



# গড়গাঁও মহাবিদ্যালয় GARGAON COLLEGE

## **TEACHING PLAN DEPARTMENT OF STATISTICS JULY 2021 - JUNE 2022**



# গড়গাঁও মহাবিদ্যালয়

## GARGAON COLLEGE



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Department of Statistics, Gargaon College  
Period: July 2021-June, 2022

Period of Semester	Semester	Tentative Date of Univ Exam (Notification of Dib. Univ.)	Name of the Faculty	Course Code: STAT	Paper Name	Unit wise Title of the Topic	Number of Lectures (1 Hour per Lecture) Theory-TH Practical-P Seminar-S Group Discussion-GD Tutorial-TU Surprized Test-ST	Tools used for teaching Black Board-BB ICT Online Class-OC Google Meet-GM Google Classroom-GC
July,21-December,21	Sem-I		Dr. Ranjana Gogoi	C1	Descriptive Statistics	Unit1-Statistical Methods	TH-10, P-1 TU-1, ST-1	BB, ICT, OC
						Unit2-Measures of Central Tendency	TH-20, P-4, S-1, TU-2, ST-1	BB, ICT, GC, OC
						Unit3- Correlation, Regression	TH-10, P-8, S-1, TU-1	BB, ICT, GC, OC
						Unit4- Index Numbers	TH-10, P-3, TU-1, ST-1	BB, ICT, GC
			Dr. Bornali Dutta	C2	Calculus	Unit1-Differential Calculus	TH-10, S-1, TU-2,ST-1	BB, GM,GC,
						Unit2- Integral Calculus	TH-9, S-1, TU-2,ST-2	BB,OC,GM,GC
						Unit3- Differential Equations	TH-9, S-1, TU-2,ST-1	BB,GM,GC,ICT
						Unit4-Partial Differential Equations	TH-6, S-1, TU-1,ST-1	BB,GM,GC,ICT
			Dr. Ranjana Gogoi	GE1	Statistical Methods	Unit1-Introduction	TH-10, TU-1, ST-1	BB, ICT, OC
						Unit2-Measures of Central Tendency	TH-16, P-4, S-1, TU-2	BB, ICT, GC, OC
						Unit3- Correlation, Regression	TH-16, P-7, S-1, TU-2	BB, ICT, GC, OC
						Unit4-Theory of Attributes	TH-8, P-1, TU-1, ST-1	BB, ICT, GC
January,2022 -June,2022	Sem II		Dr. Ranjana Gogoi	C3	Probability and Probability Distribution	Unit1-Probability	TH-10, TU-1, ST-1	BB, ICT, OC
						Unit2-Random Variables	TH-10, S-1, TU-2, ST-1	BB, ICT, GC, OC
						Unit3-Mathematical Expectation	TH-10, S-1, TU-2, ST-1	BB, ICT, GC, OC
						Unit4-Probability Distributions	TH-15, P-15, TU-2	BB, ICT, GC
			Dr. Bornali Dutta	C4	Algebra	Unit1-Theory of Equations	TH-8L,TU-2,ST-2,S-1	BB, ICT, GC, OC
						Unit2- Algebra of Matrices	TH-6,TU-1,ST-1,S-1	BB, ICT, GC,GM
						Unit3-Determinants of Matrices	TH-14,TU-3,ST-2,S-1	BB, ICT, GC,GM
						Unit4-Rank of Matrix	TH-6,TU-1,ST-2,S-1	BB, ICT, GC,GM
			Dr. Ranjana Gogoi	GE2	Introductory	Unit1-Probability	TH-15, TU-2	BB, ICT, OC
						Unit2-Random Variable, Math. Expectation	TH-10, S-1, TU-1, ST-1	BB, ICT, GC, OC



