

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.

(Medical Laboratory Technology)

Choice Based Credit System (CBCS) Syllabus

Under National Education Policy (NEP)

To be Implemented from Academic Year 2025-26

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)orT(4)	24ScMltU1101	Human Anatomy & Physiology	4		4		40	60	100
Subject 2 T(2)+(T/ P) (2)orT(4)	24ScMltU1201	Introduction to Microbiology	4		4		40	60	100
Subject 3 T(2)+(T/ P) (2)orT(4)	24ScMltU1301	Fundamentals of Hospital Practices Protocols	4		4		40	60	100
IKST(2)	24CpCopU1901	Generic IKS	2		2		20	30	50
GE/OE (T/P) (2)	24ScMctU1401	Biomedical Waste Management	2		2		20	30	50
SEC (P)(2)	24ScMctU1601	Surface Anatomy		2		2	20	30	50
AECT(2)	24CpCopU1701/ 24CpCopU1702	MIL-I(Hindi)/ MIL-I(Marathi)	2		2		20	30	50
VECT(2)	24CpCopU1801	Environmental Science	2		2		20	30	50
Total			20	02	20	04			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)	24ScMltU2101	Specimen Collection, Practice & Protocols	4		4		40	60	100
Subject 2 T(2)+P(2)	24ScMltU2202	Introduction to Clinical Biochemistry	4		4		40	60	100
Subject 3 T(2)+P(2)	24ScMltU2301	Phlebotomy Techniques	2		2		20	30	50
	24ScMltU2302	Lab Course Based on Phlebotomy Techniques		2		4	20	30	50

2)									
GE/OE (T/P)(2)	24ScMctU2401	Basic Life Support	2		2		20	30	50
SECT(2)	24ScMctU2601	Cross Section Anatomy	2		2		20	30	50
AECT(2)	24CpCopU2703	English Communication Skills I	2		2		20	30	50
VECT(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	CulturalActivities/ NSS / NCC/ Fine Arts / Applied Arts / Visual Arts / PerformingArts							
Total			20	02	20	04			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+2or4), (T/P)(2)	24ScMltU3101	Haematology	4		4		40	60	100
	24ScMltU3102	Lab Course on 24ScMltU3101	2		2		20	30	50
VSCP(2)	24ScMctU3501	Hospital Management- 1		2		4	20	30	50
IKS(T/P)(2)	24ScMltU3901	Evolution of Imaging Technology in India	2		2		20	30	50
FPP(2)	24ScMltU3002	FieldProjectI (Survey)		2		4	20	30	50
Minor (T/P)(2+2 or 4)	24ScMltU3301	Microbiology and Instrumentation I	2		2		20	30	50
	24ScMitU3302	Lab Course on24ScMltU3301		2		4	20	30	50
GE/OE(T/P)(2)	24ScMctU3401	Introduction to Phlebotomy		2		4	20	30	50
AECT(2)	24CpCopU3703	EnglishCommunicationSkillsII	2		2		20	30	50
CCT(2)	24CpCopU3001	OnlineCourseon Yoga	2		2		20	30	50
Total			16	08	16	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+2or4), (T/P)(2)	24ScMltU4101	Body Fluid Analysis	2		2		20	30	50
	24ScMltU4102	Immunology	2		2		20	30	50
	24ScMltU4103	Lab Course on 24ScMltU4101 and 24ScMltU4102		2		4	20	30	50
VSCP(2)	24ScMctU450 1	Hospital Management- 2		2		4	20	30	50
CEPP(2)	24ScCopU400 3	Community Engagement Project		2		4	20	30	50
Minor (T/P)(2+2 or 4)	24ScMitU4301	Biochemistry and Instrumentation II	2		2		20	30	50
	24ScMitU4302	Lab Course on 24ScMltU4301		2		4	20	30	50

GE/OE(T/ P) (2)	24ScMctU440 1	Medical Records Departments	2		2		20	30	50
SECT(2)	24ScMctU460 1	Bed Side Care		2		4	20	30	50
AECT(2)	24CpCopU470 1 / 24CpCopU4 702	MIL-II(Hindi)/MIL-II(Marat hi)	2		2		20	30	50
CCT(2)	24CpCopU400 1	HealthandWellness	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 or4+2+2or 4+4)P(2+2 or4)	24ScMltU5101	Transfusion Medicine	4		4		40	60	100
	24ScMltU5102	Lab Course on 24ScMitU5101		2		4	20	30	50
	24ScMltU5103	Parasitology	4		4		40	60	100
	24ScMltU5104	Lab Course on 24ScMitU5103		2		4	20	30	50
Major Elective(T/ P) (2+2 or 4)	24ScMltU5201	Histopathology & Cytology	2		2		20	30	50
	24ScMltU5202	Lab Course on24ScMltU5201		2		4	20	30	50
	24ScMltU5203	Epidemiology	2		2		20	30	50
	24ScMltU5204	Lab Course on 24ScMltU5203		2		4	20	30	50
VSCP(2)	24ScMctU550 1	Professional Skills for Healthcare Employment		2		4	20	30	50

FP(2)	24ScMltU5001	Field Project II		2		4	20	30	50
Minor (T/P) (2)	24ScMltU5302	Industry Automation		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 or4+2+2or 4+4)P(2+2 or4)	24ScMltU6101	Virology and Mycology	4		4		40	60	100
	24ScMltU6102	Lab Course on 24ScMltU6101		2		4	20	30	50
	24ScMltU6103	Molecular Biology	4		4		40	60	100
	24ScMltU6104	Lab Course on 24ScMltU6103		2		4	20	30	50
Major Elective(T/ P) (2+2 or 4)	24ScMltU6201	Quality Management and NABL	2		2		20	30	50
	24ScMltU6202	Lab Course on 24ScMltU6201		2		4	20	30	50
	24ScMltU6203	Genomes	2		2		20	30	50
	24ScMltU6204	Lab Course on 24ScMltU6203		2		4	20	30	50
VSCP(2)	24ScMctU6501	Professional Skills for Healthcare Employment		2		4	20	30	50
OJT (4)	24ScMltU6004	On Job Training		4		8	40	60	100
Total			10	12	10	24			550