



**Higher National Qualifications
Internal Assessment Report 2012
Mechanical 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

All the centres that were visited this year had a clear and accurate understanding of the requirements of the national standards and were experienced in delivering the HN Mechanical Engineering Units.

Unit specifications, instruments of assessment and exemplification materials

All assessors within the centres visited were familiar with the Unit specifications, instruments of assessment and exemplification materials relating to the Units delivered.

Furthermore, all assessors demonstrated a wide knowledge and experience of using and interpreting the course documentation and materials, embedding their extensive industrial experience to enrich course content and teaching methods.

In line with good practice, centres supplied details of course meetings in which staff shared ideas and good practice from within each department.

No centre visited this session was subject to a 'Hold' on certification, confirming that all assessment decisions were reliable and valid.

Evidence Requirements

The centres visited during 2011–12 demonstrated a clear understanding of the Evidence Requirements of all the Units to be delivered.

In all cases, centres had candidate materials available for verification and these were deemed to be of an appropriate standard.

Administration of assessments

The assessments used in centres were deemed to be of an appropriate level, with centres demonstrating robust control and administration of assessments.

Internal verification procedures demonstrated good control of assessments and materials. In all cases, robust internal verification systems were being employed to ensure candidate work met the national standards.

Further evidence was shown that a number of centres engaged in cross-marking or second marking of candidate evidence to ensure all work met the college internal verification procedures and national standards.

General feedback

All centres employed a variety of feedback mechanisms to ensure candidates gained feedback on their performance whilst on the course.

Due to the timing of the visits, some candidates were interviewed. However, in all cases, as noted through their feedback, all candidates enjoyed their course work and were actively involved in their subject matter.

All centres employed excellent access to their assessments and no barriers were identified during any visit.

Areas of good practice

A number of centres combined assessments allowing candidates to demonstrate their understanding of the subjects taught through one assessment process. This allowed a balanced approach to learning, ie theory backed-up with practice. Where possible the use of live risk assessments within the lesson to develop student skills and understanding of safety within engineering were employed to enhance the learning.

Some centres are now using an online system to allow access to all the paperwork required for the verification visit.

One centre made good use of marking booklets for student responses, which helped with clarity and eased marking.

Good use is being made of the online CMMS (Computer Maintenance Management System) software to enhance learning, with current topics used for projects relating to a number of engineering issues. Some active industrial-based project work featured individual companies and issues they were facing.

Specific areas for improvement

If not already doing so, centres are encouraged to develop closer links with other colleges to utilise equipment and staffing to develop the curriculum in line with industry needs.

Higher National Graded Units

Titles/levels of HN Graded Units verified:

DV11 12 Mechanical Engineering Graded Unit 1

DV12 35 Mechanical Engineering Graded Unit 2

General comments

All the centres that were visited this year had a clear and accurate understanding of the requirements of the national standards and were experienced in delivering these Units. The work of one centre was centrally moderated.

Unit specifications, instruments of assessment and exemplification materials

All assessors within the centres visited were familiar with the Unit specifications, instruments of assessment and exemplification materials relating to the Units delivered.

Furthermore, all assessors demonstrated a wide knowledge and experience of using and interpreting the course documentation and materials embedding their extensive industrial experience to enrich course content and teaching methods.

In line with good practice, centres supplied details of course meetings in which staff shared ideas and good practice from within each department.

No centre visited this session was subject to a 'Hold' on certification, confirming that all assessment decisions were reliable and valid.

Evidence Requirements

The centres visited during 2011–12 demonstrated a clear understanding of the Evidence Requirements of all the Units to be delivered.

In all cases, centres had candidate materials available for verification and these were deemed to be of an appropriate standard.

Administration of assessments

The assessments used in centres were deemed to be of an appropriate level, with centres demonstrating robust control and administration of assessments currently used.

Internal verification procedures demonstrated good control of assessments and materials. In all cases, robust internal verification systems were being employed to ensure candidate work met the national standards.

Further evidence was shown that a number of centres engaged in cross-marking or second marking of candidate evidence to ensure all work met the college internal verification procedures and national standards.

One centre was selected for central verification to ensure standards are being maintained.

General feedback

All centres employed excellent access to their assessments with no barriers identified from any visit.

From all the feedback provided there is a recurring theme that students were all very enthusiastic about their overall college experience and the level, detail and the standard in presentation skills was of a high standard.

Areas of good practice

Within one centre, the Planning to Succeed document that the centre had produced detailing the time-line that candidates would be expected to complete for the main stages of the Project, along with the log book entries, was very beneficial to the candidates. This might also be improved if it were incorporated into the college's virtual learning environment (VLE) system to allow both the candidate and assessor to access it electronically.

The standard of the master folder was very good, specifically the numerous Project scope documents that were made available to the candidates prior to them undertaking the Project, all of which had been internally verified to ensure that there was enough academic content for the Projects to proceed.

Specific areas for improvement

Where possible, centres are encouraged to introduce the Project Management Unit to better prepare the candidates for the Graded Unit Project.

Where possible, the Project Assessor should concentrate on the Project without spending too much time on other Units.

Centres are recommended to introduce internal verification after the planning stage of the Project to ensure that the projects have a good academic range to give the candidates the maximum opportunity to achieve the best grade.

Look to develop closer links with other colleges to utilise equipment and staffing to develop the curriculum in line with industry needs.

Centres should consider the possibility of adopting the Grading Schedule used by the Engineering Systems and Marine Engineering Graded Unit 2 Projects as it allows for a better breakdown between the final Grades of the Project. This would allow standardisation across Graded Unit Projects within the Engineering sector.