

Foundation Year Physics 21/22

Modules & Assessment

Trimesters 1 & 2

Foundation Physics A [*mechanics.matter.waves*]

Material will be selected from Sections of the main course book: New A-Level Physics for AQA: Year 1 & 2 Student Book with Online Edition (2018).

- Section 4 – Mechanics, • Section 5 – Materials, • Section 8 – Thermal Physics
- Section 3 – Waves

Coursework: Core Physics A skills 1, 50%

Coursework: Core Physics A skills 2, 50%

Foundation Physics B [*electricity.fields.atoms*]

Material will be selected from Sections of the main course book: New A-Level Physics for AQA: Year 1 & 2 Student Book with Online Edition (2018).

- Section 1 – Particles and Radiation, • Section 6 – Electricity, • Section 10 – Capacitors, • Section 2 – Electromagnetic Radiation and Quantum Phenomena,
- Section 9 – Gravitational and Electric Fields, • Section 12 – Nuclear Physics

Coursework: Core Physics B skills 1, 50%

Coursework: Core Physics B skills 2, 50%

Foundation Physics Laboratory † [*design.analysis.experiments*]

- Experimental Design
- Methods of Scientific Measurement
- Data Analysis and Errors
- Experiments covering: Mechanics, Thermal Physics, Electricity, and Waves

Coursework: Core Laboratory skills, 50%

Coursework: Laboratory Journal, 50%

Foundation IT and Study Skills [*careers.skills.exercises*]

- Seminar Series - Careers in Physics and Engineering
- IT Skills
- Presentation Skills
- Problem-based Learning Exercises

Coursework: Core Physics skills, 50%

Coursework: IT skills, 50%

† **For Mathematics with Foundation Year students only, the following module replaces Foundation Physics Laboratory:**

Introduction to Probability and Statistics [*probability.statistics.properties*]

- Outline contents: basic statistics and using “R programming language”
- Statistical graphs, confidence intervals. Probability properties, functions and graphs
- Combinatorics. Expectation and variance
- Hypothesis testing and comparisons of populations
- Central limit theorem. Nonparametric statistics

Coursework: Core skills 1, 50%

Coursework: Core skills 2, 50%

Trimester 1

Foundation Mathematics 1 [*algebra.geometry.matrices*]

- Outline contents: algebra, formulae and manipulation
- Functions, graphs and properties
- Trigonometry
- Co-ordinate systems, geometry and matrices

Coursework: Core Maths skills 1, 50%

Coursework: Core Maths skills 2, 50%

Trimester 2

Foundation Mathematics 2 [*vectors.calculus.series*]

- Outline contents: Vectors and complex numbers
- Introduction to calculus
- Differentiation of functions and rules of differentiation
- Integration of functions and rules of integration
- Sequences and series

Coursework: Core Maths skills 3, 50%

Coursework: Core Maths skills 4, 50%

Note on week numbers. Week numbering starts with Induction Week as week 0, and then Trimester 1 (T1) *teaching weeks* start with week 01. The *timetabling week* numbers then continue throughout the year, up to week 51 (including vacation weeks) – shown in brackets on next page. It is useful to list timetabling and teaching weeks – the latter such as in Trimester 2: T2-01 being the first teaching week of this Trimester. *See the next pages for detailed breakdowns of dates and week numbering.*

<u>Week</u>	Week	<u>Assessment</u>
Trimester weeks	Timetable weeks	<u>TRIMESTER ONE (T1)</u>
T1-07	07	Foundation Mathematics 1. Core maths skills 1, 50% Due week T1-07 (07), Fri 12 Nov 2021
T1-12	12	Foundation IT and Study Skills. Core physics skills, 50% Due week T1-12 (12), Fri 17 Dec 2021 [Foundation Physics Laboratory. Core laboratory skills, 50% Due week T1-12 (12), Thurs 16 Dec 2021 <u>OR</u> Introduction to Probability and Statistics. Core skills 1, 50% Due week T1-12 (12), Wed 15 Dec 2021]
T1-13	16	Foundation Physics A. Core physics A skills 1, 50% Due week T1-13 (16), Fri 14 Jan 2022
T1-14	17	Foundation Physics B. Core physics B skills 1, 50% Due week T1-14 (17), Wed 19 Jan 2022
		Foundation Mathematics 1. Core maths skills 2, 50% Due week T1-14 (17), Fri 21 Jan 2022
		<u>TRIMESTER TWO (T2)</u>
T2-07	25	Foundation Mathematics 2. Core maths skills 3, 50% Due week T2-07 (25), Fri 18 Mar 2022
T2-12	33	Foundation IT and Study Skills. IT skills, 50% Due week T2-12 (33), Mon 09 May 2022 [Foundation Physics Laboratory. Laboratory journal, 50% - due week T2-12 (33), Tues 10 May 2022 <u>OR</u> Introduction to Probability and Statistics. Core skills 2, 50% Due week T2-12 (33), Wed 11 May 2022] Foundation Physics B. Coursework: Core physics B skills 2, 50% Due week T2-12 (33), Fri 13 May 2022
T2-13	34	Foundation Physics A. Coursework: Core physics A skills 2, 50% Due week T2-13 (34), Wed 18 May 2022 Foundation Mathematics 2. Core maths skills 4, 50% Due week T2-13 (34), Fri 20 May 2022

