

## Engineering Physics

### Semester- I (Common for all B.Tech Courses)

S.No	C. Code	Course	L	T	P	C
1	MA 101	Calculus	3	1	0	8
2	PH 101	Quantum Physics and Applications	2	1	0	6
3	CH 102	Fundamental Concepts and Applications of Chemistry	3	0	0	6
4	BB 103	Introduction to Modern biology	3	0	0	6
5	PH 113	Hands on Science Laboratory - I	0	0	3	3
6	CS 101	Computer Programming	3	0	2	8
7	HS 103	Introduction to Fine Arts	0	0	1	PP/NP
8	HS 106	Design Thinking and Creativity	1	0	0	PP/NP
9	NO107/NO105	NSO/NSS	0	0	2	2
First Semester Total Credits						37

### Semester - II

Sl. No.	Course Code	Course Name	L	T	P	C
1	CS 201	Data Structure & Algorithms	3	0	0	6
2	EE 101	Introduction to Electrical Systems and Electronics	3	0	0	6
3	MA 102	Linear Algebra	3	1	0	4
4	MA 103	Differential Equations – I	3	1	0	4
5	PH 102	Electricity and Magnetism	2	1	0	6
6	ME 113	Hands on Engineering Laboratory	0	0	3	3
7	ME 111	Engineering Graphics Laboratory	1	0	3	5
8	CS 211	Data Structure & Algorithms Lab	0	0	3	3
9	NO107/NO105	NSO/NSS	0	0	2	2
Second Semester Total Credits						37
Total Cumulative Credits after 1st Year						74

### Semester - III

Sl. No.	Course Code	Course Name	L	T	P	C
1	PH 201	Electrodynamics	2	1	0	6
2	HS 201	Economics	2	1		6
3	ME 207	Thermodynamics	2	1	0	6
4	EE 210	Signals and Systems	2	1	0	6
5	EE 221	Introduction to Probability (Pre mid-sem)	3	0	0	3

6	EE 229	Electronic Devices (Pre mid-sem)	3	0	0	3
7	EE 202	Introduction to Analog Circuits (Post midsem)	3	0	0	3
8	PH 211	Introductory Physics Laboratory	0	0	3	3
Third Semester Total Credits						36
Second Year Total Credits						75

### Semester - IV

Sl. No.	Course Code	Course Name	L	T	P	C
1	PH 202	Classical Mechanics	2	1	0	6
2	PH 203	Quantum Mechanics-I	2	1	0	6
3	EE 204	Digital Systems	2	1	0	6
4	CS 301	Computer Architecture	2	1	0	6
5	ME 201	Engineering Mechanics	2	1	0	6
6	EE 212	Devices and Circuits Laboratory	0	0	3	3
7	EE 214	Digital Circuits Laboratory	0	0	3	3
8	CS 311	Computer Architecture Lab	0	0	3	3
Fourth Semester Total Credits						39
Total Cumulative Credits after 2nd Year						149

### Semester - V

Sl. No.	Course Code	Course Name	L	T	P	C
1	PH 304	Statistical Physics	2	1	0	6
2	PH 302	Quantum Mechanics - II	2	1	0	6
3	EE 321	Digital Signal Processing (Pre mid-sem)	3	0	0	3
4	EE 227	Data Analysis (Post mid-sem)	2	1	0	3
5	ME 203	Fluid Mechanics	2	1	0	6
6	EE 315	Digital Signal Processing Lab (Post mid-sem)	0	0	2	2
7	PH 212	General Physics Laboratory	0	0	3	3
Fifth Semester Total Credits						29
Third Year Total Credits						64

### Semester - VI

Sl. No.	Course Code	Course Name	L	T	P	C
1	PH 306	Condensed Matter Physics	2	1	0	6
2	CE 301	Environmental Studies	3	0	0	6

3		HSS Elective - I	3	0	0	6
4		Institute Elective – 1 / RnD Project	2	1	0	6
5	PH 311	Advanced Physics Laboratory	0	0	3	3
6	ME 330	Mechanics and Measurement Lab	1	0	3	5
7	PH 307	Seminar – 1	0	0	3	3
Total Cumulative Credits after 3rd Year						213

### Semester- VII

Sl. No.	Course Code	Course Name	L	T	P	C
1		HSS Elective - II	3	0	0	6
2	PH 308	Seminar – 2	0	0	4	4
3		Institute Elective – 2	2	1	0	6
4		Institute Elective – 3/ BTP-I	2	1	0	6
Seventh Semester Total Credits						22

### SEMESTER -VIII

Sl. No.	Course Code	Course Name	L	T	P	C
1		Institute Elective – 4	2	1	0	6
2		Institute Elective – 5	2	1	0	6
3		Institute Elective – 6/ BTP-II	2	1	0	6
Eighth Semester Total Credits						18
Overall Credits Required (Minimum)						257