

SUBJECT: Biology A Level

HEAD OF DEPARTMENT:Dr F Wall

EXAM BOARD AND SYLLABUS NUMBER: OCR Biology A H420 / QAN: 60142601

SYNOPSIS OF CONTENT:

Module 1: The development of practical skills. This involves implementing, analysing planning, investigations. Module 2: Foundations in biology includes the following topics; cell structure, cell division, cell diversity, biological molecules e.g. enzymes. Module 3: Exchange and Transport includes the following topics; gas exchange, transport in plants, transport in animals. Module 4: Biodiversity, Evolution and Disease includes the following topics; biodiversity, classification and evolution, immune system, disease and disease prevention. Module 5: Communication, Homeostasis and Energy includes the following topics; photosynthesis, respiration, excretion, nervous and hormonal systems. Module 6: Genetics, Evolution and Ecosystems includes the following topics; patterns of inheritance, cloning, biotechnology, manipulating genomes, ecosystems, populations and sustainability

WHY STUDY THIS SUBJECT?

Students will develop: the ability to construct, analyse and evaluate scientific methods, explanations, techniques; the ability to apply and use scientific facts and concepts; the ability to demonstrate an understanding of scientific facts and concepts; an ability to appreciate how society makes decisions about scientific issues; transferable skills including problem solving, research, decision making, mathematical skills and analytical skills.

SELF STUDY ADVICE / USEFUL WEBSITES:

www.ocr.org

http://www.s-cool.co.uk

http://www.biologymad.com

http://www.bozemanscience.com/biology-main-page/

HOW IS IT ASSESSED?

Multiple choice, structured questions and extended response covering theory and practical skills. Paper 1 Biological processes 2 hrs 15 min. Questions on modules 1, 2, 3 and 5. Paper 2 Biological Diversity 2 hrs 15 min. Questions on modules 1, 2, 4 and 6. Paper 3 Unified Biology 1 hr 30 mins. Practical skills, non-exam practical endorsement reported separately pass/fail. 12 key practical assessments carried out across the course and examined on the written papers.

ADDITIONAL INFORMATION / CAREER OPPORTUNITIES

Students have the opportunity to attend a field course to study ecology. A level Biology is an excellent base for a university degree in healthcare such as medicine, veterinary or dentistry as well as the biological sciences such as biochemistry, molecular biology or forensic science. It can also complement sports science, psychology and sociology. Career opportunities include; Biological research, medical, environmental, forensics, sports and communication science. Skills such as problem solving can be used in many areas such as law.

SPECIFIC MATRICULATION REQUIREMENTS Grade 6 in GCSE Biology or grade 66 in GCSE Combined Science: Trilogy, with a Grade 5 in GCSE Mathematics.