



Course Report 2017 – External Assessment

Subject	Graphic Communication
Level	Higher

The statistics used in this report have been compiled before the completion of any Post Results Services.

This report provides information on the performance of candidates which it is hoped will be useful to teachers, lecturers and assessors in their preparation of candidates for future assessment. It is intended to be constructive and informative and to promote better understanding. It would be helpful to read this report in conjunction with the published assessment documents and marking instructions.

Section 1: Comments on the assessment

Summary of the course assessment

Component 1: question paper

The question paper component represented an appropriate combination of questions covering the main elements from the Course Assessment Specification.

Areas assessed included:

- ◆ 3D CAD modelling techniques
- ◆ justification of graphics in specific contexts
- ◆ drawing standards, protocols and conventions in accordance with British Standards
- ◆ the use of digital technology in graphic communication
- ◆ spatial awareness and visual literacy relating to 2D, 3D and pictorial drawings and sketches
- ◆ desktop publishing (DTP) features
- ◆ design elements and principles in promotional graphics.

The question paper was well received by candidates and performed well as a final assessment.

As a whole, candidates appear to have been well prepared for the Higher question paper and were better prepared than last year. Responses this year showed a greater depth of knowledge on the subject matter. Candidates' performance demonstrated that centres were covering most of the topic areas sufficiently.

A number of candidates are still answering describe/explain type questions with bulleted statements or single-word responses. Candidates must expand their responses in line with the command word to gain full marks.

A number of candidates are still not using correct terminology for CAD questions, and are being penalised for using terminology from their familiar CAD package. Terms from the Course Assessment Specification (CAS) must be used to gain marks.

The 'State' type questions only require one answer — many candidates put multiple answers, which is not required.

The lack of course knowledge and subject-specific language from some candidates suggested that they were presented at the wrong level.

The vast majority of candidates made an attempt to respond to all questions in the paper, with a very small number of no responses recorded. This is a marked improvement from last year's paper.

The 3D modelling questions were answered quite well this year. Most of the marks that were lost were for incorrect terminology, although a few candidates are still not relating the

modelling to the given dimensions. Incorrect terminology still being used includes coil instead of helix, circular array instead of radial array, and pattern instead of linear array. Improvements have been made compared to last year's responses so this message is starting to get through to centres.

The quality of the responses to the DTP elements, principles and features questions has improved this year. Candidates were much clearer with their descriptions, and were much more knowledgeable than the previous years.

Top-down modelling is still giving candidates problems. Many candidates didn't understand what it was, and some simply made generic statements and did not relate it to the components in the question.

There was a marked improvement on the knowledge of hatching and its application in the oil pump question. Candidates showed better knowledge than previous years and applied it with better skill.

Component 2: assignment

Based on previous years' experience, the assignment performed as expected, although there was evidence through the verification process that a few centres were too generous with their marking. This was usually towards the top end of the marks range — ie where the marking instructions may have been misinterpreted there was a migration towards 'A' type marks (high 60's to the maximum of 70 marks).

The verification team identified many centres where candidates were producing high quality work across the assignment.

Section 2: Comments on candidate performance

Areas in which candidates performed well

Component 1: question paper

Question 1 (d) Most candidates answered the sweep/extrude along a path question well. The correct terms for the profile, path, perpendicular workplane and sweep/extrude along a path were used extensively.

Question 2 (a) (i) and (ii) the questions relating to the building industry graphics and their users were answered well. A few candidates lost marks for giving more than one user (the question asked for a single user). Those that did were given credit if they gave a relevant answer in the 'purpose' section of the question.

Question 3 (a) (i) DTP term, emphasis: candidates performed really well in this question.

Question 3 (e) DTP principle, rhythm: candidates performed really well in this question.

Question 3 (f) DTP element, texture, candidates performed really well in this question.

Question 4 (b) (i) Term, high resolution: most candidates performed really well in this question.

Question 4 (b) (ii) File types: most candidates performed really well in this question.

Question 4 (c) Watermarks on stock images: this question was answered well with good reasons given and extended responses.

Question 5 (a) Surface development: most candidates performed well in this question.

Question 6 (b) Identifying parts in the sectional view: a good response from candidates.

Component 2: assignment

Generally candidates performed well in the CAD stages of the assignment. There are now many centres with candidates producing high quality computer aided design (CAD) and desktop publishing (DTP) components in the assignment, and a few centres where high quality work was also found in the preliminary components.

Areas which candidates found demanding

Component 1: question paper

Question 1 (a) (i) 3D CAD to aid production: candidates had greater difficulty with this question than was envisaged. Candidates' responses made reference to how the bike would look aesthetically when finished with colour and materials applied, or that 3D CAD can produce a realistic view as to how the bike would look, rather than dimensions, assembly information and CAD/CAM links.

Question 1 (b) Radial array: many candidates are still not using the terminology from the Course Assessment Specification. Too many candidates were stating 'circular array', 'circular pattern' or simply 'array'.

Question 1 (e) Many candidates didn't understand what Top down modelling (TDM) was, and some simply made generic statements about what it was and did not relate it to the components in the question.

Question 1 (g) (i) and (ii) Types of sectional view: many candidates did not know the terms 'removed' and 'revolved sections'.

Question 3 (g) DTP element, value: very few candidates knew what the term 'value' meant in relation to DTP.

Component 2: assignment

There are still a few centres permitting/marking retrospective planning work, such as tracing of CAD drawings. Retrospective planning and tracing are **not permitted** for any course assignment/project, at any level, and cannot be awarded any marks.

