

**Vellalar College for Women (Autonomous) Erode-12**

**Master of Science in Physics**

**2016-2017 & 2017-2018 Onwards**

**Course Content and Scheme of Examination (CBCS Pattern)**

Semester-I								
Study component	Subject code	Title of the paper	Inst. Hrs./Week	Exam. Dur. Hrs.	Max. marks			Credits
					CIA	ESE	Total	
Core	16PHPC101	Classical Mechanics	5	3	25	75	100	4
	16PHPC102	Mathematical Physics-I	5	3	25	75	100	4
	16PHPC103	Analog and Digital Electronics	5	3	25	75	100	4
	16PHPC104	Quantum Mechanics-I	5	3	25	75	100	4
	16PHPCP01	Core Practical-I General Experiments	3	-	-	-	-	-
	16PHPCP02	Core Practical-II Electronics	4	-	-	-	-	-
Non-Major Elective			3	3	25	75	100	5
Semester-II								
Study component	Subject code	Title of the paper	Inst. Hrs./Week	Exam. Dur. Hrs.	Max. marks			Credits
					CIA	ESE	Total	
Core	16PHPC205	Mathematical Physics-II	6	3	25	75	100	4
	16PHPC206	Advanced Computational Physics	6	3	25	75	100	4
	16PHPC207	Quantum Mechanics-II	6	3	25	75	100	4
	16PHPCP01	Core Practical-I General Experiments	4	4	40	60	100	4
	16PHPCP02	Core Practical-II Electronics	4	4	40	60	100	4
Skill Based Subject-I	13PHPS201	Advanced Multi Skill Paper	3	2	40	60*	100	5
		Library	1	-	-	-	-	-

Semester-III								
Study component	Subject code	Title of the paper	Inst. Hrs./Week	Exam. Dur. Hrs.	Max. marks			Credits
					CIA	ESE	Total	
Core	16PHPC308	Condensed Matter Physics	5	3	25	75	100	4
	16PHPC309	Electromagnetic Fields and Waves	5	3	25	75	100	4
	16PHPCP03	Core Practical-III Advanced Experiments	4	-	-	-	-	-
	16PHPCP04	Core Practical-IV Special Electronics	4	-	-	-	-	-
Elective-I	16PHPE301	Communication Electronics and Microprocessor	5	3	25	75	100	4
Skill Based Subject-II			3	3	25	75	100	5
Skill Based Subject-III			3	3	25	75	100	5
		Library	1	-	-	-	-	-
Semester-IV								
Study component	Subject code	Title of the paper	Inst. Hrs./Week	Exam. Dur. Hrs.	Max. marks			Credits
					CIA	ESE	Total	
Core	16PHPC410	Nuclear and Particle Physics	6	3	25	75	100	4
	16PHPC411	Molecular Spectroscopy	6	3	25	75	100	4
	16PHPCP03	Core Practical-III Advanced Experiments	4	6	40	60	100	4
	16PHPCP04	Core Practical-IV Special Electronics	4	6	40	60	100	4
Elective-II	16PHPE402	Thermodynamics and Statistical Mechanics	6	3	25	75	100	4
	09PHPC4PV	Project and Viva Voce	3	-	-	100	100	2
		Library	1	-	-	-	-	-
Total							2200	90

<b>Skill Based Subjects</b>		
<b>Semester</b>	<b>Subject Code</b>	<b>Name of the paper</b>
II	13PHPS201	Advanced Multi Skill Paper
III	11PHPS302	Nano Science and Technology (Cafeteria)
III	11PHPS303	Laser in Chemical and Biological Sciences (Cafeteria)
<b>Non Major Elective</b>		
Semester I	11PHPN101	Atmospheric Physics
<b>Self-learning paper</b>		
Paper-I	13PHPSL03	Oceanography

\* - Online Examination