

Foundation Year Physics 22/23

Modules & Assessment

Trimesters 1 & 2

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

Material will be selected from Sections of the main course book: 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: 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 Trimester 2. *See the next pages for detailed breakdowns of dates and week numbering.*



Week **Week** **Assessment**

Trimester weeks **Timetable weeks** **TRIMESTER ONE (T1)**

T1-07 07 **Foundation Mathematics 1.** Core maths skills 1, 50%
Due week T1-07 (07), Mon 31 Oct 2022

T1-12 12 **Foundation IT and Study Skills.** Core physics skills, 50%
Due week T1-12 (12), Mon 05 Dec 2022

[Foundation Physics Laboratory. Core laboratory skills, 50%
Due week T1-12 (12), Wed 07 Dec 2022

OR
Introduction to Probability and Statistics. Core skills 1, 50%
Due week T1-12 (12), Thur 08 Dec 2022]

T1-13 13 **Foundation Physics A.** Core physics A skills 1, 50%
Due week T1-13 (13), Mon 12 Dec 2022

Foundation Physics B. Core physics B skills 1, 50%
Due week T1-13 (13), Wed 14 Dec 2022

Foundation Mathematics 1. Core maths skills 2, 50%
Due week T1-13 (13), Fri 16 Dec 2022

TRIMESTER TWO (T2)

T2-06 23 **Foundation Mathematics 2.** Core maths skills 3, 50%
Due week T2-06 (23), Thur 23 Feb 2023

T2-12 32 **Foundation IT and Study Skills.** IT skills, 50%
Due week T2-12 (32), Mon 24 Apr 2023

[Foundation Physics Laboratory. Laboratory journal, 50% - due
week T2-12 (32), Wed 26 Apr 2023

OR
Introduction to Probability and Statistics. Core skills 2, 50%
Due week T2-12 (32), Fri 28 Apr 2023]

T2-13 33 **Foundation Physics A.** Coursework: Core physics A skills 2, 50%
Due week T2-13 (33), Tue 02 May 2023

Foundation Physics B. Coursework: Core physics B skills 2, 50%
Due week T2-13 (33), Thur 04 May 2023

Foundation Mathematics 2. Core maths skills 4, 50%
Due week T2-13 (33), Fri 05 May 2023

Academic Year by Week 2022/23 - with Foundation Year Assessments

week begins (Monday)	trimesters	timetable wk no	pool rooms bookable for teaching and revision	
12 September 2022	<i>Welcome/Induction</i>	0		
19 September 2022	Trimester 1	1	1 ✓	
26 September 2022	Trimester 1	2	2 ✓	
3 October 2022	Trimester 1	3	3 ✓	
10 October 2022	Trimester 1	4	4 ✓	ASSESSMENTS
17 October 2022	Trimester 1	5	5 ✓	
24 October 2022	Trimester 1	6	6 ✓	
31 October 2022	Trimester 1	7	7 ✓	
7 November 2022	Trimester 1	8	8 ✓	
14 November 2022	Trimester 1	9	9 ✓	
21 November 2022	Trimester 1	10	10 ✓	
28 November 2022	Trimester 1	11	11 ✓	
5 December 2022	Trimester 1	12	12 ✓	
12 December 2022	Trimester 1	13	13 ✓	
19 December 2022	<i>Christmas Vacation</i>	14		
26 December 2022	<i>Christmas Vacation</i>	15		
2 January 2023	<i>Christmas Vacation</i>	16		
9 January 2023	<i>Welcome/Induction</i>	17		
16 January 2023	Trimester 2	1	18 ✓	
23 January 2023	Trimester 2	2	19 ✓	
30 January 2023	Trimester 2	3	20 ✓	
6 February 2023	Trimester 2	4	21 ✓	
13 February 2023	Trimester 2	5	22 ✓	
20 February 2023	Trimester 2	6	23 ✓	MATHS 3
27 February 2023	Trimester 2	7	24 ✓	
6 March 2023	Trimester 2	8	25 ✓	
13 March 2023	Trimester 2	9	26 ✓	
20 March 2023	Trimester 2	10	27 ✓	
27 March 2023	<i>Easter Vacation</i>	28		
3 April 2023	<i>Easter Vacation</i>	29	(Bank Holiday Friday)	
10 April 2023	<i>Easter Vacation</i>	30	(Bank Holiday Monday)	
17 April 2023	Trimester 2	11	31 ✓	
24 April 2023	Trimester 2	12	32 ✓	SKILLS, LAB or P&S FPA, FPB, MATHS 4
1 May 2023	Trimester 2	13	✓ (Bank Holiday Monday)	
8 May 2023	<i>Inter-Tremester Break</i>	34		
15 May 2023	<i>Inter-Tremester Break</i>	35		
22 May 2023	<i>Inter-Tremester Break</i>	36		
29 May 2023	<i>Welcome/Induction</i>	37	(Bank Holiday Monday)	
5 June 2023	Trimester 3	1	38 ✓	
12 June 2023	Trimester 3	2	39 ✓	
19 June 2023	Trimester 3	3	40 ✓	
26 June 2023	Trimester 3	4	41 ✓	
3 July 2023	Trimester 3	5	42 ✓	
10 July 2023	Trimester 3	6	43 ✓	
17 July 2023	Trimester 3	7	44 ✓	
24 July 2023	Trimester 3	8	45 ✓	
31 July 2023	Trimester 3	9	46 ✓	
7 August 2023	Trimester 3	10	47 ✓	
14 August 2023	Trimester 3	11	48 ✓	
21 August 2023	Trimester 3	12	49 ✓	
28 August 2023	Trimester 3	13	50 ✓ (Bank Holiday Monday)	
4 September 2023				
11 September 2023	<i>Welcome/Induction</i>	0		

All events are subject to change

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