

OXFORD

INTERNATIONAL
AQA EXAMINATIONS

INTERNATIONAL A-LEVEL FURTHER MATHEMATICS (9665)

Outline Schemes of Work – review version

For teaching from September 2017 onwards

For AS exams in June 2018 onwards

For A2 exams in June 2019 onwards

Introduction

These outline schemes of work are intended to help teachers plan and implement the teaching of the Oxford AQA International A-level Further Mathematics specification. The purpose of these outline schemes is to provide advice and guidance to teachers, not to prescribe and restrict their approach to the specification. Each scheme has been produced by a practicing A-level Further Maths teacher. There are obviously many other ways of organising the work, and there is absolutely no requirement to use these schemes.

Scheme 1, AS Further Maths with two teachers

It is possible to teach some of the content alongside A-Level AS, perhaps beginning shortly before half term in Year 12. It is assumed that there is a total of 4 to 4.5 hours per week of contact time and around 36 weeks in the academic year available for teaching. The scheme assumes equal contact time for the two teachers.

Date	Teacher A	Teacher B	Notes
Term 1 Year 12 Starting after first few weeks of term	Roots and coefficients of a quadratic equation. (FP1.4) Complex Numbers. Real and Imaginary Parts. Arithmetic of complex numbers. (FP1.3) Matrix Algebra. Simple transformations using 2x2 matrices. (FPP1.1)	Tree diagrams. Bayes theorem. (FS.1) Introduction to probability generating functions and use to find mean and variance. (FS1.4) Numerical methods to find roots of equations. (FPP1.3) Euler's step-by step method. (FPP1.3)	Can begin immediately after basic work on quadratic equations and probability in A-Level Maths.
Term 2	Summation of series using $\sum r^n$ formulae. (FP1.5) Method of differences. (FP1.5) Coordinate geometry. Simple locus problems. (FP1.2) Loci in the complex plane. (FP1.3)	Gradient of tangent to curve using limit as $h \rightarrow 0$ (FP1.7) Small changes and connected rate of change. (FP1.7) Simple Improper integrals. (FP1.7) Uniform distribution. (FS1.2)	

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