

**GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS) KUMBAKONAM**  
(Curriculum – B.Sc., PHYSICS – 2021 – 2022)

Department: PHYSICS

Programme Code: USPH

**SEMESTER I**

Part	Course Type	Course Code	Title of the Course	Hrs/Week	Credits	Exam hrs	Marks		
							CIA	ESE	Total
I	LC	U211T1	Tamil	6	3	3	25	75	100
II	ELC	U211E1	English	6	3	3	25	75	100
III	CC- I	U21PHC101	Properties of Matter & Sound	6	5	3	25	75	100
III	CC- II	U21PHC102P	Major Practical -I	3	2	3	40	60	100
III	AC – I	U211AM1	Mathematics	5	4	3	25	75	100
III	AC –II	U212AM2	Mathematics	2	-	-	-	-	-
IV	AEC	U211VE	Value Education	2	2	3	25	75	100
<b>TOTAL</b>				<b>30</b>	<b>19</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>600</b>

**SEMESTER II**

Part	Course Type	Course Code	Title of the Course	Hrs/Week	Credits	Exam hrs	Marks		
							CIA	ESE	Total
I	LC	U212T2	Tamil	6	3	3	25	75	100
II	ELC	U212E2	English	6	3	3	25	75	100
III	CC- III	U21PHC203	Mechanics & Relativity	6	5	3	25	75	100
III	CC- IV	U21PHC204P	Major Practical -II	3	2	3	40	60	100
III	AC –II	U212AM2	Mathematics	2	4	3	40	60	100
III	AC –III	U212AM3	Mathematics	5	4	3	25	75	100
IV	AEC	U212ES	Environmental Studies	2	2	3	25	75	100
<b>TOTAL</b>				<b>30</b>	<b>23</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>700</b>

**SEMESTER III**

Part	Course Type	Course Code	Title of the Course	Hrs/Week	Credits	Exam hrs	Marks		
							CIA	ESE	Total
I	LC	U213T3	Tamil	6	3	3	25	75	100
II	ELC	U213E3	English	6	3	3	25	75	100
III	CC – V	U21PHC305	Thermal and Statistical Physics	6	5	3	25	75	100
III	CC – VI	U21PHC306P	Major Practical-III	3	2	3	40	60	-
III	AC – IV	U213ACH4	Chemistry	5	4	3	25	75	100
III	AC - V	U214ACH5P	Chemistry Practical	2	-	-	-	-	-
IV	NMEC - I	U21PH3NME1:1	Physics Made Easy	2	2	3	25	75	100
		U21PH3NME1:2	Energy Physics						
<b>TOTAL</b>				<b>30</b>	<b>19</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>600</b>
	SSC - I	U213SS1	Mathematics Aptitude for Recruitment Board Examinations	-	2	2	-	100	100

**SEMESTER IV**

Part	Course Type	Course Code	Title of the Course	Hrs/Week	Credits	Exam hrs	Marks		
							CIA	ESE	Total
I	LC	U214T4	Tamil	6	3	3	25	75	100
II	ELC	U214E4	English	6	3	3	25	75	100
III	CC - VII	U21PHC407	Optics	5	5	3	25	75	100
III	CC – VIII	U21PHC408P	Major Practical-IV	3	2	3	40	60	100
III	AC - V	U214ACH5P	Chemistry Practical	2	4	3	40	60	100
III	AC - VI	U214ACH6	Chemistry	4	4	3	25	75	100
IV	NMEC - II	U21PH4NME2:1	Simple Appliances	2	2	3	25	75	100
		U21PH4NME2:2	Photography						
IV	SEC - I	U214PHSE1	Electrical Appliances - Theory	2	2	3	25	75	100
<b>TOTAL</b>				<b>30</b>	<b>25</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>800</b>
	SSC - II	U214SS2	Social Study for Competitive Examinations	-	2	2	-	100	100

