



**Higher National Qualifications
Internal Assessment Report 2016
Mechanical and Manufacturing
Engineering**

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

Higher National units

General comments

Five verification visits took place this session.

HN Units verified:

DR1W 34	Engineering Drawing
DR2D 34	Safety Engineering and the Environment
DT9T 34	Dynamics
DR3L 34	Engineering Principles
DT9P 34	Thermofluids
DT5T 35	Heat Transfer and Fluid Mechanics

Each visit outcome rating was 'significant strengths'.

Unit specifications, instruments of assessment and exemplification materials

In each case centres were using the appropriate unit specifications. All instruments of assessment were valid.

There was clear evidence of centres circulating comments made by qualification verifiers.

Evidence requirements

All evidence verified at visits met the requirements of the unit specifications.

Administration of assessments

All assessments arrangements were deemed appropriate.

General feedback

Overall, centres are delivering these units successfully — evidence of some good practice was found.

Areas of good practice

The following instances of good practice were noted:

- ◆ Innovative project topics
- ◆ Close management of group projects
- ◆ Involvement of candidates in post-project team review
- ◆ Provision of course material in different formats and languages
- ◆ Additional language support
- ◆ The use of formal mid-block/semester candidate progress reviews

Specific areas for improvement

Ensure clarity in unit review documentation.

Higher National graded units

Titles/levels of HN graded units verified:

DV11 34	Mechanical Engineering: Graded Unit 1
DV13 34	Manufacturing Engineering: Graded Unit 1
DV12 35	Mechanical Engineering: Graded Unit 2

General comments

Two successful visits were made to verify DV12 35.

Graded Unit 1 material from eight centres was centrally verified

Unit specifications, instruments of assessment and exemplification materials

In each case the unit specifications used were valid. Each Graded Unit 1 paper had been prior verified.

A number of project topics introduced welcome innovation, all were valid.

Evidence requirements

Graded Unit 2 evidence, in the form of documentation and physical objects, was valid.

There was one instance of marking revisions being required for a Graded Unit 1 paper; this was accepted after re-marking.

Administration of assessments

Conduct of project delivery was valid.

General feedback

Some aspects of Graded Unit 1 marking gave some concern that candidates could have been disadvantaged in regard of their valid answers to numerical problems being marked down because they did not match the Graded Unit 1 marking scheme. This was corrected after the central verification event.

Areas of good practice

The following instances of good practice were noted:

- ◆ Innovative project topics
- ◆ Close management of group projects
- ◆ Involvement of candidates in post-project team review

Specific areas for improvement

Ensure valid alternative answers are marked in relation to the problem posed, not only in relation to the marking scheme.