



*From The President:*  
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Higher Education White Paper Consultation  
Higher Education Directorate  
Department for Business, Innovation and Skills  
1 Victoria Street  
London SW1H 0ET

19 September 2011

Dear Sir/Madam,

**Higher Education White Paper - Students at the Heart of the System  
Response to Consultation**

The London Mathematical Society (LMS) is the UK's learned society for mathematics and the leading representative of mathematicians in Higher Education in the UK. As such it is writing in response to the recent White Paper on the funding of higher education. In particular to express its concern about the effects on mathematics education of removing the cap on university numbers for students with AAB or better grades at A Level.

The LMS clearly recognises the need for the highest possible standards in university education, and applauds measures to make this possible. It also recognises the difficulties inherent in dealing with limited resource. However, it does not believe that the policy on AAB student mobility will be beneficial to mathematics education.

Not all A levels are equal, and this is clearly recognised in HE. Mathematics, alongside the other STEM subjects is a challenging A level perceived as hard by the students who take, or are thinking of taking it. Further Mathematics is exceptionally hard. The taking of mathematics A levels needs to be encouraged as they are an important preparation not just for mathematics degrees but also for degrees in science, technology and engineering.

Schools and colleges wishing to maximise the chances of students entering a good university (and to thus also improve their position in league tables) will naturally now feel obliged to give their students advice to study subjects which are perceived as more likely to deliver them an A or B grade. The immediate result will be thus to deter them from doing mathematics and science A-levels, with a potentially very damaging effect on Further Mathematics. This will achieve precisely the opposite of the desired intention of increasing standards, and the LMS strongly urges the government to reconsider this policy.

In contrast the government seeking to raise standards across the STEM disciplines should consider an alternative policy. A level numbers in both Mathematics and Further Mathematics have been rising strongly in previous years and the importance of a mathematical training is widely acknowledged. The skills students develop in studying mathematics opens up a wide choice of rewarding careers. Mathematics is a pre-requisite for jobs in all sectors of the economy, whether or not they go on to use their mathematics qualification in higher education. The numeracy, logic and modelling skills together with experience of solving hard problems gained from the study of mathematics are highly valued by employers.

The contribution young people with this background will make to our economic success is crucial. Rather than capping numbers on mathematics degrees, the uptake of mathematics A level could be enhanced by removing any restrictions on numbers of students doing mathematics degrees.

Yours sincerely

A handwritten signature in black ink that reads "Angus MacIntyre". The script is cursive and fluid, with the first name "Angus" and the last name "MacIntyre" written in a single continuous line.

Professor Angus MacIntyre, FRS  
**President**