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July,2021-December,2021	SEM III		Gogoi		Probability	Unit3-Convergence in Probability	TH-10, TU-1, S-1, ST-1	BB, ICT, GC, OC			
						Unit4-Probability Distribution	TH-15, P-12, TU-2, ST-1	BB, ICT, GC			
						Dr. Bornali Dutta	C5	Sampling Distributions	Unit1-Limit Laws	TH-6,TU-1,S-1,ST-1	BB, ICT, GC, OC
									Unit2-Introduction to Sampling Distribution	TH-8,TU-1,S-1,ST-1,P-7	BB, ICT, GC, OC,GM
									Unit3-Exact Sampling Distribution	TH-6,TU-1,S-1,ST-1,P-3	BB, ICT, GC, OC
									Unit4-Exact Sampling Distribution	TH-6,TU-1,S-1,ST-1	BB, ICT, GC, OC
						Dr. Ranjana Gogoi	C6	Survey Sampling & Indian Official Statistics	Unit1- Simple Random Sampling	TH-8, TU-1, P-4, S-1	BB, ICT, OC
									Unit2-Stratified Random Sampling	TH-8, S-1, TU-1, P-3, ST-1	BB, ICT, GC, OC
									Unit3-Ratio & Regression Method of Estimation	TH-5, TU-1, S-1, GD-1, P-2	BB, ICT, GC, OC
									Unit4-Indian Official Statistics	TH-5, P-12, TU-1, ST-1	BB, ICT, GC
						Dr. Bornali Dutta	C7	Mathematical Analysis	Real Analysis	TH-8,TU-1,ST-1	BB, ICT, GC, OC,GM
									Infinite Series	TH-8,TU-1,ST-1	BB, ICT, GC, OC
Review of limit	TH-4,TU-1,ST-1	BB, ICT, GC, OC,GM									
Numerical Analysis	TH-6,TU-1,ST-1,S-1	BB, ICT, GC, OC,GM									
Dr. Ranjana Gogoi	GE3	Sample Survey	Unit1- Concept of Population and Sample	TH-5, TU-1, S-1, ST-1	BB, ICT, GC, OC						
			Unit2-Bsic methods of sampling	TH-6, S-1, TU-2, P-1	BB, ICT, GC, OC						
			Unit3-Staratified Random Sampling	TH-, TU-1, S-1	BB, ICT, GC, OC						
			Unit4- Multistage, Multi phase sampling, NSSO, CSO etc.	TH-15, P-12, TU-2	BB, ICT, GC, OC						
January,2022 -June,2022	SEM IV		Dr. Bornali Dutta	C8	Statistical Inference	Unit1-Basic concepts of Estimation	TH-8,TU-1,S-1,ST-1	BB, ICT, GC, OC			
						Unit2-Methods of estimation	TH-4,TU-1,ST-1,P-4	BB, ICT, GC, OC			
						Unit3-Principles of test of significance	TH-8,TU-1,ST-1,P-4	BB, ICT, GC, OC,GM			
						Unit4-Sequential Analysis	TH-6,TU-1,ST-1,P-3	BB, ICT, GC, OC			
			Dr. Ranjana Gogoi	C9	Linear Models	Unit1-Gauss Markov Set Up	TH-15, TU-2	BB, ICT, GC, OC			
						Unit2-Regression Analysis; SLRM, MLRM	TH-10, S-1, TU-1, ST-1	BB, ICT, GC, OC			
						Unit3- Analysis of Variance	TH-10, TU-1, S-1, ST-1	BB, ICT, GC, OC			
						Unit4-Model Adequacy Checking	TH-15, P-12, TU-2	BB, ICT, GC, OC,GM			
			Dr. Ranjana Gogoi	C10	Statistical Quality	Unit1- Quality, Historical perspectives	TH-6, TU-2, GD-1	BB, ICT, GC, OC,GM			
						Unit2- Control Chart	TH-10, S-1, TU-2, ST-1	BB, ICT, GC, OC, GM			
						Unit3- Acceptance Sampling Plan	TH-10, TU-1, S-1, ST-1	BB, ICT, GC, OC, GM			



