STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN June - November 2024

Department : **Economics**
Name/s of the Faculty : **Lt (Dr.) Jayalakshmi R**
Course Title : **Statistics for Economics**
Course Code : **23EC/AC/SE15**
Shift : **I**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Describe and analyse data appropriately, interpret the results accurately and draw conclusions.	K1
CO2	Apply statistical methods to verify simple economic laws / theories.	K2
CO3	Critically evaluate and interpret statistical information published by governmental and non-governmental sources.	K3
CO4	Awareness of ethical considerations and limitations associated with statistical analysis and address issues pertaining to data bias and privacy.	K4
CO5	Develop the ability to use scientific methods of research and create models for solving socio-economic issues.	K5

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 24 – 26, 2024 (Day Order 4 - 6)	1	**Unit 1 Summary Statistics** 1.1 Levels of Data- nominal, ordinal, interval and ratio 1.2 Measures of Central Tendency	K5 K5	3	1-4	Worksheets with demonstrations and Problem Solving	Works sheets to be worked out in groups and submitted individually – 10 marks Students will be grouped into teams of 5 or 6. Each team will select and download any socio-economic data set from RBI / IMF / NSSO / World Bank / Any other websites of the government / international organizations. The students will explore the data using summary statistics and submit a report. A group discussion would be conducted based on the report submitted. The evaluation would be as follows: Project – 10 marks Group discussion – 5 marks (Total marks: 15)
Jun 27 – July 4, 2024 (Day Order 1 - 6)		1.3 Measures of Dispersion 1.4 Measures of deviation from normality Skewness and Kurtosis 1.5 Frequency distributions - Exploring data with graphs	K5 K5 K5	5	1-4	Worksheets with demonstrations and Problem Solving	

July 5 – 12, 2024 (Day Order 1 - 6)	2	**Unit 2 Simple Linear Correlation and Regression Analysis** 2.1 Introduction to correlation analysis 2.2 Types of correlation 2.3 Methods to estimate correlation	 K4 K4 K5	5	1-5	Lecture & Problem Solving	CA I Quiz 1 (25 marks)
July 15 – 23, 2024 (Day Order 1 - 6)	2	2.4 Testing the significance of correlation coefficient 2.5 Introduction to regression analysis 2.6 Methods of least squares estimation	K5 K5 K5	5	1-5	Lecture & Problem Solving	CA I Quiz 1 (25 marks)
July 24 – 31, 2024 (Day Order 1 - 6)	2	2.7 Goodness of fit measures 2.8 Testing overall significance of the model ANOVA	K5 K5	5	1-5	Lecture & Problem Solving	CA I
Aug 1 – 5, 2024 (Day Order 1 - 3)	3	**Unit 3 Theory of Probability** 3.1 Introductory concepts	 K3	3	1-4	Lecture & Flash Cards	CA I
Aug 6 – 10, 2024	**C.A. Test - I**						
Aug 12 – 14, 2024 (Day Order 4-6)	3	3.2 Additive and Multiplicative theorems, Conditional Probability, Bayes theorem	K4	2	1-4	Lecture & Problem Solving	CA II

Aug 16 – 23, 2024 (Day Order 1-6)	3	3.3 Random variables and Probability distribution – Concepts 3.4 Theoretical probability distribution Binomial, Poisson and Normal Distribution	K4 K4	5	1-4	Lecture & Problem Solving	CA II
Aug 27 – Sep 3, 2024 (Day Order 1-6)	3	3.4 Theoretical probability distribution Binomial, Poisson and Normal Distribution	K4	5	1-4	Lecture & Problem Solving	CA II
Sep 4 – 11, 2024 (Day Order 1-6)	4	**Unit 4 Testing of Hypothesis** 4.1 Introduction to statistical hypothesis testing 4.2 Comparing two means	 K3 K5	5	1-5	Lecture & Problem Solving	CA II Quiz II (25 marks)
Sep 12 - 20, 2024 (Day Order 1-6)	4	4.3 Comparing several means one-way ANOVA	K5	6	1-5	Lecture & Problem Solving	CA II Quiz II (25 marks)
Sep 23 - 26, 2024 (Day Order 1-4)	4	4.4 Large sample test Standard Error	K5	4	1-5	Lecture & Problem Solving	CA II
Sep 27 – Oct 3, 2024	**C.A. Test - II**						
Oct 4 – 5, 2024 (Day 5 & 6)	5	**Unit 5 Time Series Analysis** 5.1 Concepts and Components of time series data	 K5	2	1-5	Lecture & Discussion	Classroom Assignment – Identify the trend associated with different types of market goods.

Oct 7 - 15, 2024 (Day Order 1 to 6)	5	5.2 Measurement of trends Graphical, Moving Average Method, Least Square Method, Fitting of Linear Trend Curves	K5	5	1-5	Problem Solving	Classroom Assignment – Construction of a trend line for any market good.
Oct 16 - 22, 2024 (Day Order 1 to 6)	5	5.2 Measurement of trends Graphical, Moving Average Method, Least Square Method, Fitting of Linear Trend Curves	K5	5	1-5	Problem Solving	Classroom Assignment
Oct 23 - 24, 2024 (Day Order 1 to 2)	**REVISION**						