open awards

Changing lives through learning

Access to HE Diploma

Pure and Applied Mathematics

AIM: *4001602X*

Qualification Guide

Contents

Version Control	
v1.0	New document – January 2025
v2.0	Update to qualification guide to note barred unit combinations. Update to qualification guide to include new units added to the qualification via approved minor changes – September 2025.

About the Qualification

Title	Access to HE Diploma (Pure and Applied Mathematics)
Qualification Accreditation Number	AIM 4001602X
Sector	2.2 Mathematics and Statistics
Level	Level Three
Funding	Please click here for more information
Pricing Information	Please click here for more information
Review Date	31/07/2030

Purpose	To provide higher education progression opportunities for adults who, because of social, educational or individual circumstances, may have achieved few, if any, prior qualifications.

Available Delivery Modes	Classroom-based Learning Blended Learning Distance Learning

Total Qualification Time/Guided Learning	
Total Qualification Time (hours)	600
Guided Learning (hours)	600

Age Range and Restrictions	
Pre -16	x
16 – 18	✓
18+	✓
Any other restrictions specific to the qualification(s)	None

Any Specified Entry Requirements

This qualification is suitable for learners aged 16+.

There are no specific entry requirements with regards to prior qualifications. However, providers must liaise with Higher Education Institutions when developing their Access to HE programme to identify any additional requirements for progression.
In most cases, we expect learners to have or being working towards GCSE English and maths at grade C/4 or above or equivalents

Recommended Assessment Method Summary

Assessments for Access to HE Diplomas are internally set, internally marked and externally moderated portfolio of evidence

Providers will be required to develop an assessment strategy before they begin delivery of this Diploma. This will ensure that a range of appropriate assessment methods are selected. Consideration must be given to the needs of all learners whilst also making sure that they can develop and evidence the skills, knowledge and confidence that will prepare them for the rigorous assessment regimes in higher education.

Types of evidence could include:

a) Written assignments
b) Essays
c) Reports
d) Presentations
e) Practical assessment
f) Examinations
g) Project work

Assessment practices must reflect the Equality and Diversity Policy of Open Awards.

Please see the Access to HE Provider Handbook for more information.

Qualification Structure

Rules of Combination

Credit Value of the Qualification:	60
Minimum Credits to be achieved at the Level of the Qualification:	45
Graded Credits	45
Ungraded Credits	15

Graded Units	
Mandatory Academic Unit Group A – Mathematics	A minimum of 24 graded credits required.
Optional Academic Unit Group B – Computing	The remaining 21 graded credits may be selected from group A, or groups B-C.
Optional Academic Unit Group C – Physics	
Ungraded Units	
Optional Ungraded Unit Group A – Mathematics	15 ungraded credits to be selected from Optional Ungraded groups A-C or Ungraded group D (Developmental).
Optional Ungraded Unit Group B – Computing	
Optional Ungraded Unit Group C – Physics	
Optional Ungraded Unit Group D – Developmental	

In addition, you must ensure that at least one six (6) credit (academic graded, academic ungraded, or ungraded developmental) to be compliant with the requirements of the QAA Access to HE Diploma specification.

You can select up to a maximum of 30 credits made up of six (6) credit (academic graded, ungraded, or ungraded developmental) units.

Barred Combinations of Units

Where content between units overlaps, and where units have the same title (ungraded and graded), this would represent a barred unit combination.

Information on units that are barred within this qualification can be found in the table below (these units are also denoted with an asterisk * on the full qualification unit listing).

* The following units reflect barred unit combinations within this Diploma and must **not** be delivered together on the same course.
Mathematics
Additional Calculus – barred against **Differentiation** and **Integration**
Coordinate Geometry and Vectors – against **Coordinate Geometry** and **Vectors**
Statistical Methods and Distributions – against **Statistical Methods**
Developmental
Communication: Critical Thinking in Academic Writing – barred against **Study Skills: Critical Analysis**; **Communication: Academic Essay Writing**
ICT: Using ICT and Word Processing – barred against **ICT: Using ICT**; **ICT Word Processing**
Study Skills: Research Skills and Using Information – barred against **Study Skills: Developing Research Skills; Study Skills: Using Research Skills**

Qualification Units

Graded

Mandatory Academic Unit Group A – Mathematics

(A minimum of 24 graded credits required).

