**Accelerated Degree Consultation**

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| **Are there any technical features of accelerated degree courses that we should take into account for the purpose of new fee arrangements?** |
| With over 50,000 members and a knowledge business that spans the globe, the Royal Society of Chemistry is the UK’s professional body for chemical scientists, supporting and representing our members and bringing together chemical scientists from all over the world. A not-for-profit organisation with 175 years of history, we invest in educating future generations of scientists, we raise and maintain standards and work with industry and academia to promote collaboration and innovation. We advise governments on policy and we promote the talent, information and ideas that lead to great advances in science.As the professional body for the chemical sciences we do understand the attraction of consolidated degree programmes in some subject areas. We currently accredit >375 undergraduate chemistry programmes at >60 UK universities. In responding to this consultation, we have gathered feedback from experience and directly from the academic community. Accelerated degrees would undoubtedly lead to widening participation and meet the needs of some potential students. However, we feel in subjects where there is a high level of contact especially within the laboratory setting we do not see this working for a variety of reasons. Primarily these reasons are linked to the cost deficit of running such a programme through duplication of effort, and more importantly the detrimental effect it would have on the student experience through a negative effect on the learning environment.We welcome further engagement on this topic. |
| **Do you agree that an annual fee cap set initially at the standard rate plus 20% uplift is the right amount to incentivise wider provision of accelerated degrees** |
| At the current time no accurate analysis has been done on the costs of running a chemistry department in relation to providing accelerated degrees. The proposal would benefit from an accurate analysis across broad sectors i.e. science, arts etc. This would provide more confidence in responses.Accelerated degree programmes in chemistry would need a significant additional initial investment and recurrent expenditure. Physical science subjects like chemistry are linear in nature, with distinct levels of study and progression points that align with threshold concepts. The order in which core topics are studied is critical to a student’s development and understanding. Thus, accelerated degrees would require many new level 5 and level 6 modules being developed, because they could not be taken at the same time as students on conventional degree programmes. New methods of teaching, such as flipped delivery of content, which makes use of pre-recorded lectures and other materials, do offer some potential economies in delivery, but do not alleviate the need for additional intensive small-group tutorial and workshop support. Efficiency savings by using resources such as practical laboratories during the summer may be achieved. However, the cost of providing technical and teaching cover for bespoke summer practical courses for the relatively small numbers of students on accelerated degree programmes, is likely to far exceed any savings. Our 2015 report ([The Finances of Chemistry and Physics Departments in UK Universities](http://www.rsc.org/globalassets/04-campaigning-outreach/policy/education-policy/university-chemistry-and-physics-finances-report.pdf)) shows that chemistry and physics departments are running at a deficit in offering the current 3-4 year degree programmes. Given the additional overheads of running science degrees it is predicted that accelerated degrees would create a greater deficit and that HEI providers are unlikely to take advantage of the fee incentive in order to offer accelerated degrees. There is no evidence that there is the demand from students for accelerated degrees that would lead to cohort sizes that might make such an investment sustainable with only a 20% increase in fees. Although a higher increase would make accelerated Chemistry degrees financially more viable to HE providers, they would deter students from taking advantage of the opportunity. We are not aware of any current two-year accelerated degrees in higher contact hour subjects such as chemistry. If there is a demand for this type of provision the benefits will be obvious and there will be no need to incentivise. In conclusion, accelerated chemistry degrees will incur additional costs and reduced income for HE providers that will only add to the deficit that is currently being experienced. |
| **Do you agree that a 20% reduction overall for students in tuition fee and maintenance loans would incentivise wider take up of accelerated degree by students.** |
| It is not clear from the evidence presented that this would indeed be the case. There are a significant number of assumptions made in the consultation document in projecting the costs and benefits to students and HE providers. Although each of these assumptions maybe valid, when aggregated, the accumulated uncertainty means that it is far from clear that students would benefit financially from the proposal. It is therefore impossible to assess without further work whether there would be any incentive to students, even with the proposed 20% reduction.  |
| **Do you agree that a 20% increase in loan cap rates per annum is the right value to incentivise uptake of accelerated degrees at approved providers.** |
| No. A thorough analysis of whether this increase would incentivise providers, or whether it would add to the deficit of running some departments. Currently it is impossible to agree or disagree with this statement without a detailed financial breakdown of subject areas. |
| **Do you agree that accelerated degree fees should be treated in the same way as other higher course fees for the purpose of access funding?** |
