Course report 2026

Higher Engineering Science, SCQF level 6

We've written this report for teachers and lecturers. We recommend you read this with the published course assessment documents and marking instructions.

The report:

- provides a summary of how each course component performed
- highlights areas of the question paper and coursework where candidates performed well and areas where they did not perform well
- has advice you might find useful when preparing candidates for assessment

We collect and prepare the statistics in course reports before we complete the appeals process.

Statistical and grade boundary information

Course entries

Number of resulted entries in 2025: 1,399

Number of resulted entries in 2026: 1,614

Distribution of course awards (including minimum mark to achieve each grade)

Course award	Number of candidates	Percentage	Cumulative percentage	Minimum mark required
A	577	35.7	35.7	117
B	350	21.7	57.4	103
C	267	16.5	74.0	90
D	187	11.6	85.6	76
No award	233	14.4	100	Not applicable

We've not applied rounding to these statistics.

In this report:

- 'Most' means greater than or equal to 70%.
- 'Many' means 50% to 69%.
- 'Some' means 25% to 49%.
- 'Few' or 'a few' means less than 25%.

You can find statistical reports on our website.

General commentary on grade boundaries

Our main aim when setting grade boundaries is to be fair to candidates across all subjects and levels, and to maintain comparable standards across the years, even as arrangements evolve and change.

For most National Courses, we aim to set examinations and other external assessments and create marking instructions that allow:

- a competent candidate to score a minimum of 50% of the available marks (the notional grade C boundary)
- a well-prepared, very competent candidate to score at least 70% of the available marks (the notional grade A boundary)

It's very challenging to get the standard on target every year, in every subject, at every level. Therefore, we hold a grade boundary meeting for each course to bring together all the information available (statistical and qualitative) and make final decisions on grade boundaries based on this information. Senior Qualifications Scotland staff normally chair these meetings.

Principal assessors use their subject expertise to evaluate the performance of the assessment and propose suitable grade boundaries based on the full range of evidence. We can adjust the grade boundaries as a result of the discussion at these meetings. This allows the pass rate to be unaffected in circumstances where there is evidence that the question paper or other assessment has been more, or less, difficult than usual.

- We can adjust the grade boundaries downwards if there's evidence that the question paper or other assessment has been more difficult than usual.
- We can adjust the grade boundaries upwards if there's evidence that the question paper or other assessment has been less difficult than usual.
- If levels of difficulty are comparable to previous years, we maintain similar grade boundaries.

Every year, we evaluate the performance of our assessments in a fair way, while ensuring standards are maintained so that our qualifications remain credible. To do

this, we measure evidence of candidates' knowledge and skills against the national standard.

For full details of the approach, please refer to the Awarding and Grading for National Courses Policy.

How the course assessment performed

Question paper

The question paper performed as intended and every mark was accessible. The balance of A to C type questions was appropriate and provided suitable discrimination.

Assignment

The assignment performed as intended, with the full range of marks awarded in each task. It was fair, balanced and effectively sampled the engineering skills and knowledge laid out in the course specification.

How candidates performed

Areas where candidates performed well

Question paper

Question 1

Most candidates developed a correct truth table.

Question 2

Most candidates correctly completed the control diagram.

Question 3(a)

Most candidates correctly described the effect of applying a load and its removal.

Question 3(b)

Many candidates correct identified the yield point.

Question 3(c)

Most candidates correctly demonstrated a knowledge of a material with a lower Young's Modulus than the given material.

Question 6

Most candidates correctly calculated the magnitude and angle required to maintain equilibrium.

Question 7(a)

Most candidates correctly developed the Boolean equation.

Question 7(b)

Most candidates correctly developed the NAND equivalent circuit.

Question 8(f)(i)

Most candidates correctly calculated the force pulling in the net cable.

Question 10(a)(i)

Most candidates correctly calculated the factor of safety.

Question 11(a)

Most candidates correctly developed a flowchart for the control of the system.

Question 11(b)

Most candidates correctly calculated the mass of the brake disc.

Assignment

Task 1(a)

Most candidates achieved full marks, successfully simulating the electronic circuit.

Task 2(a)

Most candidates achieved full marks, successfully drawing a logic circuit diagram.

Task 2(d)

Most candidates achieved full marks, successfully simulating the logic circuit.

Task 3(a)

Most candidates achieved full marks, successfully analysing the specification and completing a control diagram.

Task 3(b)

Most candidates achieved full marks, successfully simulating the microcontroller system and flowchart program integrated together.

Task 4(a)

Most candidates achieved full marks, successfully simulating the structure.

Areas where candidates did not perform well

Question paper

Question 7(d)

Few candidates described two examples of how a mechanical engineer may apply mathematics in the design of the drive system.

Question 8(b)

Few candidates described two adaptations that could be applied to the circuit, which would produce a positive output.

Question 8(d)

Few candidates correctly described the speed of the motor as the voltage dropped.

Question 9

Few candidates correctly described the full operation of the pneumatic circuit.

Question 12(b)(iii)

Few candidates correctly calculated the power dissipated between the collector and emitter in the transistor.

Question 13(b)

Few candidates described two roles of a civil engineer in the development phase of the launch pad site.

Assignment

Candidates found the skills of evaluating and testing the most demanding in the assignment.

Task 1(b)

Although candidates carried out the planned tests and recorded the actual results, some candidates did not make appropriate amendments before moving onto the next test, as instructed.

Task 2(g)

Many candidates did not refer to factors such as manufacture and/or cost in relation to the number of Integrated Circuits used. They focused on the number of gates used for each design, instead of the Integrated Circuits found in the data sheets provided.

Task 3(e)

Some candidates stated that all specification points were met, when the performance of their amended flowchart did not provide evidence to support this. They did not refer to the actual performance to justify whether a specification point was met or not.

Task 4(b)

Although most candidates correctly identified the vertical reactions in task 4(a), many did not correctly identify whether each support could withstand the reaction force.

Preparing candidates for assessment

Question paper

You should make sure candidates:

- clearly understand the expected responses to descriptive questions.
- can respond to descriptive questions about pneumatic circuits. Candidates must use correct terminology, with a statement referring to 3/2 valves actuating, 5/2 valves changing state, and a piston instroking or outstroking.
- do not round intermediate values during calculation and only apply rounding to the final answer. We provide information on correct rounding on the front cover of the question paper.
- are prepared in all areas listed in the course specification, so they can fully respond to the question paper.

Assignment

You should make sure all photographs or screenshots candidates submit are clear, so that components are easily identified and candidates can access the marks.

It's essential that you **strictly follow** the assignment conditions outlined in the course specification and coursework documents.

General

You should continue to use the materials available on the Understanding Standards website. These contain candidate evidence from past question papers and assignments, with supporting commentary, presentations and webinar recordings.

You can find more information and supporting documentation for the full course assessment on the Higher Engineering Science subject page. This includes the course specification, past papers (question paper and assignment), specimen assignment and question paper and previous years' course reports.