**SEMESTER V**

Part	Course Type	Course Code	Title of the Course	Hrs/Week	Credits	Exam hrs	Marks		
							CIA	ESE	Total
III	CC – IX	U21PHC509	Electricity and Magnetism	5	5	3	25	75	100
III	CC - X	U21PHC510	Atomic Physics	5	5	3	25	75	100
III	CC - XI	U21PHC511	Basic Electronics	5	5	3	25	75	100
III	CC- XII	U21PHC512P	Major Practical-V	6	4	3	40	60	100
III	MBEC – I	U21PH5MBE1:1	Spectroscopy and Laser Physics	5	5	3	25	75	100
		U21PH5MBE1:2	Applied Physics						
		U21PH5MBE1:3	Materials Science						
IV	SEC -II	U214PHSE2	Medical Physics – Theory	2	2	3	25	75	100
IV	SEC -III	U214PHSE3	Audio and Video Systems - Theory	2	2	3	25	75	100
<b>TOTAL</b>				<b>30</b>	<b>28</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>700</b>

**SEMESTER VI**

Part	Course Type	Course Code	Title of the Course	Hrs/Week	Credits	Exam hrs	Marks		
							CIA	ESE	Total
III	CC – XIII	U21PHC613	Wave Mechanics & Nuclear Physics	6	5	3	25	75	100
III	CC - XIV	U21PHC614	Solid State Physics	6	5	3	25	75	100
III	CC – XV	U21PHC615P	Major Practical-VI	6	4	3	40	75	100
III	MBEC – II	U21PH6MBE2:1	Integrated Electronics	6	5	3	25	75	100
		U21PH6MBE2:2	Electronic Communication						
		U21PH6MBE2:3	Opto Electronics and Fibre Optics						
III	MBEC – III	U21PH6MBE3:1	Computer Programming-C Language	5	5	3	25	75	100
		U21PH6MBE3:2	C++ Programming						
		U21PH6MBE3:3	Energy Physics						
V	AEC	U216GS	Gender Studies	1	1	3	25	75	100
V		U21EA	Extension Activities	-	1	-	-	-	-

	<b>TOTAL</b>	<b>30</b>	<b>26</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>600</b>
		<b>180</b>	<b>144</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4200</b>

**COURSE OFFERED BY THE DEPARTMENT OF PHYSICS**

Part	Course Type	Course Code	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
III	AC – IV	U213AAPH1	Applied Physics - I	5	4	3	25	75	100
III	AC - V	U214AAPH2P	Applied Physics Practical –II	2	4	3	40	60	100
III	AC - VI	U214AAPH3	Applied Physics – III	4	4	3	25	75	100
III	AC – IV	U213APH1	Allied Physics – I	5	4	3	25	75	100
III	AC - V	U214APH2P	Allied Physics Practical - II	2	4	3	40	60	100
III	AC - VI	U214APH3	Allied Physics -III	4	4	3	25	75	100

**COURSE STRUCTURE ABSTRACT FOR  
B.SC., PHYSICS PROGRAMME 2021-2022 ONWARDS**

Part	Course		Total No. of Papers	Hours	Credit	Mark
I	Language Course (LC)		4	24	12	400
II	English Language Course (ELC)		4	24	12	400
III	Core Course (CC)		15	74	61	1500
III	Allied Course (AC)		6	28	24	600
III	Major Based Elective Course (MBEC)		3	15	15	300
IV	Non Major Elective Course (NMEC)		2	4	4	200
IV	Skill Enhancement (SEC)		3	6	6	300
IV	Ability Enhancement Course (AEC)	Value Education	1	2	2	100
IV		Environmental Studies	1	2	2	100
V		Gender Studies	1	1	1	100
V	Extension Activities		--		1	---
<b>Total</b>			<b>40</b>	<b>180</b>	<b>140</b>	<b>4000</b>
<b>Extra Credit Courses</b>						
Self Study Course (SSC)			2		4	200
<b>Total</b>			<b>42</b>		<b>144</b>	<b>4200</b>