



## Helping mathematics departments figure out who will thrive



### Guaranteed offer

Students hoping to study mathematics at the Universities of Durham or Warwick can boost their chances of receiving a lower offer thanks to Cambridge Assessment Admissions Testing.

The universities use Admissions Testing's Test of Mathematics for University Admission (TMUA), which was devised to help applicants show they have the potential to succeed on a demanding undergraduate mathematics course.

Professor Steve Abel, Director of Education in the Department of Mathematical Sciences at Durham University, explains that students used to be chosen solely on their A Level performance, with admissions criteria typically requiring A\* in A Level Mathematics and A in Further Mathematics.

Durham began using the test in 2016, after A Level reforms made it more difficult for admissions tutors to differentiate between the hundreds of students who all had A\* (grade 9) at GCSE and a good personal statement.

Now, applicants to Durham's single honours mathematics degrees are guaranteed a reduced offer of A\*AA or equivalent if they score 6.5 or more in TMUA. Scores below 6.5 may still be treated as positive evidence of an applicant's ability, and increase their chance of getting a standard A\*A\*A offer. For 2019, the lower threshold for such an offer was a TMUA score of 4.5.



“ Using TMUA has made our whole admission process more rigorous, and we now feel we are making selection decisions based on the right criteria. ”

### Contact us

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## About Durham University's Department of Mathematical Sciences

The Department has an annual intake of about 150 single honours undergraduates, plus many joint honours students. It offers a balanced honours degree allowing choice from a wide spectrum of Pure Mathematics, Applied Mathematics (including Mathematical Physics) and Statistics.

## About the University of Warwick's Mathematics Institute

The Institute has more than 900 undergraduate students. The undergraduate curriculum is distinguished by the combination of flexibility (students can take a very broad range of options from across the University) with a broad and deep mathematical curriculum.

## About TMUA

The Test of Mathematics for University Admission (TMUA) focuses on skills crucial for success in mathematics, such as applying standard knowledge in unfamiliar situations and mathematical reasoning – skills not typically tested in school qualifications. Developed in consultation with leading UK universities, the test helps to fairly compare students across a broad range of changing qualifications at home and overseas.

## About Cambridge Assessment Admissions Testing

We are part of the University of Cambridge and have been working with UK and worldwide universities, governments and employers for more than 15 years. Our admissions assessments are a global mark of excellence that set the quality standard. We have a global network of centres that spans 150 countries, making it easy to assess applicants wherever they may be.

Candidates take TMUA in October/November, and receive their results directly from Admissions Testing. It is up to the candidate whether they disclose their result – or even that they took the test – in their university application.

'It's a no-risk scenario,' says Professor Abel. 'They don't have to tell us they have taken the test, but – if they do well in it – the chances are they will get an offer relatively early. It's a way to reduce stress.'

## Design of the test

In 2013, Durham contacted Admissions Testing to develop a trial test to improve its admissions process. Professor Abel says the University was keen to speak to 'the professionals' – a team used to writing and developing tests at this level.

'The most valuable thing about working with Cambridge Assessment Admissions Testing is the professional expertise they bring to the design of TMUA,' says Professor Abel. 'The questions are fine-tuned and really probing, and I appreciate the opportunity to meet with the team once a year to review the test.'

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Professor Abel believes the test facilitates fairer access to university courses, particularly for those students whose schools do not offer A Level Further Mathematics, or who only get to study it in Year 13.

'Many schools don't know how good their students are and their predicted grade is too low,' says Professor Abel, who adds that some applicants who were predicted a B showed they were better than that through their TMUA result.

Since the test's successful implementation at Durham, the University of Warwick has also started using TMUA to identify those with the potential to thrive on its mathematics and mathematics-related degree courses.

'Beyond a thorough understanding of A Level Maths and Further Mathematics, a student needs two qualities,' says Professor Samir Siksek of the University of Warwick Mathematics Institute. 'The first is the ability to solve problems and apply knowledge in unfamiliar settings; the second is the capacity to cope with abstraction and generality, and to understand proofs.'

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'Preparing for it is a great way to nurture these qualities and ease the sometimes difficult transition from school maths to university maths.'

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## Find out more

 [admissionstesting.org](https://admissionstesting.org)

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