CAMBRIDGE
International Examinations

Syllabus update

Cambridge International Level 3
Pre-U Certificate in Further Mathematics (Principal) (9795)
(for examination in 2016, 2017 and 2018)

We have updated this syllabus. The latest syllabus is version 3, published September 2016.

The Pre-U list of mathematical formulae and statistical tables (MF20) has been updated for examinations from June 2017. The updated version will be issued for future examinations. The MF20 formulae list is duplicated on pages 21 to 38 of the updated syllabus document.

Formulae for moment generating functions (M.G.F.s) of standard discrete distributions have been added on page 25 of the syllabus and page 7 of the updated MF20 formulae list.

The following are changes made to version 2 of the syllabus published September 2015.

Following an internal review of our Pre-U Further Mathematics papers, we have updated the specimen assessment materials for examination from 2016.

Individual questions in the specimen assessment materials have been updated in terms of wording and structure. A limited number of questions have been updated, and the overall style of assessment remains the same, but the changes better support an appropriate profile of demand. The changes do not affect the content of the qualification.

There is a correction to the equations for arc length on page 24. The correction has been made to all three forms: the form for cartesian coordinates, the parametric form and the polar form.

Cartesian coordinates form: $s = \int \sqrt{1 + \left(\frac{\mathrm{d}y}{\mathrm{d}x}\right)^2}\,\mathrm{d}x$ has been updated to be $s = \int \sqrt{1 + \left(\frac{\mathrm{d}y}{\mathrm{d}x}\right)^2}\,\mathrm{d}x$

Parametric form: $s = \int \sqrt{\left(\frac{\mathrm{d}x}{\mathrm{d}t}\right)^2 + \left(\frac{\mathrm{d}y}{\mathrm{d}t}\right)^2}\,\mathrm{d}t$ has been updated to be $s = \int \sqrt{\left(\frac{\mathrm{d}x}{\mathrm{d}t}\right)^2 + \left(\frac{\mathrm{d}y}{\mathrm{d}t}\right)^2}\,\mathrm{d}t$

Polar form: $s = \int \sqrt{r^2 + \left(\frac{\mathrm{d}r}{\mathrm{d}\theta}\right)^2}\,\mathrm{d}\theta$ has been updated to be $s = \int \sqrt{r^2 + \left(\frac{\mathrm{d}r}{\mathrm{d}\theta}\right)^2}\,\mathrm{d}\theta$

The following are changes made to version 1 of the syllabus, published February 2014.

We revised and clarified the syllabus content. Additional detail in the content of the following syllabus sections has been provided: ‘roots of polynomial equations’ (page13 of the syllabus); ‘differential equations’ (page15 of the syllabus). In the mechanics section we replaced ‘relative motion’ with ‘equilibrium of a rigid body’.