Unit Code	Unit Name	Credits	Level
GA36MTH22	Additional Calculus*	6	Level Three
GA33MTH23	Additional Trigonometry	3	Level Three
GA33MTH05	Algebra	3	Level Three
GA33MTH07	Algorithms, Pseudocode and Trace Tables	3	Level Three
GA33MTH01	Complex Numbers	3	Level Three
GA33MTH10	Computer Logic	3	Level Three
GA33MTH13	Coordinate Geometry*	3	Level Three
GA33MTH24	Coordinate Geometry and Vectors*	3	Level Three
GA36MTH25	Core Algebra, Trigonometry and Calculus	6	Level Three
GA33MTH33	Discrete Networks & Linear Programming	3	Level Three
GA33MTH14	Differentiation*	3	Level Three
GA33MTH06	Integration*	3	Level Three
GA33MTH26	Introductory Algebra and Geometry	3	Level Three
GA33MTH34	Introductory Algorithms & Graphs	3	Level Three
GA33MTH27	Introductory Statistical and Numerical Methods	3	Level Three
GA33MTH09	Logarithms and Exponentials	3	Level Three
GA33MTH28	Logic and Number Systems	3	Level Three
GA33MTH15	Matrices	3	Level Three
GA33MTH30	Matrix Algebra and Geometry	3	Level Three
GA33MTH21	Number Systems and Data Representation	3	Level Three
GA33PHY18	Physical Quantities and Algebraic Methods	3	Level Three
GA33MTH32	Probability and Sets	3	Level Three
GA33MTH35	Proof	3	Level Three
GA33MTH20	Series and Partial Fractions	3	Level Three
GA33MTH19	Statistical Methods*	3	Level Three
GA36MTH31	Statistical Methods and Distributions*	6	Level Three
GA33MTH02	Trigonometric Methods	3	Level Three
GA33MTH12	Vectors*	3	Level Three

Optional Graded Group B – Computing

Unit Code	Unit Name	Credits	Level
GA33COM13	Building Computer Systems	3	Level Three
GA33COM06	Computer Memory Architecture	3	Level Three
GA33COM01	Computer Systems Architecture	3	Level Three
GA33COM04	Database Principles and Design	3	Level Three
GA33COM20	Digital Forensics	3	Level Three
GA33COM14	Digital Graphics	3	Level Three
GA33COM09	Event Driven Programming	3	Level Three
GA33COM02	ICT Systems Lifecycle	3	Level Three
GA33COM16	Interactive Media Industry	3	Level Three
GA33COM22	Introduction to Machine Learning	3	Level Three
GA33COM17	IT Systems Security	3	Level Three
GA33COM21	Network Infrastructure Security	3	Level Three
GA33COM07	Networks and Communication Protocols	3	Level Three
GA33COM05	Principles of Computer Programming	3	Level Three
GA33COM03	Programming Using Objects	3	Level Three
GA33COM18	Stop Motion Animation	3	Level Three
GA33COM08	Structured Programming	3	Level Three
GA33COM19	Web Animation	3	Level Three

Optional Graded Group C – Physics

Unit Code	Unit Name	Credits	Level
GA33PHY11	Dynamics and Statics	3	Level Three
GA33PHY18	Physical Quantities and Algebraic Methods	3	Level Three

