Name of Faculty	:	Faculty of Commerce & Management
Name of Program	:	Bachelor of Commerce with Honors
Course Code	:	2BCM01
Course Title	:	Business Statistics
Type of Course	:	Professional Core (PC)
Year of Introduction	:	2023-24

Prerequisite	:	--
Course Objective	:	to understand the significance of statistics, grasp key concepts of dispersion, differentiate between range and interquartile range, express the probability definition, formulate basic theorems about probability, comprehend the difference between a hypothesis and a theory, develop simple scientific hypotheses, learn non-parametric tests such as the Chi-Square test for Independence and Goodness of Fit, and calculate simple regression models.
Course Outcomes	:	At the end of this course, students will be able to:
	CO1	Recognize the significance, limitations, origin and development of statistics. Understand the key concepts of dispersion. Understand the differences between range and inter-quartile range.
	CO2	Students should be able to calculate both simple and multiple regression models
	CO3	Express the probability definition. Formulate theorems about the concept of probability.
	CO4	Understand the difference between a hypothesis and a theory. Develop scientific hypotheses. Learn non-parametric test such as the Chi-Square test for Independence as well as Goodness of Fit.

Teaching and Examination Scheme

Teaching Scheme (Contact Hours)			Credits	Examination Marks				
				Theory Marks		Practical Marks		Total Marks
L	**T**	**P**	**C**	**SEE**	**CIA**	**SEE**	**CIA**	
4	0	0	4	100	50	0	0	150

*Legends: **L**-Lecture; **T**–Tutorial/Teacher Guided Theory Practice; **P**–Practical,**C** – Credit, **SEE** – Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.))*

Course Content

Module No.	Topics	Teaching Hours	Weightage	Mapping With CO
1	**Introduction to Statistics** Definition, functions, scope and limitations, Collection and presentation of data, frequency distribution, measures of central tendency - Mean, Median, Mode, Geometric mean, Harmonic mean. **Measures of dispersion** Range – Quartile Deviation – Mean Deviation - Standard Deviation – Variance-Coefficient of Variance - Comparison of various measures of Dispersion.	20	20%	CO1
2	**Correlation and Regression** Scatter Diagram, Karl Pearson correlation, Spearman's Rank correlation (one way table only), simple and multiple regressions (problems on simple regression only)	10	15%	CO2
3	**Probability Distribution:** Concept and definition - Rules of probability – Random variables – Concept of probability distribution – Theoretical probability distributions: Binomial, Poisson, Normal and Exponential – Bay's theorem (No derivation) (Problems only on Binomial, Poisson and Normal).	15	25%	CO3
4	**Hypotheses** Types, characteristics, source, formulation of hypotheses, errors in hypotheses. Parametric and Non-Parametric Tests- t-test, z-test, f-test, (problems on all tests). Normality and reliability of hypothesis. Statistical analysis- Bivariate and Multivariate Analysis- ANOVA-one-way, two-way classification (theory only).	15	25%	CO4

Suggested Distribution of Theory Marks Using Bloom's Taxonomy					
Level	Remembrance	Understanding	Application	Analyse	Evaluate	Create
Weightage	**25**	**15**	**10**	**0**	**0**	**0**

NOTE: This specification table shall be treated as a general guideline for the students and the teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books

Sr. No.	Name of Reference Books
1	Statistical Data Analysis ' Kenneth J Koehler, Mervyn G Marasinghe'
2	Statistics in short 'Nobin Chandra Paul'
3	Fundamentals of Statistics S C Gupta Himalaya Publications 2012
4	Statistical Methods Dr. S P Gupta Sultan Chand Publications 2014
5	J. N. Kapur and H. C. Saxena, Mathematical Statistics, S Chand and Company Ltd.,2013

List of Journals / Periodicals / Magazines / Newspapers / Web resources, etc

Sr. No.	Nameof Journals / Periodicals / Magazines / Newspapers / Web resources, etc
1	https://bookboon.com/en/statistics-and-mathematics-ebooks
2	https://www.investopedia.com/