

MANCHESTER  
1824

The University of Manchester

mA\*ths  
Online  
Programme

Supported by

**The Hg  
Foundation**

# WELCOME TO THE Further mA\*ths Online Programme

## A GUIDE FOR YEAR 12 LEARNERS



The University of Manchester  
[mathsonline@manchester.ac.uk](mailto:mathsonline@manchester.ac.uk)

# INTRODUCTION

Congratulations! 🎉 We received an impressive number of applications, and we are excited that you are joining the University of Manchester mA\*ths Online pupil community!

This initiative runs in collaboration with Mathematics in Education and Industry (MEI) and Imperial College, London and is supported by the Hg Foundation. The programme is intended to support students with the academic ability to achieve A/ A\* at A-Level to reach their full academic potential in their Maths studies.

Through this programme, you will:

- Receive tailored support, including online mentoring and face-to-face masterclasses.
- Expand your network and familiarise yourself with the University environment.
- Develop the skills you need to achieve an A\* in A-level Further Mathematics.
- Build your confidence to apply to universities that require an A\* in Further Mathematics for your chosen subject.



16-week Massive Open Online Courses (MOOCs)



2 on-campus Masterclass events



Group mentoring sessions with University student mentor



Attending 6 mentoring sessions



Online Discussion Forum



Certificate of Completion\*

\*A Certificate of Completion will be awarded once the specified criteria are fulfilled.

## KEY DATES

### On-campus Events

Masterclass One	Saturday, 17 <sup>th</sup> January 2026	The University of Manchester Campus
Masterclass Two	Saturday, 16 <sup>th</sup> May 2026	

### MOOCs and Mentoring Sessions

The programme focused on A-level Mathematics for Year 13, comprising 14 modules across two courses.

Course 1: Functions, Sequences and Series, and Numerical Methods

Course 2: General Motion, Moments and Equilibrium, The Normal Distribution, Vectors, Differentiation Methods, Integration Methods and Differential Equations

#### Massive Open Online Course 1 (MOOC 1)

Week	Module	Mentoring Session
Week 1 w/c 19th January	Module 1: Complex Numbers 1	No mentoring sessions
Week 2 w/c 26th January	Module 2: Matrices 1	No mentoring sessions
Week 3 w/c 2nd February	Module 3: Further Algebra and Functions 1 & Assessment 1	1st week of mentoring
Week 4 w/c 9th February	Module 4: Complex Numbers 2 - The Complex Plane	No mentoring sessions
Week 5 w/c 16th February	Module 5: Matrices 2	No mentoring sessions
Week 6 w/c 23rd February	Module 6: Further Algebra and Functions 2 & Assessment 2	2nd week of mentoring
Week 7 w/c 2nd March	Module 7: Vectors 1	No mentoring sessions
Week 8 w/c 9th March	Module 8: Vectors 2 & Assessment 3	3rd week of mentoring

## KEY DATES

### MOOCs and Mentoring Sessions

The programme focused on A-level Mathematics for Year 13, comprising 14 modules across two courses.

Course 1: Functions, Sequences and Series, and Numerical Methods

Course 2: General Motion, Moments and Equilibrium, The Normal Distribution, Vectors, Differentiation Methods, Integration Methods and Differential Equations

#### Massive Open Online Course 2 (MOOC 2)

Week	Module	Mentoring Session
Week 1 w/c 23rd March	Module 1: The determinant and inverse of a 3 x 3 matrix	No mentoring sessions
Week 2 w/c 30th March	Module 2: Mathematical induction	No mentoring sessions
Week 3 w/c 6th April	Module 3: Further differentiation and integration & Assessment 1	1st week of mentoring
Week 4 w/c 13th April	Module 4: Applications of integration	No mentoring sessions
Week 5 w/c 20th April	Module 5: An introduction to Maclaurin series	No mentoring sessions
Week 6 w/c 27th April	Module 6: Complex numbers - deMoivre's Theorem & Assessment 2	2nd week of mentoring
Week 7 w/c 4th May	Module 7: An introduction to polar coordinates	No mentoring sessions
Week 8 w/c 11th May	Module 8: Hyperbolic functions & Assessment 3	3rd week of mentoring



## WHAT TO EXPECT?

### From Us:

- Weekly updates and communication.
- Ongoing guidance throughout the programme.
- Platform support.
- Attendance monitoring and follow-up.