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Semester	Instructor	Course Code	Course Title	Control		
				Unit	Topic	
July, 2021-December, 2021 SEM V	Dr. Bornali Dutta	GE4	Basics of Statistical Inference	Unit4- Six Sigma Methodology	TH-10, P-12, TU-2, ST-1	BB, ICT, GC, OC, GM
				Unit1-Sampling distribution	TH-7, TU-2, ST-2, P-3	BB, ICT, GC, OC, GM
				Unit2-Test for the significance	TH-4, TU-1, ST-1, P-3	BB, ICT, GC, OC, GM
				Unit3-Nonparametric test	TH-4, TU-1, ST-1, P-3	BB, ICT, GC, OC, GM
	Dr. Bornali Dutta	C11	Stochastic Processes & Queuing Theory	Unit4-Analysis of Variance	TH-7, TU-2, ST-2, P-4	BB, ICT, GC, OC, GM
				Unit1- Probability Distribution	TH-5, TU-1, ST-1	BB, ICT, GC, OC, GM
				Unit2- Markov Chains	TH-9, TU-2, ST-2, S-1, P-5	BB, ICT, GC, OC, GM
				Unit3- Poisson Process	TH-6, TU-1, ST-1, S-1, P-3	BB, ICT, GC, OC, GM
	Dr. Bornali Dutta	C12	Statistical Computing using C++	Unit4- Queuing System	TH-6, TU-1, ST-1, GD-1, P-2	BB, ICT, GC, OC, GM
				Unit1-History and importance of C Operators and Expressions	TH-9, TU-2, ST-2, S-1	BB, ICT, GC, OC, GM
				Unit2-Decision making and branching	TH-6, TU-1, ST-1, P-2	BB, ICT, GC, OC, GM
				Unit3-User defined functions	TH-6, TU-1, ST-1, P-3	BB, ICT, GC, OC, GM
	Dr. Ranjana Gogoi	DSE2	Time Series Analysis	Unit4-Pointers	TH-6, TU-1, ST-1, GD-1, P-3	BB, ICT, GC, OC, GM
				Unit1-Introduction and Decomposition of Time Series	TH-6, TU-2	BB, ICT, GC, OC, GM
				Unit2- Detrending, Seasonal Component	TH-8, S-1, TU-2, P-3	BB, ICT, GC, OC, GM
				Unit3- Seasonal Component	TH-8, TU-1, S-1, P-5	BB, ICT, GC, OC, GM
Dr. Ranjana Gogoi	DSE4	Demography & Vital Statistics	Unit4-Random Component	TH-4, P-2, TU-1, ST-1	BB, ICT, GC, OC, GM	
			Unit1- Population Theories	TH-6, TU-2	BB, ICT, GC, OC, GM	
			Unit2-Measurement of Mortality	TH-8, S-1, TU-2, P-4	BB, ICT, GC, OC, GM	
			Unit3-Central Mortality Rate, Life Table	TH-8, TU-1, S-1, P-3	BB, ICT, GC, OC, GM	
January, 2022 - June, 2022 SEM VI	Dr. Bornali Dutta	C13	Design of Experiments	Unit4-Measurement of Fertility, NRR, GRR	TH-8, P-12, TU-2, P-4	BB, ICT, GC, OC, GM
				Unit1-Experimental Designs & Basic designs	TH-7, TU-2, ST-1, P-6	BB, ICT, GC, OC, GM
				Unit2-Incomplete Block Designs	TH-4, TU-1, ST-1, P-1	BB, ICT, GC, OC
				Unit3-Factorial Experiments	TH-7, TU-2, ST-1, P-2, S-1	BB, ICT, GC, OC
				Unit4-Fractional Factorial Experiments	TH-6, TU-2, P-4, ST-2	BB, ICT, GC, OC, GM
				Unit1-Bivariate Normal Distribution	TH-5, TU-1, ST-1, P-2	BB, ICT, GC, OC, GM



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	Dr. Bornali Dutta	C14	Multivariate Analysis 7 Nonparametric Methods	Unit2-Multivariate Normal Distribution & its properties	TH-6, TU-2, ST-2, P-3	BB, ICT, GC, OC, GM
				Unit3-Application of Multivariate Analysis	TH-6, TU-2, P-3, S-1	BB, ICT, GC, OC, GM
				Unit4-Nonparametric tests	TH-6, TU-2, ST-2, P-4	BB, ICT, GC, OC, GM
	Dr. Ranjana Gogoi	DSE3	Econometrics	Unit1-Econometric Model, GLM	TH-8, TU-2, P-3	BB, ICT, GC, OC, GM
				Unit2-Multicollinearity	TH-8, S-1, TU-2, P-2, ST-1	BB, ICT, GC, GM
				Unit3-GLS, Autocorrelation	TH-8, TU-1, S-1, P-2, ST-1	BB, ICT, GC, GM
				Unit4-Heteroscedasticity	TH-8, P-12, TU-2, P-1	BB, ICT, GC, OC, GM
	Dr. Ranjana Gogoi Dr. Bornali Dutta	DSE8	Project Work	Preparation of Questionnaire, Data Collection, Tabulation, Analysis, Report Writing		ICT, Extensive Library Work, Computational Software, MS Word, MS Excel etc.

(Dr. Ranjana Gogoi)  
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