

Mathematics



This update focuses on the development of Advanced Higher, with information relevant to your subject and details of the support available to you.

Updates regarding National 3 to National 5 and Higher can be found 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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Assessment support

Package 1 of Unit assessment support for Advanced Higher is available now from SQA's secure website. You can arrange access to secure materials through your SQA Co-ordinator; these must be stored securely and treated as confidential.

Over the coming year, we will publish the following assessment support materials for Advanced Higher Courses:

January 2015	Course Comparison document Guidance on the use of past papers
February 2015	Specimen Question Papers and Marking Instructions Unit assessment support package 2
March 2015	Coursework information
April 2015	Unit assessment support package 3
December 2015	Exemplar Question Papers and Marking Instructions

Updates to documents

We will make planned updates to the Advanced Higher documents, following the publication of Advanced Higher Specimen Question Papers, coursework information and Unit assessment support packs. We will also finalise package 1 of Unit assessment support, following the publication of packages 2 and 3.

The schedule for publishing the updated documents is as follows:

April 2015	Mandatory documents (Unit Specifications, Course Specifications and Course Assessment Specifications)
May 2015	Advice and guidance documents (Course and Unit Support Notes) and Unit assessment support packs

These updates are to ensure consistency between the assessment support materials, advice and guidance documents and the documents containing mandatory information.

The Notification of Changes spreadsheet will be updated for Advanced Higher following the publication of any revised documents.

Planned changes to Advanced Higher Mathematics documents:

Course Assessment Specification

The Course Assessment Specification will be amended to incorporate changes to the mandatory content:

- **Methods in Algebra and Calculus**
 - Outcome 1 will be changed to 'Use mathematical operational and reasoning skills linked to methods in algebra and calculus'.
 - Assessment Standard 1.2 — the sub-skill 'Differentiating exponential and logarithmic functions' will be added. 'Differentiating functions using the product rule' and 'Differentiating functions using the quotient rule' will be merged to 'Differentiating functions given in the form of a product and in the form of a quotient'.
 - Assessment Standard 1.3 — the sub-skill 'Integrating proper rational functions' will be removed and will be tested under the sub-skill 'Integrating expressions using standard results'.
- **Applications in Algebra and Calculus**
 - Outcome 1 will be changed to 'Use mathematical operational and reasoning skills linked to applications in algebra and calculus'. Outcome 2 will be removed.
 - Assessment Standard 1.1 — the sub-skill 'Expand expressions' will become 'Expand expressions using the binomial theorem' and the sub-skills 'Performing operations on complex numbers' and 'Evaluating the modulus and argument' will be combined to 'Performing algebraic operations on complex numbers'.
 - Assessment Standard 1.4 — the sub-skill 'Sketching the graph of a rational function including appropriate analysis of stationary points' will be amended to 'Investigating features of graphs and sketching graphs of functions'.
 - Assessment Standard 1.5: will change from 'Applying algebraic and calculus skills to motion and optimisation' with the sub-skills 'Applying differentiation to rectilinear motion' and 'Applying differentiation to optimisation' to 'Applying algebraic and calculus skills to problems' with the sub-skills 'Applying differentiation to problems, in context where appropriate' and 'Applying integration to problems, in context where appropriate'.
- **Geometry, Proof and Systems of Equations**
 - Outcome 1 will be 'Use mathematical operational and reasoning skills linked to geometry, proof and systems of equations'. Outcome 2 will be removed.
 - Assessment Standard 1.1 — the sub-skill 'Using 2 x 2 matrices to carry out geometric transformations in the plane' will be removed as this will not be tested at Unit level. It can still be tested at Course level.
 - Assessment Standard 1.3 — the sub-skills will be combined to the sub-skill 'Performing geometric operations on complex numbers'.
 - Assessment Standard 1.5 — the sub-skill 'Using indirect proof' will be amended to 'Using direct and indirect proof in straightforward examples'.

It is important that staff delivering the new Advanced Higher Courses in session 2015-16 read the full suite of documents for their subjects, as well as those relating to assessment. We also advise staff attending the Advanced Higher support events to read these documents in preparation.

For more information on documents and assessment support materials, visit www.sqa.org.uk/supportdocuments

Support and guidance

Following consultation and feedback from stakeholders it has been agreed that a formula sheet will be made available to candidates for use during assessment. The formula sheet should act as an 'aide memoire' to candidates undertaking assessment and should not be regarded as a substitute for learning and understanding.

Looking ahead to 2015–16

The new Advanced Higher Courses go live from August 2015. SQA will continue to work closely with centres throughout the implementation of these Courses to ensure you have the support you need to prepare your learners for assessment.

We will also work closely with centres during the verification process to identify exemplar materials for Advanced Higher that can be shared with you, to help enhance your understanding of the standards required.

A series of implementation events for Mathematics & Mathematics of Mechanics will take place on the following dates:

- 6 March 2015 (Glasgow)
- 13 March 2015 (Stirling)
- 20 March 2015 (Inverness)
- 27 March 2015 (Aberdeen)
- 2 April 2015 (Edinburgh)

A separate implementation event solely for Statistics will take place on:

- 1 April 2015, Edinburgh

If you wish to attend any of these events, please follow this [link](#).

Contact SQA

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