

**Anekant Education Society's
Tuljaram Chaturchand College of Arts, Science and
Commerce, Baramati
Autonomous**

Course Structure for F. Y. B. Com. Business Statistics (2022 Pattern)

Name of the Programme : B. Com. Business Statistics

Program Code : UCBS

Class : F.Y.B.Com.

Semester : I

Paper Code	Title of Paper	No. of Credits
UCBS111(A)	Business Statistics – I	3

Name of the Programme : B. Com. Business Statistics

Program Code : UCBS

Class : F.Y.B.Com.

Semester : I

Paper Code	Title of Paper	No. of Credits
UCBS121(A)	Business Statistics – II	3

SYLLABUS (CBCS) FOR F. Y. B. Com. Business Statistics
(w. e. from June, 2022)

Name of the Programme	: B.Com. Business Statistics
Program Code	: UCBS
Class	: F.Y.B.Com.
Semester	: I
Course Name	: Business Statistics – I
Course Code	: UCBS111(A)
No. of Lectures	: 48
Credit	: 3 credits

Course Outcomes:

The students will acquire knowledge about the;

1. the concept of population and sample.
2. computation of various measures of central tendency.
3. computation of various measures of dispersion.
4. concept of Matrices and to calculate determinant and inverse of matrix.
5. job sequencing problem

TOPICS/CONTENTS

UNIT 1: Population and Sample **[6L]**

Definition of Statistics, Scope of Statistics in Economics, Management Science and industry. Concept of population and sample with illustration. Methods of sampling – SRSWR, SRSWOR, Stratified, Systematic, (Description of sampling procedures only).

UNIT 2: Measures of Central Tendency **[12L]**

Frequency distribution: Raw data, attributes and variables, Classification of data, frequency distribution, cumulative frequency distribution, Histogram & ogive curves.
Mean median and mode for ungrouped and grouped data. Geometric mean: definition, merits and demerits. Harmonic mean: definition, merits and demerits. Choice of A.M., G.M. and H.M. Examples and problems.

UNIT 3: Measures of Dispersion **[12L]**

Concept of dispersion, Measures of dispersion: Range, Variance, Standard deviation (SD) for grouped and ungrouped data, combined SD Measures of relative dispersion: Coefficient of range, coefficient of variation.

UNIT 4: Matrices and Determinants (up to order 3 only)**[12L]**

Multivariable data, Definition of a Matrix, Types of Matrices, Algebra of Matrices, Determinants, Adjoint of a Matrix, Inverse of a Matrix via adjoint Matrix, Homogeneous System of Linear equations, Condition for Consistency of homogeneous system, Solution of Non-homogeneous System of Linear equations (not more than three variables). Problems.

UNIT 5: Sequencing**[6L]**

Introduction to Sequencing, Sequencing Problems, Solution to Sequencing Problem - Processing n-jobs through one machine, processing n-jobs through two machines. Example to determine the sequencing and total time required. Also, to find idle time of the machine.

Note: 36 Lectures for Direct Teaching and 12 Lectures for Tutorials.

References:

1. Dr. Amarnath Dikshit & Dr. Jinendra Kumar Jain, Business Mathematics
2. Goon A. M., Gupta, M. K. and Dasgupta, B. (1986): Fundamentals of Statistics, Vol. 2, World Press, Calcutta.
3. Goon, Gupta and Dasgupta, Fundamentals of Statistics, The world press private ltd, Kolkata.
4. Gupta S. C. and Kapoor V. K. (1987): Fundamentals of Applied Statistics, S. Chand and Sons, New Delhi.
5. Gupta S. C. and Kapoor V. K.: Fundamentals of Mathematical Statistic, Sultan Chand and Sons, 23, Daryaganj, New Delhi 110002.
6. Gupta S. P.: Statistical Methods, Sultan Chand and Sons, 23, Daryaganj, New Delhi 110002.
7. Mukhopadhyaya Parimal (1999): Applied Statistics, New Central Book Agency, Pvt. Ltd. Calcutta. 11.
8. S.C. Gupta, Fundamentals of Statistics, Sultan Chand & Sons, Delhi.
9. Sancheti and Kapoor, Statistics, Sultan Chand & Sons, Delhi
10. V. K. Kapoor, Business Mathematics, Sultan Chand & Sons, Delhi.