

# First Year Physics 23/24 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

# Units and dimensions

Coursework: Assignment 1, 50%

Coursework: Assignment 2, 50%

Coulomb  
1736 - 1819

The SI units for the five basic dimensions are:

## Electricity, Magnetism and Light

Coursework: Assignment 1, 50%

Coursework: Assignment 2, 50%

Boltzmann  
1844 - 1906

Hertz  
1857 - 1894

## Physics Laboratory 1

Practical: Laboratory Skills Journal, 70%

Coursework: Electronics Journal, 30%

Time	second	hertz	Hz	s	s <sup>-1</sup>
Length	metre	metre	metre	m	m <sup>2</sup>
Area	metre × metre	metre × metre	metre × metre	m <sup>2</sup>	m <sup>3</sup>
Volume	metre × metre × metre	metre / second	metre / second	m s <sup>-1</sup>	m s <sup>-2</sup>
Speed, velocity	metre / second	metre / (second × second)	metre / (second × second)	m s <sup>-2</sup>	
Acceleration	metre / (second × second)				
Mass	kilogram			kg	
Density	mass / volume			kg m <sup>-3</sup>	
Force				kg m s <sup>-2</sup>	
Work, energy, heat				kg m <sup>2</sup> s <sup>-2</sup>	
Power				kg m <sup>2</sup> s <sup>-3</sup>	
Pressure				kg m s <sup>-2</sup>	

## Physics in Context

Coursework: Problem Solving Journal, 70%

Coursework: Energy Research, 30%

Force	newton	N	N		
Work, energy, heat	joule	J	N m		
Electron volt	eV	1.60 × 10 <sup>-19</sup> J			
Power	watt	W	J / s		
Pressure	pascal	Pa	N / m <sup>2</sup>		

## 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%

Electric current	ampere	A		A	
Charge	coulomb	C		A s	
Potential difference	volt	V	J / C		kg m <sup>2</sup> A <sup>-1</sup> s <sup>-2</sup>
Resistance	ohm Ω	Ω	V / A		kg m <sup>2</sup> A <sup>-2</sup> s <sup>-2</sup>

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		<b>TRIMESTER ONE (T1)</b>
<b>T1-12</b>	12	<b>Modelling of Physical Systems.</b> Assignment: Dynamics of Physical Systems: 50% Due week T1-12 (12), Wed 06 Dec 2023
<b>T1-13</b>	13	<b>Mathematics.</b> Assignment 1: 50% Due week T1-13 (13), Mon 11 Dec 2023
<b>T1-13</b>	13	<b>Mechanics, Relativity and Quantum Physics.</b> Assignment 1: 50% Due week T1-13 (13), Wed 13 Dec 2023
<b>T1-13</b>	13	<b>Electricity, Magnetism and Light.</b> Assignment 1: 50% Due week T1-13 (13), Fri 15 Dec 2023
1736 - 1806		<b>TRIMESTER TWO (T2)</b>
<b>T2-05</b>	22	<b>Physics Laboratory 1.</b> Experimental Physics Journal: 70% Due week T2-05 (22), Wed 14 Feb 2024
<b>T2-06</b>	23	<b>Physics in Context.</b> Problem Solving Journal 70% Due week T2-06 (23), Fri 23 Feb 2024
<b>T2-11</b>	31	<b>Physics Laboratory 1.</b> Electronics Journal: 30% Due week T2-11 (31), Wed 17 Apr 2024
<b>T2-11</b>	31	<b>Physics in Context.</b> Energy Research 30% Due week T2-11 (31), Fri 19 Apr 2024
<b>T2-12</b>	32	<b>Modelling of Physical Systems.</b> Assignment: Thermal Physics and Waves: 50% Due week T2-12 (32), Mon 22 Apr 2024
<b>T2-12</b>	32	<b>Mathematics.</b> Assignment 2: 50% Due week T2-12 (32), Fri 26 Apr 2024
<b>T2-13</b>	33	<b>Mechanics, Relativity and Quantum Physics.</b> Assignment 2: 50% Due week T2-13 (33), Wed 01 May 2024
<b>T2-13</b>	33	<b>Electricity, Magnetism and Light.</b> Assignment 2: 50% Due week T2-13 (33), Fri 03 May 2024

