COMILLA UNIVERSITY
Department of Finance and Banking

COURSE OUTLINE (OUTCOME-BASED CURRICULUM)

Course Title: **Business Statistics**

Course Information

Particulars	Details
Course Code	0542 FIN: 123
Course Title	Business Statistics
Course Type	Core Course
Program	BBA
Year/Semester	2nd Semester
Academic Session	2022–2023
Prerequisite	Not Required
Credit Value	03
Total Classes	28
Classes per Week	02
Duration per Class	1.5 Hours
Total Contact Hours	42 Hours
Total Marks	100

Detailed Course Plan

Duration: 14 Weeks | Total Classes: 28 | Total Contact Hours: 42

Week	Class	Course Contents / Topics	Hours	CLOs
1	1	**Introduction to Statistics:** Definition, concepts, nature, scope, importance and applications of statistics in business and economics.	1.5	CLO1
1	2	**Statistical Data:** Nature and types of statistical data, sources of data, methods of data collection, primary and secondary data.	1.5	CLO1, CLO4
2	3	**Classification and Presentation of Data:** Classification, tabulation, frequency distribution and construction of frequency tables.	1.5	CLO1, CLO4
2	4	**Graphical Presentation of Data:** Bar diagrams, pie charts, histograms, frequency polygons, ogives and other graphical techniques.	1.5	CLO1, CLO4
3	5	**Measures of Central Tendency:** Meaning, significance and characteristics of a good average; arithmetic mean and weighted arithmetic mean.	1.5	CLO2, CLO3
3	6	**Measures of Central Tendency (Continued):** Geometric mean, harmonic mean and their applications in business and economics.	1.5	CLO2, CLO3
4	7	**Measures of Central Tendency (Continued):** Median, mode and their applications; empirical relationship among mean, median and mode.	1.5	CLO2, CLO3
4	8	**Positional Measures:** Quartiles, deciles, percentiles and practical problems involving measures of central tendency.	1.5	CLO2, CLO3, CLO5
5	9	**Measures of Dispersion:** Meaning, significance, characteristics of a good measure of dispersion and range.	1.5	CLO3, CLO4
5	10	**Measures of Dispersion (Continued):** Interquartile range, quartile deviation and mean deviation.	1.5	CLO3, CLO4
6	11	**Measures of Dispersion (Continued):** Variance, standard deviation and their applications in business decision-making.	1.5	CLO3, CLO4, CLO5
6	12	**Relative Measures of Dispersion:** Coefficient of variation, comparison of variability and practical numerical problems.	1.5	CLO3, CLO4, CLO5
7	13	**Moments:** Meaning and concepts of moments; moments about an arbitrary origin and moments about the mean.	1.5	CLO3
7	14	**Skewness and Kurtosis:** Measures of skewness, measures of kurtosis, interpretation and applications in business data analysis.	1.5	CLO3, CLO4

8	15	**Correlation Analysis:** Meaning, significance, correlation and causation, types of correlation and scatter diagram method.	1.5	CLO4, CLO5
8	16	**Karl Pearson's Coefficient of Correlation:** Calculation, interpretation and practical applications.	1.5	CLO4, CLO5
9	17	**Rank Correlation:** Spearman's rank correlation coefficient, multiple correlation and partial correlation.	1.5	CLO4, CLO5, CLO6
9	18	**Regression Analysis:** Meaning, significance and differences between correlation and regression analysis.	1.5	CLO4, CLO5
10	19	**Simple Regression Analysis:** Regression lines, regression equations and regression coefficients.	1.5	CLO4, CLO5
10	20	**Applications of Regression:** Estimation, prediction, interpretation of regression results and practical business problems.	1.5	CLO5, CLO6
11	21	**Census and Sampling:** Meaning, census versus sampling, advantages and disadvantages of sampling, and sampling errors.	1.5	CLO4, CLO5
11	22	**Sampling Methods:** Probability and non-probability sampling techniques; simple random, stratified, systematic and cluster sampling.	1.5	CLO4, CLO5
12	23	**Social Surveys and Statistical Information:** Selection of samples, planning social surveys and published statistical information in Bangladesh.	1.5	CLO4, CLO5, CLO6
12	24	**Probability:** Meaning and concepts of probability, elements of set theory, sample space and events.	1.5	CLO3, CLO5
13	25	**Probability (Continued):** Addition and multiplication rules, theorems of total and compound probability, and conditional probability.	1.5	CLO3, CLO5
13	26	**Probability (Continued):** Statistical independence and Bayes' theorem, including practical applications in business decision-making.	1.5	CLO3, CLO5
14	27	**Random Variables and Probability Distributions:** Meaning and types of random variables; discrete and continuous random variables; probability distributions.	1.5	CLO2, CLO4
14	28	**Probability Distributions (Continued):** Discrete and continuous probability distributions, mathematical expectation of random variables and practical problems.	1.5	CLO4, CLO5, CLO6
		Total	**42**	

Teaching-Learning Strategies

1. Interactive lectures and classroom discussions.
2. Numerical exercises and problem-based learning.
3. Individual and group assignments.
4. Case studies based on business and economic situations.
5. Group discussions and student presentations.
6. Practical interpretation of statistical results and real-world data.

Assessment Methods

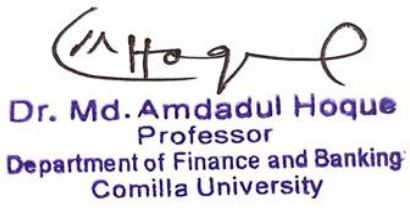
Assessment Components	Marks	Percentage
Final Examination	60	60%
Midterm Examination	20	20%
Class Tests / Quizzes	5	5%
Assignments Presentation	10	10%
Class Attendance	5	5%
Total	**100**	**100%**

Recommended Reading

- ✓ Richard I. Levin and David S. Rubin, *Statistics for Management* S

Supplementary Readings

- ✓ Research Methodology, M.A Salam Akanda
- ✓ P. Gupta and M. P. Gupta, *Business Statistics*.Mason and Lind, *Statistical Techniques in Business and Economics*.
- ✓ Howard L. Basely, *Basic Statistics for Business and Economics*.



Course Instructor's Signature: _____ _____

Date: _____