

Switching to OCR B from OCR Human Biology

Introduction

We are really excited about our GCE Biology B qualification. Whether taking on the AS or the full A Level, this fantastic course is a great qualification for those with an interest in the subject. Why choose Biology B?

- The 'Big Ideas' of Biology are covered
- Popular and engaging topics from previous Biology and Human Biology qualifications are included
- Biology B is enjoyable to teach and learn, giving students the essentials for biology-related higher education courses as well as many transferable, marketable skills
- There are many opportunities for 'hands-on' practical, linking to our flexible practical assessment model
- The biological topics are presented in a clear and logical linear order with practical and maths opportunities highlighted.

Our offer

- Our A Level Biology team, Richard and Katherine, are passionate about biology and education. With biological research and teaching experience, they are fully committed to supporting centres' delivery of Biology B.
- We have produced a wide range of [support materials](#), from our handbooks (covering practical, maths and drawing skills) to delivery guides, lesson elements, practical activities, candidate exemplars and more.
- Join our conversation on the [OCR Community](#) and [@ocr_science](#) to talk about and share good practice.

[#PositiveAboutPractical](#)



Key differences

OCR Biology B	OCR Human Biology
A fully accredited A Level Biology qualification covering the whole range of biological topics and recognised as a key qualification ('facilitating subject') by universities, other HE providers and employers	Human Biology is not being reformed in the latest round of A Level development. This is an Ofqual decision and affects all exam boards. The existing course will have its final exam series in the summer of 2018 (for centres already offering the course) or 2017 (for centres not previously offering the course)
Flexible practical assessment allows you to use your own practical activities or select from our suggested activities	Controlled assessment tasks in Yr12 and a centre-marked, externally moderated Extended Investigation in Yr13
Practical skills take centre stage, detailed in full at the start of the specification in a separate module for clarity and prominence	The skills required for the tasks and the Extended Investigation are described in sections 3.3 and 3.6 of the specification
A section of multiple choice questions in the exams to allow breadth of coverage	No multiple choice questions
All 28 maths skills covered in our free maths skills handbook and further supported with online resources	Mathematical requirements listed in Appendix E of the specification



Content

The content within the [OCR Biology B specification](#) covers the ‘Big Ideas’ of biology in engaging contexts. The logical progression supports AS level co-teaching and linear A level.

OCR Biology B	OCR Human Biology
<p>Module 1: Practical skills Planning, implementing, analysis and evaluation Plus all the skills to be covered in the Practical Endorsement</p>	<p>Unit F223 (controlled assessment tasks)</p> <p>Unit F226 (Extended Investigation)</p>
<p>Module 2: Cells, chemicals for life, transport and gas exchange</p> <ul style="list-style-type: none"> • Cells and microscopy • Water and its importance in plants and animals • Proteins and enzymes • Nucleic acids • The heart and monitoring heart function • Transport systems in mammals • Transport systems in plants • Gas exchange in mammals and plants 	<p>F221 Module 1: Molecules and Blood</p> <ul style="list-style-type: none"> • The blood • Molecules • Preventing blood loss • Blood for medical use <p>F221 Module 2: Circulatory and Gas Exchange Systems</p> <ul style="list-style-type: none"> • The Heart and Monitoring Heart Function • The Circulatory System • The Lungs and Investigating Lung Function
<p>Module 3: Cell division, development and disease control</p> <ul style="list-style-type: none"> • The developing cell • The developing individual • The development of species • Pathogenic microorganisms • The immune system • Controlling communicable disease • The cellular basis of cancer and treatment 	<p>F222 Module 1: The Developing Cell</p> <ul style="list-style-type: none"> • Mitosis • Cancer <p>F222 Module 2: The Developing Individual</p> <ul style="list-style-type: none"> • The Biological Basis of Individuality and the Monitoring of Fetal Development <p>F222 Module 3: Infectious Disease</p> <ul style="list-style-type: none"> • Controlling the Spread of Infectious disease • Acquiring Immunity



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<ul style="list-style-type: none"> Respiratory diseases and treatment 	<ul style="list-style-type: none"> The Future of Infectious Disease Control <p>F222 Module4: Non-Infectious Disease</p> <ul style="list-style-type: none"> Lung disease
<p>Module 4: Energy, reproduction and populations</p> <ul style="list-style-type: none"> Cellular respiration Metabolism and exercise Fertility and assisted reproduction Effects of ageing on reproduction Photosynthesis, food production and management of the environment The impact of population increase Plant reproduction 	<p>F224 Module 1: Energy and Respiration</p> <ul style="list-style-type: none"> Respiration Athletic Performance <p>F224 Module 2: Human Reproduction and Populations</p> <ul style="list-style-type: none"> Fertility and Contraception Assisted Reproduction Food, Farming and Populations – Producing Food Food, Farming and Populations – Human Impact on the Environment <p>F225 Module 4: The Third Age</p> <ul style="list-style-type: none"> The Effects of Ageing on the Reproductive System
<p>Module 5: Genetics, control and homeostasis</p> <ul style="list-style-type: none"> Patterns of inheritance Population genetics and epigenetics Gene technologies The nervous system Monitoring visual function Effects of ageing on nervous system Homeostasis Hormonal control of blood glucose Kidney function and malfunction 	<p>F225 Module 1: Genetics in the Twenty First Century</p> <ul style="list-style-type: none"> Inheritance of Human Genetic Disease Genetic Techniques Counselling Individuals on Genetic Issues Transplant Surgery and Cloning <p>F225 Module 2: The Nervous System</p> <ul style="list-style-type: none"> Monitoring Visual Function Treating Central Nervous System Injuries Modifying Brain Function