| The Royal Society of Chemistry, through its charter and its activities, seeks to promote the widest possible engagement with education in chemistry. Despite the assertions made in the consultation, it is not clear that accelerated degree programmes will necessarily be more attractive than conventional degrees to traditionally under-represented groups. For example, the modelling does not account for the part-time jobs undertaken by students alongside their studies. In addition, the population of mature students often have other commitments in their lives, which make compressing learning hours less inclusive. |
| **Should any additional safeguards and controls be in place as a proportionate and effective measure to ensure expanded provision of loans for accelerated degrees provide value for money to the tax payer** |
| No comment |
| **Are there any additional practical considerations we should take into account as we develop final regulations to support accelerated degree course provision?** |
| Chemistry degrees can often be split into two distinct sets of programmes; both accredited using different criteria by the Royal Society of Chemistry. These criteria were developed with input from employers. Integrated Masters degrees remain the primary enrolment route for undergraduate students. These programmes have learning at a higher level alongside increased practical provision (400 laboratory contact hours) and an enhanced research project accounting for 50% of the final year. These programmes are accredited for fully meeting the academic criteria for Chartered Chemist.Bachelor’s degrees involve learning at a lower level, less practical provision (300 laboratory contact hours) and distinctly less research accounting for 25% of the final year. Many institutions utilise this qualification as an exit route for those students on the aforementioned Integrated Masters Degrees. These programmes are accredited for partially meeting the academic criteria for Chartered Chemist. There are a number of important factors that need to be considered when offering accelerated degrees in the chemistry sector:1. It is unclear as to how the proposals will affect Integrated Masters degrees. Four-year degree courses remain the predominant undergraduate degree programme for those wishing to study chemistry when enrolling. They were originally developed partly as a recognition that conventional three-year degree programmes did not allow students sufficient time to develop all of the subject-specific knowledge, understanding and skills, let alone the other transferable skills and attributes that are required for a career in the chemical sector.
2. Chemistry is a practical subject with significant laboratory hours. Chemistry laboratories in many institutions are already at capacity. Alternative programmes and routes such as accelerated degrees would incur significant further expense through the need to open laboratories and supervise them with qualified staff. Alternatively, there is potential for overcrowding, which will compromise the learning experience and result in potential health and safety risks.
3. Linked to the above is the students’ need for a period of reflection. Science by its very essence requires students to reflect on results and learnings. This reflection leads to more logical thinking about next steps and improvements through problem solving. Problem solving is a fundamental need of graduate employers within the chemical sector. For students, it is essential that they have the time to assimilate challenging concepts in order to develop deep understanding. Thus, by compressing teaching (both theoretically and practically), there will be a reduction in the ability to solve problems in graduates and hence in graduate outcomes.
4. Accelerated degrees will negatively impact the student experience. Through meeting students during accreditation visits, we know they place high value on the developmental opportunities made outside the classroom such as tutorials and general pastoral care. Increasing teaching workload and reducing availability of lecturers outside of formal teaching sessions will greatly affect student satisfaction. Accreditation with the Royal Society of Chemistry involves the meeting of a threshold level in relation to the Learning Environment which needs to be upheld to maintain accredited status.
5. We know from engagement with employers they wish for more professional skills to be included in degree programmes. They also wish core content to remain unaffected. The ability for institutions to dedicate to enhancing employability will be reduced if less time is available.
6. The proposal seems to ignore the research activities carried out within chemistry departments. In previous consultations linked to HE teaching we have outlined a strength of tertiary education in the UK is the inherent link between teaching and research. Separation of these two aspects will be detrimental to the graduate work force. The accelerated degree proposal assumes teaching will be carried outside of the traditional term time. Many academics dedicate this time to their research activity, developing new ideas, working with collaborators, writing research proposals and applying for funding to drive forward scientific knowhow in complex fields. There is a risk that if students on accelerated degree programmes are taught only by staff who are not active in research, they will not experience the benefits of existing high-quality research-informed curriculum. The experience of students on accelerated degrees would therefore be of inherently lower quality. Alternatively, if all staff are involved in delivery during the summer period, the proposals will adversely affect academic research carried out in chemistry departments and impact the UK science and innovation output.
7. Chemistry departments have traditionally used their teaching laboratories for outreach activities outside of traditional term times. These activities increase interest in chemistry and science generally with the next generation and naturally promotes widening participation. If these facilities are not available, this will influence universities ability to meet their access agreement commitments.

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| **Should the government be aware of any other issues relating to the way in which the proposed tuition fee policy for accelerated degree courses will affect any of the protected characteristics? If you answer is “yes” please set out what steps your view of government might take to mitigate any negative impact.** |
| No Comment |