

Undergraduate Core (UC)		Undergraduate Elective (UE)	
Category	Credits	Category	Credits
DC	70	DE	20
BS	20	HM	14
EAS	20	OC	35
HU	1	-	-
TOTAL	111	TOTAL	69

Course No.	Title	L	T	P	CREDITS
Basic Sciences(BS) Core					
CYL110	Physical Chemistry: Concepts and Applications	3	1	0	4
CYP100	Chemistry Laboratory	0	0	4	2
MAL110	Mathematics - I	3	1	0	4
MAL120	Mathematics - II	3	1	0	4
PHL120	Physics of Materials	3	1	0	4
PHP100	Physics Laboratory	0	0	4	2
	TOTAL BS Core	12	4	8	20

Course No.	Title	L	T	P	Credits
Engineering Arts and Sciences (EAS) Core					
CHL110	Transport Phenomena	3	1	0	4
CSL101	Introduction to Computers and Programming OR	3	0	2	4
CSL102	Introduction to Computer Science	3	0	2	4
EEL101	Fundamentals of Electrical Engineering	3	0	2	4
MEL110	Graphic Science	2	0	4	4
MEL120	Manufacturing Practices	2	0	4	4
	TOTAL EAS Core	13	1	12	20

Course No.	Title	L	T	P	Credits
Humanities and Social Sciences (HU) Core					
HUN100	Introduction to Humanities and Social Sciences(CH)	1	0	0	1

Departmental Core (DC)

Course No.	Title	L	T	P	Credits
EPC410	Colloquium (PH)	0	3	0	3
EPD411	Major Project Part 1 (PH)	0	0	6	3
EPD412	Major Project Part 2 (PH)	0	0	14	7
EPL101	Classical Mechanics and Relativity	3	1	0	4
EPL103	Mathematical Physics	3	1	0	4
EPL105	Optics	3	1	0	4
EPL107	Electromagnetics	3	1	0	4
EPL202	Quantum Mechanics and its Applications	3	1	0	4
EPL204	Thermal and Statistical Physics	3	1	0	4
EPL206	Solid State Physics	3	1	0	4
EPL208	Principles of Electrodynamics and Plasmas	3	1	0	4
EPL211	Principles of Material Synthesis	3	1	0	4
EPL213	Fundamentals of Semiconductors	3	1	0	4
EPL110	Introduction to Engineering Physics	0	0	4	2
EPP109	Physics Laboratory - I	0	0	6	3
EPP110	Physical System Design	0	0	4	2
EPP215	Physics Laboratory - II	0	0	6	3
EPP216	Physics Laboratory - III	0	0	6	3
EPP301	Design Laboratory	0	0	8	4
EPT410	Practical Training (PH)				NC
	TOTAL DC	30	13	54	70

Departmental Electives (DE)

Course No.	Title	L	T	P	Credits
EPD310	Mini Project (PH)	0	0	6	3
EPL311	Vacuum Technology and Surface Physics	3	0	0	3
EPL332	Nuclear Science and Engineering	3	0	0	3
EPL333	Computational Physics	3	0	2	4
EPL334	Lasers	3	0	0	3
EPL335	Low Dimensional Physics	3	1	0	4
EPL336	Semiconductor Optoelectronics	3	1	0	4
EPL337	Materials Science and Engineering	3	1	0	4
EPL338	Non-linear Phenomena in Physics and Engineering	3	1	0	4
EPL439	Microelectronic Devices	3	0	0	3
EPL440	Quantum Electronics	3	0	0	3
EPL441	Applications of Lasers in Technology	3	0	0	3
EPL442	Fiber and Integrated Optics	3	0	0	3
EPL443	Holography and Optical Information Processing	3	0	0	3
EPL444	Functional Nanostructures	3	0	0	3
EPL445	Engineering Optics	3	0	0	3
EPL446	Spintronics and Data Storage	3	0	0	3
EPR310	Professional Practices (PH)	0	1	2	2
EPS310	Independent Study (PH)	0	3	0	3
EPV430	Special Topics in Nano-Technology	1	0	0	1
EPV431	Special Topics in Photonics and Optoelectronics	1	0	0	1
EPV432	Special Topics in Emerging Processes	1	0	0	1
EPV433	Special Topics in Emerging Materials	1	0	0	1

EPV434	Special Topics in Emerging Devices	1	0	0	1
EPV450	Selected Topics in Nano-Technology	2	0	0	2
EPV451	Selected Topics in Photonics and Optoelectronics	2	0	0	2
EPV452	Selected Topics in Emerging Processes	2	0	0	2
EPV453	Selected Topics in Emerging Materials	2	0	0	2
EPV454	Selected Topics in Emerging Devices	2	0	0	2