

Introductory Mathematics and Physics: Self Study Modules

Oxford Physics provides self study materials to help new students make the transition from school to university level mathematics. These are based on the FLAP (Flexible Learning Approach to Physics) modules developed by the Open University, and will be provided to students who need them either on or shortly before arrival. A set of self-assessment questions is provided to help you work out which, if any, modules you need

The FLAP mathematics modules have also been published as two books, *Basic Mathematics for the Physical Sciences* and *Further Mathematics for the Physical Sciences*, which are suitable for students who want to start studying straight away. The table below indicates the correspondence between FLAP modules and these books. Unfortunately the FLAP physics modules are not available in book form.

Please note: All FLAP modules are available (ONLY to Physics tutors) from the webpage at:
<http://www.physics.ox.ac.uk/teach/flap.htm>

Title	Module	Chapter
Student Guide	M0.0	
Maths Handbook	M0.1	
Arithmetic and Algebra	M1.1	B1
Numbers, units and physical quantities	M1.2	B2
Functions and graphs	M1.3	B3
Solving equations	M1.4	B4
Exponential and logarithmic functions	M1.5	B6
Trigonometric functions	M1.6	B5
Introducing geometry	M2.1	B8
Introducing coordinate geometry	M2.2	B9
Introducing scalars and vectors	M2.4	B11
Working with vectors	M2.5	B12
Introducing complex numbers	M3.1	F1
Introducing differentiation	M4.1	B13
Basic differentiation	M4.2	B14
Further differentiation	M4.3	B15
Stationary points and graph sketching	M4.4	B16
Hyperbolic functions	M4.6	B7
Introducing integration	M5.1	B17
Techniques of integration	M5.3	B19
Applications of integration	M5.4	F11
Further integration	M5.5	F12
Motion in one dimension	P2.1	
Projectile motion	P2.2	
Forces	P2.3	
Work and energy	P2.4	
Circular motion	P2.6	
Rotational mechanics	P2.7	
Angular momentum	P2.8	
Simple harmonic motion	P5.1	
AC circuits and electrical oscillations	P5.4	
The mathematics of oscillations	P5.5	