Academic Year by Week 2021/2022 - with Foundation Year Assessments

week begins
(Monday)

trimesters

timetable
wk no

pool rooms bookable
for teaching and revision

Note that other assessment deadlines
may appear in non-exam weeks

13 September 2021	International/Early Arrivals Welcome 2021/22			
20 September 2021	Welcome/Induction 0			
27 September 2021	Trimester 1	1	1	✓
4 October 2021	Trimester 1	2	2	✓
11 October 2021	Trimester 1	3	3	✓
18 October 2021	Trimester 1	4	4	✓
25 October 2021	Trimester 1	5	5	✓
1 November 2021	Trimester 1	6	6	✓
8 November 2021	Trimester 1	7	7	✓
15 November 2021	Trimester 1	8	8	✓
22 November 2021	Trimester 1	9	9	✓
29 November 2021	Trimester 1	10	10	✓
6 December 2021	Trimester 1	11	11	✓
13 December 2021	Trimester 1	12	12	✓
20 December 2021	Christmas Vacation 13			
27 December 2021	Christmas Vacation 14			
3 January 2022	Christmas Vacation 15			
10 January 2022	Trimester 1	13	16	✓
17 January 2022	Trimester 1	14	17	✓
24 January 2022	Inter-trimester break 18			
31 January 2022	Trimester 2	1	19	✓
7 February 2022	Trimester 2	2	20	✓
14 February 2022	Trimester 2	3	21	✓
21 February 2022	Trimester 2	4	22	✓
28 February 2022	Trimester 2	5	23	✓
7 March 2022	Trimester 2	6	24	✓
14 March 2022	Trimester 2	7	25	✓
21 March 2022	Trimester 2	8	26	✓
28 March 2022	Trimester 2	9	27	✓
4 April 2022	Easter Vacation 28			
11 April 2022	Easter Vacation 29 (Bank Holiday Friday)			
18 April 2022	Easter Vacation 30 (Bank Holiday Monday)			
25 April 2022	Trimester 2	10	31	✓
2 May 2022	Trimester 2	11	32	✓ (Bank Holiday Monday)
9 May 2022	Trimester 2	12	33	✓
16 May 2022	Trimester 2	13	34	✓
23 May 2022	Trimester 2	14	35	✓
30 May 2022	inter-trimester break 36 (Bank Holiday Monday)			
6 June 2022	Trimester 3	1	37	✓
13 June 2022	Trimester 3	2	38	✓
20 June 2022	Trimester 3	3	39	✓
27 June 2022	Trimester 3	4	40	✓
4 July 2022	Trimester 3	5	41	✓
11 July 2022	Trimester 3	6	42	✓
18 July 2022	Trimester 3	7	43	✓ Graduation Celebrations
25 July 2022	Trimester 3	8	44	✓
1 August 2022	Trimester 3	9	45	✓
8 August 2022	Trimester 3	10	46	✓
15 August 2022	Trimester 3	11	47	✓
22 August 2022	Trimester 3	12	48	✓
29 August 2022	Trimester 3	13	49	✓ (Bank Holiday Monday)
5 September 2022	Trimester 3	14	50	
12 September 2022	International/Early Arrivals Welcome 2022/23			
19 September 2022	Welcome/Induction			

All events are subject to change

*While resit exams may be scheduled during any week in a designated examination period, exams other than resits should not be scheduled during week 48

All teaching, revision and assessment shall take place within modules during the designated trimester periods. (Academic Regulations for Taught Programmes)