

PERIYAR MANIAMMAI INSTITUTE OF SCIENCE & TECHNOLOGY
M.Sc. Physics – Curriculum (2021 Regulation)

SEMESTER – I										
Course	Subject Code	Course Title	Credits				Hours			
			L	T	P	Total	L	T	P	Total
Core Course I	YPH101	Mathematical Methods of Physics - I	4	1	0	5	4	1	0	5
Core Course II	YPH102	Classical Mechanics	4	1	0	5	4	1	0	5
Core Course III	YPH103	Electronics	4	1	0	5	4	1	0	5
Elective Course I	YPH104A	Numerical Methods and Computation								
	YPH104B	Thermodynamics and Statistical Mechanics	4	0	0	4	4	0	0	4
	YPH104C	Instrumental Methods of Analyses								
Core Course IV (Lab)	YPH105	Basic General & Electronics Laboratory	0	0	3	3	0	0	6	6
Total						22				25

SEMESTER – II										
Course	Subject Code	Course Title	Credits				Hours			
			L	T	P	Total	L	T	P	Total
Core Course V	YPH201	Mathematical Methods of Physics-II	4	1	0	5	4	1	0	5
Core Course VI	YPH202	Quantum Mechanics - I	4	1	0	5	4	1	0	5
Core Course VII	YPH203	Microprocessor and Microcontroller	4	1	0	5	4	1	0	5
Elective Course II	YPH204A	Physics and Technology of Thin films								
	YPH204B	Crystal Growth and Characterization Techniques	4	0	0	4	4	0	0	4
	YPH204C	Nanoscience and Technology								
Core Course VIII (Lab)	YPH205	Digital & Microprocessor Laboratory	0	0	3	3	0	0	6	6
Total						22				25

SEMESTER – III										
Course	Subject Code	Course Title	Credits				Hours			
			L	T	P	Total	L	T	P	Total
Core Course IX	YPH301	Solid State Physics	4	1	0	5	4	1	0	5
Core Course X	YPH302	Quantum Mechanics - II	4	1	0	5	4	1	0	5
Core Course XI	YPH303	Electromagnetic Theory	4	1	0	5	4	1	0	5
Elective Course III	YPH304A	Micro Electro Mechanical Systems (MEMS)	4	0	0	4	4	0	0	4
	YPH304B	Solar Thermal and Photovoltaic Technology								
	YPH304C	Industrial Electronics								
Core Course XII (Lab)	YPH305	Advanced General & Electronics Laboratory	0	0	3	3	0	0	6	6
Total						22				25

SEMESTER – IV										
Course	Subject Code	Course Title	Credits				Hours			
			L	T	P	Total	L	T	P	Total
Core Course XIII	YPH401	Atomic and Molecular Spectroscopy	4	1	0	5	4	1	0	5
Core Course XIV	YPH402	Nuclear and Particle Physics	4	1	0	5	4	1	0	5
Project	YPH403	Project Work and Viva voce	0	0	10	10	0	0	15+5*	15 +5*
Total						20				25+5*

Note: L – Lecture Hours; T – Tutorial Hours; P – Practical Hours & C – Credits; * - Directed Study

Total Credits (I, II, III & IV Semester): 22+22+22+20 = 86 Credits

CREDIT SUMMARY							
SEMESTER		I	II	III	IV	TOTAL	% OF TOTAL CREDITS
Core	Theory	15	15	15	10	55	63.95
	Lab	3	3	3	-	9	10.46
Elective		4	4	4	-	12	13.95
Project		-	-	-	10	10	11.63
Total		22	22	22	20	86	100