### From You:

- ATTENDANCE at all of the on-campus events
- ACTIVE PARTICIPATION to online mentoring sessions
- COMPLETION of all Massive Open Online Courses
- ADHERE to any guidelines and instructions provided by the programme delivery team
- E-sign the STUDENT CODE OF CONDUCT which details all relevant guidelines relating to the programme (please see the copy in the next page)

## How do I complete the programme & receive the certificate of completion?

- ✓ Completion of ALL modules (MOOCs) on EdX (we'll cross-reference it with the EdX platform);
- ✓ Attendance at BOTH of the on-campus masterclass events;
- ✓ Attendance at ALL online mentoring sessions;
- ✓ Completion of ALL our questionnaires and surveys.

# STUDENT CODE OF CONDUCT

This section sets out the expectations for how Further mA\*ths Online students will participate in the programme; including the in-person events and online sessions with their mentor.

## Attendance

As a learner on this programme, you are agreeing to:

1. Attending ALL of the on-campus events.
2. Completing EdX modules during designated MOOC weeks, and attending at least one mentoring session per mentoring week.
3. Arriving on time for all sessions once timings have been confirmed
4. Notifying your absence to the programme team at [mathsonline@manchester.ac.uk](mailto:mathsonline@manchester.ac.uk).
5. Receive communication regarding poor attendance. Attendance and completion of modules is needed to continue within the programme.

## All activities

As a student on the Further mA\*ths Online programme, we expect you to:

- Update your parents/carers regarding the in-person events and online delivery of the programme.
- Adhere to any pre-event guidance communicated during the booking process.
- Arrive on time to all sessions.
- Never attend sessions under the influence of alcohol or illegal drugs.
- Never smoke or vape during a session.



- Inform the mA\*ths Online team as soon as possible if you can no longer attend an event/mentoring session, or if you have to arrive late/leave early.
- Never share the invitation link to an event with others. Any uninvited attendees will be removed from sessions immediately.
- Act responsibly and follow instructions from session leaders and University staff.
- Contact the mA\*ths Online team as soon as possible if you hear or see anything upsetting or inappropriate during an event or mentoring session.
- Engage in all sessions, listen and contribute your thoughts when appropriate.
- Never give out any personal information, such as your phone number or home address to anyone except mA\*ths online staff (not mentors).
- Never try to contact University staff or mA\*ths Online mentors through their personal email addresses or social media. You must inform the mA\*ths Online team if a member of university staff or student tries to contact you in this way.

## Misbehaviour

In the event of misbehaviour, students will be subject to a disciplinary process. This includes the possibility of immediate withdrawal from the programme in the event of serious misbehaviour.

**(continued)**

# STUDENT CODE OF CONDUCT

## In person activities

In addition to the last page, you are expected to:

- Not attend if you have tested positive for Covid-19.
- If there's an urgent issue or you need to leave the event because you feel unsafe or ill, you must inform the mA\*ths Online team as soon as possible before leaving.
- Interact with University members of staff, Student Ambassadors, mentors and other students with respect at all times.
- Be mindful that the campus is open to the general public and that whilst on campus you are representing the mA\*ths Online programme.

## Anti-bullying policy

Bullying can take different forms, such as but not limited to:

- Verbal – name calling, making nasty jokes, comments or threats.
- Emotional – excluding or ignoring people.
- Cyberbullying - sending bullying messages, pictures or videos through social media, texts, email etc.

The University of Manchester promotes equality and diversity. We want all students attending programmes to feel welcome and safe. We will not tolerate any form of bullying. You must show respect and kindness to fellow mA\*ths Online students, staff, mentors and student ambassadors. If you notice or suspect that someone else is being bullied, inform the mA\*ths Online team as soon as possible.



## Online activities

- Ensure that your camera and microphone are working.
- Contact the mA\*ths Online team if there are any technical issues preventing you from fully engaging in the online sessions.
- Log in to sessions using your first and last name. If you log in or register with a name we don't recognise, we may need to remove you from the session.
- Attend all events from a suitable room in the house, sitting in an appropriate place, with an appropriate background. If this is in your bedroom, please make sure you are sitting at a desk or table if possible.
- Follow housekeeping instructions from the mentor that will be given at the start of the session (e.g. mute microphone). Repeated failure to do so will result in you being removed from the session.
- If there's an urgent issue or if you need to leave the meeting because you feel unsafe or ill, please leave and inform the mA\*ths online team as soon as possible.
- Never record or take screenshots or photos of online events. You will be sent all the information shared on screen so there is no need to take screenshots.
- Engage fully during your mentoring sessions and ensure that you prepare in advance for your sessions
- Never try to contact your mentors on social media or meet with them outside the arranged tutorials.



