

Mathematics and Lifeskills Mathematics



This update contains information relevant to your subject and details of the support available to you.

We also publish updates on the new National Courses in the 'Updates and Announcements' section of the relevant **subject pages**. I would encourage you to make regular use of our subject pages, where you will find support documents, answers to common questions, and links to other areas of interest. You can also sign up for 'My Alerts', SQA's e-mail update service, that notifies you whenever content you are interested in is added or updated on SQA's website. Visit **www.sqa.org.uk/myalerts** to register.

I hope you find the following update helpful, and please contact me if you have any questions.

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Documents and assessment support materials

Assessment support materials are now available for the new National 1 to Advanced Higher Qualifications, marking a significant milestone. It is important that you read the full suite of documents for your Course, as well as those relating to assessment.

Further information on documents and assessment support materials can be found at www.sqa.org.uk/supportdocuments

Updates to documents

Advanced Higher documents

We are making planned updates to Advanced Higher documents. This follows the publication of Advanced Higher Specimen Question Papers, Coursework information and Unit assessment support packs. The updated Advanced Higher **Unit Specifications**, **Course Specifications** and **Course Assessment Specifications** are available now.

We will also update the Advanced Higher **Course and Unit Support Notes**, and finalise all packages of Advanced Higher **Unit assessment support** by the end of May 2015.

The draft Advanced Higher Unit Specifications, Course Specifications and Course Assessment Specifications were originally published in 2013. Following feedback and development of assessment support material, significant changes were made to these documents. Centres are encouraged to download and use the most up-to-date documents.

The mandatory content of all three Courses has been reviewed and updated:

Advanced Higher Mathematics

- The following areas of study are now assessed: proof by contrapositive and (non-stationary) points of inflexion.
- The following area of study is not in the new Advanced Higher Course: iterative schemes.

Advanced Higher Mathematics of Mechanics

- The following areas of study are new to this Course: centre of mass and second order differential equations.
- The following areas of study are not included in this Course: binomial theorem; summation formula and matrix algebra.

Advanced Higher Statistics

- The following areas of study are new to this Course: a definition of outliers; comparing simulations with theoretical models; WECO rules for control charts; estimating with bivariate data; coefficient of determination and new hypothesis tests.
 - There is no longer a Mathematics for Applied Mathematics Unit.
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There will be a formula sheet introduced for both Mathematics and Mathematics of Mechanics. These have been designed to be specific for each Course.

An updated data booklet will also be produced to meet the requirements of the Statistics Course.

Transfer of evidence

Candidates who achieve the Units: Methods in Algebra and Calculus, and Applications of Algebra and Calculus from the Advanced Higher Mathematics Course can use these as evidence for achieving the Mathematical Techniques for Mechanics Unit from the Advanced Higher Mathematics of Mechanics Course.

Further details of changes to Advanced Higher documents are outlined in the **January 2015 subject update**. The Notification of Changes spreadsheets have been updated to reflect the latest changes to documents. You can view these spreadsheets at **www.sqa.org.uk/cfesubjectchanges**

National 3 to Higher documents

We have updated one published document, the National 4 Lifeskills Mathematics Added Value Unit Specification, following feedback from centres and verification activities.

An overview of the changes to the National 4 Lifeskills Mathematics Added Value Unit Specification is provided below:

- The list of topics which can be included has been widened and the criterion for the construction of the test has been reworded.
- A 60% threshold has been introduced to bring this assessment in line with the equivalent National 4 Mathematics Added Value Unit.
- Both the original Added Value test and the additional bank of questions will be amended accordingly.

Where required, Course and Unit Support Notes will be updated to correspond with these changes. Updated Course and Unit Support Notes will be published by the end of May 2015.

The Notification of Changes spreadsheets have been updated to reflect the latest changes to documents. You can view these spreadsheets at **www.sqa.org.uk/cfesubjectchanges**

Changes to Unit Assessment Support (UAS) packs

Minor amendments, mainly relating to marking guidance, to Unit assessment support packs will be published in August 2015. A list of the UAS packs and a summary of amendments is listed below:

National 4 Lifeskills Maths

Managing Finance and Statistics, package 1 Unit-by-Unit approach: marking guidance for question 4 will be revised; marks for questions 2a and 2b will be reallocated.

Managing Finance and Statistics and Numeracy, package 2 combined approach: Record of achievement will be amended — the threshold for Managing Finance and Statistics Outcome 1 will be corrected. In task 1a, the diagram size will be increased. In task 4, the wording will be

amended in the question. The marking guidance for the strategy mark for question 1c will be amended.

