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 The National Centre for Biotechnology Education www.ncbe.reading.ac.uk BBC AS Guru www.bbc.co.uk/education/asguru/biology/ Science and Plants for Schools www-saps.plantsci.cam.ac.uk Biology 4all, 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.