



**National Qualifications 2011  
Internal Assessment Report  
Technological Studies**

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

# National Qualifications (NQ) Units

(Freestanding Units which contribute to NPAs or NCs etc.)

## Titles/levels of NQ Units verified

D185 Energy (Intermediate 2) — Central verification

D186 Applied Electronics (Intermediate 2, Higher and AH) — Central verification

D187 Systems & Control (Higher and Advanced Higher) — Central verification

D191 Technological Studies: Case Study Report (Higher) — Central verification

Unit	Number of centres	Number of candidates	Number of Accepted centres	Number of Not Accepted centres
D185 Energy	1	7	1	0
D186 Applied Electronics	7	80	4	3
D187 Systems & Control	6	59	4	2
D191 Technological Studies: Case Study Report	1	9	1	0

(Note: the verification sample from a centre may contain groups of any, or all, of the three levels.)

## General comments

The verification event this year sampled 15 centres and reviewed Applied Electronics and Systems & Control at all levels, Energy at Intermediate 2, and the Case Study Report Unit at Higher.

The marking of the structured question test (IA1) across all centres was well done and in line with national standards.

It was disappointing to note the rise in the number of Not Accepted decisions this year. Of the centres which did not accurately apply national standards, all six failed to adequately assess the evidence in support of practical activity (IA2).

A small, but significant, number of centres in the verification sample were still unsure of the requirements for the evidence in support of the practical activities (IA2) across all levels and applicable Units. Practical tasks rather than problems were issued and the standard of the candidates' evaluations were disappointing, with many generic statements such as 'the system worked'.

Centres were generally familiar with the instruments of assessment (IA) and they correctly applied national standards when assessing the structured question test (IA1). It was noted that a number of centres were using the older version of the NABs and are therefore submitting evidence which is no longer required for the formal assessment of a Unit. Additionally, a number of centres appeared to be unaware of the exemplar problem solving tasks held on SQA's website.

Centres clearly indicated on the evidence where marks were awarded and this aided the verification process. In addition, a number of centres included evidence of their internal verification procedures to confirm the reliability of the assessment decisions.

## **Areas of good practice/areas for improvement**

The majority of the successful centres in this year's verification sample had appropriate internal verification procedures to ensure reliability of their assessment decisions. In addition, they used the latest version of the NABs and followed the guidance on generating evidence for practical activities (IA2).

### **Areas for improvement**

Centres may wish to pay particular attention to quality of the evidence for practical activities (IA2) across all levels and applicable Units. Candidates are required to include: a valid problem statement, set at an appropriate level; simulation printout; wiring diagram/program listing, preferably with accompanying photograph; and a valid evaluation. Common issues with the IA2 evidence included: problems not demanding enough for the level of presentation, practical tasks rather than problems issued by the centre, and most commonly, inappropriate evaluations. Candidates, even at AH level, were still making generic statements and centres should ensure that all evaluations include appropriate comment on the system's performance against the given specification. It is also recommended that centres provide a range of problem tasks with a different one for every three candidates.

Centres are reminded that copies of all NAB material used by the candidates must be included with their verification evidence.

The secure area of SQA's website has the latest version of all the assessment material, including exemplar problems for IA2, and centres are advised to regularly review this material.