Syllabus update

Cambridge International A Level Further Mathematics 9231 (for examination in 2016)

We have updated this syllabus. The latest syllabus is version 3, published April 2015.

A new section has been added: Section 6

6. Formulae and statistical tables (MF10)

All following sections have been renumbered to reflect the addition.

Previous updates are listed below and were in version 2 of the syllabus.

Changes have been made to page 10, 5.1 Paper 1 Theme 2. Polar coordinates

The second and third bullets have been updated and now read

- sketch simple polar curves, for $0 \leqslant \theta < 2\pi$ or $-\pi < \theta \leqslant \pi$ or a subset of either of these intervals (detailed plotting of curves will not be required, but sketches will generally be expected to show significant features, such as symmetry, the form of the curve at the pole and least/greatest values of r);
- recall the formula $\frac{1}{2}\int_{\alpha}^{\beta} r^2 \mathrm{d}\theta$ for the area of a sector, and use this formula in simple cases.

Changes have been made to page 15, 5.2 Paper 2, Theme 1. Momentum and impulse

The second bullet has been updated and now reads

- recall Newton's experimental law and the definition of the coefficient of restitution, the property $0 \leqslant e \leqslant 1$, and the meaning of the terms 'perfectly elastic' (e = 1) and 'inelastic' (e = 0);

Changes were previously made to page 19, 6. Mathematical notation, 1 Set notation (version 2) and are now page 26, 7. Mathematical notation, 1 Set notation (version 3)

$\mathbb{Q}_0^+$	set of positive rational numbers and zero, $\{x \in \mathbb{Q} : x \geqslant 0\}$
$\mathbb{R}_0^+$	the set of positive real numbers and zero, $\{x \in \mathbb{R} : x \geqslant 0\}$
$[a, b]$	the closed interval $\{x \in \mathbb{R} : a \leqslant x \leqslant b\}$
$[a, b)$	the interval $\{x \in \mathbb{R} : a \leqslant x < b\}$
$(a, b]$	the interval $\{x \in \mathbb{R} : a < x \leqslant b\}$

Changes have been made to page 20, 6. Mathematical notation, 2 Miscellaneous symbols (version 2) and are now page 27, 7. Mathematical notation, 2 Miscellaneous symbols (version 3)

$\leqslant$	is less than or equal to, is not greater than
$\geqslant$	is greater than or equal to, is not less than

Changes have been made to page 21, 6. Mathematical notation, 7 Complex numbers (version 2) and are now page 28, 7. Mathematical notation, 7 Complex numbers (version 3)

$\arg z$	the argument of z, $\arg z = \theta, -\pi < \theta \leqslant \pi$

Changes have been made to page 22, 6. Mathematical notation, 10 Probability and statistics (version 2) and are now page 29, 7. Mathematical notation, 10 Probability and statistics (version 3)

$F(x), G(x), \ldots$	the value of the (cumulative) distribution function $P(X \leqslant x)$ of a continuous random variable X