

Progressive Education Society's
Modern College of Arts, Science and Commerce (Autonomous),
Shivajinagar, Pune 5

(An Autonomous College Affiliated to Savitribai Phule Pune University)

Framework of Syllabus

For

M.Sc. Botany

(Based on NEP 2020 framework)

(To be implemented from the Academic Year 2023-24)

Semester 1 (First Year)

Course Type	Code	Course	Course / Paper Title	Hours / Week	Credit	CIA	ESE	Total
Major Mandatory (4 + 4+4+2)	23ScBotP111	Major Paper 1 (Theory)	Cryptogamic Botany I	4	4	50	50	100
	23ScBotP112	Major Paper 2 (Theory)	Cell Biology and Evolution	4	4	50	50	100
	23ScBotP113	Major Paper 3 (Practical)	Lab Course on 23ScBotP111	8	4	50	50	100
	23ScBotP114	Major Paper 4 (Practical/)	Lab Course on 23ScBotP112	4	2	25	25	50
Major Electives (4)	23ScBotP121	Major Elective 1 (T)	Plant Metabolism	4	4	50	50	100
	23ScBotP122	Major Elective 2 (T)	Botanical Techniques	4				
RM (4)	23ScBotP131	RM Section 1	Research Methodology Basics and Research in Plant Tissue Culture Techniques	2	4	50	50	100
		RM Section 2		2				
OJT(4),		–	–	–	–	–	–	–
Total				28	22	275	275	550

Semester 2 (First Year)

Course Type	Code	Course	Course / Paper Title	Hours / Week	Credit	CIA	ESE	Total
Major Mandatory (4 + 4+4+2)	23ScBotP211	Major Paper 1 (Theory)	Cryptogamic Botany II	4	4	50	50	100
	23ScBotP212	Major Paper 2 (Theory)	Biochemistry	4	4	50	50	100
	23ScBotP213	Major Paper 3 (Practical)	Lab Course on 23ScBotP211	8	4	50	50	100
	23ScBotP214	Major Paper 4 (Practical)	Lab Course on 23ScBotP212	4	2	25	25	50
Major Electives (4)	23ScBotP221	Major Elective 1 (T)	Breeding Genetics and Plant	4	4	50	50	100
	23ScBotP222	Major Elective 2 (T)	Molecular Biology	4				
RM (4)		–	–	–	–	–	–	–
		–	–	–				
OJT(4),	23ScBotP241	OJT	On Job Training	8	4	50	50	100
Total				32	22	275	275	550

Semester 3 (Second Year)

Course Type	Code	Course	Course / Paper Title	Hours/Week	Credit	CIA	ESE	Total
Major Mandatory (4 + 4+4+2)	23ScBotP311	Major Paper 1 (Theory)	Spermatophytic Botany	4	4	50	50	100
	23ScBotP312	Major Paper 2 (Theory)	Plant Ecology and Phytogeography	4	4	50	50	100
	23ScBotP313	Major Paper 3 (Practical)	Lab Course on 23ScBotP311	8	4	50	50	100
	23ScBotP314	Major Paper 4 (Practical)	Lab Course on 23ScBotP312	4	2	25	25	50
Major Electives (4)	23ScBotP321	Major Elective 1 (T)	Developmental Botany	4	4	50	50	100
	23ScBotP322	Major Elective 2 (T)	Genetic Engineering	4				
RP (4)	23ScBotP352	RP	Research Project I	8	4	50	50	100
OJT(4),								
Total				32	22	275	275	550

Semester 4 (Second Year)

Course Type	Code	Course	Course / Paper Title	Hours / Week	Credit	CIA	ESE	Total
Major Mandatory (4 + 4+4)	23ScBotP411	Major Paper 1 (Theory)	Computational Botany	4	4	50	50	100
	23ScBotP412	Major Paper 2 (Theory)	Industrial Botany	4	4	50	50	100
	23ScBotP413	Major Paper 3 (Practical)	Lab Course on 23ScBotP411	8	4	50	50	100
Major Electives (4)	23ScBotP421	Major Elective 1 (Theory)	Plant Biotechnology	4	4	50	50	100
	23ScBotP422	Major Elective 2 (Theory)	Plant Pathology and Plant Protection	4				
RP (4)	23ScBotP452	RP	Research Project II	12	6	75	75	150
OJT(4),								
Total				32	22	275	275	550

OJT : On Job Training: Internship/Apprenticeship

FP : Field Project

RM: Research Methodology

RP: Research Project