

Ofqual A level reform consultation 2012
Royal Academy of Engineering submission

KEY POINTS

1. A Levels play a unique role in the UK qualifications system. Because they are universally understood by young people, parents and employers they exemplify a Level 3 standard of educational attainment. Level 3 is of vital significance **because it is the level at which labour market returns for qualifications first become significant and positive**. Level 3 is also important to the engineering profession because it is the threshold for our profession – those who hold appropriate Level 3 qualifications and can demonstrate wider technical and professional competence can register as *EngTech* engineering technicians and become corporate members of professional engineering institutions. There are very substantial labour market returns for those that register as engineering professionals.
2. Educational attainment at Level 3 will become increasingly important as the educational participation age rises to 18 years. Level 3 represents **progression** in both educational terms and in terms of subject knowledge and related skills.
3. A Levels are most commonly used as gatekeeper qualifications for access to Higher Education. For example, 90% of applicants to Mechanical Engineering first degree courses in Russell Group Universities hold / expect to gain A Level Mathematics. However, the well-documented wage value of A Levels demonstrates that these qualifications have value as gatekeeper qualifications for accessing higher wage non-graduate occupations too. As much less than half of each school year cohort will be accessing Higher Education, and noting the effects of rising participation age and the exemplification of Level 3 attainment noted above – A Levels are and will continue to be more than solely the preserve of those involved in Higher Education.
4. Certain subjects at A Level (such as Mathematics) are thought to signal cognitive and other types of ability for their holders and are used as selection tools by employers. The ‘signalling’ qualities of A Levels should be acknowledged where there is evidence for it.
5. The purposes of A Levels listed in Paragraphs 41-44 do not cover the above points adequately. The focus is almost exclusively on accessing Higher Education. However, this is too partial a view, partly because of the importance of accessing employment noted above and partly because A Levels are not the only route into Higher Education. Engineering is pervasive throughout the higher education sector and looking across the spectrum of universities A levels are only one type of qualification held by entrants amongst many.
6. Because A Levels are mostly taken by young people, it is important to promote educational *breadth* as well as *depth* – for example encouraging more young people to continue studying some form of Mathematics beyond the age of 16. For that reason, the AS should be retained as a stand-alone qualification. It could be decoupled from the full A Level.

7. We welcome the involvement of Universities in determining the content and standards of A Levels in order to ensure they are fit for purpose and to provide checks and balances on the actions of Awarding Bodies. However, there are risks in adopting such an approach if not planned carefully. For example, some commentators have described the proposal for securing the endorsement of 20 universities as the 'scramble model' where Awarding Bodies race to secure the engagement of either the highest profile universities or individual academics thought to be sympathetic to a particular view. We also question the Secretary of State's presumption that the universities involved should be limited to 'our best, research intensive universities such as those represented by the Russell Group'. For engineering, which is pervasive throughout UK higher education and represents more than a quarter of the strategically important STEM output from the sector, this is not appropriate as many universities outside of this set provide quality engineering education. Rather, for appropriate A Level subjects including all STEM subjects we recommend that those universities that offer courses *accredited* by professional bodies should be included. This properly engages learned societies, as requested by the Secretary of State, and ensures truly independent assessment of A Level content, specification and assessment.

8. Because A Levels demonstrate wage premia in their own right, a sign that they are valued as gatekeepers to direct employment, employers are significant stakeholders in A Levels. Therefore employers should be involved in determining both content and standards. However, employer engagement is notoriously difficult as it tends to only enfranchise a minority of the largest employers (those that can afford to volunteer the significant effort required to engage effectively). Therefore, wherever practicable, employer engagement should be secured by engagement with the professions as these have particular experience in integrating the needs of a wide cross section of employers through the setting of professional standards and the accrediting of degree courses.

9. The work of developing subject criteria, A Level specifications and sample assessment materials will be time consuming and will place considerable demands on the universities, employers and professional bodies involved. The task will be made easier with proper coordination *by subject* and not by Awarding Body. Therefore Government, acting through Ofqual should plan for the creation and support of National Subject Committees or Task Groups. These should be convened by an impartial organisation adequately resourced to undertake the task. They should not be convened by Awarding Bodies.

Questions on Section 1: Background and purpose

The following questions refer to Section 1: Background and purpose.

