

NCFE Level 2 Certificate in Engineering Studies (601/4532/8)

Assessment window: 21 November – 02 December 2016

This report contains information in relation to the external assessment from the Chief Examiner, with an emphasis on the standard of learner work within this assessment window.

The aim is to highlight where learners generally perform well as well as any areas where further development may be required.

Key points:

- administering the external assessment
- standard of learner work
- referencing of external assessment tasks
- evidence creation
- interpretation of the tasks and associated assessment criteria
- planning in the external assessment.

It's important to note that learners shouldn't sit the external assessment until they've taken part in the relevant teaching of the unit to ensure they are well prepared for the external assessment.

Administering the external assessment

The external assessments must be independent from the teaching of the unit. Work completed during the teaching of the unit cannot be used in the external assessment. Any stimulus materials used by the centre during the teaching of the unit cannot be used in the external assessment. Learners must complete all of the tasks independently.

The completion of the timed tasks must be invigilated and sat in accordance with the Regulations for the Conduct of External Assessment - V Certs.

Standard of learner work

The standard of learners work had improved this series. Centres used manual and digital CAD techniques in the production of their drawings for Task 2 and 3. Learners tended to use only the lines provided within the exam booklets. They should be encouraged to use spaces provided outside those indicated and to request further blank sheets to insert. This would improve the depth of evidence provided by many and move grades into the merit and distinction level.

Referencing of external assessment tasks

The assessment criteria are clearly visible for each task and learners must be encouraged to refer to the grading criteria throughout the assessment to ensure that their answer fully meets the assessment criteria indicated in each table.

This is especially important for learners hoping to achieve Merit and Distinction grades.

Any extra pieces of evidence must be labelled and reference the Task number, learner name and centre name and securely attached to the external assessment paper.

Evidence creation

Learners should use the answer booklet, using the space provided, to answer questions. Where answers are typed or additional pages included, the learners name must be clearly visible and it must be clear which task the answer refers to. All learners used A3 sized paper for the submission of their hardcopy drawings.

There is one issue that reoccurred several times, which is the scaling on drawings which appears to alter when the hardcopy is printed. Centres should perform checks to ensure that scaled drawings are accurate to not disadvantage learners for this aspect of their assessment. If a centre discovers that this is the case then, a supporting document must be provided by the centre for the examiner to reference against. The centre is reminded that it is their responsibility to ensure that hardcopy drawings are printed to the correct scale.

Interpretation of the tasks and associated assessment criteria

Task 1, A.C 1.1

Learners for this assessment criterion had to identify the two different systems of measurement on the provided sketches. The majority managed to accomplish this but some became confused with the type of projection used, for example isometric. Some candidates actually placed the units of measurement within the spaces provided. The latter is required for section b). Section d) is provided for the learners to add perceptively applying the systems of measurement with the provision of examples

Task 1, A.C 1.2

Learners had to identify how the item of equipment within each image can be used for the production of engineering drawings. Many described how each is used in the production of drawings and drawing elements. Detailed explanations with applications lifted grades into the merit and distinction level.

Task 2,3, A.C 1.3

The evidence for this assessment criterion was the weakest element produced by learners. To achieve a higher grade, learners needed to describe scale and proportion in detail. Learners appeared nervous of using the full page and just kept answers within the provided lines. A fuller description needs to be provided especially with reference to proportion. Learners need to be encouraged not to limit their answers just to the space provided and request additional sheets if required.

Task 2, A.C 1.3, 2.1, 2.2, 2.3, 2.4

Learners evidence covered a layout of the 2D drawing consisting of a front elevation, a plan and a side elevation drawn by analysis of the sketch provided. Construction lines provided evidence of the production of the final drawing. Learners should be encouraged to provide a running commentary with their manual drawings for the higher award of AC 2.4. This would meet the evidence of the process involved in its production showing critical judgement. Learners interpreted the sketch and applied appropriate scales in their drawings, which were also stated within their title blocks. Learners need to practice the interpretation of dimensions for the holes within the drawings for bolts and threaded applications. Many did not interpret the correctly sized hole from the sketch. Where the sketch states a 5mm plain hole this is the diameter of the hole such that a 5mm drill bit will fit within it. Many took this to be the radius.

AC 2.2 was handled well by learners applying realistic scales to enable sufficient detail and the final drawing to be accommodated within their A3 sheet.

For assessment criterion 2.3, experimentation could have been provided by shading to drawings, colouring, hidden lines and draft drawings along with a screen print drawing and development commentary if CAD was used.

Task 3, A.C 1.3, 2.1, 2.2, 2.3, 2.4

Learners used a suitable layout and projection to draw the 3D engineering model. Learners positioned the drawing centrally, included a border and title block to achieve higher grading. Some learners did not provide sufficient room and the final drawing fell off the page.

Task 3.3 needs to be detailed in the evidence that it provides for proportion, which was weak in the main from learners. This unfortunately dropped standards down to a pass or not yet achieved result. Centres should deliver sessions in preparation of this assessment criterion that cover the use of scale and proportion and how it is applied in an engineering context.

Planning in the external assessment

Centres are reminded to give due attention to the assessment windows of the external assessment. It's not advisable for learners to sit the external assessment early in their programme. It is far more appropriate to enter learners once they have taken part in the relevant teaching to ensure they are well prepared. Centres would be in a better position to prepare their learners for the external assessment following the support of an external moderation visit for the internally assessed units.

Chief Examiner:
Date:

Simon A Topliss
December 2016