SVKM's Narsee Monjee College of Commerce& Economics

Program: B.Com (Economics)				**Semester: III**	
Course: Basics of Econometrics **Academic Year: 2023-24** **Batch: 2022-2025**				**Code: NMUBCOME303**	
Teaching Scheme				**Evaluation Scheme**	
Lectures	**Practicals**	**Tutorials**	**Credits**	**Internal Continuous Assessment (ICA) (weightage)**	**Term End Examinations (TEE) (weightage)**
45	**Nil**	**Nil**	**03**	**25 Marks**	**75 Marks**

Learning Objectives:

1. Course Objective This course introduces students to the econometric methods used to conduct empirical analysis in Economics. The course is designed to provide the students with the basic quantitative techniques needed to undertake applied research projects. It also provides the base for more advanced optional courses in econometrics.

Learning Outcomes:

At the end of the course, the students should be able to:

Students will learn to estimate linear models using ordinary least squares and make inferences about population parameters. They will also understand the biases created through mis-specified models, such as those that occur when variables are omitted.

Pedagogy: Classroom Learning, problem solving, case studies, games and simulations, peer teaching, role play, projects or assignments.

Detailed Syllabus: (Per session plan)
Session Outline For Basics of Econometrics
Each lecture session would be of one hour duration (45 sessions)

Module	Module Content	Module Wise Pedagogy Used	Module Wise Duration	Module Wise Reference Books
I	Nature and scope of econometrics: What is econometrics? Methodology of econometrics, types of data, variables, Statistical Inference Normal distribution; chi-sq, t- and F-distributions; estimation of parameters; testing of hypotheses; defining statistical hypotheses; distributions of test statistics; testing hypotheses related to population parameters; Type-I and Type-II errors; power of a test; tests for comparing parameters from two samples.	Class room lectures	11	Gujarati: Ch 1

II	Simple linear regression model: Sample regression function, population regression function. Linear regression model, Ordinary least squares estimation of a linear model; properties of estimators; goodness of fit; testing of hypotheses; scaling and units of measurement; confidence intervals; the Gauss Markov theorem; forecasting and prediction	Class room lectures	15	Gujarati: Ch 2, Ch 3
III	Multiple Linear Regression Model, Estimation of parameters; Properties of OLS estimators; Goodness of fit- R2 and Adjusted R2; Partial regression coefficients; Testing Hypotheses: Individual and Joint; Functional Forms of Regression Models; Qualitative (dummy) independent variables.	Class room lectures	12	Gujarati: Ch 4, Ch 5, Ch 6:
IV	Violations of Classical Assumptions: Consequences, Detection and Remedies. Multicollinearity; Heteroscedasticity; Auto-correlation, specification analysis. Omission of a relevant variable; Inclusion of irrelevant variable; Tests of specification		12	Gujarati: Ch 8, Ch 9 Ch 10 Gujarati: Ch 7: Sec 7.1

Reference Books:

Title	Author(s)	Publisher
Econometrics by example.	Gujarati, D. (2014).	Palgrave Macmillan
Introductory Econometrics: A Modern Approach	Jeffrey M. Wooldridge 6th Edition	South-Western College Publishing

Note: Latest edition of text book may be used.

EVALUATION PATTERN

The performance of the learner will be evaluated in two components. The first component will be a Continuous Assessment with a weightage of 25% of total marks per course. The second component will be a Semester end Examination with a weightage of 75% of the total marks per

course. The allocation of marks for the Continuous Assessment and Semester end Examinations is as shown below:

a) Details of Continuous Assessment (CA)

Continuous Assessment	Details	Marks
Component 1 (CA-1) – Theory subjects	Presentations/Project Work/Book Review/Field visit & its presentations/Assignments Etc.	15 marks
Component 1 (CA-1) - (Practical/Numerical Subjects)	Assignments/Presentations Etc.	15 marks
Component 2 (CA-2)	Online Test/Quiz	10 marks

b) Details of Semester End Examination

75% of the total marks per course. Duration of examination will be two and half hours

Question Number	Description	Marks	Total Marks
Q1.	**Answer any 2 from the following** (Module I) a. b. c.		16
Q2.	**Answer any 2 from the following:** (Module II) a. b. c.		16
Q3.	**Answer any 2 from the following:** (Module III) a. b. c.		16
Q4.	**Answer any 2 from the following**: (Module IV) a. b. c.		16
Q5.	Case Study/Application based Questions: (Module I to IV)		11
TOTAL MARK			**75**

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