1. I believe that all equality issues have been considered in the accompanying equality analysis.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

2. Do you have any comments or suggestions?

Whilst there is merit in getting universities involved in determining content and standards, there is a significant risks to equality and inclusion in the proposal to get different groups of universities to endorse the qualifications offered by individual Awarding Bodies. There is a danger that these qualifications become de-facto entrance exams for those universities and therefore the poorly advised young person could find themselves excluded from access not because of ability but because of choice of exam board. This risk is not acknowledged in the consultation document.

Questions on Section 2: What we hope to achieve

The following questions refer to Section 2: What we hope to achieve.

3. I support the general principles as set out in this section.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

4. I support the need for comparability of demand and content in different specifications in a subject.

- Yes
- No

Do you have any comments or suggestions?

The consultation document sets *validity* as the key concept for the quality of a qualification. Whilst obtaining a true measure of what was learned is undoubtedly important – so is assessing this *reliably* and ensuring that the most appropriate things were learned in the first place. This relates to getting the purposes of A Levels right – see answer to Question 5.

Questions on Section 3: Design rules - The purpose of A levels.

The following questions refer to Section 3: Design rules - The purpose of A levels.

5. I believe that Condition 1 adequately defines an appropriate primary purpose of A levels for regulation.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

A Levels play a unique role in the UK qualifications system. Because they are universally understood by young people, parents and employers they exemplify a Level 3 standard of educational attainment. Level 3 is of vital significance **because it is the level at which labour market returns for qualifications first become significant and positive**. Level 3 is also important to the engineering profession because it is the threshold for our profession – those who hold appropriate Level 3 qualifications and can demonstrate wider technical and professional competence can register as *EngTech* engineering technicians and become corporate members of professional engineering institutions. There are very substantial labour market returns for those that register as engineering professionals.

Educational attainment at Level 3 will become increasingly important as the educational participation age rises to 18 years. Level 3 represents **progression** in both educational terms and in terms of subject knowledge and related skills.

A Levels are most commonly used as gatekeeper qualifications for access to Higher Education. For example, 90% of applicants to Mechanical Engineering first degree courses in Russell Group Universities hold / expect to gain A Level Mathematics. However, the well-documented wage value of A Levels demonstrates that these qualifications have value as gatekeeper qualifications for accessing higher wage non-graduate occupations too. As much less than half of each school year cohort will be accessing Higher Education, and noting the effects of rising participation age and the exemplification of Level 3 attainment noted above – A Levels are and will continue to be more than solely the preserve of those involved in Higher Education.

Certain subjects at A Level (such as Mathematics) are thought to signal cognitive and other types of ability for their holders and are used as selection tools by employers. The 'signalling' qualities of A Levels should be acknowledged where there is evidence for it.

The purposes of A Levels listed in Paragraphs 41-44 do not cover the above points adequately. The focus is almost exclusively on accessing Higher Education. However, this is too partial a view, partly because of the importance of accessing employment noted above and partly because A Levels are not the only route into Higher Education. Engineering is pervasive throughout the higher education sector and looking across the spectrum of universities A levels are only one type of qualification held by entrants amongst many.

**The following questions refer to Section 3: Design rules
Condition 2 - Size and grading.**

6. A new grading structure should be introduced for new A levels.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

The well-documented wage value of A Levels demonstrates that these qualifications have value in the labour market. This is partly due to them being widely understood. Changes to the grading should be undertaken only if absolutely necessary as this will, for a period at least, impact negatively on the wide understanding of where these qualifications fit in a wider landscape for qualifications.

7. The current number of grades, as specified in Condition 2, is appropriate for discrimination.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

8. Even considering the other changes being made to A levels, the A* grade (or similar) should be retained as it will continue to facilitate differentiation of achievement.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

9. The expectations for the performance of learners should be set out for the upper and lower levels of the grading scale (currently grades A and E).

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

Because they are universally understood by young people, parents and employers, A Levels exemplify a Level 3 standard of educational attainment. This must be maintained and setting *appropriate* upper and lower levels for the grading scale will help.

The following questions relate to the options regarding the future structure of A levels:

Condition 3 - Qualification structure and availability of assessments

10. The opportunity for assessment in January should be removed.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

11. I believe that Option 1 is the right option - Removing the AS qualification – which would mean a return to a linear two year course of study.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

12. I believe that Option 2 is the right option - Making the AS a standalone qualification but where the results do not contribute to the A level.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

13. I believe that Option 3 is the right option - Retaining the AS qualification in its present form – but making changes as outlined in paragraphs 48-53.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions on these three options?

Because A Levels are mostly taken by young people, it is important to promote educational *breadth* as well as *depth*. For that reason, the AS should be retained as a stand-alone qualification. It could be de-coupled from the full A Level.

