

PROGRAM : M.Tech. (Photonics)
DEPARTMENT : Department of Physics

Teaching Scheme				Contact Hours/Week				Exam Duration (Hrs.)		Relative Weights (%)				
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1st Year				I Semester (Autumn)										
1.	PHN-701	Numerical Analysis and Computational Techniques	PCC	3	2	0	2	3	3	10-25	25	15-25	30-40	0
2.	PHN-703	Fabrication and Characterization Techniques	PCC	3	3	0	0	3	0	20-35	0	20-30	40-50	0
3.	PHN-711	Laboratory Work in Photonics	PCC	3	0	0	6	0	6	0	50	0	0	50
4.	PHN-713	Optical Electronics	PCC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
5.	PHN-xxx	Programme Elective –I (Group A)	PEC	4	-	-	-	-	-	-	-	-	-	-
		Sub Total		17										
				II Semester (Spring)										
1.	PHN-702	Guided-wave Optical Components & Devices	PCC	4	3	0	3	3	0	10-25	25	15-25	30-40	0
2.	PHN-xxx	Programme Elective-II (Group B)	PEC	4	-	-	-	-	-	-	-	-	-	-
3.	PHN-xxx	Programme Elective-III (Group B)	PEC	4	-	-	-	-	-	-	-	-	-	-
4.	PHN-xxx	Programme Elective-IV (Group B)	PEC	4	-	-	-	-	-	-	-	-	-	-
5.	PHN-700	Seminar	SEM	2	0	0	0	0	0	0	0	50	50	0
		Sub Total		20										
2nd Year				III Semester (Autumn)										
1.	PHN-700A	Industrial/Lab Training	ILT	2	0	0	0	0	0	0	0	0	100	0
2.	PHN-701A	Dissertation Stage-I	DIS	12	-	-	-	-	-	-	-	-	100	-
		Sub Total		12										
				IV Semester (Spring)										
1.	PHN-701B	Dissertation Stage-II	DIS	18	-	-	-	-	-	-	-	-	100	-
		Sub Total		18										
		TOTAL CREDITS		67										

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List of PECs

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<u>Group – A</u>														
1.	PHN-709	Semiconductor Device Physics	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
2.	PHN-715	Analog Integrated Circuit Design	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
3.	PHN-717	Digital Signal Processing	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
<u>Group – B</u>														
1.	PHN-719	Radiation Detection and Measurements	PEC	4	3	0	3	3	0	10-25	25	15-25	30-40	0
2.	PHN-725	Nano-electronics and photonics	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
3.	PHN-726	Solar Photovoltaic and Energy Storage	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
4.	PHN-731	Optical Communication System	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
5.	PHN-732	Optical Networks	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
6.	PHN-733	Solid State Lighting	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
7.	PHN-734	Display Technology	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
8.	PHN-735	Photonic Sensors	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
9.	PHN-736	Photonic Analysis and Design	PEC	4	2	0	4	2	3	10-25	25	15-25	30-40	0
10.	PHN-737	Silicon Photonics	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0
11.	PHN-738	Quantum Photonics	PEC	4	3	1	0	3	0	20-35	0	20-30	40-50	0