

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. (Statistics)

(Based on NEP 2020 framework)
(To be implemented from the Academic Year 2023-24)

Semester 2 (First Year)

Course Type	Code	Course	Course / Paper Title	Hours / Week	Credit	CIA	ESE	Total
Major Mandatory (4 + 4+4+2)	23ScStaP211	Major Paper 1 (Theory)	Multivariate analysis	4	4	50	50	100
	23ScStaP212	Major Paper 2 (Theory)	Regression analysis	4	4	50	50	100
	23ScStaP213	Major Paper 3 (Theory)	Statistical inference	4	4	50	50	100
	23ScStaP214	Major Paper 4 (Practical)	Lab Course on 23ScStaP211, 23ScStaP212 & 23ScStaP213	4	2	25	25	50
Major Electives (4)	23ScStaP221	Major Elective 1 (Theory)	Probability theory	4	4	50	50	100
	23ScStaP222	Major Elective 2 (Theory)	Statistical methods in epidemiology	4				
OJT(4)	23ScStaP241	OJT	On Job Training	8	4	50	50	100
Total				28	22	175	175	350

Semester 3 (Second Year)

Course Type	Code	Course	Course / Paper Title	Hours / Week	Credit	CIA	ESE	Total
Major Mandatory (4 + 4+4+2)	23ScStaP311	Major Paper 1 (Theory)	Design of Experiments	4	4	50	50	100
	23ScStaP312	Major Paper 2 (Theory)	Asymptotic Inference	4	4			
	23ScStaP313	Major Paper 3 (Theory)	Time Series Analysis	4	4			
	23ScStaP314	Major Paper 4 (Practical/Theory)	Lab Course on 23ScStaP311, 23ScStaP312 & 23ScStaP313	4	2	25	25	50
Major Electives (4)	23ScStaP321	Major Elective 1 (Theory)	Data Mining	4	4	50	50	100
	23ScStaP322	Major Elective 2 (Theory)	Categorical Data Analysis	4				
RP (4)	23ScStaP351	RP	Research Project I	8	4	50	50	100
OJT(4)								
Total				28	22	175	175	350

Semester 4 (Second Year)

Course Type	Code	Course	Course / Paper Title	Hours / Week	Credit	CIA	ESE	Total
Major Mandatory (4 + 4+4+2)	23ScStaP411	Major Paper 1 (Theory)	Stochastic Processes	4	4	50	50	100
	23ScStaP412	Major Paper 2 (Theory)	Bayesian Inference	4	4	50	50	100
	23ScStaP413	Major Paper 3 (Theory)	Actuarial Statistics	4	4	50	50	100
Major Electives (4)	23ScStaP421	Major Elective 1 (Theory)	Design and Analysis of Clinical Trials	4	4	50	50	100
	23ScStaP422	Major Elective 2 (Theory)	Artificial Intelligence	4				
RP (4)	23ScStaP451	RP	Research Project II	12	6	75	75	150
OJT(4)								
Total				28	22	175	175	350

OJT : On Job Training: Internship/Apprenticeship

FP : Field Project

RM: Research Methodology

RP: Research Project