



**Higher National Qualifications 2011
Internal Assessment Report**

Applied Science

The purpose of this report is to provide feedback to centres on verification in Higher National Qualifications in this subject.

Higher National Graded Units

Titles/levels of HN Graded Units verified

HN Applied Sciences: Graded Unit 1

HN Applied Sciences: Graded Unit 2

General comments

Centres have a clear and accurate understanding of the national standards and aim to put these into practice.

Unit specifications, instruments of assessment and exemplification materials

The four centres visited for Graded Units 1 and 2 were familiar with the Unit specifications and were using the exemplar checklists prepared by SQA for assessing and marking candidate scripts.

Evidence Requirements

One centre found certain items in the marking checklist ambiguous and sought advice from the visiting External Verifier (EV).

In the Evaluation section in Graded Unit 2 where 'strengths and weaknesses of the output' need to be stated in the report, it is frequently misunderstood by both the assessor and the candidate that this item is referring to evaluation of the project and report — and not to personal strengths and weaknesses of the candidate. The purpose of evaluation was misunderstood in some centres and needs to be clarified to candidates.

Administration of assessments

One centre was visited for Graded Unit 1 and three were verified for Graded Unit 2. All the centres were administering assessments and using the prescribed checklists for marking in accordance to SQA's Unit specifications.

The Biology EVs have noted that there is a great variation in the quality of Graded Unit awards from centre to centre. Many Grade A passes are not of the same standard as the marking schemes being used allow candidates to achieve the required marks over a wide range.

Assessors were at times over generous in their allocation of marks but the marks awarded were within the remit of the marking schemes. There is a need, therefore, for centres to utilise the 'A' grading versus the 'C' grading list in the Unit specifications more thoroughly.

Centres need to ensure that the choice of project topics and the level of detail for both practicals and report writing for Graded Unit 2 are appropriate for a level 8 Unit.

Some centres visited had cross-referenced mark allocations on the candidate scripts with individual candidate checklists which greatly aided both internal and external verification. It is essential that all scripts are annotated to show where the individual marks are being allocated. This was not found to be the case in two of the colleges visited for Graded Unit 2.

Judgement of candidate performance was generally fair but some inconsistencies in mark allocations were noted in a few cases where different candidates were awarded different

marks for the same amount of information, or where marks were awarded twice for the same facts.

Records of internal verification were not available at the time of an external verification visit at one centre, although verbal assurance was given that standardisation of assessment decisions had taken place but needed to be recorded.

In most centres, Internal Verifiers cross-marked a sample of scripts when the projects and reports were complete. Where two candidate groups had different assessors, all the assessment papers were cross-marked by both assessors to ensure standardisation of grades.

Further general feedback

No candidates were interviewed during EV visits but feedback by assessors to candidates was clear and timely when given. However, assessors are reminded of the need to keep records of the help and advice given to candidates as work progresses through the Unit.

A 'Quality and Equality of Learning and Teaching Materials' checklist was available and completed at one centre, and all centres visited had facilities in place for students with learning difficulties. Additional assessment arrangements are provided by using readers, scribes and assessment materials in alternative formats when needed. In one case, a foreign student was granted extra time to complete their report because of language difficulties.

An item in the Development stage of the Graded Unit 2 marking checklist 'Demonstrates appropriate use of one or more types of instrumentation/equipment to a complex level and a high standard' is not always easy to fulfil in any practical work chosen by the candidate because it depends on the choice of project. Also, it cannot always be fulfilled because centres may not have suitable or sufficient items of equipment. Assessors need to give advice as to how the candidate should achieve this item.

Areas of good practice

- ◆ Candidate investigation brief provided with guidelines for candidates on report writing and referencing.
- ◆ Student checklist version of SQA's checklist provided to candidates to help them structure their project/reports.
- ◆ PowerPoint presentation outlining the content of each stage of the Graded Units.
- ◆ Candidates starting work on the Graded Units in Semester 1.
- ◆ Choice of topics for research/practicals which were not too demanding in terms of time and resources and which were of personal interest to the candidate for Graded Unit 1.
- ◆ A wide variety of different topics chosen for Graded Unit 2 using a variety of analytical techniques.
- ◆ Photographic records of experimental evidence included in some reports for Graded Unit 2, which was most helpful for external verification.
- ◆ Some projects incorporated the use of IT for the conversion of raw data into tabular graphical form for Graded Unit 2.
- ◆ One centre provided science notebooks for Graded Unit 2 for recording all data and workings, etc as a log of candidate work, which was available for external verification.

- ◆ Quality improvement meetings held during the session for different members of staff assessing the Unit to ensure standardisation of assessment decisions.
- ◆ Cross-marking a sample of assessment reports and projects by the Internal Verifier.
- ◆ Excellent signposting of marks allocated on assessment scripts to items on the SQA marking checklist. One centre used different coloured pens to match mark allocations on assessment scripts and checklists, which greatly aided internal and external verification.

Specific areas for improvement

- ◆ Advice needs to be given to candidates about the Evaluation stage and its purpose.
- ◆ Signposting of all mark allocations on the assessment scripts and checklists — not carried out by some centres.
- ◆ Advice to candidates about the correct method of scientific referencing.
- ◆ Plagiarism advice to candidates to ensure that reports are the candidates' own work.