# integral

## GETTING SET UP - INTEGRAL

The first time you log in you will be asked to change your password. Make sure you pick a memorable password.

It will help if your password is the same as the password you used for edX.

You will be using Integral for **all communication** with your mentor and the course leaders.

Note: If you already have an Integral login through your school, it will not work for this course.

Go to <https://integralmaths.org/> (you can simply type integralmaths.org into the address/search bar)

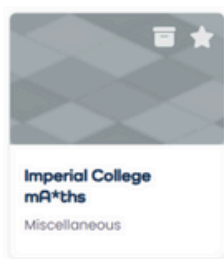
Log in using your username and the initial password. Follow the instructions to change your password.

You should enter the course directly on completing the password change. If you don't, follow these instructions


Click  at the top of the page.



The link for the course looks like this:

Click on it to enter the course



You can contact your mentor by two methods:

Using the  Discussion forum forum to ask more involved questions (you can upload pictures of working or Word files to this).

Use  Online classroom the online classroom by arrangement with you mentor to talk through any problems. 



Go to <https://www.edx.org/> From the top right-hand corner of the webpage, click on 'Register for free'.

You will be asked to fill in a short form. Although you can sign in with a Facebook, Google+ or Microsoft account, we ask that you create a new account using the form. This will allow us to track your progress through the course. Fill in all of the spaces. Be very careful to use a working email and enter it carefully. Your Public Username cannot contain spaces. Use something sensible. It must be unique. The password needs both numbers (at least 1) and letters. Untick the marketing box if you wish, and click to 'Create an account for free'.

You will be sent an email to verify your account.

The use the search feature to search for 'A Level Further Mathematics'. You will actually probably see the ImperialX courses appearing Click 'Search' to see all results.

You are looking for the course: 'A-level Further Mathematics for Year 12 - Course 1...' Click on the course.

Click the 'Audit course' button under box on the right hand side. On the next page, scroll past the box asking for money and click 'Audit course' again Important: When you 'Audit' a course on edX you will still get the full experience. You will get messages asking you to pay. Do not pay on edX. You will get a certificate directly from The University of Manchester and not through edX.

## GETTING SET UP - EdX

Register for free

Register Sign in

Full name

Email

Public username

Password

Country/Region

United Kingdom

I agree that edX may send me marketing messages.

By creating an account, you agree to the [Terms of Service and Honor Code](#) and you acknowledge that edX and each Member process your personal data in accordance with the [Privacy Policy](#).

Create an account for free

Confirm my email

A level further Search

**A-level Further Mathematics for Year 12 - Course 1:**  
Complex Numbers, Matrices, Roots of Polynomial Equations and Vectors  
ImperialX Course

**A-level Further Mathematics for Year 13 - Course 1:**  
Differential Equations, Further Integration, Curve

Imperial College London

**A-level Further Mathematics for Year 12 - Course 1: Complex...**  
ImperialX

Course

Starts Aug 05  
Ends Sep 01

Advance your career

8,317 learners enrolled

Audit course



## FREQUENTLY ASKED QUESTIONS (FAQ)

### What can I expect from the programme?

You can expect a combination of on-campus masterclasses, online mentoring sessions, and individual support. The programme will help you improve your mathematical skills, build confidence, and prepare for A-Level exams. You'll also have access to platforms for additional learning resources.

### How do the mentoring sessions work?

You'll be assigned to a group of around 10 students, with one mentor leading the sessions. There will be six online mentoring sessions you must attend, exploring various A-Level Further Mathematics topics and work through assessments, but ultimately the topics are led by you and your peers.

### When does the programme start and end?

The programme runs from 25<sup>th</sup> October 2025 to 28<sup>th</sup> February 2026. There will be two on-campus masterclasses and six online tutorials held throughout this period, and a Christmas Holiday break.

### What should I do if I need to miss a session?

If you know in advance that you will need to miss a mentoring session, please notify the programme team by emailing [mathsonline@manchester.ac.uk](mailto:mathsonline@manchester.ac.uk) as soon as possible.

### What if I have technical issues during the online mentoring session?

If you experience any technical difficulties, please notify the programme team by emailing [mathsonline@manchester.ac.uk](mailto:mathsonline@manchester.ac.uk) as soon as possible.

### How do I contact my mentor?

Your mentor will not give you their personal contact details. You will be able to contact them in the Integral Discussion Board, and any further communication will be via [mathsonline@manchester.ac.uk](mailto:mathsonline@manchester.ac.uk).

### Will there be any assessments?

There are no formal assessments, but you will complete 6 assessments on EdX throughout the programme and discuss them during the online tutorial sessions.