Name of the Teacher: Dr. Pranab Barua
Semester: ODD & EVEN

Class/ Semester	Title & Code of The Paper Allotted (Credit)	Method of Teaching	Teaching Material	Unit	Topic	Period/ Hours Required	Date range	Details of the Contents	Remarks / Books
Sem I	Descriptive Statistics (STSMJ-011) (1 Cr.)	Lecture, Questioning, Discussion	PPT, Black board	II	Different measures of Univariate data	15	18/6/25-18/11/25	Measures of Central Tendency, measures of Dispersion, Coefficient of Variation, Central and Raw moments, Skewness and Kurtosis, Sheppard's Corrections.	Fundamentals of Mathematical Statistics (S C Gupta, V K Kapoor)
Sem I	Descriptive Statistics (STSMI-011) (1 Cr.)	Lecture, Questioning, Discussion	PPT, Black board	II	Different measures of Univariate data	15	18/6/25-18/11/25	Measures of Central Tendency, measures of Dispersion, Coefficient of Variation, Central and Raw moments, Skewness and Kurtosis,	Fundamentals of Mathematical Statistics (S C Gupta, V K Kapoor)

								Sheppard's Corrections.	
Sem III	Probability and Distributions (STSMJ-032) (1 Cr.)	Lecture, Questioning, Discussion	PPT, Black board	I	Limit laws	15	18/6/25-16/8//25	Convergence in probability, almost sure convergence, convergence in mean square and convergence in distribution and their inter relations, W.L.L.N., S.L.L.N. and their applications, De-Moivre Laplace theorem, Central Limit Theorem (C.L.T.) for i.i.d. variates, applications of C.L.T. and Liapunov Theorem	Fundamentals of Mathematical Statistics (S C Gupta, V K Kapoor)

Sem III	Probability and Distributions (STSMJ-033) (1 Cr.)	Lecture, Questioning, Discussion	PPT, Black board	II	Exact sampling distribution	15	17/8/25-**13/9/25**	χ^2 Derivation of its p.d.f., nature of probability curve with different degrees of freedom, mean, variance, moments etc.	
Sem III	Probability and Distributions (STSMJ-033) (2 Cr.)	Lecture, Questioning, Discussion	PPT, Black board	III	Exact sampling distribution	30	16/9/25-**18/11/25**	F, Student's and Fishers t-distribution, Derivation of its p.d.f., nature of probability curve with different degrees of freedom, mean, variance, moments Relationship between t, F and χ^2 distributions. Test of significance and confidence Intervals	Fundamentals of Mathematical Statistics (S C Gupta, V K Kapoor)

								based on t and F distributions.	
Sem V	Design of Experiment-I (STSMJ-052) (1Cr.)	Lecture, Questioning, Discussion	PPT, Black board	I	Analysis of variance,	15	18/6/25-24/8/25		
Sem V	Design of Experiment-I (STSMJ-052) (1 Cr.)	Lecture, Questioning, Discussion	PPT, Black board	II	ANCOVA	15	27/8/25-3/10//25	Definitions of fixed, random and mixed effect models, analysis of variance in one-way and two-way classified data with one observation per cell for fixed effect models Analysis of covariance in one-way and two-way classified data with one observation per cell for fixed effect models	Fundamentals of Applied Statistics (S C Gupta, V K Kapoor), Design of Experiment (Das and Giri)
Sem V	SQC	Lecture,	PPT,	III	Acceptan	15	4/10/25-	Principle of	Fundamentals of

	(STSMJ-054) (1 Cr.)	Questioning, Discussion	Black board		ce sampling plan		18/11/25	acceptance sampling plans. Single and Double sampling plan their OC, AQL, LTPD, AOQ, AOQL, ASN, ATI functions with graphical interpretation, use and interpretation of Dodge and Romig's sampling inspection plan tables.	Applied Statistics (S C Gupta, V K Kapoor)
Sem II	Introductory Probability (STSMJ-021) (1 Cr.)	Lecture, Questioning, Discussion	PPT, Black board	IV	Mathematical Expectation and generating function:	15	17/1/25-15/5/25	Mathematical expectation and moment, Chebychev's inequality and Bool's inequality, moment generating function, cumulant generating	Fundamentals of Mathematical Statistics (S C Gupta, V K Kapoor)

								function, probability generating function and characteristic function. Uniqueness and inversion theorems	
Sem IV	SS and Indian Official Statistics (STSMJ-042) (2Cr.)	Lecture, Questioning, Discussion	PPT, Black board	I	Sample Survey	30	17/1/25-10/3/25	Basic concepts and SRS	Fundamentals of Applied Statistics (S C Gupta, V K Kapoor), Sample Survey (Daroga Singh)
Sem IV	SS and Indian Official Statistics (STSMJ-042) (1 Cr.)	Lecture, Questioning, Discussion	PPT, Black board	II	Sample Survey	15	11/3/25-10/4/25	Systematic and Stratified random sampling	Fundamentals of Applied Statistics (S C Gupta, V K Kapoor), Sample Survey (Daroga Singh)
Sem IV	SS and Indian Official Statistics (STSMJ-042) (1Cr.)	Lecture, Questioning, Discussion	PPT, Black board	III, IV	Sample Survey	15	11/4/25-15/5/25	Introduction to Ratio and regression methods of estimation, Indian Official Statistics	Fundamentals of Applied Statistics (S C Gupta, V K Kapoor), Sample Survey (Daroga Singh)
Sem VI	Demography and Vital Statistics (STSMJ-064) (1Cr.)	Lecture, Questioning, Discussion	PPT, Black board	I	Basics of Demography	15	17/1/25-24/2/25	Nature and scope of Demography.	Fundamentals of Applied Statistics (S C Gupta, V K Kapoor) Demography

								Demographic transition. Demographic data-sources etc.	(HansRaj)
Sem VI	Demography and Vital Statistics (STSMJ-064) (1Cr.)	Lecture, Questioning, Discussion	PPT, Black board	II	Death Rates	15	25/2/25-2/4/25	Measurements of Mortality Stationary and Stable population,	Fundamentals of Applied Statistics (S C Gupta, V K Kapoor) Demography (HansRaj)
Sem VI	Demography and Vital Statistics (STSMJ-064) (1Cr.)	Lecture, Questioning, Discussion	PPT, Black board	III	Life table	15	3/4/25-15/5/25	Assumption, description, construction of Life Tables and Uses of Life Tables etc.	Fundamentals of Applied Statistics (S C Gupta, V K Kapoor) Demography (HansRaj)