VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

Department of Physics

Departmental Teaching and Evaluation scheme

Three/Four- Years UG Programme

Department/Subject Specific Core or Major (DSC)

(as per NEP-2020 Guidelines)

First Year Semester-I & II

Sr. No.	Course Abbr.	Course code	Course Name	Teaching Scheme Hours/week		Examination Scheme and Marks				Course Credits
				TH	PR	ESE	CIE	PR	Marks	
Semester-I										
1	DSC-I	DSC03PHY11	Mechanics I	2	-	40	10	-	50	2
2	DSC-II	DSC03 PHY12	Mechanics II	2	-	40	10	-	50	2
3	MIN-I	MIN03PHY11	Mechanics I	2	-	40	10	-	50	2
4	MIN-II	MIN03PHY12	Mechanics II	2	-	40	10	-	50	2
5	OEC-I	OEC03PHY11	Mechanics I	2	-	40	10	-	50	2
6	OEC-II	OEC03PHY12	Mechanics II	2	-	40	10	-	50	2
7	IKS-I	IKS03GEC11	Indian Knowledge System	2	-	25	-	-	25	2
8	DSC-PR-I	DSC03PHY19	DSC Physics Lab-1	-	4	-	-	25	25	2
9	MIN-PR-I	MIN03PHY19	MIN Physics Lab-1	-	4	-	-	25	25	2
10	OEC-PR-I	OEC03PHY19	OEC Physics Lab-1	-	4	-	-	25	25	2
Semester –I Total				**14**	**12**	**265**	**60**	**75**	**400**	**20**
Semester-II										
1	DSC-III	DSC03PHY21	Electricity and Magnetism - I	2	-	40	10	-	50	2
2	DSC-IV	DSC03PHY22	Electricity and Magnetism - II	2	-	40	10	-	50	2
3	MIN-III	MIN03PHY21	Electricity and Magnetism - I	2	-	40	10	-	50	2
4	MIN-IV	MIN03PHY22	Electricity and Magnetism - II	2	-	40	10	-	50	2
5	OEC-III	OEC03PHY21	Electricity and Magnetism - I	2	-	40	10	-	50	2
6	OEC-IV	OEC03PHY22	Electricity and Magnetism - II	2	-	40	10	-	50	2
7	VSC-PR-I	VSC03PHY29	Semiconductor Devices	-	4	-	-	25	25	2
8	DSC-PR-II	DSC03PHY29	DSC Physics Lab-2	-	4	-	-	25	25	2
9	MIN-PR-II	MIN03PHY29	MIN Physics Lab-2	-	4	-	-	25	25	2
10	OEC-PR-II	OEC03PHY29	OEC Physics Lab-2	-	4	-	-	25	25	2
Semester –II Total				**12**	**16**	**240**	**60**	**100**	**400**	**20**

Departmental Teaching and Evaluation scheme

Second Year Semester-III & IV

Sr. No.	Course Abbr.	Course code	Course Name	Teaching Scheme Hours/week		Examination Scheme and Marks				Course Credits
				TH	PR	ESE	CIE	PR	Marks	
Semester-III										
1	DSC-V	DSC03PHY31	Thermal Physics and Statistical Mechanics – I	2	-	40	10	-	50	2
2	DSC-VI	DSC03PHY32	Waves and Oscillations	2	-	40	10	-	50	2
3	MIN-V	MIN03PHY31	Basic Electronics	2	-	40	10	-	50	2
4	MIN-VI	MIN03PHY32	Electrodynamics	2	-	40	10	-	50	2
5	VSC-PR-II	VSC03PHY39	Fundamentals of Astronomy and Astrophysics	-	4	-	-	25	25	2
6	DSC-PR-III	DSC03PHY39	DSC-Physics Lab-3	-	8	-	-	50	50	4
7	MIN-PR-III	MIN03PHY39	MIN-Physics Lab-3	-	4	-	-	25	25	2
Semester –III Total				**8**	**16**	**160**	**40**	**100**	**300**	**16**
Semester-IV										
1	DSC-VII	DSC03PHY41	Thermal Physics and Statistical Mechanics – II	2	-	40	10	-	50	2
2	DSC-VIII	DSC03PHY42	Optics	2	-	40	10	-	50	2
3	MIN-VII	MIN03PHY41	Energy Studies	2	-	40	10	-	50	2
4	MIN-VIII	MIN03PHY42	Environmental Physics	2	-	40	10	-	50	2
5	VSC-PR-III	VSC03PHY49	Galaxies and Cosmic Electrodynamics	-	4	-	-	25	25	2
6	DSC-PR-IV	DSC03PHY49	DSC-Physics Lab-4	-	8	-	-	50	50	4
7	MIN-PR-IV	MIN03PHY49	MIN-Physics Lab-4	-	4	-	-	25	25	2
Semester –IV Total				**8**	**16**	**160**	**40**	**100**	**300**	**16**

Departmental Teaching and Evaluation scheme

Third Year Semester-V & VI

Sr. No.	Course Abbr.	Course code	Course Name	Teaching Scheme Hours/week		Examination Scheme and Marks				Course Credits
				TH	PR	ESE	CIE	PR	Marks	
Semester-V										
1	DSC-IX	DSC03PHY51	Mathematical Physics	2	-	40	10	-	50	2
2	DSC-X	DSC03PHY52	Quantum Mechanics	2	-	40	10	-	50	2
3	DSC-XI	DSC03PHY53	Classical mechanics	2	-	40	10	-	50	2
4	DSC-XII	DSC03PHY54	Atomic and Molecular Physics	2	-	40	10	-	50	2
5	DSE-I	DSE03PHY51	Medical Physics	2	-	40	10	-	50	2
6	VSC-PR-IV	VSC03PHY59	Measurement Techniques in Physics	-	4	-	-	25	25	2
7	FP	FPR03PHY51	Field Project		4			50	50	2
8	DSC-PR-V	DSC03PHY59	DSC Physics Lab-5	-	16	-	-	100	100	8
Semester –V Total				**10**	**24**	**200**	**50**	**175**	**425**	**22**
Semester-VI										
1	DSC-XIII	DSC03PHY61	Nuclear and Particle Physics	2	-	40	10	-	50	2
2	DSC-XIV	DSC03PHY62	Semiconductor Devices and Instruments	2	-	40	10	-	50	2
3	DSC-XV	DSC03PHY63	Solid State Physics I	2	-	40	10	-	50	2
4	DSC-XVI	DSC03PHY64	Solid State Physics II	2	-	40	10	-	50	2
5	DSE-II	DSE03PHY61	Defects in Crystal	2	-	40	10	-	50	2
6	VSC-PR-V	VSC03PHY69	Electrical Circuit Network Skills	-	4	-	-	25	25	2
7	OJT	OJT03PHY61	On Job Training		4			50	50	2
8	DSC-PR-VI	DSC03PHY69	DSC Physics Lab-6	-	16	-	-	100	100	8
Semester –VI Total				**10**	**24**	**200**	**50**	**175**	**425**	**22**

Abbreviations: TH-Theory, PR-Practical, PRO- Project, ESE- End Semester Examination, CIE-Continuous Internal Examination

Note:
Minimum passing for 10 marks Internal evaluation = 04 marks
Minimum passing for 40 marks Theory paper = 16 marks
Minimum passing for 25 marks Practical = 10 marks
Minimum passing for 50 marks Practical/FP/OJT = 20 marks
Minimum passing for 100 marks Practical/FP = 40 marks

Passing percentage for Democracy, PHYction and Good Governance (DEGG) and Environmental Studies papers should be 40%

Separate passing for each Head - ESE, CIE and Practicals