

# 2 Specification at a glance

These qualifications are linear. Linear means that students will sit all the AS exams at the end of their AS course and all the A-level exams at the end of their A-level course.

## 2.1 Subject content

### Core content

- 1 [Measurements and their errors](#) (page 10)
- 2 [Particles and radiation](#) (page 12)
- 3 [Waves](#) (page 17)
- 4 [Mechanics and materials](#) (page 21)
- 5 [Electricity](#) (page 27)
- 6 [Further mechanics and thermal physics \(A-level only\)](#) (page 30)
- 7 [Fields and their consequences \(A-level only\)](#) (page 34)
- 8 [Nuclear physics \(A-level only\)](#) (page 41)

### Options

- 9 [Astrophysics \(A-level only\)](#) (page 45)
- 10 [Medical physics \(A-level only\)](#) (page 49)
- 11 [Engineering physics \(A-level only\)](#) (page 54)
- 12 [Turning points in physics \(A-level only\)](#) (page 58)
- 13 [Electronics \(A-level only\)](#) (page 62)

## 2.2 AS

### Assessments

Paper 1	+	Paper 2
<b>What's assessed</b> Sections 1–5		<b>What's assessed</b> Sections 1–5
<b>Assessed</b> <ul style="list-style-type: none"><li>• written exam: 1 hour 30 minutes</li><li>• 70 marks</li><li>• 50% of AS</li></ul>		<b>Assessed</b> <ul style="list-style-type: none"><li>• written exam: 1 hour 30 minutes</li><li>• 70 marks</li><li>• 50% of AS</li></ul>
<b>Questions</b> 70 marks of short and long answer questions split by topic.		<b>Questions</b> Section A: 20 marks of short and long answer questions on practical skills and data analysis Section B: 20 marks of short and long answer questions from across all areas of AS content Section C: 30 multiple choice questions

## 2.3 A-level

### Assessments

Paper 1	+	Paper 2	+	Paper 3
<p><b>What's assessed</b></p> <p>Sections 1–5 and 6.1 (Periodic motion)</p>		<p><b>What's assessed</b></p> <p>Sections 6.2 (Thermal Physics), 7 and 8</p> <p>Assumed knowledge from sections 1 to 6.1</p>		<p><b>What's assessed</b></p> <p>Section A: Compulsory section: Practical skills and data analysis</p> <p>Section B: Students enter for <b>one</b> of sections 9, 10, 11, 12 or 13</p>
<p><b>Assessed</b></p> <ul style="list-style-type: none"> <li>• written exam: 2 hours</li> <li>• 85 marks</li> <li>• 34% of A-level</li> </ul>		<p><b>Assessed</b></p> <ul style="list-style-type: none"> <li>• written exam: 2 hours</li> <li>• 85 marks</li> <li>• 34% of A-level</li> </ul>		<p><b>Assessed</b></p> <ul style="list-style-type: none"> <li>• written exam: 2 hours</li> <li>• 80 marks</li> <li>• 32% of A-level</li> </ul>
<p><b>Questions</b></p> <p>60 marks of short and long answer questions and 25 multiple choice questions on content.</p>		<p><b>Questions</b></p> <p>60 marks of short and long answer questions and 25 multiple choice questions on content.</p>		<p><b>Questions</b></p> <p>45 marks of short and long answer questions on practical experiments and data analysis.</p> <p>35 marks of short and long answer questions on optional topic.</p>