Hybrid <sup>2</sup>	Online <sup>3</sup>	Work -Based Learning <sup>4</sup>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>1</sup> Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

<sup>2</sup> The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

<sup>3</sup> Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

<sup>4</sup> Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

<b>Campuses for Module Delivery</b>	<input checked="" type="checkbox"/> Ayr		<input type="checkbox"/> Lanarkshire		<input type="checkbox"/> Online / Distance Learning	
	<input type="checkbox"/> Dumfries		<input type="checkbox"/> London		<input type="checkbox"/> Other (specify)	
<b>Terms for Module Delivery</b>	Term 1	<input type="checkbox"/>	Term 2	<input checked="" type="checkbox"/>	Term 3	<input type="checkbox"/>
	Term 1 – Term 2	<input type="checkbox"/>	Term 2 – Term 3	<input type="checkbox"/>	Term 3 – Term 1	<input type="checkbox"/>
<b>Long-thin Delivery over more than one Term</b>	Term 1 – Term 2	<input type="checkbox"/>	Term 2 – Term 3	<input type="checkbox"/>	Term 3 – Term 1	<input type="checkbox"/>

<b>Learning Outcomes</b>	
<b>L1</b>	Apply knowledge, skills and understanding in carrying out routine lines of enquiry, development or investigation into professional level problems and issues within Mathematics.
<b>L2</b>	Undertake critical analysis, evaluation and/or synthesis of a limited range of theories, principles and concepts in Mathematics.
<b>L3</b>	Convey complex information to a range of audiences and for a range of purposes.
<b>L4</b>	Develop understanding of how to analyse and critique tasks to enhance mathematical thinking.
<b>L5</b>	

<b>Employability Skills and Personal Development Planning (PDP) Skills</b>	
<b>SCQF Headings</b>	<b>During completion of this module, there will be an opportunity to achieve core skills in:</b>
<b>Knowledge and Understanding (K and U)</b>	<b>SCQF 8</b> Demonstrate a knowledge of the scope, defining features, and main areas of Mathematics studied in the module.
<b>Practice: Applied Knowledge and Understanding</b>	<b>SCQF 8</b> Apply knowledge, skills and understanding in carrying out routine lines of enquiry, development or investigation into professional level problems and issues within Mathematics.
<b>Generic Cognitive skills</b>	<b>SCQF 8</b> Undertake critical analysis, evaluation and/or synthesis of ideas, concepts, information and issues that are within the common understandings in Mathematics.
<b>Communication, ICT and Numeracy Skills</b>	<b>SCQF 8</b> Convey, formally and informally, information on standard/mainstream topics within Mathematics to a range of audiences.
<b>Autonomy, Accountability and Working with Others</b>	<b>SCQF 8</b> Work with others to bring about development of new approaches to thinking in Mathematics.

<b>Prerequisites</b>	<b>Module Code</b> EDUC 07019	<b>Module Title</b> Mathematics for Understanding
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	<b>Other</b>	
<b>Co-requisites</b>	<b>Module Code</b>	<b>Module Title</b>

<b>Learning and Teaching</b>	
<p>In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.</p> <p>In all modules on the BA Education programme, we take an authentic, best-practice and forward-looking approach to learning activities and assessment. There is a strong emphasis on situated learning and real professional scenarios. We are committed to interactive learning and the small number of learning activities that are purely transmission of information are normally pre-recorded. In workshops, which utilise classrooms, and other facilities as appropriate, the outdoors and the Aula VLE, main methodologies include collaborative working, problem-based learning, real-world tasks, research based learning, placement based learning, enquiry-based learning, micro teaching, student presentations, and games. All learning activities are aligned to relevant aspects of the professional standards. Individual, group or tutor-led reflection is required throughout. Learning activities develop 21st century skills such as communication, collaboration, digital skills, creativity and critical thinking. Learning activities, assessment and feedback, where appropriate, provide students with choice, such as which tasks to do, and which theory to research.</p>	
<b>Learning Activities</b>	<b>Student Learning Hours</b>
During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	(Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	28
Independent Study	158
Tutorial / Synchronous Support Activity	14
Please select	
Please select	
Please select	
<b>TOTAL</b>	<b>200</b>

<b>Indicative Resources</b>
<p><b>The following materials form essential underpinning for the module content and ultimately for the learning outcomes:</b></p> <p>Mason, J., Burton, L., &amp; Stacey, K. (2011). Thinking mathematically. Pearson Higher Ed.</p> <p>Mason, J. and Johnston-Wilder, S. (2006) Designing and Using Mathematical Tasks. St Albans: Tarquin Publications</p> <p>Haylock, D.&amp; Manning, R. (2019) Mathematics Explained for Primary Teachers sixth edition. London: Sage.</p> <p>Haylock, D. and Manning R. (2019) Student Workbook for Mathematics Explained for Primary Teachers.</p>
<p><b>(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)</b></p>

