

**Syllabus 9700****AS Biology**

**Recommended Prior Knowledge** Candidates should have at least a Grade C in IGCSE or 'O' level (or the equivalent) Biology or Coordinated Science (Dual Award Science).

**General Resources** Especially useful web sites include: The Institute of Biology [www.iob.org](http://www.iob.org) The National Centre for Biotechnology Education [www.ncbe.reading.ac.uk](http://www.ncbe.reading.ac.uk) BBC AS Guru [www.bbc.co.uk/education/asguru/biology/](http://www.bbc.co.uk/education/asguru/biology/) Science and Plants for Schools [www.saps.plantsci.cam.ac.uk](http://www.saps.plantsci.cam.ac.uk) Biology 4all, [www.biology4all.com](http://www.biology4all.com)

The most useful single text book is *AS and A level Biology*, Jones, Fosbery, Taylor and Gregory, published by CUP. This book is specifically written for this syllabus. It is referred to here as '*Biology*'. For practical work, *Practical Advanced Biology*, King and Reiss, pub. Nelsonthornes and *Comprehensive Practical Biology*, Siddiqui, pub. Ferozons are both excellent.

**UNITS**

1	<Cells and Cell Division> <The structure of eukaryotic and prokaryotic cells, and an outline of the functions of organelles; mitosis and its significance> <Section A, Cell Structure and Section E, Cell Division>
2	Molecules and Membranes The structures and roles of biological molecules and water, and the structure and roles of cell membranes Section B, Biological Molecules and Section D, Transport across Membranes
3	Enzymes, DNA and Protein Synthesis The activity of enzymes, and the control of protein synthesis by DNA Section C, Enzymes and Section F, Genetic Control
4	Transport and Gas Exchange Transport systems in plants and mammals, and gas exchange in humans Section G, Transport and Section H, Gas Exchange
5	Interrelationships The relationship between pathogens and humans, including immunity, and an outline of energy transfer and the nitrogen cycle in natural communities

**TEACHING ORDER** You could teach this course following the sequence of Units listed above. Alternatively, Unit 2 could precede Unit 1. It is recommended that these two Units are dealt with early, and certainly before Units 3 and 4. It would be possible to cover Unit 5 earlier if desired, for example to enable study of an ecosystem at a suitable time of year.