

## Switching to OCR A from OCR Human Biology

### Introduction

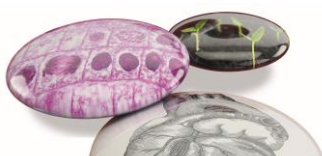
We are really excited about our GCE Biology A qualification. Whether taking on the AS or the full A Level, this fantastic course is a great qualification for those with an interest in the subject. Why choose Biology A?

- The 'Big Ideas' of Biology are covered
- The topics are selected and structured to underpin the knowledge and understanding needed for the next generation of biologists
- Biology A 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 A.
- 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 A  | OCR Human Biology  |
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| A <b>fully accredited</b> 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) |
| <b>Flexible practical</b> 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 <b>clarity</b> 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 <b>multiple choice questions</b> in the exams to allow breadth of coverage  | No multiple choice questions   |
| All <b>28 maths skills</b> covered in our free maths skills handbook and further supported with online resources   | Mathematical requirements listed in Appendix E of the specification  |
| All the big ideas of biology covered   | Exclusive focus on topics related to human biology   |



## Content

The content within the [OCR Biology A specification](#) covers the ‘Big Ideas’ of biology and will be very familiar. We’ve laid it out in a logical progression to support co-teaching the AS level and teaching the A level in a linear way.

| OCR Biology A  | OCR Human Biology  |
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| <p><b>Module 1: Practical skills</b><br/>Planning, implementing, analysis and evaluation<br/>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><b>Module 2: Foundations in Biology</b></p> <ul style="list-style-type: none"> <li>• Cell structure</li> <li>• Biological molecules</li> <li>• Nucleotides and nucleic acids</li> <li>• Enzymes</li> <li>• Biological membranes</li> <li>• Cell division, diversity and organisation</li> </ul> | <p><b>F221 Module 1: Molecules and Blood</b></p> <ul style="list-style-type: none"> <li>• The blood</li> <li>• Molecules</li> <li>• Preventing blood loss</li> <li>• Blood for medical use</li> </ul> <p><b>F222 Module 1: Growth Development and Disease</b></p> <ul style="list-style-type: none"> <li>• Mitosis as Part of the Cell Cycle</li> </ul> <p><b>F222 Module 2: The Developing Individual</b></p> <ul style="list-style-type: none"> <li>• The Biological Basis of Individuality and the Monitoring of Fetal Development</li> </ul> |
| <p><b>Module 3: Exchange and Transport</b></p> <ul style="list-style-type: none"> <li>• Exchange surfaces</li> <li>• Transport in animals</li> <li>• Transport in plants</li> </ul>  | <p><b>F221 Module 2: Circulatory and Gas Exchange Systems</b></p> <ul style="list-style-type: none"> <li>• The Heart and Monitoring Heart Function</li> <li>• The Circulatory System</li> <li>• The Lungs and Investigating Lung Function</li> </ul> <p><b>F224 Module 1: Energy and Reproduction</b></p> <ul style="list-style-type: none"> <li>• Athletic Performance</li> </ul>   |



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| <p><b>Module 4: Biodiversity, evolution and disease</b></p> <ul style="list-style-type: none"> <li>• Communicable diseases, disease prevention and the immune system</li> <li>• Biodiversity</li> <li>• Classification and evolution</li> </ul>   | <p><b>F222 Module 3: Infectious Disease</b></p> <ul style="list-style-type: none"> <li>• Controlling the Spread of Infectious disease</li> <li>• Acquiring Immunity</li> </ul> <p><b>F224 Module 2: Human Reproduction and Populations</b></p> <ul style="list-style-type: none"> <li>• Food, Farming and Populations – Human Impact on the Environment</li> </ul>  |
| <p><b>Module 5: Communication, homeostasis and energy</b></p> <ul style="list-style-type: none"> <li>• Communication and homeostasis</li> <li>• Excretion</li> <li>• Neuronal communication</li> <li>• Hormonal communication</li> <li>• Plant and animal responses</li> <li>• Photosynthesis</li> <li>• Respiration</li> </ul> | <p><b>F224 Module 1: Energy and Respiration</b></p> <ul style="list-style-type: none"> <li>• Respiration</li> <li>• Athletic Performance</li> </ul> <p><b>F224 Module 2: Human Reproduction and Populations</b></p> <ul style="list-style-type: none"> <li>• Food, Farming and Populations – Producing Food</li> </ul> <p><b>F225 Module 2: The Nervous System</b></p> <ul style="list-style-type: none"> <li>• Treating Central Nervous System Injuries</li> </ul> <p><b>F225 Module 3: Homeostasis</b></p> <ul style="list-style-type: none"> <li>• The Importance of Homeostasis</li> <li>• Managing Type 1 and Type 2 Diabetes</li> </ul> |
| <p><b>Module 6: Genetics, evolution and ecosystems</b></p> <ul style="list-style-type: none"> <li>• Cellular control</li> <li>• Patterns of inheritance</li> <li>• Manipulating genomes</li> <li>• Cloning and biotechnology</li> <li>• Ecosystems</li> <li>• Populations and sustainability</li> </ul>                         | <p><b>F225 Module 1: Genetics in the Twenty First Century</b></p> <ul style="list-style-type: none"> <li>• Inheritance of Human Genetic Disease</li> <li>• Genetic Techniques</li> <li>• Transplant Surgery and Cloning</li> </ul>  |



