



JOY UNIVERSITY
semper paratus

School of Arts and Natural Sciences

Department of Sciences

B.Sc., B.Ed. Physics – I Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	C
1.	BBPH1101	Mechanics and Application	4	0	0	4	4
2.	BBPH1102	Mechanics and Application Lab	0	0	2	3	2
3.	BBED1101	Introduction to Education	2	1	0	4	3
4.	BBCH1101	Fundamental Chemistry	4	0	0	4	4
5.	BBCH1102	Fundamental Chemistry Lab	0	0	2	3	2
6.	BBMA1101	Differential Calculus	5	1	0	5	6
7.	BAEN1101	Professional Communication	2	0	0	2	2
8.	BBED1102	ICT in Education	0	1	2	2	2
		TOTAL	17	3	6	27	25

B.Sc., B.Ed. Physics – II Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	C
1.	BBPH1201	Electricity and Magnetism	4	0	0	4	4
2.	BBPH1202	Electricity and Magnetism Lab	0	0	2	3	2
3.	BBED1201	Growth and Development of Child	2	1	0	4	3
4.	BBCH1201	Physical and Organic Chemistry	4	0	0	4	4
5.	BBCH1202	Physical and Organic Chemistry Lab	0	0	2	3	2
6.	BBMA1201	Differential Equation	5	1	0	5	6
7.	BBPH1203	Electrical circuits and Network Skills	2	0	2	3	4
8.	BBED1202	Language across the Curriculum	2	0	0	2	2
		TOTAL	19	2	6	28	27

B.Sc., B.Ed. Physics – III Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	C
1.	BBPH2301	Waves and Optics	4	0	0	4	4
2.	BBPH2302	Waves and Optics Lab	0	0	2	3	2
3.	BBED2301	Curriculum Processes	2	1	0	4	3
4.	BBED2302	Educational Psychology	2	1	0	4	3
5.	BBCH2301	Electrochemistry and Organic Chemistry	4	0	0	4	4
6.	BBCH2302	Electrochemistry and Organic Chemistry Lab	0	0	2	3	2
7.	BBMA2301	Real Analysis	5	1	0	4	6
8.	BAEN2301	Environmental Studies	2	0	0	2	2
		TOTAL	19	3	4	26	26

B.Sc., B.Ed. Physics – IV Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	C
1.	BBPH2401	Thermal Physics	4	0	0	4	4
2.	BBPH2402	Thermal Physics Lab	0	0	2	3	2
3.	BBED2401	Learning and Assessment	2	1	0	4	3
4.	BBED2402	Guidance and Counselling	2	1	0	3	2
5.	BBCH2401	Physical and Inorganic Chemistry	4	0	0	4	4
6.	BBCH2402	Physical and Inorganic Chemistry Lab	0	0	2	3	2
7.	BBMA2401	Algebra	5	1	0	5	6
8.	BBPH####	DSC-I (Opt. any one)	3	0	2	5	6
		TOTAL	20	3	6	31	29

List of DSE for the Semester:

1. Computational Physics
2. Astronomy and Astrophysics

B.Sc., B.Ed. Physics – V Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	C
1.	BBPH3501	Mathematical Physics- I	4	0	0	4	4
2.	BBPH3502	Classical Mechanics	4	0	0	4	4
3.	BBPH3503	Quantum Mechanics and Applications	4	0	0	4	4
4.	BBPH3504	Digital and Analog Circuits and Oscillators, Rectifiers	4	0	0	4	4
5.	BBPH3505	Mathematical Physics- I Lab	0	0	2	3	2
6.	BBPH3506	Classical Mechanics Lab	0	0	2	2	2
7.	BBPH3507	Quantum Mechanics and Applications Lab	0	0	2	2	2
8.	BBPH3508	Digital and Analog Circuits and Oscillators, Rectifiers Lab	0	0	2	3	2
9.	BBED3502	Pedagogy of Mathematics	2	0	2	3	3
10.	BBED3503	Pedagogy of Physics	2	0	2	3	3
11.	BBED3504	Learning to Function as Teacher	0	0	2	2	2
		TOTAL	20	0	14	34	32

B.Sc., B.Ed. Physics – VI Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	C
1.	BBPH3601	Mathematical Physics- II	4	0	0	4	4
2.	BBPH3602	Maxwell Equations and EMT	4	0	0	4	4
3.	BBPH3603	Statistical Mechanics	4	0	0	4	4
4.	BBPH3604	Solid State Physics	4	0	0	4	4
5.	BBPH3605	Mathematical Physics- II Lab	0	0	2	3	2
6.	BBPH3606	Maxwell Equations and EMT Lab	0	0	2	3	2
7.	BBPH3607	Statistical Mechanics Lab	0	0	2	3	2
8.	BBPH3608	Solid State Physics Lab	0	0	2	3	2
9.	BBED3601	Food, Nutrition and Public Health	4	0	0	4*	4*
10.	BBED3602	Renewable Energy and Energy Harvesting	4	0	0		
11.	BBED3603	Educational Leadership and Management	4	0	0		
12.	BBED3604	Internship in School Phase 1 (2 Weeks)	0	0	0	2w	2
13.	BBED3605	Pedagogy of Chemistry	2	0	2	3	3
14.	BBED3606	Advanced Pedagogy of Physics	2	0	2	3	3
		TOTAL	32	0	12	34+4*+2weeks	32+4*

B.Sc., B.Ed. Physics – VII Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	C
1.	BBPH4701	Mathematical Physics-III	4	0	0	4	4
2.	BBPH4702	Nuclear and Particle Physics	4	0	0	4	4
3.	BBPH4701	Mathematical Physics-III Lab	0	0	2	3	2
4.	BBPH4702	Mathematical Physics-III Lab	0	0	2	3	2
5.	BBED4701	Contemporary Issues in Education	2	1	0	4	3
6.	BBED4702	Vision of Indian Education	2	1	0	4	3
7.	BBED4702	Community Work (2 weeks)	0	0	0	2w	1
8.	BBED4703	Understanding the Self	0	0	2	2	2
9.	BBED4704	Theatre in Education	0	0	2	2	2
10.	BBED4705	Health, Yoga and Physical Education	0	0	2	2	2
11.	BBPH### #	DSC-II (Opt. any one)	4	1	0	5	6
		TOTAL	16	3	10	33+2 weeks	31

List of DSE for the Semester:

1. Atmospheric Physics
2. Introduction to Microcontroller

B.Sc., B.Ed Physics – VIII Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	C
1.	BBED4801	Education Media-MOOCs Swayam				2w	2
2.	BBED4802	Linux Operating System-MOOCs Swayam				2w	2
3.	BBED4803	Internship in School Phase 2 (16 Weeks)				14w	12
4.	BBED4804	Project Report				2w	2
		TOTAL				20 weeks	18

Semester-wise Credit Load

Sl.No	Semester	L	T	P	C
1.	I	17	3	6	25
2.	II	19	2	6	27
3.	III	19	3	4	26
4.	IV	20	3	6	29
5.	V	20	0	14	32
6.	VI	32	0	12	32 +4*
7.	VII	16	3	10	31
8.	VIII	-	-	-	18
	TOTAL	143	14	58	220+4*