The following questions relate to Option 3 - Retaining the AS qualification – but making changes as outlined in paragraphs 48-53.

14. The opportunity for AS/A2 assessment and therefore resits in January should be removed.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

15. I believe that where a student resits an assessment the highest mark should count towards the student's qualification.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

16. AS and A2 should contribute equally to the overall outcome of A levels.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

I think that the weighting should be split as follows:

Do you have any further comments or suggestions?

Questions on Section 3: Design rules - A level design

The following questions refer to Section 3: Design rules - A level design.

17. To enable Ofqual to secure standards in A levels (GCEs), the rules outlined in Condition 4 are:

Needed?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Sufficient?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

The study of the mathematical content of science A Levels published recently by SCORE shows that the coverage and assessment of mathematics is patchy for all current cases and all exam boards. Condition 4 should be extended to include clauses to promote full and appropriate coverage of mathematics in science A Levels.

18. To enable Ofqual to secure standards in A levels (GCEs), the rules outlined in Condition 5 are:

Needed?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Sufficient?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

19. To enable Ofqual to secure standards in A levels (GCEs), the rules outlined in Condition 6 are:

Needed?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Sufficient?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

Synthesis and *reflection* are currently omitted from the list of assessment objects.

20. To enable Ofqual to secure standards in A levels (GCEs), the rules outlined in Condition 7 are:

Needed?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Sufficient?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

21. I believe that a minimum of 60 per cent external assessment is the correct proportion for most subjects.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

22. I believe that the weighting of synoptic assessment should be flexible.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

Questions on Section 3: Design rules - Qualification support

The following questions refer to Section 3: Design rules - Qualification support.

23. I believe that universities should be able to provide this level of engagement.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

24. I believe that the level of support required is sufficient to demonstrate that the qualification will allow progression to study at higher education.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

We welcome the involvement of Universities in determining the content and standards of A Levels in order to ensure they are fit for purpose and to provide checks and balances on the actions of Awarding Bodies. However, there are risks in adopting such an approach if not planned carefully. For example, some commentators have described the proposal for securing the endorsement of 20 universities as the 'scramble model' where Awarding Bodies race to secure the engagement of either the highest profile universities or individual academics thought to be sympathetic to a particular view. We also question the Secretary of State's presumption that the universities involved should be limited to 'our best, research intensive universities such as those represented by the Russell Group'. For engineering, which is pervasive throughout UK higher education and represents more than a quarter of the strategically important STEM output from the sector, this is not appropriate as many universities outside of this set provide quality engineering education. Rather, for appropriate A Level subjects including all STEM subjects we recommend that those universities that offer courses *accredited* by professional bodies should be included. This properly engages learned societies, as requested by the Secretary of State, and ensures truly independent assessment of A Level content, specification and assessment.

Because A Levels demonstrate wage premia in their own right, a sign that they are valued as gatekeepers to direct employment, employers are significant stakeholders in A Levels. Therefore employers should be involved in determining both content and standards. However, employer engagement is notoriously difficult as it tends to only enfranchise a minority of the largest employers (those that can afford to volunteer the significant effort required to engage effectively). Therefore, wherever practicable, employer engagement should be secured by engagement with the professions as these have particular experience in integrating the needs of a wide cross section of employers through the setting of professional standards and the accrediting of degree courses.

25. Do you have any suggestions about how we might categorise universities as defined in Condition 8?

For appropriate A Level subjects including all STEM subjects we recommend that those universities that offer courses *accredited* by professional bodies should be included. This properly engages learned societies, as requested by the Secretary of State, and ensures truly independent assessment of A Level content, specification and assessment.

26. Would you propose a different number or proportion of universities providing support?

- Yes
 No

Do you have any comments or suggestions?

The work of developing subject criteria, A Level specifications and sample assessment materials will be time consuming and will place considerable demands on the universities, employers and professional bodies involved. The task will be made easier with proper coordination *by subject* and not by Awarding Body. Therefore Government, acting through Ofqual should plan for the creation and support of National Subject Committees or Task Groups. These should be convened by an impartial organisation adequately experienced and resourced to undertake the task. They should not be convened by Awarding Bodies.

27. I believe that the level of support required is sufficient to demonstrate that most universities will accept a qualification for entry.

- Strongly agree
 Agree
 Neither agree nor disagree
 Disagree
 Strongly disagree

Do you have any comments or suggestions?