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| <p><b>Appendix 5d: Mathematical requirements</b></p> <ul style="list-style-type: none"><li>• Arithmetic and numerical computation</li><li>• Handling data</li><li>• Algebra</li><li>• Graphs</li><li>• Geometry and trigonometry</li></ul> | <p><b>Appendix E: Mathematical requirements</b></p> <ul style="list-style-type: none"><li>• Arithmetic and numerical computation</li><li>• Handling data</li><li>• Algebra</li><li>• Graphs</li></ul> |
| <p><b>Note: although the topic areas are very similar the details of what is required differ. Please read appendix 5d in the Biology A specification carefully to ensure your students are fully prepared for their assessments.</b></p>   |   |



## Assessment

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|---|--|
| <p><b>AS Paper 1: Breadth in Biology, Modules 1-4</b><br/>50% of AS<br/>Written paper 1hr 30 minutes<br/>70 marks</p> <p>Section A multiple choice questions, 20 marks.<br/>Section B short structured questions, covering problem solving, calculations, practical and theory, 50 marks.</p>   | <p><b>AS Unit F221: Molecules, Blood and Gas Exchange</b><br/>30% of AS<br/>Written paper 1 hour<br/>60 marks</p>                                      |
| <p><b>AS Paper 2: Depth in Biology, Modules 1-4</b><br/>50% of AS<br/>Written paper 1hr 30 minutes<br/>70 marks</p> <p>Short structured questions and extended response questions, problem solving, calculations, practical and theory.</p>   | <p><b>AS Unit F222: Growth, Development and Disease</b><br/>50% of AS<br/>Written paper 1 hour 45 minutes<br/>100 marks<br/>Advance notice element</p> |
|   | <p><b>AS Unit F223: Practical Skills in Human Biology</b><br/>20% of AS<br/>Controlled Assessment<br/>40 marks</p>                                     |
| <p><b>A Level Paper 1: Biological processes, Modules 1, 2, 3 &amp; 5</b><br/>37% of A level<br/>Written paper 2 hours 15 minutes<br/>100 marks</p> <p>Section A multiple choice questions, 15 marks.<br/>Section B short structured questions, and extended response questions, problem solving, calculations, practical and theory 85 marks.</p> | <p><b>A2 Unit F224: Energy, Reproduction and Populations</b><br/>15% of A level<br/>Written paper 1 hour<br/>60 marks</p>                              |



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| <p><b>A Level Paper 2: Biological diversity, Modules 1, 2, 4 &amp; 6</b><br/>37% of A level<br/>Written paper 2 hours 15 minutes<br/>100 marks</p> <p>Section A multiple choice questions, 15 marks.<br/>Section B short structured questions and extended response questions, problem solving, calculations, practical and theory 85 marks.</p> | <p><b>A2 Unit F225: Genetics, Control and Ageing</b><br/>25% of A level<br/>Written paper 1 hour 45 minutes<br/>100 marks</p> |
| <p><b>A Level Paper 3: Unified Biology, Modules 1-6</b><br/>26% of A level<br/>Written paper 1 hour 30 minutes<br/>70 marks</p> <p>Short structured questions and extended response questions, problem solving, calculations, practical and theory.</p>  | <p><b>A2 Unit F226: Extended Investigation in Human Biology</b><br/>10% of A level<br/>Controlled Assessment<br/>40 marks</p> |



## Want to switch to OCR Biology A?

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 A 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 A 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 A](#) 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.

