



# Syllabus

## First Semester Course in B Com

2023 - 2024

- Syllabus for Skill Enhancement Courses

UCCOM4501SE1 : Business Mathematics

- Evaluation and Assessment Guideline

PRINCIPAL  
ST. XAVIER'S COLLEGE  
AUTONOMOUS  
MUMBAI - 400 001.

**APPROVED SYLLABUS**

**FY B Com**

**Course Code: UCCOM4501SE1**

**Business Mathematics**

Credits: 2 (Total 30 hr)

**Course Objectives:**

1. To improve the creative and logical thinking of learners.
2. To orient learners with various concepts of business through learning of ratios, proportions, variation and percentages and enable them to calculate the same.
3. To enable learners to understand various terms and formulas involved in the computation of profit or loss and enable them to calculate the same.

Number of lectures: 30

**Course Outcome:**

On completing the course, the student will be able to:

- CO1 Appreciate Business Mathematics concepts to facilitate enhance familiarity of those concepts of Ratio, Proportion, and Percentage that are encountered in the real world
- CO2 Understand simple and compound interest, annuities, trade discount, cash discount in various situations and apply correct mathematical terminologies with reference to business.

## **Business Mathematics**

**Unit 1**

**(15 Lectures)**

**Commission, Brokerage, Discount:** Partnership Commission and Brokerage Definition, examples as to calculation of the same in the present-day context. Discount, types of discount, trade discount, cash discount profit and loss, sharing of profit and loss in partnership depending upon period of investment, capital etc.

Problems involving mixture of discount, Problems involving mixture of discount, commission, brokerage variation in the ratio of sharing, etc. commission, brokerage variation in the ratio of sharing, etc.

## Unit 2

(15 Lectures)

**Shares and Mutual Fund, Interest and Annuities:** Concept of Share, face value, market value, dividend, Types of Shares (Equity shares, Preference Shares, Bonus Shares), Calculation of Dividend, Rate of Dividend, Rate of Return on Investment, Splitting up of Shares etc.

Mutual Funds, definition, types of Mutual Fund, Problems on Calculation of Net Asset Value, based on Entry and Exit Load, Averaging of Price, Systematic investment Plan (S.I.P)

Definition of Simple and Compound Interest, problems based on calculation of the same, concept as to interest compounded monthly Quarterly, half Yearly, and Calculations involving up to 4 time period. Equated monthly instalment using Flat Rate Method, Reducing Balance Method

Annuity, types of Annuity, Immediate and Due etc., Calculation of Present Value, Future Value, Rates of Interest etc.

### List of Recommended Reference Books

1. Elementary Business Mathematics by AV Deshpande, M.L Vaidya, Vipul Prakashan, Fifth Revised Edition 2022
2. Business Mathematics by B Agarwal, Ane Book Pvt Limited
3. Business Mathematics by DC Sancheti & VK Kapoor Sultanchand & Sons
4. Business Mathematics by AP Verma Asian Book Pvt Ltd

## Evaluation (2 Credit Paper): Total Marks - 50.

I. Formative Assessment 'for' Learning (continuous internal assessment - CIA to improve learning).

CIA : Written Test or Written Assignment - 20 marks

II. Summative Assessment 'of' Learning (focus on outcomes, quantitative data for outcomes of instruction).

End Semester Examination – 30 marks

One question from each unit for 15 marks, with internal choice.

Units	Knowledge	Understanding	Applications & Analysis	Marks per Unit
1	3	6	6	15
2	3	6	6	15
Total	6	12	12	30
% Weightage	20	40	40	100 %

College Grids for assignments/presentations are used/adapted according to the type of assessment.



# Syllabus

## Second Semester Course in B Com

2023-24

- Syllabus for Skill Enhancement Courses.

UCCOM4502SE1 : Business Statistics

- Evaluation and Assessment Guideline.

**APPROVED SYLLABUS**

**FY B Com**

**Course Code: UCCOM4502SE1**

**Business Statistics**

Credits: 2 (Total 30 hr)

**Course Objectives:**

1. Introduction of the Basic Concept of Statistics used in Business and commercial world
2. Organize the Survey and collection of Data,
3. Use of Statistical tools for the purpose of analysis of data for the purpose of decision making

Number of lectures: 30

**Course Outcome:**

**On completing the course, the student will be able to:**

- CO1 Critically evaluate the underlying assumptions of analysis tools
- CO2 Understand and critically discuss the issues surrounding sampling and significance
- CO3 Discuss critically the uses and limitations of statistical analysis
- CO4 Solve a range of problems using the techniques covered
- CO5 Conduct basic statistical analysis of data

## **Business Statistics**

**Unit 1**

**(15 Lectures)**

Introduction Meaning Scope Functions and Limitation of Statistics  
Basic Statistical Concept, like Population, Sample Variable and its Types, Attributes, Parameters, Statistic etc.  
Methods of Collecting Primary Data Secondary Data, Sample Survey, Census Survey, how to carry out the same, techniques and preparation for the same, field Survey. Analysis of Data Various Methods of presentation of Data  
Method of Tabulations, problem involving 2 and 3 characteristics  
Graphical Representation , Simple Bar Diagram, Multiple Bar Diagram, Pie Diagram, Histogram, Frequency Curve, Ogives, Interpretation of graphs etc.  
Definition and requirement of Good Averages. Types of Averages  
Arithmetic Mean, Median, Mode Geometric Mean, Harmonic Mean, Calculation of the same for the Raw Data, Grouped Data utilities of the Mean in Real world etc.

## Unit 2

(15 Lectures)

Study of Averages and Dispersion and Index Numbers

Properties of the different Mean, Combined and simple. Requirements of each Average Etc. ,

Concept as to Dispersion, Definition, Types of Dispersion, their Co-efficient namely Range Quartiles, Standard Deviation, Mean Deviation, Properties of each elements of dispersion , Use and Application

Study of Averages and Dispersion

Concept and uses Index no (un-weighted and weighted), Laspeyre's, Paasche's Index No. Cost of Living Index No.,Fisher's , Marshal-Edgeworth, Dorbish-Bowley's ,Real Income, Examples

Wholesale Price Index No., Splicing of Index No., deflating of Price and Income.

### Reference Books

1. Fundamentals of Statistics by SC Gupta, Himalaya Publishing House Sixth thoroughly Revised Edition 2017
2. Introduction to Operation Research by Kanti Swarup, PK Gupta, Manmohan, Sultan Chand & Sons Tenth Edition,2017
3. Problems in Quantitative Techniques, by P K Gupta and Manmohan, Sultan Chand & Sons Twelfth Edition,2017
4. Fundamentals of Mathematical Statistics by SC Gupta & V K Kapoor, Himalaya Publishing House Sixth thoroughly Revised Edition 2017
5. Elementary Business Statistics by AV Deshpande, M.L Vaidya ,& D.M Doke,Vipul Prakashan, Latest Edition

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