COURSE CODE: 2CM2010213	**COURSE TITLE:** ECONOMETRICS-1
SEMESTER-2, **COURSE TYPE :** SPECIALIZATION	
COURSE OBJECTIVE: To present a clear, simple and systematic and comprehensive explosion of the methods, principles and techniques of statistics in various discipline with special reference to commerce, management and economics and business.	

Teaching Scheme (Hours per week)		**Evaluation Scheme (Marks)**		
Lectures	Credit	University Assessment	Institutional Assessment	Total
4	4	60	40	100

Unit	**Topic and Contents**	**Hours**	**Wt. (%)**
1.	**Sampling Techniques:** Simple random sampling with and without replacement, stratified random sampling, systematic sampling. Obtain Mean and Variance. Derivation of the inequality variance of mean of optimum <= variance of mean of Proportional <= variance of mean of random. Proportional and allocations with fixed sample size only.	15	25%
2.	**Sampling and non sampling Errors:** Sample selection and sample size determination - Stein's method, Linear and Circular Systematic sampling, Cluster sampling, Two-stage sampling Description of these me thods and estimation of mean and variance. Varying probability sampling, probability proportional to sample size with replacement - Description and estimation of mean & variance without proof, Double sampling – only description	15	25%
3.	**Mathematical Economics:** Mathematical functions of demand and supply, price- elasticity of demand and supply, cost functions, average revenue and their relationship with elasticity of demand. Market equilibrium.	15	25%
4.	**Monopoly Problems:** Effect of taxation and subsidy on market equilibrium. Edgeworth's Paradox, Partial elasticity of demand, Engel's law, Income elasticity of demand, Formulation of production function, Elasticity of substitution for two input factors of production. Input-Output analysis - Leontiefs static open and closed system models, importance in inter -industry relations.	15	25%

References Books :

1. Allen R.G.D : Mathematical Economics
2. Allen R.G.D. : Mathematical Analysis for Economists
3. Cocharn W.G. (1984) : Sampling Techniques (Wiley Eastern)
4. Gajjar A.V. & Patel S.S. : Statistics (Gujarati)

5. Goon, Gupta and Dasgupta (1984) : Fundamentals of Statistics Vol. II (World Press)
6. Gujarati O. (1979) : Basic Econometrics, McGraw Hill
7. Henderson & Quandt : Micro Economic Theory
8. Jaiswal M.C.(1984) : Economic Statistics , (Gujarati) Granth Nirman Board
9. Johnston J (1984) : Econometric Methods (3rd Edition) McGraw Hill
10. Mody R.J. : Mathematical Economics (Gujarati)
11. Murthy M.N. (1964) : Sampling theory and methods: Statistical Publishing Society Calcutta
12. Sudman S. (1976) : Applied Sampling Academic Press.