

Semester	ONE
Course	Major
Paper Code	C1ST230112T / C1ST230112P
Paper Title	Descriptive Statistics I
No. of Credits	Theory(3)+Practical(1) = 4 Credits
Theory / Practical / Composite	Composite
Minimum No. of preparatory hours per week a student has to devote	4
Number of Modules	1
Syllabus	<p>UNIT 1: <i>Basics of data:</i> concept of population and sample; survey and experimental data; primary and secondary data; variable and attribute; scales of measurement. Exposition to different types of data through real life examples. Notion of big data. [5]</p> <p>UNIT 2: <i>Statistical Methods:</i> Frequency distributions; column diagram and step diagram; histogram and ogive. Frequency curves. Features of data: central tendency, dispersion, skewness and kurtosis. Descriptive tools: moments and quantiles. [9]</p> <p>UNIT 3: <i>Univariate data:</i> Measures of central tendency and dispersion for quantitative and qualitative (both nominal and ordinal) data. Measures of skewness and kurtosis for quantitative and qualitative (ordinal only) data. Box Plot. [15]</p> <p>UNIT 4: <i>Bivariate data:</i> Definition; scatter plot; bivariate frequency distribution. Simple correlation; spurious correlation. Least squares and simple linear regression; coefficient of determination. [10]</p>
Learning Outcomes	<p><i>At the end of this course a student should be able to understand</i></p> <ul style="list-style-type: none"> • The nature and scope of Statistics. • The notion of univariate and bivariate data. • The art of summarizing data using descriptive tools.

Reading/Reference Lists	<ol style="list-style-type: none"> 1. Goon A.M., Gupta M.K. and Dasgupta B. (2002): Fundamentals of Statistics, Vol. I, & II, 8th Edn. The World Press, Kolkata. 2. Yule G.U. and Kendall M.G (1994) : An Introduction to the theory of Statistics. 14th Edn. Universal Book stall, Delhi. 3. Hogg, R.V., Tanis, E.A. and Rao J.M. (2009): Probability and Statistical Inference, Seventh Ed, Pearson Education, New Delhi. 	
Evaluation	Theory CIA:15 Semester Exam: 45	Practical CA: 40 Semester Exam: NA
Paper Structure for Theory Semester Exam	5 Marks Questions	15 Marks Questions
	3 out of 5	2 out of 3