## Attendance and Engagement Requirements

**In line with the [Student Attendance and Engagement Procedure](#), Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.**

**For the purposes of this module, academic engagement equates to the following:**

For the purposes of this module, academic engagement equates to the following:

All fulltime students (part-time and distant learning students should check with their programme leader for any queries) are required to attend all scheduled classes and participate with all delivered elements of the module as part of their engagement with their programme of study. Consideration will be given to students who have protection under the appropriate equality law. Please refer to UWS Regulations, Chapter 1, 1.64 – 1.67, available at the following link: <http://www.uws.ac.uk/current-students/rights-and-regulations/regulatory-framework/>

In accordance with module and programme handbooks, any student whose attendance has fallen below the 75% minimum requirement for a module could be withdrawn from and given a re-attend decision for that module. To assure placement partners that students are appropriately prepared to undertake periods of school experience, unsatisfactory attendance across academic modules may prevent progress to placement, or result in withdrawal from the programme, as a student would be deemed not to have met the professional requirements of the programme as accredited by the GTCS.

## Equality and Diversity

**The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: [UWS Equality, Diversity and Human Rights Code](#).**

Aligned with the overall commitment to equality and diversity stated in the Programme Specification, the module supports equality of opportunity for students from all backgrounds and with different learning needs. Using the VLE, learning materials will be presented electronically in formats that allow flexible access and manipulation of content. The module complies with University regulations and guidance on inclusive learning and teaching practice. Specialist assistive equipment, support provision and adjustment to assessment practice will be made in accordance with UWS policy and regulations.

Student teachers are encouraged to reflect on their developing understanding of aspects relating to equality and diversity and to consider how this helps them to work towards meeting the Standard for Provisional Registration (GTCS, 2021), of which demonstrating commitment to social justice and inclusion is a significant part.

Through studying this module, student teachers develop knowledge and understanding of pedagogical and learning theories and draw on these appropriately to inform curriculum design and content where appropriate taking account of additional support needs. They also develop the skills and professional abilities to identify the potential barriers to learning and plan differentiated and appropriately challenging learning experiences to ensure learning is accessible for every learner. They learn how to employ teaching strategies and resources, including digital approaches, to meet the needs and abilities of every learner.

A direct focus on these aspects not only advances equality in the student environment, by promoting empathy and affiliation, but also within the school settings where student teachers undertake their school experience.

**(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)**

**Supplemental Information**

<b>Divisional Programme Board</b>	<b>Education</b>
<b>Overall Assessment Results</b>	<input type="checkbox"/> Pass / Fail <input checked="" type="checkbox"/> Graded
<b>Module Eligible for Compensation</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.</b>
<b>School Assessment Board</b>	Education
<b>Moderator</b>	R Fotheringham
<b>External Examiner</b>	F Hendry
<b>Accreditation Details</b>	General Teaching Council for Scotland
<b>Module Appears in CPD catalogue</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Changes / Version Number</b>	

<b>Assessment (also refer to Assessment Outcomes Grids below)</b>
<b>Assessment 1</b>
There will be a selection of formative tasks with feedback provided to ensure that appropriate knowledge and understanding is developed in this module. Feedback will be provided.
<b>Assessment 2</b>
Summative assessment will be through presentation of a mathematical task.
<b>Assessment 3</b>
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

<b>Component 1</b>							
<b>Assessment Type</b>	<b>LO1</b>	<b>LO2</b>	<b>LO3</b>	<b>LO4</b>	<b>LO5</b>	<b>Weighting of Assessment Element (%)</b>	<b>Timetabled Contact Hours</b>
Formative	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0%	2

<b>Component 2</b>							
<b>Assessment Type</b>	<b>LO1</b>	<b>LO2</b>	<b>LO3</b>	<b>LO4</b>	<b>LO5</b>	<b>Weighting of Assessment Element (%)</b>	<b>Timetabled Contact Hours</b>
Presentation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100%	10

<b>Component 3</b>
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Assessment Type	LO1	LO2	LO3	LO4	LO5	Weighting of Assessment Element (%)	Timetabled Contact Hours
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Combined total for all components</b>						100%	hours

### Change Control

What	When	Who
New template, no changes for 25/26	Mar 25	R Egan