Some candidates did not produce three different CAD modelling techniques. Centres are reminded that not all three techniques are required in the model — some can appear in the scene. Although some candidates produced the three techniques, they did not do so at a level appropriate for Higher.

Technical detail should be relevant to the task in hand — some candidates had produced inappropriate sections and detailed views and were then awarded marks simply for creating these views.

Higher candidates are required to create a 3D scene as part of the promotional activity. In a few cases, the quality of illustration was below what would be expected at this level. Materials and textures (bump-maps) were often in an incorrect orientation or scale, making the scenes unrealistic and ineffectual. The application of the illustration to the scene appeared to challenge some candidates and it was either omitted or poorly executed.

Some candidates did not plan and then go on to produce multi-page layouts for the promotional item. Centres are reminded that at Higher level candidates must produce multi-page DTP layouts for the assignment. This can be in form of table talkers, split wall or banner displays, as well as double-sided and three-fold leaflets.

Section 3: Advice for the preparation of future candidates

Component 1: question paper

The correct terms from the Course Assessment Specification should be used at all times in the question paper. This is of particular importance when responding to questions on 2D and 3D CAD.

Candidates must be aware of the meaning of the command words in questions. Only when 'state' is used is it acceptable to write bullet point type answers or short answers. The terms 'describe' and 'explain' require extended answers.

Candidates should be encouraged to sketch and annotate their answers to 3D modelling questions. The candidates who performed better were generally those who chose to use extended writing. There was also evidence of candidates not referring fully to the dimensions given — this is critical to any 3D modelling process.

Centres should spend more time with candidates clarifying the terms 'Top Down' and 'Bottom Up' in relation to 3D modelling. This is an area which has been examined in every

Higher Graphic Communication question paper to date. There was also an example in the specimen question paper, and yet the majority of candidates still cannot explain the terms.

The DTP element 'value' is not being taught well in centres, with only a small number of candidates actually gaining a mark. This term should be reinforced in centres for future presentations.

Candidates should ensure that, when using additional space at the rear of the question paper to continue their response, their response is clearly indicated and identified.

Component 2: assignment

Centres should be mindful of the assessment conditions set out in the Course Assessment Specification (CAS):

The assignment will be carried out under open book conditions, but supervised to ensure that the work presented is the candidate's own.

The teacher/lecturer may also give learners support and guidance to help them progress through each stage of the assignment; where any significant amount of support is provided, this should be reflected in the marks awarded. While the learner may be provided with feedback to help them achieve the next stage of the assessment, they are not allowed to be re-assessed on stages already completed.

The assignment is designed to discriminate between learners, and therefore would be expected to provide a wide range of marks. Stronger learners should be able to complete the assignment successfully with minimal support and guidance. Weaker learners may not be able to complete all aspects of the assignment within a reasonable time, or may require significant assistance, and so would achieve a lower total mark.

Once the assignment has been completed and assessed, it should not be returned to the learner for further work to improve their mark.

Whilst it was pleasing to see that the conditions of assessment for coursework were adhered to in the majority of centres, there were a small number of examples where this may not have been the case. Following feedback from teachers, we have strengthened the conditions of assessment criteria for National 5 subjects and will do so for Higher and Advanced Higher. The criteria are published clearly on our website and in course materials and must be adhered to. SQA takes very seriously its obligation to ensure fairness and equity for all candidates in all qualifications through consistent application of assessment conditions and investigates all cases alerted to us where conditions may not have been met.

Grade Boundary and Statistical information:

Statistical information: update on courses

Number of resulted entries in 2016	4611
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Number of resulted entries in 2017	4351
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Statistical information: Performance of candidates

Distribution of course awards including grade boundaries

Distribution of course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark -				
A	20.0%	20.0%	870	106
B	31.9%	51.9%	1388	92
C	27.2%	79.1%	1184	78
D	9.2%	88.3%	401	71
No award	11.7%	-	508	-

General commentary on grade boundaries

- ◆ While SQA aims to set examinations and create marking instructions which will allow a competent candidate to score a minimum of 50% of the available marks (the notional C boundary) and a well prepared, very competent candidate to score at least 70% of the available marks (the notional A boundary), it is very challenging to get the standard on target every year, in every subject at every level.
- ◆ Each year, SQA therefore holds a grade boundary meeting for each subject at each level where it brings together all the information available (statistical and judgemental). The Principal Assessor and SQA Qualifications Manager meet with the relevant SQA Business Manager and Statistician to discuss the evidence and make decisions. The meetings are chaired by members of the management team at SQA.
- ◆ The grade boundaries can be adjusted downwards if there is evidence that the exam is more challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ The grade boundaries can be adjusted upwards if there is evidence that the exam is less challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ Where standards are comparable to previous years, similar grade boundaries are maintained.
- ◆ An exam paper at a particular level in a subject in one year tends to have a marginally different set of grade boundaries from exam papers in that subject at that level in other years. This is because the particular questions, and the mix of questions, are different. This is also the case for exams set in centres. If SQA has already altered a boundary in a particular year in, say, Higher Chemistry, this does not mean that centres should necessarily alter boundaries in their prelim exam in Higher Chemistry. The two are not that closely related, as they do not contain identical questions.
- ◆ SQA's main aim is to be fair to candidates across all subjects and all levels and maintain comparable standards across the years, even as arrangements evolve and change.