

1.1.2.Percentage of Revision of PG and Research Department of Botany
Syllabus Revised for - 2020-2022

B.Com							
S.No	Course Code	Course Title	Change Details	% of Changes	Content Deleted	Content Updated	Reason for Change
1.	20PBY101	Plant Diversity I	Yes	25	<i>Neurospora</i> , <i>Fusarium</i> - Unit III <i>Fossombronia</i> , bryophytes classification (Proskauer 1957)- Unit V	Algae distribution in India-Unit I <i>Type study of Gracilaria</i> , <i>Caulerpa</i> –unit II fossil algae-Unit II <i>Rhizopus</i> and <i>Phytophthora</i> - Unit III fossil fungi - comparison of algae and fungi- Unit III Lichenology whole unit IV changed Bryophytes classification (Watson, 1955), alternation of generations in the life-cycle of bryophytes, <i>Notothylus</i> , <i>Sphagnum</i> and Fossil bryophytes- Unit V	Subject expert
2.	20PBY102	Plant Diversity II	Yes	15		Cordiales and taxales -unit III Unit V (Palaeobotany) has been entirely restructured	Subject expert
3.	20PBY103	Applied Microbiology and Plant Pathology	Yes	20		Economic importance of Microbes, Isolation of microbes from industrial waste,	Subject expert

						concept of prebiotics and probiotics, biotechnology in relation to plant pathology and Agriculture terrorism	
4.	20PBY104	Laboratory course-I	Yes	10	<i>Ascobolus</i> <i>Marsilea</i>	<i>Phytophthora</i> <i>Penicillium</i> Impression, Petrification, Amber	Subject expert
5.	20PBY1E1	Elective -1 Ecology and Phytogeography/	Yes	25	adaptation of plants	Types of ecosystem, cause for loss of biodiversity, theories of succession, Environment Act, Disaster management and application remote sensing in ecological studies, types of ecosystem, altitudinal and longitudinal variation in vegetation	Subject expert
6.	20PBY1E2	Elective -2 Economic Botany	No	0	-	-	-
7.	20PBY205	Plant Anatomy and Reproductive Biology	Yes	5	-	Kranz anatomy	Course teacher suggestion
8.	20PBY206	Plant physiology	Yes	5	-	Radical scavenging activity	Subject expert
9.	20PBY207	Cytology, Genetics and Plant Breeding	Yes	5	-	Cytoplasmic male sterility in plants double haploid	Subject expert
10.	20PBY208	Laboratory	No	0	Effect of varying	-	Subject expert

		course-II			concentrations of CO ₂ on the rate of photosynthesis		
11.	20PBY2E3	Elective-3 Horticulture and Landscaping /	Yes	5	-	Fruit and vegetable carving techniques	Course teacher suggestion
12.	20PBY2E4	Elective-4 IPR and Bioethics	Yes	50	-	All unit changed	Subject expert suggestion
13.	20PBY2N1	Non- Major Elective Entrepreneurship Botany	New course introduced	100	-	-	Department staff suggestion
14.	20PBY309	Taxonomy of Angiosperms	Yes	10	-	Plumbaginaceae, Orchidaceae, Software's, mobile APPS for plant identification	Subject expert suggestion
15.	20PBY310	Plant Biochemistry and Biophysics	No	0	-	-	-
16.	20PBY311	Research Methodology	Yes	5	-	Scanning electron microscopy and Gas chromatography with mass spectrum	Subject expert suggestion
17.	20PBY3E5	Elective -5 Forestry and Wood science	No	0	-	-	-
18.	20PBY3E6	Elective -6 Herbal Technology	Yes	20	Neutraceuticals - classification, antioxidants, probiotics, prebiotics, spirulina, royal jelly, soya beans, garlic and cosmeceuticals. natural pesticides-pyrethrum, neem, derris; antibiotics, allergenic	<i>Withania somnifera</i> and <i>Coleus forskohlii</i> General methods of phytochemical and biological screening – Natural sources - Extraction - Purification and isolation of plant constituents - Alkaloids - glycosides - Volatile oils – Study of some	Subject expert suggestion

					extracts.	herbal formulation techniques as drug cosmetics	
19.	20PBY312	Laboratory course-III	Yes	5	-	Plumbaginaceae, Orchidaceae, Software's, mobile APPS for plant identification	Course teacher suggestion
20.	20PBY313	Laboratory course-IV	Yes	5	-	Silver Nanoparticle synthesis	Course teacher suggestion
21.	20PBY314	Internship	New course	100	-	-	Department staff suggestion
22.	20PBY315	Extra Credit course:Plant ecology, tissue culture and Phytochemical techniques – (Advanced Learners)	New course	100	-	-	Department staff suggestion
23.	20PBY414	Core - 14 Plant Biotechnology and Nanobiology	No	0	-	-	-
24.	20PBY415	Core - 15 Bioinformatics and Cyber Security	No	0	-	-	-
25.	20PBY416	Core – 16Laboratory course -V (for core papers 14 and 15)	No	0	-	-	-
26.	20PBY4P1	Core - 17 Project Work and Viva - Voce	No	0	-	-	-
27.	20PBY4CE	Online- Comprehensive examination	New course	100	-	-	Department staff suggestion
	Total percentage of change			22.59			



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