# Units and dimensions

The SI units for the five basic dimensions are:

Time	second	s
Frequency	hertz	s <sup>-1</sup>
Length	metre	m
Area	metre squared	m <sup>2</sup>
Volume	cubic metre	m <sup>3</sup>
Speed, Velocity	metre / second	m s <sup>-1</sup>
Acceleration	metre / (second x second)	m s <sup>-2</sup>
Mass	kilogram	kg
Density	mass / volume	kg m <sup>-3</sup>
Force	newton	kg m s <sup>-2</sup>
Work, energy, heat	joule	J N m
Power	watt	W J / s
Pressure	pascal	Pa N / m <sup>2</sup>
Temperature	kelvin	K
Electric current	ampere	A
Charge	coulomb	A s
Potential	volt	V J / C
Resistance	ohm	Ω V / A



# Academic Year by Week 2023/24

# First Year Assessments

week begins (Monday)	Trimesters	timetable wk no	pool rooms bookable for teaching and revision
11 September 2023	<i>Welcome/Induction</i>		0
18 September 2023	Trimester 1	1	1
25 September 2023	Trimester 1	2	2 ✓
2 October 2023	Trimester 1	3	3 ✓
9 October 2023	Trimester 1	4	4 ✓
16 October 2023	Trimester 1	5	5 ✓
23 October 2023	Trimester 1	6	6 ✓
30 October 2023	Trimester 1	7	7 ✓
6 November 2023	Trimester 1	8	8 ✓
13 November 2023	Trimester 1	9	9 ✓
20 November 2023	Trimester 1	10	10 ✓
27 November 2023	Trimester 1	11	11 ✓
4 December 2023	Trimester 1	12	12 ✓
11 December 2023	Trimester 1	13	13 ✓
18 December 2023	<i>Christmas Vacation</i> 14		
25 December 2023	<i>Christmas Vacation</i> 15		
1 January 2024	<i>Christmas Vacation</i> 16		
8 January 2024	<i>Welcome/Induction</i>		17 ✓
15 January 2024	Trimester 2	1	18 ✓
22 January 2024	Trimester 2	2	19 ✓
29 January 2024	Trimester 2	3	20 ✓
5 February 2024	Trimester 2	4	21 ✓
12 February 2024	Trimester 2	5	22 ✓
19 February 2024	Trimester 2	6	23 ✓
26 February 2024	Trimester 2	7	24 ✓
4 March 2024	Trimester 2	8	25 ✓
11 March 2024	Trimester 2	9	26 ✓
18 March 2024	Trimester 2	10	27 ✓
25 March 2024	<i>Easter Vacation</i> 28 (Bank Holiday Friday)		
1 April 2024	<i>Easter Vacation</i> 29 (Bank Holiday Monday)		
8 April 2024	<i>Easter Vacation</i> 30		
15 April 2024	Trimester 2	11	31 ✓
22 April 2024	Trimester 2	12	32 ✓
29 April 2024	Trimester 2	13	33 ✓
6 May 2024	Inter-Trimester Break 34 ✓ (Bank Holiday Monday)		
13 May 2024	Inter-Trimester Break 35 ✓		
20 May 2024	Inter-Trimester Break 36 ✓		
27 May 2024	<i>Welcome/Induction</i>		37 ✓ (Bank Holiday Monday)
3 June 2024	Trimester 3	1	38 ✓
10 June 2024	Trimester 3	2	39 ✓
17 June 2024	Trimester 3	3	40 ✓
24 June 2024	Trimester 3	4	41 ✓
1 July 2024	Trimester 3	5	42 ✓
8 July 2024	Trimester 3	6	43 ✓
15 July 2024	Trimester 3	7	44 ✓
22 July 2024	Trimester 3	8	45 ✓
29 July 2024	Trimester 3	9	46 ✓
5 August 2024	Trimester 3	10	47 ✓
12 August 2024	Trimester 3	11	48 ✓
19 August 2024	Trimester 3	12	49 ✓
26 August 2024	Trimester 3	13	50 ✓ (Bank Holiday Monday)
2 September 2024	Inter-Trimester Break 51 ✓		
9 September 2024	<i>Welcome/Induction 2024/25</i>		

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)