EP - B.Tech. in Engineering Physics
2021 Batch

Semester 1

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	PH1050	Foundation of Computational Physics	2	1	0	1	8	12	E
2	CY1001	Chemistry I	3	1	0	0	6	10	S
3	MA1101	Functions of Several Variables	3	1	0	0	6	10	S
4	PH1010	Physics I	3	1	0	0	6	10	S
5	PH1030	Physics Lab	0	0	0	3	1	4	S
6	PH1080	Thermodynamics & Kinetic Theory	3	1	0	0	6	10	E
7	ID1200	Ecology and Environment	2	0	0	0	0	0	
8	GN1101	Life Skills I	0	0	0	0	3	0	
		NCC (NC1010)/NSO (NS1020)/NSO(NS1030)	0	0	0	0	2	0	
		Credits for semester 1	**15**	**4**	**0**	**6**	**36**	**56**	

Winter

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	WS1301	Workshop I	0	0	0	3	0	3	E

Semester 2

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	CY1002	Chemistry Lab	0	0	0	3	0	3	S
2	CY1051	Chemistry II	3	0	0	0	6	9	S
3	EE1101	Signals & Systems	3	1	0	0	6	10	E
4	EE2001	Digital Systems & Lab	3	1	1	3	8	16	P
5	MA1102	Series and Matrices	3	1	0	0	6	10	S
6	PH1020	Physics II	3	1	0	0	6	10	S
7	GN1102	Life Skills II	0	0	0	0	3	0	
8		NCC (NC1010)/NSO (NS1020)/NSO(NS1030)	0	0	0	0	3	0	
		Credits for semester 2	**17**	**4**	**0**	**6**	**33**	**58**	

Summer

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	WS1302	Workshop II	0	0	0	3	0	3	E

Semester 3

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EE2015	Electric Circuits & Networks	3	1	1	0	6	11	P
2	EP2090	EP Lab 1	0	0	0	3	1	4	P
3	EP2102	Classical Dynamics	3	0	0	0	6	9	P
4	EP2110	Intro Math Phys.	3	1	0	0	6	10	P
5	HS	H Elec. 1	3	0	0	0	6	9	H
6	MA	Math. 3-Elective	3	0	0	0	6	9	S
		Total	**15**	**2**	**1**	**3**	**31**	**52**	

Semester 4

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EE2004	Digital Signal Processing	3	1	1	0	6	11	P
2	EE2019	Analog Systems & Lab	3	1	1	3	6+3	17	P
3	EP2210	Quantum Mechanics	3	0	0	0	6	9	P
4	EP3190	EP Lab 2	0	0	0	6	2	8	P
5	ME1480	Engg. Drawing	0	1	0	3	3	7	E
		Total	**9**	**3**	**2**	**12**	**26**	**52**	

Semester 5

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EP3110	Electromagnetics and Applications	3	0	0	0	6	9	P
2	EP3120	Statistical Physics	3	0	0	0	6	9	P
3	EP3290	EP Lab 3	0	0	0	3	1	4	P
4	EP/EE	P. Elec. 1	3	0	0	0	6	9	P
5	HS	H. Elec. 2	3	0	0	0	6	9	H
6		F. Elec 1	3	0	0	0	6	9	F
7		F Elec. 2	3	0	0	0	6	9	F
		Total	**18**	**0**	**0**	**3**	**37**	**58**	

Semester 6

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	BT1010	Life Sciences	3	0	0	0	6	9	S
2	EE3001	Solid State Devices	3	1	1	0	6	11	P
3	EP3220	Solid State Physics	3	0	0	0	6	9	P
4	EP3291	EP Lab 4	0	0	0	3	1	4	P
5	EP/EE	P Elec. 2	3	0	0	0	6	9	P
6		F. Elec 3	3	0	0	0	6	9	F
7		F Elec. 4	3	0	0	0	6	9	F
8	HS3050	Professional Ethics	2	0	0	0	0	0	
		Total	**20**	**1**	**1**	**3**	**37**	**60**	

Summer

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EP3500	Summer Internship	0	0	0	0	20	0	

Semester 7

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EP/EE	P. Elec. 3	3	0	0	0	6	9	P
2	EP/EE	P. Elec. 4	3	0	0	0	6	9	P
3	EP4140 or EP/EE	Project * or P. Elec. 5	3 0	0 0	0 0	0 0	6 9	9 9 *	P P
4	EP4040	Seminar	0	0	0	0	1	1	P
5	HS	H Elec. 3	3	0	0	0	6	9	H
6		F Elec. 5	3	0	0	0	6	9	F
7		F Elec. 6	3	0	0	0	6	9	F
		Total	**18**	**0**	**0**	**0**	**37**	**55**	

Semester 8

S.No	Course No	Course Name	L	T	E	P	O	C	Cat
1	EP4150 or EP/EE EP/EE	Project * or P. Elec. 5 P. Elec. 6	3 3 3	0 0 0	0 0 0	0 0 0	18 6 6	18* (or) 9 9	P
2	EP/EE	P. Elec. 7	3	0	0	0	6	9	P
3	EP/EE	P. Elec. 8	3	0	0	0	6	9	P
3		F Elec. 7	3	0	0	0	6	9	F
4		F Elec. 8	3	0	0	0	6	9	F
		Total	**12**	**0**	**0**	**0**	**24**	**36**	

* B.Tech. project (EP4140 & EP4150) is optional. In lieu of the project the students may be allowed to opt for three professional electives worth 27 Physics credits.

Semester	I	II	III	IV	V	VI	VII	VIII	Total
Credits	56	58+6	52	52	58	60	55	36	433

Category	Engineering (E)	Professional (P) Core+Elective+Elective/Project		Humanities (H)	Sciences (S)	Un-allotted Credits	Total
Credits	45	142+36+27		27	75+9	72	433

Total no. of S credits	75
Total no. of E credits	45
Total no. of P credits	205 [*142 core + 36 electives + 27 project /electives*]
Total no. of F elective credits	72
Total no. of H elective credits	27
Total no. of S elective credits	9

In the core part of the P category, the number of credits from the Physics department is 74 and that from the Electrical Engineering department is 69.

Students 72 FREE elective credits during semesters VI-VIII from any department including ocean engineering. Electives can be taken in semesters VI-VIII, subject to maximum of 60 credits per sem. Or as suggested

B.Tech. project is optional. In lieu of the project the students may be allowed to opt for 3 dept. electives worth 27 Physics credits.

BTech (Honours): (Total credit requirement: 432 + 27 = **459)**
- **Eligibility**: minimum CGPA of 8.5 at the end of 5th sem without U or W grade in any course. They need to maintain these conditions until graduation.
- **BTech Project is mandatory**.
- **Extra credit requirement**: 27 elective credits are to be taken in VI-VIII semester