

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

B. Sc. (Botany)

Choice Based Credit System (CBCS) Syllabus

Under National Education Policy (NEP)

To be implemented from Academic Year 2024-2025

Level:- 4.5 (First Year) Sem:I

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	ESE	Total
Subject 1 T(2)+ (T/P) (2) or T(4)	24ScBotU1101	Phycology and Mycology	2		2		20	30	50
	24ScBotU1102	Lab Course on 24ScBotU1101		2		4	20	30	50
Subject 2 T(2)+ (T/P) (2) or T(4)	24Sc***U1201	<<Subject 2 Theory>>	2		2		20	30	50
	24Sc***U1202	<<Subject 2 Practical>>		2		4	20	30	50
Subject 3 T(2)+ (T/P) (2) or T(4)	24Sc***U1301	<<Subject 3 Theory>>	2		2		20	30	50
	24Sc***U1302	<<Subject 3 Practical>>		2		4	20	30	50
IKS T(2)	24CpCopU1901	Generic IKS	2		2		20	30	50
GE/OE (T/P) (2)	24ScBotU1401	Organic Farming		2		4	20	30	50
SEC (P) (2)	24ScBotU1601	Lab Course on Laboratory Skills in Botany		2		4	20	30	50
AEC T(2)	24CpCopU1701 / 24CpCopU1702	MIL-I (Hindi) / MIL-I (Marathi)	2		2		20	30	50
VEC T (2)	24CpCopU1801	Environmental Science	2		2		20	30	50
Total			12	10	12	20			550

Level:- 4.5 (First Year) Sem:II

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	ESE	Total
Subject 1 T(2)+ T/P(2) or T(4)	24ScBotU2101	Fundamentals of Plant Biotechnology	2		2		20	30	50
	24ScBotU2102	Lab Course on 24ScBotU2101		2		4	20	30	50
Subject 2 T(2)+ P(2)	24Sc***U2201	<<Subject 2 Theory>>	2		2		20	30	50
	24Sc***U2202	<<Subject 2 Practical>>		2		4	20	30	50
Subject 3 T(2)+ P(2)	24Sc***U2301	<<Subject 3 Theory>>	2		2		20	30	50
	24Sc***U2302	<<Subject 3 Practical>>		2		4	20	30	50
GE/OE (T/P)(2)	24ScBotU2401	Gardening Practices and Maintenance		2		4	20	30	50
SEC P(2)	24ScBotU2601	Lab Course on Seed Technology		2		4	20	30	50
AEC T(2)	24CpCopU2703	English Communication Skills I	2		2		20	30	50
VEC T(2)	24CpCopU2801	Democracy, Election and Governance	2		2		20	30	50
CC(2)	24CpCopU2001/	Physical Education /	2		2		20	30	50

	24CpCopU2011 / 24CpCopU2021 / 24CpCopU2031 / 24CpCopU2041 / 24CpCopU2051 / 24CpCopU2061 / 24CpCopU2071	Cultural Activities / NSS / NCC / Fine Arts / Applied Arts / Visual Arts / Performing Arts							
Total			12	10	12	20			550

Level:- 5.0 (Second Year) Sem:III

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2 or 4), (T/P)(2)	24ScBotU3101	Archegoniate	2		2		20	30	50
	24ScBotU3102	Reproductive Biology of Angiosperms	2		2		20	30	50
	24ScBotU3103	Lab Course on 24ScBotU3101 & 24ScBotU3102		2		4	20	30	50
VSC P(2)	24ScBotU3501	Lab Course in Herbal Technology		2		4	20	30	50
IKS (T/P)(2)	24ScBotU3901	Ayurvedic Science of Nutrition and Diet	2		2		20	30	50
FP P(2)	24ScBotU3002	Field Project I		2		4	20	30	50
Minor (T/P)(2+2 or 4)	24ScBotU3301	Morphology of Angiosperms	2		2		20	30	50
	24ScBotU3302	Lab Course on 24ScBotU3301		2		4	20	30	50
GE/OE (T/P)(2)	24ScBotU3401	Herbal Medicine	2		2		20	30	50
AEC T(2)	24CpCopU3703	English Communication Skills II	2		2		20	30	50
CC T(2)	24CpCopU3001	Online Course on Yoga	2		2		20	30	50
Total			14	08	14	16			550

