Level 2 Additional Mathematics Qualification Outline

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Introduction

This document provides a high-level overview of the WJEC Level 2 Award in Additional Mathematics Qualification.

It is based on Qualifications Wales's Approval Criteria (level-2-additional-maths-approval-criteria.pdf). Our qualification **must** meet these requirements.

The qualification outline will provide a guide for the development of the Specification and Sample Assessment Materials (SAMs).

Qualification Overview

Level 2 Additional Mathematics will reinforce the key mathematical skills that learners have developed by undertaking the GCSE Mathematics and Numeracy (Double Award), as well as enabling learners to develop an understanding of new concepts and mathematical approaches.

The qualification will support the five interdependent proficiencies that make up the Curriculum for Wales' principles of progression for the Mathematics and Numeracy Area by supporting learners to:
- develop deeper thinking, reasoning, communication, application and metacognitive skills through a mathematical approach to problem solving
- formulate and reinforce key mathematical skills
- develop an understanding of new concepts and mathematical approaches and the ability to apply them
- be creative in applying mathematics to challenging problems and to novel and abstract situations
- reason mathematically, make deductions and inferences, draw conclusions and engage with formal mathematical proof
- develop an awareness of the holistic nature of mathematics
- connect ideas within mathematics and between mathematics and other subjects.

Qualification Structure

Mandatory Units

Unit 1: Algebra
Written examination
33.3% of qualification

Unit 2: Calculus
Written examination
33.3% of qualification

Optional Units

Unit 3: Geometry and trigonometry
Written examination
33.3% of qualification

Unit 4: Statistics
Written examination
33.3% of qualification

Unit 5: Mechanics
Written examination
33.3% of qualification

Unit 6: Discrete and decision mathematics
Written examination
33.3% of qualification

To receive the qualification, learners must complete three units, two of which must be Unit 1: Algebra and Unit 2: Calculus.

Learners who complete fewer than three units will receive unit certification for the successful completion of each unit.

These are the proposed percentages for the Level 2 Additional Mathematics assessment objectives (within a tolerance of +/- 5%):

AO1	**Recall and use their knowledge** of the prescribed content.	65%
AO2	**Select and apply** mathematical methods.	20%
AO3	**Interpret and analyse** problems and use mathematical reasoning to solve them.	15%

This will be a unitised qualification.

The qualification will have 60 – 90 Guided Learning Hours.

There is no hierarchy implied by the order in which the units are presented. Therefore, the order does not imply a prescribed teaching order.

Unit Information

Unit 1 – Algebra

> **The purpose of this unit is to:**
> - formulate and reinforce key mathematical techniques
> - strengthen manipulative algebraic skills.

The content will include topics that support the unit's purpose.
The duration of the examination is likely to be 50 minutes.
The use of a calculator will **not** be allowed in this examination.

Unit 2 – Calculus

> **The purpose of this unit is to:**
> - introduce and develop an understanding of new concepts relating to calculus, supporting progression to the further study of mathematics or a related discipline.

The content will include topics that support the unit's purpose.
The duration of the examination is likely to be 50 minutes.
The use of a calculator will be allowed in this examination.

Unit 3 – Geometry and trigonometry

> **The purpose of this unit is to:**
> - develop and strengthen the knowledge, skills and understanding of topics relating to geometry and trigonometry, and be able to apply them in different contexts.

The content will include topics that support the unit's purpose.
The duration of the examination is likely to be 50 minutes.
The use of a calculator will be allowed in this examination.
We propose that the examination will have some questions set in real-world contexts.

Unit 4 – Statistics

> **The purpose of this unit is to:**
> - develop and strengthen the understanding of topics and concepts relating to statistics and probability, and be able to use the associated mathematical language and terminology effectively.

The content will include topics that support the unit's purpose.
The duration of the examination is likely to be 50 minutes.
The use of a calculator will be allowed in this examination.
We propose that the examination will have some questions set in real-world contexts.

Unit 5 – Mechanics

The purpose of this unit is to:
- introduce and develop an understanding of topics and concepts relating to mechanics, and be able to apply them in different contexts.

The content will include topics that support the unit's purpose.
The duration of the examination is likely to be 50 minutes.
The use of a calculator will be allowed in this examination.
We propose that the examination will have some questions set in real-world contexts.

Unit 6 – Discrete and decision mathematics

The purpose of this unit is to:
- introduce and develop an understanding of new concepts and mathematical approaches relating to discrete and decision mathematics, and be able to apply them to novel and abstract situations.

The content will include topics that support the unit's purpose.
The duration of the examination is likely to be 50 minutes.
The use of a calculator will be allowed in this examination.
We propose that the examination will have some questions set in real-world contexts.

Availability of assessments

The Approval Criteria states the following in relation to availability of assessments:
'In the first year the qualification is available, at a minimum, either the algebra or calculus units must be offered in the January window.'

The assessment for Unit 1: Algebra will be made available for the first time in January 2027, with the assessments for the remaining five units being available in the 2027 summer series.

After the first January window, Unit 1: Algebra, and Unit 2: Calculus will be available in every January and summer series. The remaining four optional units will be available in every summer series.