

First Year Physics 22/23 Modules & Assessment

Volta
1745 - 1827

Ampere
1775 - 1836

Ohm
1789 - 1854

Faraday
1791 - 1867

Joule
1818 - 1889

Kelvin
1824 - 1907

Trimesters 1 & 2 (20 credit long thin modules)

Engineering + Acoustics + Audio & Video + Physics & Materials + Computer Science, Multimedia & Telecommunications

Mechanics, Relativity and Quantum Physics

Coursework: Assignment 1, 50%

Coursework: Assignment 2, 50%

Galileo
1736 - 1819

Units and dimensions

The SI units for the five basic dimensions are:

Electricity, Magnetism and Light

Coursework: Assignment 1, 50%

Coursework: Assignment 2, 50%

Coulomb
1736 - 1806

Physics Laboratory 1

Practical: Laboratory Skills Journal, 70%

Coursework: Electronics Journal, 30%

Physics in Context

Coursework: Problem Solving Journal, 70%

Coursework: Energy Research, 30%

Modelling of Physical Systems

Coursework: Assignment: Dynamics of Physical Systems, 50%

Coursework: Assignment: Waves & Thermal Physics, 50%

Mathematics

Coursework: Assignment 1, 50%

Coursework: Assignment 2, 50%

Newton
1642 - 1727

Watt
1736 - 1819

Ohm
1789 - 1854

Maxwell
1831 - 1879

Planck
1858 - 1947

Einstein
1879 - 1955

the metre (for length)
the kilogram (for mass)

the second (for time)
the ampere (for electric current)

Time

second

s

hertz

Hz

s⁻¹

Length

metre

m

area
volume

metre²

m²

metre³

m³

Speed, velocity

metre / second

m s⁻¹

Acceleration

metre / (second × second)

m s⁻²

Mass

kilogram

kg

Density

mass / volume

kg m⁻³

Work, energy, torque

joule

J

N m

kg m² s⁻²

electron volt

eV

1.60 × 10⁻¹⁹ J

kg m² s⁻²

Power

watt

W

J / s

kg m² s⁻³

Pressure

pascal

Pa

N / m²

kg m⁻¹ s⁻²

Electric current

ampere

A

Charge

coulomb

C

A s

Potential difference

volt

V

J / C

kg m² A⁻¹ s⁻³

Resistance

ohm Ω

Ω

V / A

kg m² A⁻² s⁻³

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.

<u>Week</u>	Week	<u>Assessment</u>
Trimester weeks	Timetable weeks	
1745 - 1807		TRIMESTER ONE (T1)
T1-12	12	Modelling of Physical Systems. Assignment: Thermal Physics and Waves: 50% Due week T1-12 (12), Wed 07 Dec 2022
T1-13	13	Mathematics. Assignment 1: 50% Due week T1-13 (13), Mon 12 Dec 2022
T1-13	13	Mechanics, Relativity and Quantum Physics. Assignment 1: 50% Due week T1-13 (13), Wed 14 Dec 2022
T1-13	13	Electricity, Magnetism and Light. Assignment 1: 50% Due week T1-13 (13), Fri 16 Dec 2022
1736 - 1806		TRIMESTER TWO (T2)
T2-05	22	Physics Laboratory 1. Experimental Physics Journal: 70% Due week T2-05 (22), Wed 15 Feb 2023
T2-06	23	Physics in Context. Problem Solving Journal 70% Due week T2-06 (23), Fri 24 Feb 2023
T2-11	31	Physics Laboratory 1. Electronics Journal: 30% Due week T2-11 (31), Wed 19 Apr 2023
T2-11	31	Physics in Context. Energy Research 30% Due week T2-11 (31), Fri 21 Apr 2023
T2-12	32	Modelling of Physical Systems. Assignment: Dynamics of Physical Systems: 50% Due week T2-12 (32), Mon 24 Apr 2023
T2-12	32	Mathematics. Assignment 2: 50% Due week T2-12 (32), Fri 28 Apr 2023
T2-13	33	Mechanics, Relativity and Quantum Physics. Assignment 2: 50% Due week T2-13 (33), Wed 03 May 2023
T2-13	33	Electricity, Magnetism and Light. Assignment 2: 50% Due week T2-13 (33), Fri 05 May 2023

Units and dimensions

The SI units for the five basic dimensions are:

Time	second	s
Frequency	hertz	s ⁻¹
Length	metre	m
Area	metre squared	m ²
Volume	cubic metre	m ³
Speed, velocity	metre / second	m s ⁻¹
Acceleration	metre / (second x second)	m s ⁻²
Mass	kilogram	kg
Density	mass / volume	kg m ⁻³
Force	newton	kg m s ⁻²
Work, energy, heat	joule	kg m ² s ⁻²
Power	watt	kg m ² s ⁻³
Pressure	pascal	kg m ⁻¹ s ⁻²
Temperature	kelvin	K
Electric current	ampere	A
Charge	coulomb	A s
Potential	volt	kg m ² A ⁻² s ⁻³
Resistance	ohm	kg m ² A ⁻² s ⁻³

Academic Year by Week 2022/23

First 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 ✓	
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 ✓	ASSESSMENTS
21 November 2022	Trimester 1	10	10 ✓	
28 November 2022	Trimester 1	11	11 ✓	
5 December 2022	Trimester 1	12	12 ✓	Modelling of Physical Systems
12 December 2022	Trimester 1	13	13 ✓	Maths + MechRelQuantPhys + ElectMagLight
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 ✓	Laboratory (Experimental Journal)
20 February 2023	Trimester 2	6	23 ✓	Physics in Context (Problem Solving)
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 ✓	Lab (Electronics) + Physics in Context (Energy)
24 April 2023	Trimester 2	12	32 ✓	Modelling of Physical Systems + Maths
1 May 2023	Trimester 2	13	33 ✓ (Bank Holiday Monday)	MechRelQuantPhys + ElectMagLight
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		