FACULTY OF MANAGEMENT STUDIES

Integrated MBA – Five Years (Sem.-III)
Effective from Academic Year 2021-22

Subject Code: 1MS3010302	Subject Title: Essentials of Business Mathematics

1. Course Overview

This course is designed to introduce the basic mathematical skills needed to understand, analyse, and solve mathematical problems encountered in business and finance, and in investment decision making. Students are expected to be able to perform the basic arithmetic operations—addition, subtraction, multiplication and division—with ease, and to have some familiarity with fractions, with algebraic operations, and with some basic mathematical principles.

2. Course Objectives

The aim of this subject is to expose students to the application of mathematics in a business context and help them understand the need for mathematical models as tools of increasing the efficiency of decision making process.

At the end of the course, students will be able to -

- Identify the basic mathematical tools which are used in business
- Develop insights in mathematical concepts towards understanding business problems.
- Analyze managerial situations using mathematical concept.

3. Teaching Scheme (Hours per week)

Lecture (Hrs.)	Tutorial	Practical	Credit			Total
				University Total Assessment	Continuous Assessment	
3	1	0	4	60	40	100

4. Syllabus:

Module No.	Modules with its Contents/Chapters	No. of Sessions	Weightage
I	**Profit And Loss:** • Trade discount & Cash discount • Problems involving cost price, Selling Price and Profit & Loss • Problems on Commission and brokerage.	8	20

II	**Ratio**: Ratio- Definition, • Continued Ratio • Inverse Ratio **Proportion:** • Continued Proportion, • Direct Proportion, • Inverse Proportion **Percentage** - Meaning and Computations of Percentages.	10	20
III	**Functions:** • Definition of a function, • Domain, co- domain, • Range of a function. • Types of functions- One-one function Many-one function	9	20
IV	**Index Number:** • Simple Index number • Unweighted Aggregate Price index Numbers • Weighted Aggregate Price index Numbers • Laspeyres Price Index • Paasche Price Index	9	20
V	**Simple Regression Analysis:** • Determining the equation if the Regression Line • Residual Analysis • Standard Error • Coefficient of determination	9	20
V	**Practical** Students may have to work on any topic of their choice and try to identify the implications of above mentioned mathematical concepts in the industry of their choice		Internal evaluation (40 marks of CEC)

5. Suggested Readings

Text Books

Author /s	Publication	Title
D. C. Sancheti, V. K.Kapoor	Sultan Chand & Sons	Business Mathematics
KEN BLACK	Wiley Publication	Business Statistics

Reference Books

Sr. No.	Author	Name of the Book	Publisher	Year of Publication
1	J. K. Singh	Business Mathematics	Himalaya Publishing House	Third edition 2015

2	Ajay Goel, Alka Goel,	Mathematics & Statistics	Taxmann Allied Services	Fourth Edition 2007
3	Dr. Amarnath Dikshit, Dr. Jinendra Kumar Jain	Business Mathematics	Himalaya Publishing House	2011

6. Evaluation Scheme

Sr. No.	Component	Weight
1	**University Examination** * For the written examination, the open book examination may be opted by the paper setter appropriately	**60%**
2	**Internal Assessment** -Depending on the need and objectives of the subject, internal assessment should include minimum three of the following sub-components; *Class Test, Quiz, Assignments, Case Presentation, Class Participation, Projects, Team/Individual Assignments.* -The weightage of a sub-component should not exceed 50% of internal assessment component weight. -The bifurcation of sub-components shall be communicated by the instructor before commencement of the academic sessions.	**40%**