Ungraded

Optional Ungraded Group A – Mathematics

Unit Code	Unit Name	Credits	Level
UA36MTH22	Additional Calculus*	6	Level Three
UA33MTH23	Additional Trigonometry	3	Level Three
UA33MTH05	Algebra	3	Level Three
UA33MTH07	Algorithms, Pseudocode and Trace Tables	3	Level Three
UA33MTH01	Complex Numbers	3	Level Three
UA33MTH10	Computer Logic	3	Level Three
UA33MTH13	Coordinate Geometry*	3	Level Three
UA33MTH24	Coordinate Geometry and Vectors*	3	Level Three
UA36MTH25	Core Algebra, Trigonometry and Calculus	6	Level Three
UA33MTH33	Discrete Networks & Linear Programming	3	Level Three
UA33MTH14	Differentiation*	3	Level Three
UA33MTH06	Integration*	3	Level Three
UA33MTH26	Introductory Algebra and Geometry	3	Level Three
UA33MTH34	Introductory Algorithms & Graphs	3	Level Three
UA33MTH27	Introductory Statistical and Numerical Methods	3	Level Three
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UA33MTH20	Series and Partial Fractions	3	Level Three
UA33MTH19	Statistical Methods*	3	Level Three
UA36MTH31	Statistical Methods and Distributions*	6	Level Three
UA33MTH02	Trigonometric Methods	3	Level Three
UA33MTH12	Vectors*	3	Level Three

Optional Ungraded Group B – Computing

Unit Code	Unit Name	Credits	Level
UA33COM13	Building Computer Systems	3	Level Three
UA33COM06	Computer Memory Architecture	3	Level Three
UA33COM01	Computer Systems Architecture	3	Level Three
UA33COM04	Database Principles and Design	3	Level Three
UA33COM20	Digital Forensics	3	Level Three
UA33COM14	Digital Graphics	3	Level Three
UA33COM09	Event Driven Programming	3	Level Three
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UA33COM03	Programming Using Objects	3	Level Three
UA33COM18	Stop Motion Animation	3	Level Three
UA33COM08	Structured Programming	3	Level Three
UA33COM19	Web Animation	3	Level Three

Optional Ungraded Group C – Physics

Unit Code	Unit Name	Credits	Level
UA33PHY11	Dynamics and Statics	3	Level Three
UA33PHY18	Physical Quantities and Algebraic Methods	3	Level Three

Optional Ungraded Group D – Developmental

Unit Code	Unit Name	Credits	Level
UD33DEV23	Communication: Academic Essay Writing*	3	Level Three
UD36DEV35	Communication: Critical Thinking in Academic Writing*	6	Level Three
UD33DEV29	Communication: Portfolio of Writing Exercises	3	Level Three
UD33DEV25	Communication: Presentation Skills	3	Level Three

UD23DEV21	Communication: Punctuation and Grammar Skills	3	Level Two
UD23DEV20	Communication: Reading Strategies	3	Level Two
UD33DEV24	Communication: Report Writing	3	Level Three
UD23DEV19	Communication: Speaking and Listening Skills	3	Level Two
UD23DEV22	Communication: Writing for Meaning	3	Level Two
UD33DEV10	ICT: Advance Use of ICT	3	Level Three
UD33DEV15	ICT: Advanced Word Processing	3	Level Three
UD23DEV09	ICT: Using ICT*	3	Level Two
UD26DEV24	ICT: Using ICT and Word Processing*	6	Level Three
UD23DEV11	ICT: Using Presentation Software	3	Level Two
UD23DEV13	ICT: Using Spreadsheets	3	Level Two
UD23DEV14	ICT: Word Processing*	3	Level Two
UD33DEV27	Personal Development: Applying for HE	3	Level Three
UD33DEV28	Personal Development: Setting Targets and Reflective Practice	3	Level Three
UD33DEV26	Personal Development: Study Skills	3	Level Three
UD33DEV32	Professional Behaviours	3	Level Three
UD33DEV30	Research: Practical Research for Psychology	3	Level Three
UD23DEV07	Science: Introduction to Physics	3	Level Two
UD36DEV37	Study Skills: Academic Skills for Access to HE	6	Level Three
UD36DEV38	Study Skills: Access Research Project	6	Level Three
UD33DEV18	Study Skills: Critical Analysis*	3	Level Three
UD33DEV16	Study Skills: Developing Research Skills*	3	Level Three
UD36DEV36	Study Skills: Research Skills and Using Information*	6	Level Three
UD33DEV17	Study Skills: Using Research Skills*	3	Level Three
UD23DEV02	Use of Number: Data Handling and Probability	3	Level Two
UD23DEV03	Use of Number: Maths Project	3	Level Two
UD23DEV04	Use of Number: Measure and Shape	3	Level Two
UD23DEV01	Use of Number: Numbers and Algebra	3	Level Two

