Mathematics in Education and Industry

'Oxford Maths Entrance Test' preparation course

A six-week live online preparation course delivered using a _Blackboard Collaborate_ virtual classroom

Autumn 2012

The Oxford Entrance Test is set with the aim of being approachable by all students, including those without Further Mathematics A-level, and those from other educational systems (e.g. International Baccalaureate and Scottish Highers).

It aims to test the depth of mathematical understanding of a student in the fourth term of their A-levels (or equivalent) rather than a breadth of knowledge.

This course is intended for students applying for Oxford degree courses in Mathematics, Mathematics & Statistics or Mathematics & Philosophy.

Students applying for any of the above courses will need to answer the first five questions of the entrance test. This course is designed to equip students, with at least an AS Level in Mathematics or equivalent, to develop their mathematical thinking and so gain confidence in tackling these questions.

The course is not intended for students applying for Oxford degree courses in Computer Science or Mathematics & Computer Science, but will cover some of the topics required for the entrance paper.

Students will be expected to:

- work through questions prior to a session
- fill in any gaps following a session
- download materials from the Oxford University Mathematical Institute website: **maths.ox.ac.uk/prospective-students/undergraduate**
- ensure that they are available to participate at the times (17:00-18:00) and dates (see over) of the live session which will concentrate on a particular aspect of the entrance test

The course tutor has substantial experience of working with students at this level.

MEI
Innovators in Mathematics Education

Course programme

Date	Topic
Monday 17 September	Multiple choice questions and algebra
Monday 24 September	Functions and calculus
Monday 1 October	Thinking outside the box
Monday 8 October	Detailed consideration of the 2008 paper
Monday 15 October	Detailed consideration of the 2009 paper
Monday 22 October	Detailed consideration of the 2010 paper

Following each session, students will receive by email a copy of the PowerPoint presentation used in that session, which will include 'dynamic' worked solutions for questions discussed within the session. This is ideal for students who wish to work through the material at their own pace. *Note that the Oxford University Mathematical Institute publish solutions to the Specimen Papers and to the actual papers set in 2007, 2008, 2009, 2010 and 2011.*

The 2011 paper will be used as a 'mock' exam. Students will be sent worked solutions towards the end of the half-term break. The actual entrance test will be taken on Wednesday 7 November 2012.

About *Blackboard Collaborate*

A package called *Blackboard Collaborate* (formerly *Elluminate*) will be used to provide the sessions, allowing tutor and student to communicate in audio, by handwriting on a shared virtual whiteboard and by instant messaging. We use *Blackboard Collaborate* because it is a well-established package that is easy to use, and which has extensive support and optimum features, which include:

- Shared whiteboard
- Audio conferencing
- Instant messaging
- Application sharing
- A graphical calculator

All that is needed to participate in these sessions is a broadband internet connection. A simple headset, or headphones and a microphone, is needed to communicate in audio. For this course, students are not expected to speak, so a set of speakers or headphones will suffice.

How to apply

The fee for this course is £50. The number of places is limited, so will be allocated on a 'first-come, first-served' basis. To apply students must complete and return an application form along with a cheque or payment details for the course fees to MEI.

All successful applicants will be sent further details of the course by email, including instructions on how to use the *Blackboard Collaborate* virtual classroom and what they need to do prepare for the first session.

If you require any further information, including an application form, then please contact Jamie Connor: **jamie.connor@mei.org.uk**.