

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Biotechnology (Optional)

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	DSC0BIT11	Fundamentals of Biotechnology-I	2	-	40	10	-	50	2
2	DSC-II	DSC0BIT12	Fundamentals of Biotechnology-II	2	-	40	10	-	50	2
3	MIN-I	MIN03BIT11	Basics of Biotechnology-I	2	-	40	10	-	50	2
4	MIN-II	MIN03BIT12	Basics of Biotechnology-II	2	-	40	10	-	50	2
5	OEC-I	OEC03BIT11	Scope of Biotechnology -I	2	-	40	10	-	50	2
6	OEC-II	OEC03BIT12	Scope of Biotechnology -II	2	-	40	10	-	50	2
7	IKS-I	IKS03GEC11	Indian Knowledge System	2	-	25	-	-	25	2
8	DSC-PR-I	DSC03BIT19	DSC Biotechnology Lab-1	-	4	-	-	25	25	2
9	MIN-PR-I	MIN03BIT19	MIN Biotechnology Lab-1	-	4	-	-	25	25	2
10	OEC-PR-I	OEC03BIT19	OEC Biotechnology Lab-1	-	4	-	-	25	25	2
Semester –I Total				14	12	265	60	75	400	20
Semester-II										
1	DSC-III	DSC0BIT21	Microbiology	2	-	40	10	-	50	2
2	DSC-IV	DSC0BIT22	Cell biology and genetics	2	-	40	10	-	50	2
3	MIN-III	MIN03BIT21	Basics of Microbiology	2	-	40	10	-	50	2
4	MIN-IV	MIN03BIT22	Basics of Cell biology	2	-	40	10	-	50	2
5	OEC-III	OEC03BIT21	Immunology	2	-	40	10	-	50	2
6	OEC-IV	OEC03BIT22	Techniques in r-DNA technology	2	-	40	10	-	50	2
7	VSC-PR-I	VSC03BIT29	Basic Instrumentation in Biotechnology	-	4	-	-	25	25	2
8	DSC-PR-II	DSC03BIT29	DSC Biotechnology Lab-2	-	4	-	-	25	25	2
9	MIN-PR-II	MIN03BIT29	MIN Biotechnology Lab-2	-	4	-	-	25	25	2
10	OEC-PR-II	OEC03BIT29	OEC Biotechnology Lab-2	-	4	-	-	25	25	2
Semester –II Total				12	16	240	60	100	400	20

Department of Biotechnology (Optional)
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	DSC0BIT31	Fundamentals of enzyme technology	2	-	40	10	-	50	2
2	DSC-VI	DSC0BIT32	Fundamentals of Molecular Biology	2	-	40	10	-	50	2
3	MIN-V	MIN03BIT31	Basics of enzymology	2	-	40	10	-	50	2
4	MIN-VI	MIN03BIT32	Basics of Molecular Biology	2	-	40	10	-	50	2
5	VSC-PR-II	VSC03BIT39	Serological techniques	-	4	-	-	25	25	2
6	DSC-PR-III	DSC03BIT39	DSC- Biotechnology Lab-3	-	8	-	-	50	50	4
7	MIN-PR-III	MIN03BIT39	MIN-Biotechnology Lab-3	-	4	-	-	25	25	2
Semester –III Total				8	16	160	40	100	300	16
Semester-IV										
1	DSC-VII	DSC0BIT41	Fundamentals of immune technology	2	-	40	10	-	50	2
2	DSC-VIII	DSC0BIT 42	Fundamentals of Genetic engineering	2	-	40	10	-	50	2
3	MIN-VII	MIN03BIT41	Pharmaceutical biotechnology	2	-	40	10	-	50	2
4	MIN-VIII	MIN03BIT42	Basic of Genetic engineering	2		40	10		50	2
5	VSC-PR-III	VSC03BIT49	Techniques in Forensic Science	-	4	-	-	25	25	2
6	DSC-PR-IV	DSC03BIT49	DSC Biotechnology Lab-4	-	8	-	-	50	50	4
7	MIN-PR-IV	MIN03BIT49	MIN Biotechnology Lab-4	-	4	-	-	25	25	2
Semester –IV Total				8	16	160	40	100	300	16

Department of Biotechnology (Optional)
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	DSC0BIT51	Plant Biotechnology	2	-	40	10	-	50	2
2	DSC-X	DSC0BIT52	Environmental Biotechnology	2	-	40	10	-	50	2
3	DSC-XI	DSC0BIT53	Fermentation technology -I	2	-	40	10	-	50	2
4	DSC-XII	DSC0BIT54	Fermentation technology - II	2	-	40	10	-	50	2
5	DSE-I	DSE03BIT51	Ecology	2	-	40	10	-	50	2
6	VSC-PR-IV	MIN03BIT59	Basic techniques in computers and Bioinformatics		4	-	-	25	25	2
7	FP	FPR03BIT51	Field Project		4			50	50	2
8	DSC-PR-V	DSC03BIT59	DSC Biotechnology Lab-5	-	16	-	-	100	100	8
Semester –V Total				10	24	200	50	175	425	22
Semester-VI										
1	DSC-XIII	DSC03BIT61	Animal tissue Culture	2	-	40	10	-	50	2
2	DSC-XIV	DSC03BIT62	Cell metabolism and virology	2	-	40	10	-	50	2
3	DSC-XV	DSC03BIT63	Biochemical techniques	2	-	40	10	-	50	2
4	DSC-XVI	DSC03BIT64	Gene technology and Bioinformatics	2	-	40	10	-	50	2
5	DSE-II	DSE03BIT61	Basics of Stem cell technology	2	-	40	10	-	50	2
6	VSC-PR-V	MIN0BIT369	Entrepreneurship	-	4	-	-	25	25	2
7	OJT	OJT0BIT61	On Job Training		4			50	50	2
8	DSC-PR-VI	DSC03BIT69	DSC Biotechnology 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, Election and Good Governance (DEGG) and Environmental Studies papers should be 40%

Separate passing for each Head - ESE, CIE and Practicals