Level:- 5.0 (Second Year) Sem:IV

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2 or 4), (T/P)(2)	24ScBotU4101	Plant Morphology	2		2		20	30	50
	24ScBotU4102	Plant Anatomy	2		2		20	30	50
	24ScBotU4103	Lab Course on 24ScBotU4101 & 24ScBotU4102		2		4	20	30	50
VSC P(2)	24ScBotU4501	Lab Course on Plant Tissue Culture		2		4	20	30	50
CEP P(2)	24CpCopU4003	Community Engagement Project		2		4	20	30	50

Minor (T/P)(2+2 or 4)	24ScBotU4301	Plant Ecology	2		2		20	30	50
	24ScBotU4302	Lab Course on 24ScBotU4301		2		4	20	30	50
GE/OE (T/P) (2)	24ScBotU4401	Wine Technology	2		2		20	30	50
SEC T(2)	24ScBotU4601	Lab Course on Fruit and Vegetable Processing and Preservation		2		4	20	30	50
AEC T(2)	24CpCopU4701 / 24CpCopU4702	MIL-II (Hindi) / MIL-II (Marathi)	2		2		20	30	50
CC T(2)	24CpCopU4001	Health and Wellness	2		2		20	30	50
Total			12	10	12	20			550

Level:- 5.5 (Third Year) Sem:-V

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2+2+2 or 4 + 2+2 or 4 + 4) P(2+2 or 4)	24ScBotU5101	Paleobotany	2		2		20	30	50
	24ScBotU5102	Plant Systematics	2		2		20	30	50
	24ScBotU5103	Genetics	2		2		20	30	50
	24ScBotU5104	Plant Breeding	2		2		20	30	50
	24ScBotU5104	Lab Course on 24ScBotU5101 & 24ScBotU5102		2		4	20	30	50
	24ScBotU5105	Lab Course on 24ScBotU5103 & 24ScBotU5104		2		4	20	30	50
Major Elective (T/P) (2+2 or 4)	24ScBotU5201	Ecology & Plant Pathology	2		2		20	30	50
	24ScBotU5202	Lab Course on 24ScBotU5201		2		4	20	30	50
	24ScBotU5203	Landscaping and Gardening	2		2		20	30	50
	24ScBotU5204	Lab Course on 24ScBotU5203		2		4	20	30	50
VSC P(2)	24ScBotU5501	Lab Course on Plant Analytical Techniques		2		4	20	30	50
FP (2)	24ScBotU5001	Field Project II		2		4	20	30	50
Minor (T/P) (2)	24ScBotU5302	Plant Physiology and Biochemistry		2		4	20	30	50
Total			10	12	10	24			550

Level:- 5.5 (Third Year) Sem:-VI

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2+2+2 or 4+2+2 or 4+2+2 or 4)	24ScBotU6101	Cell Biology	2		2		20	30	50
	24ScBotU6102	Molecular Biology	2		2		20	30	50
	24ScBotU6103	Plant Physiology	2		2		20	30	50

4+4) P(2+2 or 4)	24ScBotU6104	Plant Biochemistry	2		2		20	30	50
	24ScBotU6105	Lab Course on 24ScBotU6101 & 24ScBotU6102		2		4	20	30	50
	24ScBotU6106	Lab Course on 24ScBotU6103 & 24ScBotU6104		2		4	20	30	50
Major Elective (T/P) (2+2 or 4)	24ScBotU6201	Biostatistics	2		2		20	30	50
	24ScBotU6202	Lab Course on 24ScBotU6201		2		4	20	30	50
	24ScBotU6203	Industrial and Environmental Microbiology	2		2		20	30	50
	24ScBotU6204	Lab Course on 24ScBotU6203		2		4	20	30	50
VSC P(2)	24ScBotU6501	Lab Course on Gardening Practices and Techniques		2		4	20	30	50
OJT (2)	24ScBotU6004	On Job Training		4		8	40	60	100
Total			10	08	10	16			550