# Advance Information for Summer 2022

## AS Level

## Mathematics B (MEI)

## H630

We have produced this advance information to support teachers and students with revision for the Summer 2022 examinations.

**Information**

- This notice covers all examined components.
- There are no restrictions on who can use this notice.
- You are **not** permitted to take this notice into the exam.
- This document has **3** pages.

**Advice**

- Students and teachers can discuss this advance information.
- It is advised that teaching and learning should still cover the entire subject content in the specification.
- The information is presented in specification order by the main topic of each question and not in question order.
- Topics not explicitly given in the list may appear in low tariff items or via synoptic questions.

If you have any queries about this notice, please call our Customer Support Centre on **01223 553998** or email general.qualifications@ocr.org.uk.

**H630/01 – Pure Mathematics and Mechanics**

**Pure Mathematics**

- Quadratic function, transformations
- Surds
- Coordinate geometry of straight lines, trigonometry
- Straight line models
- Binomial expansions
- Trigonometric graphs, solving trigonometric equations
- Tangents and normals, proof
- Integration as reverse of differentiation; sketching polynomial curves

**Mechanics**

- Kinematics graphs
- Calculus in kinematics
- Equation of motion in vector form
- Connected particles, force diagrams

**H630/02 – Pure Mathematics and Statistics**

**Pure Mathematics**

- Factorising a polynomial; quadratic inequalities
- Curve sketching; intersections
- Exponentials and logarithms
- Stationary points, curve sketching
- Area under a curve
- Position vectors, magnitude and direction

**Statistics**

- Sampling techniques; regression lines
- Data presentation; summary measures
- Data presentation; modelling with regression lines
- Discrete probability distributions
- Hypothesis testing for a binomial probability

**END OF ADVANCE INFORMATION**