

Structure of 4-year 8-semester B. Tech. course in Optics & Optoelectronics Engineering					
SEMESTER – B1(Common to All streams)		L	T	P	Credit
HU101	Communicative English	2	1	0	3
PH102	Physics-I	2	1	0	3
CH103	Chemistry-I	2	1	0	3
MA104	Engineering Mathematics-I	2	1	0	3
EE105	Electrical Technology	2	1	0	3
CS106	Computer Programming and Data Structure	2	1	0	3
HU107	Language Lab	0	0	3	2
PH108	Physics-I Lab	0	0	3	2
CH109	Chemistry-I Lab	0	0	3	2
EE110	Electrical Technology Lab	0	0	3	2
CS111	Computer Lab	0	0	3	2
		12	6	15	28
SEMESTER – B2 (Common to All streams)					
HU201	Sociology	2	1	0	3
PH202	Physics-II	2	1	0	3
CH203	Chemistry-II	2	1	0	3
MA204	Engineering Mathematics-II	2	1	0	3
ET205	Basic Electronics	2	1	0	3
ME206	Engineering Mechanics	2	1	0	3
PH207	Physics-II Lab	0	0	3	2
CH208	Chemistry-II Lab	0	0	3	2
ET209	Electrical Technology Lab	0	0	3	2
ME210	Workshop Practice	0	0	3	2
ME211	Engineering Drawing	0	0	3	2
		12	6	15	28
SEMESTER – B3					
B231	Engineering Mathematics-III	2	1	0	3
B232	Foundation of Applied Optics & Photonics	3	0	0	3
B233	Photonic Materials	3	0	0	3
B234	Network Theory	2	1	0	3
B235	Analog and Digital Electronic Circuits	3	0	0	3
B231P	Radiometry & Photometry Lab	0	0	6	4
B232P	Computer Applications Lab	0	1	3	3

		13	3	9	22
SEMESTER – B4					
B241	Wave Optics	3	0	0	3
B242	Image Science	3	0	0	3
B243	Optical Metrology & Testing	3	0	0	3
B244	Communication systems	3	0	0	3
B245	Electromagnetics I	3	0	0	3
B246	Microprocessor & Microcontroller	3	0	0	3
B241P	Electronics Circuits Lab	0	1	3	3
B242P	Optics I Lab	0	1	3	3
		18	2	6	24
SEMESTER – B5					
B351	Signals & Systems	2	1	0	3
B352	Electromagnetics II	3	0	0	3
B353	Photonics sources, detectors and displays	3	0	0	3
B354	Lighting Science and Illumination Engineering	3	0	0	3
B355	Laser Physics	3	0	0	3
B351P	Microprocessor & Microcontroller Lab	0	0	3	2
B352P	Optics II Lab	0	1	3	3
B351S	Computer Application based mini project & Seminar	0	2	3	4
		14	4	9	24
SEMESTER – B6					
B361	Fiber Optics and fiber optic components	3	0	0	3
B362	Gaussian beam Optics and Laser Applications	3	0	0	3
B363	Fourier Optics and Holography	3	0	0	3
B364	Optical and Optomechanical Systems	3	0	0	3
B365	Elective Paper I i) Optical System Design ii) Data base management system iii) Information Photonics iv) Numerical Methods in Optics	2	0	0	2
B361P	Illumination Engineering Lab	0	0	3	2
B362P	Optics III Lab	0	0	6	4
B363P	Signal Processing Lab	0	1	3	3
B364P	Optical Simulation and Design Lab	0	1	3	3
		14	2	15	26
SEMESTER – B7					

B471	Optical materials and thin films	3	0	0	3
B472	Instrumentation & Control	3	0	0	3
B473	Fundamentals of Optical Fiber Communication and networking	2	0	0	2
B474	Crystal Optics and Nonlinear Optics	2	0	0	2
B475	Elective Paper II v) Integrated Optics vi) Biomedical Optics vii) Digital Image Processing	2	0	0	2
B471D	Preliminary Project Work	0	0	X	2
B471P	Communications Lab	0	0	6	4
B472P	Thin film and Photolithography Lab	0	0	3	2
B473P	Photonic Devices & Systems Lab	0	0	6	4
		12	0	15	24
SEMESTER – B8					
B481S	Seminar 2	X	0	0	2
B482D	Project	0	0	X	10
B483V	Grand Viva	0	0	X	2
		X	0	X	14
Total Credit					
					190