Delivering this Qualification

Becoming a Provider

To deliver this qualification you must be a recognised Open Awards Provider. For more information, head to our website or contact the team on 0151 494 2072.

How to Deliver

If you are approved to deliver Access to HE Diplomas with Open Awards, you can apply deliver this Diploma by completing a Programme Approval Form and submitting via the Programme Approval workflow event on the Open Awards portal. For more information, see the Programme Approval Guidance document, Provider Handbook, or contact the team on 0151 494 2072 or customerservices@openawards.org.uk.

If you are not already an approved Access to HE provider, please contact the team on enquiries@openawards.org.uk to discuss the approval process.

Registering Learners

Access to HE learners should be registered within 6 weeks of the learner's individual start date or before the learner's official (usually UCAS) application deadline via the Open Awards Secure Portal. Please make sure that learners are registered with the correct details and on the correct Diploma. If learners are registered incorrectly, there will be an administration charge to rectify errors. Learners can be added onto existing course runs but are subject to the 6-week registration deadline.

Amendments or late registrations may be requested up to 26 weeks from the learner's start date but are only considered in extenuating circumstances and on an individual basis. These requests may result in further investigations by Open Awards and control measures may be applied.

Learner registration data can be submitted using the provided 'LRF (Access to HE) template or via a report generated from your own MIS system. The data provided must be in accordance with the Access to the HE Data Specification document which is available via the secure portal.

You will need to register your learners via the Portal. More information can be found in our Access to HE Provider Handbook.

Quality Assurance and Standardisation

Delivery of this qualification must be done so in accordance with Quality Assurance Agency (QAA) regulatory guidelines and in line with Open Awards' quality assurance processes. Please see our Access to HE Provider Handbook for more information.

Provider Staff Requirements

It is expected that providers will have occupationally competent staff with relevant sector experience for their role in the delivery of the units/qualifications being offered.

For the delivery and assessment of this qualification, it is expected that staff have a qualification at the level higher than the qualification in a related academic subject and have up-to-date working knowledge and experience of best practice in assessment and quality assurance.

Providers are responsible for ensuring that their staff are occupationally competent and have access to appropriate training and support. They are also responsible for notifying Open Awards of staff changes.

Assessment

Each Access to HE Diploma must be supported by assessment plans to ensure that students are able to demonstrate the skills, knowledge and confidence that will prepare them for the rigorous assessment regimes in higher education.

Tutors must develop plans which show how they intend to assess each unit and the Diploma as a whole. These plans must be internally moderated. The assessment plan should cover the whole Diploma and include:

- Number of assignments
- Type and range of assessments
- How tasks will allow for differentiation
- An assessment strategy for the whole Diploma
- A schedule of delivery and assessment/ scheme of work
- Consideration as to whether the strategy prepares learners for Higher Education

In order to achieve the Diploma, learners must meet all Learning Outcomes and associated Assessment Criteria in all units approved in the Diploma specification.

Each Assessment Criterion must be assessed only once. For graded units, a grade can only be determined upon completion of all unit learning outcomes.

There are three Grading Standards which must be applied equally to all units and all assessments within graded academic units. The three grading standards are:

1. Knowledge and Understanding
2. Subject Specific Skills
3. Transferable Skills

For more information on grading, please see the Provider Handbook or visit the QAA website here.