National 4 Mathematics

Expressions and Formulae, package 1 Unit-by-Unit approach: marking guidance for questions 5, 6, 7 and 10 will be amended.

Relationships, package 1 Unit-by-Unit approach: marking guidance for question 12a will be amended — the degree symbol will be removed from the final answer.

National 5 Lifeskills Mathematics

Managing Finance and Statistics, package 1 Unit-by-Unit approach: marking guidance for question 4 will be amended.

Geometry and Measures, package 1 Unit-by-Unit approach: marking guidance for questions 4 and 7b will be amended.

National 5 Mathematics

Expressions and Formulae, package 1 Unit-by-Unit approach: marking guidance for question 1 will be amended.

Applications, package 1 Unit-by-Unit approach: marking guidance for questions 1, 3, 6, 7, 8 and 9 will be amended. Question 3 will be amended to remove the sentence regarding accuracy of answer.

Relationships, package 1: Unit-by-Unit approach: Geometric Skills: Pythagoras' theorem — phrase will be added to clarify requirement.

Higher Mathematics

Applications, package 1: Unit-by-Unit approach: notes in questions 3, 8, 9 and 10 will be amended.

Expressions and Functions, package 1 Unit-by-Unit approach: marking guidance for question 10b will be amended.

Expressions and Functions, Relationships and Calculus, Applications, package 2a combined approach: Expressions and Functions: Assessment Standard 1.3 — threshold will be amended to 9 out of 16. Task A: marking guidance for question 6 will be amended and task C: notes for questions 8 and 9 will be amended.

Expressions and Functions, Relationships and Calculus, Applications, package 2b: combined approach: task A: marking guidance for question 6 will be amended and task C: notes for questions 8 and 9 will be amended.

Expressions and Functions, Relationships and Calculus, Applications, package 4 combined approach: threshold for Expressions and Functions, Assessment Standard 1.3 will be adjusted. Amendments will be made to the notes for task C, questions 6, 7 and 9.

National 4 and 5 Mathematics analysis grids

Analysis grids for the National 4 Added Value Units for Mathematics and Lifeskills Mathematics and also for National 5 Mathematics and Lifeskills Mathematics are now available on SQA's website. The grids can be found in the Related Information sections of the **National 4 and National 5 Mathematics** and **Lifeskills Mathematics** web pages.

These documents are intended to help teachers/lecturers ensure that centre-devised assessments are balanced across the two papers and across the three Units.

Full details for the individual assessments can be found in either the relevant Added Value Unit assessment documents or the National 5 Course Assessment Specification documents.

Looking ahead to 2015/16

Understanding Standards

In June 2015, we will publish further Understanding Standards packs for National 1 to Higher, which will contain candidate evidence and commentaries for Unit assessment and internally assessed Components of Course assessment.

The Understanding Standards programme will continue throughout session 2015/16, and will include Nominee training events, Understanding Standards events for National 5 and Higher, and Understanding Standards packs.

A Nominee training event for Mathematics will take place on the following date:

- 22 September 2015

Understanding Standards events for National 5 and Higher Mathematics will take place on the following dates:

- 11 November 2015 in Aberdeen
- 1 December 2015 in Edinburgh
- 11 December 2015 in Glasgow

For more information on Understanding Standards, visit **www.sqa.org.uk/understandingstandards**

Continuing Professional Development support

We will continue to offer subject-specific CPD support for new National Courses, where particular areas of concern are identified that are not already addressed by the Understanding Standards programme.

From August 2015, we will also offer subject-specific CPD support to assist teachers and lecturers with the implementation of the new Advanced Higher Courses.

Use of National 4 Added Value Units

From August 2015 onwards, you will have the option of developing your own National 4 Added Value Unit assessments for use with candidates. Please note that this is not a requirement and you can continue to use SQA-produced Added Value Unit assessments until further notice. Most SQA-produced Added Value Unit assessments already allow considerable flexibility in the choice of a context for the assessment, while some provide a context that you can change.

Further information can be found at www.sqa.org.uk/unitassessment

Advanced Higher Exemplar Question Papers

In December 2015, we will publish Exemplar Question Papers for all new Advanced Higher Courses that include a question paper as part of the Course assessment.

Further information on Exemplar Question Papers, and other available assessment support materials, can be found at www.sqa.org.uk/supportdocuments

Contact SQA

For centre enquiries, please contact our Customer Support Team:

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