

POST 16 SUBJECT OVERVIEW

Name of Subject - Biology

Which Examination Specification is Studied for this Course? AQA Biology 7402

Why should I study this course? - Biology is the study of living organisms and the processes that occur within and around them that ensure life continues. If you are intrigued by the how and why things work the way they do in organisms, then A level Biology is for you. You will further develop your understanding of key Biological concepts such as genetics, physiology and immunity, where you will discover new things, not just about your own body but other organisms as well. Biology is a fantastic pathway into a multitude of different careers and is a desirable subject for many university courses.

Who is suitable to study this course? -

Biology is a great choice of subject for students who are wanting to study a science related degree course or students aiming for a career in health or clinical professions such as medicine, dentistry, veterinary science, physiotherapy, pharmacy, optometry, nursing, zoology, marine biology, ecology, environmental sciences, forensic science, biochemistry, genetics and many more. Other subjects that are often studied alongside Biology and can help with understanding are: Maths, Chemistry, P.E., Psychology.

What GCSE Qualifications Support the Study of this Course?

Triple Science is preferable. Students who have taken Combined Science may have to work a little bit harder to catch up on content not covered at GCSE.

What are the Qualification Requirements for this Course?

6's in Triple Science, 6/6 in Combined Science, plus 6 in English Language and 6 in Maths.

How is the Course Delivered? -

You will have 2 lessons a week in Biology, one 2 hour lesson and one 3 hour lesson, totally 5 hours of learning. This is often delivered by two different teachers however, this can sometimes vary. You are expected to complete a significant amount of home learning and independent study due to the volume of content in the course. Home and independent learning is supported using Google classroom, where each class will have their own area. Embedded within lesson time over the 2 years are 12 'required practicals' which are completed in a lab book and assessed.

Subject Overview		
Half Term	Year 12	Year 13
Autumn 1	Biological molecules/Cells	Energy and Ecosystems/ Populations and Ecosystems
Autumn 2	Biological molecules/Cells	Energy and Ecosystems/ Populations and Ecosystems
Spring 1	Gas exchange/Mass Transport	Coordination and Control/ Gene Expression
Spring 2	Gas exchange/Mass Transport	Coordination and Control/ Gene Expression
Summer 1	Genetics and Variation	Revision/essay practice and exam prep
Summer 2	Consolidation/Year 13 preparation.	Exam prep/Exams

How is the Course Assessed?

The course is 100% exam based and examined by 3 terminal exam papers:

Paper 1

Any content from topics 1–4, including relevant practical skills written exam: 2 hours - 91 marks (35% of A Level) 76 marks: a mixture of short and long answer questions 15 marks: extended response questions.

Paper 2

Any content from topics 5–8, including relevant practical skills written exam: 2 hours - 91 marks (35% of A Level) 76 marks: a mixture of short and long answer questions 15 marks: comprehension question.

Paper 3

Any content from topics 1–8, including Any content from topics 1–8, including relevant practical skills written exam: 2 hours - 78 marks (30% of A Level) 38 marks: structured questions, including practical techniques 15 marks: critical analysis of given experimental data 25 marks: one essay from a choice of two titles

Across each exam the following skills are assessed:

AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures.

AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures: In a theoretical context In a practical context When handling qualitative and quantitative data.

AO3: Analyse, interpret and evaluate scientific information, ideas and evidence, including in relation to issues, to: Make judgements and reach conclusions Develop and refine practical design and procedures.

Throughout the course students are assessed at regular intervals using praising stars tests which test any content which has been covered up to that point of the course.

What is our Recommended Subject Reading list to Support your Study?

Key text book

A Level year 1 and As – Toole, G. and Toole, S. 2015. AQA Biology 2 nd Edition. Oxford

A Level year 2 - Toole, G. and Toole, S. 2015. AQA Biology 2 nd Edition. Oxford

Additional text books

CGP. 2015. New A-Level Biology for AQA: Year 1 & AS Student Book

CGP. 2015 New A-Level Biology for AQA: Year 2 Student Book

Jones, M. and Higginbottom, L. 2015. Biology AQA A-Level year 1 and As Student Book.

Collins

Boyle, M. 2015. Biology AQA A-Level year 2 Student Book. Collins

Recommended reading

CGP. 2015. Head Start to A-Level Biology

Dr. Al Waters AQA Biology Synoptic essays, Amazon

Jo Ormisher, 2017. AQA Practical Biology, Hodder

Recommended websites

<http://www.alevelbiology.co.uk/as2.html>

<http://www.s-cool.co.uk/a-level/biology>

<http://vbio.weebly.com/aqa-a-level-revision-material.html>

<http://www.physicsandmathstutor.com/biology-revision/a-level-aqa/>

<http://www.biology-innovation.co.uk/>

(Past Papers and mark schemes for the new spec)

<http://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/assessment-resources>

Recommended revision guide

CGP. 2018. New A-Level Biology: AQA Complete Revision & Practice

CGP. 2018. A-Level Biology AQA Exam practice Workbook

Other Examples of wider reading for biology A level include:

The Selfish Gene Richard Dawkins



Behave: The Biology of Homosapiens Robert Sapolsky

The Double Helix James Watson

The Extended Phenotype Richard Dawkins

Origin of species Charles Darwin

Life Ascending Nick Lane

Genome Matt Ridley

The Lives of a Cell Lewis Thomas

The Story of the Human Body Daniel Lieberman

Life on the Edge Jim Al-Khalili and Johnjoe McFadden

The Epigenetic Revolution Nessa Carey