A variety of assessment methods should be used which will allow learners the opportunity to develop experience and skills required for HE study.

Where a unit is assessed by more than one assignment, the assessment strategy must clearly state which graded descriptors will be considered for each assignment and how you will apply a single grade for the unit.

Assessment practices must reflect the Equality and Diversity Policy of Open Awards. Reasonable adjustments may be required for individual learners to enable them to undertake assessments fairly. Please see our Reasonable Adjustments and Special Considerations Policy for more information.

Preparing Assignments

One of the many benefits of an Open Awards Access to HE Diploma is that tutors design the assignments for their own provision to suit the context of delivery and to make the most of the variety of assessments methods available in individual circumstances. Please see our Access to HE Provider Handbook for more information

Drafts, Submissions and Re-submissions

It is a requirement that you publish procedures for the formal submission of work for assessment in your course handbook. These procedures must be the same for all the Access Diplomas that you are approved to deliver.

Please see our Access to HE Provider Handbook for more information

Internal Verification

Internal verification is a process by which the provider systematically samples and evaluates its assessment practices and decisions, and acts on the findings to ensure consistency and fairness. The main purpose is to improve and standardise practice in the assessment of learners.

The Access to HE Coordinator must take responsibility for internal verification of all Access to HE Diplomas at your organisation and we will expect that you have the appropriate levels of resources to implement these processes.

Verification activities must include:

- Pre-delivery verification
- Verification of achievement

Internal Standardisation

Standardisation is a vital component of any robust quality assurance system and as a condition of provider approval all Open Awards Access to HE providers agree to participate in standardisation activities.

Where more than one tutor / assessor makes assessment decisions and recommendations for the award of credit to learners on the same Diploma or similar courses it is essential that internal verification processes include the standardisation of their practice.

Open Awards expect providers to plan and undertake standardisation of internally- set tasks and the outcomes of internal assessment **at least twice a year**.

Please see our Access to HE Provider Handbook for more information on verification and standardisation activities required.

External Standardisation

Standardisation is a vital component of any robust quality assurance system and as a condition of provider approval all Open Awards Access to HE providers agree to participate in standardisation activities, both internally and externally.

Open Awards runs a series of standardisation activities that are accessible to all Access to HE providers.

Open Awards runs live standardisation events for each pathway to allow practitioners to peer review and learn from each other through networking. We are aware that some staff may wish to participate in standardisation activities but will be unable to attend events at the Open Awards office.

We also offer online standardisation activities. You will be provided with access to an online repository of standardisation activities, training and opportunities to share best practices.

For more information on each of these processes, please see the Access to HE Provider Handbook.

Training and support

Open Awards offers a variety of training and support to Providers. Our online training and support is free of charge and can be accessed on the following link ehttps://oalearn.org.uk/shop. An everlasting coupon (PLUC code) will be issued to each Provider to gain free access to these resources.

Recognition of Prior Learning and Achievement (RPL)

Learners presenting evidence of accredited prior learning on non-Access courses can apply for exemption for credit on relevant Level 2 and Level 3 units where appropriate.

Learners who have achieved Access to HE Diploma credits (either from Open Awards or another AVA) may wish to claim credit towards an Open Awards Diploma. Credit transfer is dependent on the content of the unit/s from which those credits were gained matching the content of the unit/s for which they wish to claim.

For more information, please see our Recognition of Prior Learning Policy found on the Portal.

Appendices and Links

The following documents can be viewed on the Open Awards website:

1. Provider Handbook
2. Enquiries and Appeals Policy and Procedures
3. Complaints Policy
4. Equality and Diversity Policy
5. Invoicing Policy
6. Privacy Policy
7. Reasonable Adjustments and Special Considerations Policy and Procedures

Additional supporting documents can be viewed in the Open Awards Portal.

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