



**Shrimathi Devkunvar Nanalal Bhatt Vaishnav  
College for Women (Autonomous)**

Owned and Managed by Cork Industries Charities Trust  
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC  
Chromepet Chennai-600044



## **DEPARTMENT OF UG PHYSICS (AIDED)**

### **B.Sc. PHYSICS**

#### **CHOICE BASED CREDIT SYSTEM (CBCS)**

**&**

#### **LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (LOCF)**

**2022-2025 Batch**



**B.Sc. PHYSICS  
CURRICULUM FRAMEWORK 2022–2025 Batch**

S.No	Year/ Semester	Part	Course component	Teaching Hours		Credits	CIA	ESE	Total
				Theory	Prac				
1	I Year I Semester	I	Foundation course (Tamil/Hindi/ Sanskrit)	6		3	40	60	100
2		II	English	6		3	40	60	100
3		III	Core theory I Properties of Matter	5		3	40	60	100
4		III	Core theory II Thermal Physics	4		3	40	60	100
5		III	Core Practical I		3	Exam at the end of II sem			
6		III	Allied theory I Chemistry for Physics I	4		4	40	60	100
7		III	Allied Practical I Allied Chemistry Practical I		2	Exam at the end of II sem			
8		IV	Soft skill-Essentials of Language and communication Skills			3	50	-	50
9	I Year II Semester	I	Foundation course (Tamil/Hindi/ Sanskrit)	6		3	40	60	100
10		II	English	6		3	40	60	100
11		III	Core theory III Acoustics & Thermodynamics	5		3	40	60	100
12		III	Core theory IV Mechanics	4		3	40	60	100
13		III	Core Practical I		3	2	40	60	100
14		III	Allied theory II Chemistry for Physics II	4		4	40	60	100
15		III	Allied Practical I Allied Chemistry Practical I		2	2	40	60	100
16		IV	Soft Skills - Essentials of spoken and presentation skills			3	50	-	50
17		IV	Value education Environmental studies			2	50	-	50



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			Yoga and wellness			2	50	-	50
18	II Year III Semester	I	Foundation course (Tamil/Hindi/ Sanskrit)	6		3	40	60	100
19		II	English	6		3	40	60	100
20		III	Core theory V Mathematical Physics & Statistical Mechanics	5		4	40	60	100
21		III	Core theory VI Optics and spectroscopy	4		4	40	60	100
22		III	Core Practical II		3	Exam at the end of IV Sem			
23		III	Allied theory III Allied Mathematics I	4		5	40	60	100
24		IV	NON MAJOR ELECTIVE Medical physics	1		2	50	-	50
25	II Year IV Semester	I	Foundation course (Tamil/Hindi/ Sanskrit)	6		3	40	60	100
26		II	English	6		3	40	60	100
27		III	Core theory VII Atomic Physics	4		4	40	60	100
28		III	Core theory VIII Electricity and Magnetism	5		4	40	60	100
29		III	Core Practical II		3	2	40	60	100
30		III	Allied theory IV Allied Mathematics II	4		5	40	60	100
31		IV	Non major elective Medical physics	1		2	50	-	50
32	III Year	III	Core theory IX	5		4	40	60	100



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	V Semester		Electromagnetism						
33		III	Core theory X Fundamentals Of Nanoscience And Nanotechnology	5		4	40	60	100
34		III	Core theory XI Nuclear Physics	5		4	40	60	100
35		III	Elective Theory I (Blended Learning) Digital Data Processing And Embedded Microcontrollers/Cours era	5		5	40	60	100
36		III	Elective Project I		4	5	40	60	100
		III	Core Practical III Genera		2	Exam at the end of IV Sem			
		III	Core Practical IV Electronics		2	Exam at the end of IV Sem			
		III	Elective Practical I Microprocessor		2	Exam at the end of IV Sem			
37		IV	Skill Based Elective Swayam- MOOC/NPTEL			3	50	-	50
38	III Year VI Semester	III	Core theory XII Relativity And Quantum Mechanics	6		4	40	60	100
39		III	Core theory XIII Solid State Physics	6		4	40	60	100
40		III	Core theory XIV Integrated Electronics	6		4	40	60	100



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41		III	Core Practical III General		3	2	40	60	100
42		III	Core Practical IV Electronics		3	2	40	60	100
43		III	Elective Practical I(Blended Learning) Microprocessor practical/Coursera		3	5	40	60	100
44		IV	Skill Enhancement Coursera			3	50		50
45		V	Extracurricular activity			1			
						<b>140 Credi ts</b>			