



**Higher National Qualifications 2011
Internal Assessment Report
Mathematics and Statistics**

The purpose of this report is to provide feedback to centres on verification in Higher National and/or Scottish Vocational Qualifications in this subject.

Higher National Units

1	DE3M 35	Statistics for Business	(2)
2	F84K 34	Statistics for Business	(1)
3	DG4L 34	Mathematics for Engineering 2	(2)
4	DN8C 34	Statistics for Science	(1)
5	DW4F 33	Mathematics for Construction	(1)
6	A5NR 34	Mathematics for Business	(1)
7	DT5X 33	Mathematics for Engineering 1: Mechanical and Manufacturing	(1)
8	DG4H 33	Mathematics for Engineering 1: Electronics and Electrical	(1)
9	F0M0 34	Navigational Mathematics and Science	(1)

The figures in brackets (*) indicate the number of centres in which this Unit was externally verified.

Note: F0M0 34 was externally verified, at the request of SQA, by the Senior Verifier, although this Unit does not reside within Verification Group 142.

General comments

Units 1, 2, 3, 4, 5, 7 and 8 have associated assessment exemplar packs (AEPs), and these were being used in the centres offering the Units. Unit 6 has exemplar questions contained within the Unit specification. The centre offering this Unit had produced its own instruments of assessment (IAs) for the Unit, and these were considered appropriate and satisfactory. Unit 9 does not have an AEP associated with it but the centre had devised a set of IAs that comprehensively addressed the requirements of the Unit specification and the Group Award for which the Unit is a constituent part. Centres are therefore aware of national standards in relation to assessment requirements. The same cannot, in all cases, be said of assessment practices and decisions. While no centre had a Hold placed on its assessment judgements and results, it was necessary to comment on the rigour and quality of marking and recording of results in some cases. The comments made were supportive in nature, constructively critical and reflected the desire by verification group members to maintain appropriate and acceptable national standards within the verification group. The advice provided was received positively.

Unit specifications, instruments of assessment and exemplification materials

All centres visited this session for external verification purposes were using the most up-to-date Unit specifications downloaded (in most cases) from SQA's website. As noted above, centres were using AEPs where these were available and centre-devised IAs adhered to the Unit specification Evidence Requirements. Assessors were clear on the requirements required of them in the delivery and assessment of the Units involved, and all were enthusiastic in their delivery activities, even under the constraints and centre resourcing (employment) difficulties currently being experienced.

Evidence Requirements

Again, as noted above, there is a very clear understanding among assessors of the Evidence Requirements for the Units delivered and verified. It was interesting to see assessors using their professional judgement in borderline cases to ensure that candidates were not in any way disadvantaged. Where a centre had devised its own IAs, these clearly could be mapped back to the Unit specification and Evidence Requirements. Candidates were being assessed fairly.

Administration of assessment

Centres using AEPs are clearly using IAs at the appropriate level. The two centres visited that had devised their own IAs, had had these internally verified prior to their use with candidates, and this was documented and inspected during each visit. Unit 6 (above) was being delivered to open learning candidates and the IAs had been contextualised for the environment in which the candidates were operating while, at the same time, addressing the exemplar questions available within the Unit specification. Unit 9, while not resident in VG142, had a set of extremely robust IAs devised to thoroughly address the highly specialised nature and requirements of the Unit specification and its related Group Award.

Assessments had been conducted in a fair and equal manner — the conditions of assessment had been clearly specified on the fronts of IAs. Associated material for use within the assessment was also, in general, stated.

Some centres had employed double-marking and/or blind-marking of assessment submissions, and these had been sampled by the Internal Verifier (IV). Some centres arranged that the IV initialled or stamped submissions which had been sampled for IV purposes. In general, it was felt that IV procedures were being applied appropriately and acceptably in the centres visited this session.

General feedback

Feedback to candidates

This was considered to be good. Centres that were visited appended comments on candidate submissions, and most provided personal assessor feedback on errors and points to note, especially if re-assessment was required.

Feedback from candidates interviewed

It was not always possible to interview candidates during external verification visits, due to the attendance patterns of the candidates involved. Those candidates interviewed were most positive about the quality of delivery and support that they had received from assessors, especially where the use of software, to complement delivery, or in assessment, was concerned. Their experience(s) were considered to be positive in this respect.

Access to assessment

None of the external verification visits carried out in session 2010–11 identified that centres were operating unfair access to assessment arrangements. Some were operating open learning arrangements, with supervised assessment sessions negotiated with candidates, and others were operating assessment on demand, where appropriate.

Other points which are recurring and are considered significant

- ◆ Centres were asked to ensure, for consistency, that all candidate scripts should clearly show where marks were being awarded, even when calculations, descriptions and diagrams were completely correct.
- ◆ Marking schemes should be as expansive as possible — showing exactly where marks are being awarded and how many.
- ◆ Re-assessment should consist of a new IA rather than a candidate ‘making good’ an initial attempt, with appropriate IV activity on the resubmission.
- ◆ Centres were asked to ensure that marks are totalled correctly on candidate submissions.

Areas of good practice

The following points were noted during the visits carried out this session:

- ◆ Integration of delivery of mathematical topics within other Units and contexts
- ◆ Frequency of IV activity and the robustness of the procedures employed
- ◆ More extensive use of relevant software being made
- ◆ Level of IV sampling is appropriate and, in some cases, is 100%
- ◆ Open-door policy operated by assessing staff
- ◆ Support provided — tutorials, subject clinics, workshops, etc
- ◆ Standardisation of the setting-out of specialised calculations
- ◆ Customer focus perceptible in centres

Specific areas for improvement

In general, it was felt by all members of the verification group that centres were operating and assessing to national standards. No one area stood out as requiring particular attention.

Centres were, however, advised to have available a suitable ‘bank’ of re-assessment IAs based on AEPs where appropriate, and to have these prior verified. Centres were also asked to ensure that the calculation of total marks is carried out correctly.