

FMSP Media release 20 August 2009

AS/A level Mathematics and Further Mathematics numbers continue to increase dramatically

The numbers of students taking AS and A level Mathematics and Further Mathematics qualifications have increased very significantly this year. The Further Mathematics increases are the highest of any mainstream A level subject.

- A level Mathematics numbers are up from 64593 to 72475, a 12% increase.
- A level Further Mathematics numbers are up from 9091 to 10473, a 15% increase.

There appear to be much larger increases at AS level.

- AS Mathematics numbers are up from 84613 to 103312, a 22% increase.
 - AS Further Mathematics numbers are up from 8945 to 13164, a 47% increase.
- However, it is not entirely certain that these figures can be taken at face value due to changes in the advice regarding when candidates should apply for certification.

The Further Mathematics increases demonstrate the great success of the Further Mathematics Network, which came to an end on 31 July 2009 after 4 years of promoting Further Mathematics and providing tuition to students who could not access Further Mathematics tuition in their own schools and colleges. In round numbers, since the Further Mathematics Network started in 2005 the numbers of students taking AS Further Mathematics have trebled and those taking the full A level Further Mathematics have doubled. Further Mathematics is now available to all students who could benefit from it, resulting in increased opportunities for students from all backgrounds, enabling them to access prestigious university courses in sciences, engineering and computing, as well as mathematics itself.

From 1 August 2009 the Further Mathematics Network has been replaced by the Further Mathematics Support Programme, which continues the work of the Further Mathematics Network, and extends it to provide professional development for teachers of Further Mathematics, and support for the teaching and learning of level 3 Mathematics within diplomas. Like the Further Mathematics Network, the Further Mathematics Support Programme is managed by MEI and funded by the DCSF. The National Centre for Excellence in Teaching Mathematics (NCETM) is working in partnership with MEI to support the FMSP's professional development role.

Charlie Stripp, Programme Leader of the Further Mathematics Network and now the Further Mathematics Support Programme said:

'Further Mathematics is widely recognised by university departments in the sciences, engineering, computing and mathematics, the so called 'STEM' subjects, as one of the most demanding and useful AS/A level subjects, so it is especially pleasing to see numbers growing so strongly. These increased numbers will result in more students being well-prepared to make the transition to university in these vital subject areas. Taking Further Maths is a great way for students to show they have that something extra.'

The new Further Mathematics Support Programme will build on this success. Much has been achieved, but there is still a long way to go before we reach the level where Further Mathematics is chosen by all students who should take it. Now that Further

Mathematics numbers are growing so strongly, more universities will begin to ask for it and this will increase demand for tuition even more.'

Professor Dame Julia Higgins FRS, Chair of the Advisory Committee on Mathematics Education (ACME), said:

'It is wonderful news that the numbers studying A Level Mathematics and Further Mathematics continues to rise, year-on-year. More students choosing mathematics beyond 16 benefits the individuals, universities, employers and, ultimately, the nation as a whole. The particularly large increases witnessed in Further Mathematics are testimony to the dedicated work of the Further Mathematics Network. I am delighted that their work will continue in this arena under the Further Mathematics Support Programme.'

NCETM Director Professor Celia Hoyles OBE said:

"These increases, particularly in the numbers of students taking Further Mathematics, are extremely encouraging and we very much welcome them. At the same time, teachers of mathematics will need to be fully supported if they are to help these learners achieve their full potential in this important subject. The NCETM is working to aid the development of teachers so that they can meet this challenge with confidence and also looks forward to working with the Further Mathematics Support Programme."

Professor John Holman, Director of the National Science Learning Centre and National STEM Director, said:

'More than any other A level subjects, Mathematics and Further Mathematics underpin successful study at degree level of a range of other subjects, and ultimately increase young people's earning power. The strong growth in numbers taking both these subjects is a tribute to the work of the Further Mathematics Network and others who are working to increase the popularity of Mathematics – and a tribute to the good sense of the young people and their parents who realise that choosing to continue the study of Mathematics is a career-enhancing decision.'

Andrew Ramsay, CEO of the Engineering Council UK, welcomed the evidence of continued strong growth in successful Further Mathematics students. He said:

'UK professional engineers are amongst the best in the world. Much of their future success depends on a strong mathematics foundation. A level Further Mathematics provides this and is an excellent springboard into an engineering degree (and indeed any STEM degree).'

Notes for Editors

1. The Further Mathematics Support Programme is a government-funded initiative, supported by the Department for Children, Schools and Families and is managed by Mathematics in Education and Industry (MEI), an independent charity that supports mathematics education. It follows on from the very successful 'Further Mathematics Network' initiative, which was set up following a successful 5 year pilot project that was developed by MEI and funded by the Gatsby Charitable Foundation.

2. The Further Mathematics Support Programme involves schools, colleges and universities working together collaboratively to widen opportunities for students. It uses a blended learning strategy that employs intensive tutorial input alongside independent study, supported by extensive, purpose-written, online resources. This model is proving very successful and,

suitably adapted, could be used by other high-value shortage subjects such as physics and modern languages.

3. Further Mathematics reinforces the content of the standard AS/A level Mathematics and introduces students to important topics such as complex numbers and matrices, which are vital for many mathematics-related degrees.

4. For more information, please contact Janice Richards on 01225 774777 or by email at janicerichards@furthermaths.org.uk.

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For detailed background information on the Further Mathematics Support Programme, please see www.furthermaths.org.uk.