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	<p>F225 Module 3: Homeostasis</p> <ul style="list-style-type: none"> • The Importance of Homeostasis • Managing Type 1 and Type 2 Diabetes • Urine Production • Treating Kidney Disease <p>F225 Module 4: The Third Age</p> <ul style="list-style-type: none"> • The Effects of Ageing on other Body Systems
<p>Appendix 5d: Mathematical requirements</p> <ul style="list-style-type: none"> • Arithmetic and numerical computation • Handling data • Algebra • Graphs • Geometry and trigonometry 	<p>Appendix E: Mathematical requirements</p> <ul style="list-style-type: none"> • Arithmetic and numerical computation • Handling data • Algebra • Graphs <p>Note: although the topic areas are very similar the details of what is required differ. Please read appendix 5d in the Biology B specification carefully to ensure your students are fully prepared for their assessments.</p>



Assessment

OCR Biology B	OCR Human Biology
<p>AS Paper 1: Foundations of Biology Modules 1-3 50% of AS Written paper 1 hour 30 minutes 70 marks</p> <p>Section A multiple choice questions, 20 marks. Section B short structured questions, covering problem solving, calculations, practical and theory, 50 marks.</p>	<p>AS Unit F221: Molecules, Blood and Gas Exchange 30% of AS Written paper 1 hour 60 marks</p>
<p>AS Paper 2: Biology in Depth, Modules 1-3 50% of AS Written paper 1 hour 30 minutes 70 marks</p> <p>Short structured questions and extended response questions, problem solving, calculations, practical and theory.</p>	<p>AS Unit F222: Growth, Development and Disease 50% of AS Written paper 1 hour 45 minutes 100 marks Advance notice element</p>
	<p>AS Unit F223: Practical Skills in Human Biology 20% of AS Controlled Assessment 40 marks</p>
<p>A Level Paper 1: Fundamentals of Biology Modules 1-5 41% of A level Written paper 2 hours 15 minutes 110 marks</p>	<p>A2 Unit F224: Energy, Reproduction and Populations 15% of A level Written paper 1 hour 60 marks</p>



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<p>Section A multiple choice questions, 30 marks. Section B short structured questions, and extended response questions, problem solving, calculations, practical and theory 80 marks.</p>	
<p>A Level Paper 2: Scientific Literacy in Biology Modules 1-5 37% of A level Written paper 2 hours 15 minutes 100 marks</p> <p>Advance notice article (underpins 20-25 marks). Short structured questions and extended response questions, problem solving, calculations, practical and theory.</p>	<p>A2 Unit F225: Genetics, Control and Ageing 25% of A level Written paper 1 hour 45 minutes 100 marks</p>
<p>A Level Paper 3: Practical Skills in Biology Modules 1–5 22% of A level Written paper 1 hour 30 minutes 60 marks</p> <p>Short structured questions and extended response questions, problem solving, calculations, practical and theory.</p>	<p>A2 Unit F226: Extended Investigation in Human Biology 10% of A level Controlled Assessment 40 marks</p>



Want to switch to OCR?

If you're an OCR-approved centre, all you need to do is download the specification and start teaching.

Your exams officer can complete an [intention to teach form](#) which enables us to provide appropriate support to them. When you're ready to enter your students, you just need to speak to your exams officer to:

1. Make estimated entries by 10 October so we can send you any early release materials, prepare the question papers and ensure we've got enough examiners.
2. Make final entries by 21 February

If you are not already an OCR-approved centre please refer your exams officer to the [centre approval section](#) of our admin guide.

Practical Endorsement Administration (A Level only)

The requirements for the practical endorsement have been set by the Department for Education and Ofqual working with all awarding bodies to ensure a common approach. Your A Level students studying OCR Biology B will need to demonstrate to you, their teacher(s), that they are consistently and routinely competent in each of the skills and techniques defined for A Level Biologists.

You will need to:

- Keep records of carrying out practical activities as well as your assessment of competence of each of your students in each of these skills and techniques. This can be done, if you wish, using our OCR tracker spreadsheet.
- Register the name of a 'lead teacher' who will act as the contact point for arranging a monitoring visit (organised centrally through the JCQ). You will need to indicate that you are teaching the OCR Biology B qualification. Your exams officer will have received an [email with details](#) of how to do this. If and when a monitoring visit takes place it will be done by an OCR-appointed monitor applying the criteria agreed across all awarding organisations.

Students need to keep records of their practical work, which can be done in whatever format best suits you and your students, be it a lab book, a loose leaf folder or an electronic record. Help and guidance are available from our [Positive about practical page](#).



Next steps

1. Familiarise yourself with the specification, sample assessment materials and teaching resources on the [OCR Biology B](#) qualification page of the OCR website.
2. Browse the [online delivery guides](#) for teaching ideas and use the [Scheme of Work builder](#) to create your personal scheme of work.
3. [Get a login](#) for our secure extranet, [Interchange](#) – allows you to access the latest past/practice papers and use our results analysis service, [Active Results](#).
4. Sign up to receive [subject updates](#) by email.
5. Sign up to attend a [training event](#) or take part in webinars on specific topics running throughout the year and/or our Q&A webinar sessions every half term.
6. Attend one of our free [teacher network events](#) that are run in each region every term. These are hosted at the end of the school day in a school or college near you, with teachers sharing best practice and subject specialists on hand to lead discussion and answer questions.

