



**National Qualifications 2015
Internal Assessment Report
Skills for Work: Energy**

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

National Courses

Titles/levels of National Courses verified:

Skills for Work: Energy (National 5)

General comments

There were five centres externally verified during session 2014–15.

The majority of visits gave positive feedback on the standard of candidate responses, assessor marking and feedback to candidates.

There was an issue at a small number of centres where it was thought the level of written English could be improved. Staff were encouraged to correct spelling and grammar errors as well as the technical answers in assignments as this will help candidates to communicate clearly, reinforce an important employability skill, and help raise standards.

The use of centrally devised learning and teaching materials and SQA NABs led to a clear understanding of the national standard and this was clearly demonstrated at all centres.

Internal verification was found to be carried out to a satisfactory standard in all five centres.

Course Arrangements, Unit specifications, instruments of assessment and exemplification materials

All centres were using assessment materials produced by SQA and learning and teaching materials produced by SFEU. This has led to a very high level of standardisation across all centres.

The only issue raised from a small number of visits was that the assessment load was found to be burdensome. Discussions between staff and verifier deemed that this could be reduced without adversely affecting the quality of the qualification.

Evidence Requirements

The use of NAB materials has given all centres a 'template' to work from which ensures that the evidence provided meets the necessary standard.

Administration of assessments

All centres had internal verification processes in place. These processes included the verification of the instrument of assessment and the verification of the assessment decisions that had been made, to ensure that they were correct and consistent across the centre.

Internal verification records were usually paper-based and kept in a secure room. However, some centres kept them in digital form on a secure area on the centre's computer system.

Areas of good practice

Multiple systems

Multiple hot water, solar and wind turbine systems were used by some centres and this is seen as having a positive benefit to students. The engagement with different materials, designs and systems outputs gave them an enhanced view of the differences in these areas.

Practical work

Candidates undertaking the practical elements of the Course found them interesting and they derived a great deal of satisfaction from the design-build-test process that is used in the wind turbine and solar panel. Candidate evaluations were good, staff feedback was timely and accurate, and the final evaluation was a realistic view on student strengths which highlighted areas for improvement.

Additional learning

Candidates at one centre had the opportunity to learn more about the aerodynamic principles involved in wind turbine design. This was seen as an excellent extension of learning that gave students a greater understanding of the engineering principles used in the design and performance of aerodynamic structures.

Feedback to candidates

Some centres gave excellent candidate feedback (both written and digital depending on the type of assessment submitted). Feedback was detailed and typically gave guidance on what candidates should do to improve any future work.

Industry links

Industry sponsorship of women on courses, such as this, is seen as a way of helping the gender balance in engineering and technology. Programmes of learning and teaching are being run at different schools in the north-east of Scotland (with Shell being the main industry sponsor) and this is an excellent way of engaging women in engineering. These programmes are 'female only' with the specific purpose of encouraging more women into the oil/gas and renewable energy industries.

Assignments

The use of 'posters' in assessment work was seen as novel, innovative and progressive. This enhanced teamwork and further developed employability skills like design, group work and negotiation.

Specific areas for improvement

Written work

The standard of written work was poor in some cases; with spelling mistakes, bad grammar and generally poor descriptive work. Some candidate responses were lacking depth and answers could have been expanded to give more detail. Use of computers for written assessment work would have benefitted some candidates due to the use of a 'spell check', which could help raise the quality of written English.

There is a view that 'technical' qualifications only require the technical content to be right but this is erroneous. Engineers are expected to communicate using reports which are grammatically correct and which do not contain spelling mistakes.

Feedback on employability skills

Staff at a small number of centres need to make greater effort when giving feedback to candidates on employability skills. It has been suggested that staff give a higher priority to these skills, matching the standards they expect for technically based assessments or practical work. These skills should be seen as developmental, where candidates and staff work together to identify strengths and weaknesses and define ways to improve skills requiring further development.

Reduction in assessment load

Some centres commented that the Course had a heavy assessment workload. It was suggested that centres could develop other assessments that may be more appropriate to their needs as an alternative to making use of the NAB materials. (It is recommended that centre-developed assessments are submitted for prior verification.)

Referencing

Candidates should be encouraged to reference all work taken from the internet. This is good practice and will stand them in good stead as they progress on to higher levels of education.

Candidate feedback

Centres should ensure that all formal candidate work that is used for assessment purposes has written feedback. This ensures that candidates have a permanent record which they can refer to as a means of improving their work. Good feedback can also form discussion points between staff and candidates. This type of information is valuable when candidates undertake the Employability and Careers Unit where personal progression and development is being evaluated.