Whilst there is merit in getting universities involved in determining content and standards, there is a significant risk in the proposal to get universities to endorse the qualifications offered by individual exam boards. There is a danger that these qualifications become de-facto entrance exams for those universities and therefore the poorly advised young person could find themselves excluded from access not because of ability but because of choice of exam board. This risk is not acknowledged in the consultation document.

28. I believe that the support required should also provide additional assurances to those set out in paragraphs 73 and 74.

- Yes
 No

If your answer is Yes, please give further details:

The risk identified in the answer to Question 27 applies here.

29. I believe that exam boards should be expected to consult schools, colleges and employers specifically for each qualification.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Because A Levels demonstrate wage premia in their own right, a sign that they are valued as gatekeepers to direct employment, employers are significant stakeholders in A Levels. Therefore they should be involved in determining both content and standards. However, employer engagement is notoriously difficult as it tends to only enfranchise a minority of the largest employers (those that can afford to volunteer the significant effort required to engage effectively). Therefore, wherever practicable, employer engagement should be secured by engagement with the professions as these have particular experience in integrating the needs of a wide cross section of employers through the setting of professional standards and the accrediting of degree courses.

Questions on Section 4: Exceptions

The following questions refer to Section 4: Exceptions.

30. Exceptions to Condition 1 should be allowed in relation to the purpose of A levels.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

31. Exceptions to Conditions 4–7 should be allowed in relation to the design of A levels.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

32. Exceptions to Condition 8 should be allowed in relation to the support secured for an A level.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

33. If you anticipate that there will be particular challenges for specific subjects which may require exceptions, please outline them below.

Questions on Section 5: Making sure standards are right year on year

The following questions refer to Section 5: Making sure standards are right year on year.

34. These review arrangements are sufficient and appropriate to secure standards.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Do you have any comments or suggestions?

Questions on Section 6: Implementation

The following questions refer to Section 6: Implementation.

35. I support the proposed staged approach to the reform of A levels.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

36. I agree that all current A levels should have been reviewed by 2018.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

37. I agree that the priority subjects for implementation in September 2014 should be:

Please rank in order of preference, 1 being your first choice.

- _____ physics, chemistry, biology
- _____ French, German and Spanish
- _____ mathematics
- _____ English literature
- _____ geography and history
- __X___ a combination

Do you have any suggestions for other subjects/combinations of subjects?

It is important to prioritise getting the structure of A levels right and the content and assessment of individual subjects right rather than implementing change quickly. Getting STEM subjects right is of strategic importance to the economic success of the UK and STEM subjects should be considered as a set. This would mean considering Science subjects as a set alongside Mathematics, Further Mathematics, Computing / Computer Science and Design & Technology. Furthermore, the strategic importance of STEM subjects is such that they should not be involved in any pilots for reformed qualifications. It would be better to delay the introduction of reforms until 2016, undertake the reforms a planned way and introduce changes across all subjects at once.

General questions

38. Do you have any additional comments in relation to all proposals as set out in Sections 1- 6.

Your details

Name*

Matthew Harrison

Organisation*

- School/College
- Training Provider
- Higher Education Institute
- Awarding Organisation
- Student/Learner
- Parent/Carer
- Employer
- Representative group/Interest Group
- Government Body/Organisation (national and local)
- Other (including General Public)

School / College type

- Academy and/or Free School
- Comprehensive
- State Selective
- Independent
- Special School
- FE/Sixth Form
- None of the above

Is your institution a member of any of the following groups?

- Russell Group
- Million+
- 1994 Group
- University Alliance
- GuildHE
- UUK
- None of the above

Your role

Director of a Learned Society.

How many staff does your business employ (full or part time)?

- Less than 50
- 50 to 249
- 250 or more

Representative group / interest group type

- Learned Body / Subject expert group
- Equalities group
- Unions
- Sector Skills Council (SSC)
- QAA
- UCAS
- Other voluntary or community group
- None of the above

Organisation name*

The Royal Academy of Engineering
3 Carlton House Terrace
London SW1Y 5DG

Nation*

- England
- Wales
- Scotland
- Northern Ireland
- International

Email address*

matthew.harrison@raeng.org.uk

May we contact you for more information?

Yes

Would you like us to treat your response as confidential?

Yes

We are changing the way we communicate. We want to write clearly, directly and put the reader first. Overall, do you think we have got this right in this document?

- Yes
- No

Do you have any comments or suggestions?

There are too many questions in this consultation. The result is likely to be a lack of detail in the answers provided by all but the best resourced organisations – those that can afford the considerable time and effort required to complete the form.