

Mathematics is the most popular A level in the UK

Numbers studying A level Maths and Further Maths rise for the 11th consecutive year

Since 2003 there has been a consistent and rapid rise in the number of students taking AS and A level Mathematics and Further Mathematics. These two subjects are more popular with young people than ever before and this year Mathematics has overtaken English as the most popular A level subject in the UK, with 88816 entries in 2014 compared to 85336 entries for English.

The economic demand for young people with higher level maths skills is encouraging students to follow Science, Technology, Engineering and Mathematics (STEM) related courses and careers, with a number of initiatives promoting the opportunities available in these areas and highlighting the high demand for young people with STEM qualifications. As well as being valuable qualifications in their own right, AS and A level Mathematics and Further Mathematics facilitate the study of other A levels, especially in the sciences and economics, and are frequently required as essential qualifications for further study in STEM disciplines at leading universities.

Mathematics in Education and Industry (MEI) manages the government-funded Further Mathematics Support Programme (FMSP), which aims to widen access to and increase participation in Further Mathematics. Through a comprehensive programme of promotion events, teacher professional development and support, the FMSP has helped make A level Further Mathematics a mainstream subject in our schools and colleges.

The supply of suitably prepared students for mathematically-rich degree courses and careers has never been better, but it still needs to increase significantly to put us on a par with many of our international economic competitors. The FMSP is working with schools and colleges to improve provision for Further Mathematics, building teaching capacity and encouraging student interest in mathematics so that even more students have both the desire and the opportunity to take Further Mathematics. Approximately two-thirds of state-funded schools and colleges now have students taking A level Further Mathematics each year.

The proportion of girls taking Mathematics and Further Mathematics A levels has remained roughly the same over the past 10 years, at 40% and 30% respectively. It is a priority of the FMSP over the next two years to raise awareness among girls of the advantages of studying Mathematics and Further Mathematics and to encourage more of them to choose to continue mathematics A levels.

Compared with 2013:

A level Mathematics numbers are up from 88 060 to 88 816, an increase of 0.86%.

A level Further Mathematics numbers are up from 13 821 to 14 028 an increase of 1.5%.

AS level Mathematics numbers are up from 150 787 to 161 711, an increase of 7.2%.

AS level Further Mathematics numbers are up from 22 601 to 24 530, an increase of 8.5%.

Since 2003 A level Mathematics numbers have increased by 75.5% (from 50 602) and AS Mathematics numbers have increased by 153% (from 63 841).

Since 2003 A level Further Mathematics numbers have increased by 164% (from 5 315) and AS Further Mathematics numbers have increased by 627% (from 3 371).

Quotes:

I believe the continued increases in the numbers of students taking AS and A levels in Maths and Further Maths show how young people's attitudes towards maths are changing as they understand more how maths underpins careers in business, science, technology and engineering, and how Maths and Further Maths A levels provide access to prestigious courses at top universities. These are demanding qualifications and it's brilliant news that our sixth formers are rising to the challenge. The work of maths teachers in schools and colleges across the country, with support from the Further Mathematics Support Programme, is encouraging more young people to take mathematics A levels post-16 by inspiring them to enjoy the subject in its own right as a fascinating and satisfying discipline, and by emphasising its importance across a wide range of valuable careers. It is particularly impressive that the mathematics A level numbers have continued to increase this year when overall A level entries have declined.

Charlie Stripp
MEI Chief Executive, NCETM Director

It is heartening to see that, once again, numbers of students taking A-level Mathematics and Further Mathematics have risen; the Further Mathematics Support Programme (FMSP) has been absolutely key to this continued, and welcome, rise in student numbers. The value of Mathematics, and in particular that of Further Mathematics, is increasingly recognised by a wide range of University departments in their admissions processes because of the key skills and thinking processes that are developed. Given various proposed reforms to A-levels, it is notable that AS levels in Mathematics and Further Mathematics are also well respected and valuable qualifications in their own right and should not be overlooked. All in all it is great news that numbers continue to rise and the FMSP should be congratulated, and thanked, for its part in this.

Professor Richard Craster, Imperial College
Chair of the A level Content Advisory Board (ALCAB) Committee for Mathematics

I am delighted that so many young people have done so well in the demanding A-level mathematics courses. MEI should take pride in its achievements in supporting quality mathematics teaching and particularly in broadening access to Further Mathematics A-level via the FMSP. The Cambridge Mathematics Education Project values its partnership with MEI and will contribute to the support of teachers making sixth form mathematics a richer and more stimulating experience for all.

Professor Martin Hyland, University of Cambridge
Co-Director of the Cambridge Maths Education Project (CMEP)

Notes for editors:

1. Mathematics in Education and Industry (MEI) (www.mei.org.uk) is an independent charity that is committed to improving mathematics education for all.
2. MEI is a major provider of professional development for mathematics teachers and leads the secondary strand of the National Centre for Excellence in the Teaching of Mathematics (NCETM).
3. The Further Mathematics Support Programme (www.furthermaths.org.uk) is a government-funded initiative, supported by the Department for Education and is managed by MEI. 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.
4. 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.
5. 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.
6. For detailed background information on the Further Mathematics Support Programme and Mathematics in Education and Industry (MEI), please see www.furthermaths.org.uk and www.mei.org.uk
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