



NQ Verification 2017–18

Key Messages Round 2

01

Section 1: Verification group information

Verification group name:	Engineering Science
Verification event/visiting information	Event
Date published:	May 2018

National Courses/Units verified:

C723 Higher Engineering Science Assignment (IACCA*)
C723 Advanced Higher Engineering Science Project (IAACA*)

*Internally-assessed component of course assessment

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Section 2: Comments on assessment

Assessment approaches

It is mandatory to use SQA-produced assessments for course assignments/projects at all levels. All centres verified this session used SQA-produced assessments.

However, please note, when candidates progress from Higher to Advanced Higher level, there should be progressively less scaffolding from the class teacher/lecturer. Where there is assistance, this must be noted on the marking sheet and in the Record of Progress. Mark allocations must reflect any assistance given.

Assessment judgements

Of the centres verified, fewer centres demonstrated an understanding of national standards than last session (ie a smaller number achieved an 'accepted' outcome).

In the course assessments, for all levels, no observational evidence is permitted and marks can only be awarded where clear evidence is present.

The current assignment/project from the secure area of SQA's website must be used.

Assessment must be based on whether the work truly demonstrates application of knowledge at the level being assessed. For example, at Higher, either two-state or proportional closed-loop control in the form of a control diagram is expected.

Further advice is provided on the following areas of the assignment/project:

- ◆ To attain a high mark in the Record of Progress, sufficient depth must be supplied to demonstrate the application of skills at that level.
- ◆ Candidates must demonstrate the use of knowledge or strategies which are appropriate for the level, eg at Higher, mechanical calculations should not just rely on gear ratios (this is National 5 standard), and should include other calculations, such as torque.
- ◆ At Advanced Higher, mathematical modelling or calculations must be to a minimum of the level required for Higher (SCQF level 6) Mathematics. A list (not exhaustive) of suggested appropriate strategies is contained in the project, in Appendix 1: Instructions and guidance for candidates.

Further advice is provided on the following areas:

- ◆ At Higher level, systems and control diagrams, mechanical and structural design (of a level appropriate to the course content — see second bullet point above) — testing and evaluations were not assessed correctly.
- ◆ At Advanced Higher level, research, project planning, and mathematical modelling were not assessed correctly.
- ◆ It is helpful to the verification process if centres provide justification of why a mark was awarded, signposting where to find the evidence and giving clear detail on the amount of teacher support given.

Understanding Standards materials are available for Higher and Advanced Higher levels from SQA's secure area of the website, which centres should refer to for further clarification.

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Section 3: General comments

In round 2, one visit took place and 24 centres were verified at a central event. All of these centres were verified at Higher level and five centres were also verified at Advanced Higher level.

It is crucial that centres demonstrate effective use of their internal verification procedures. It is not enough to merely cross-mark the candidates' work — centres should show what impact their internal verification procedures have had.