NIRMA UNIVERSITY
Institute of Management
Integrated Bachelor of Business Administration-Master of Business Administration Programme
Term - II

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Course Code	**BBA1CCOQ02**
Course Title	**Mathematics – II**

Course Learning Outcomes (CLO):

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

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

Syllabus	Teaching Hours
Unit I: Differential Calculus • Introduction to differentiation and basic concepts. • Differentiation using first principle, Rules of differentiation, Derivatives of standard functions (without proof). • Chain rule, Logarithmic differentiation, and Differentiation of Implicit function • Higher order (up to second order) derivative	**8**
Unit II: Applications of Differentiation • Concepts of total, average and marginal functions of Cost, Revenue, Profit and its applications. • Maxima and Minima of a function • Elasticity of demand.	**6**
Unit III: Integral Calculus • Introduction to integration and basic concepts • Rules of Integration, Integrals of some standard functions (without proof) • Integration by substitution • Integration by parts • Definite integrals and its properties • Integrals as area and applications of integration	**9**
Unit IV: Matrices and System of Linear Equations • Introduction to Matrices, Type of matrices • Matrix operations(up to order 3), Transpose of a matrix and its properties • Determinants of a square matrix, Inverse of a matrix up to	**7**

order 3 using standard formula. • System of linear equations: Cramer's rule, Solution of system of linear equations using matrix inversion method, Applications of matrices.	

Suggested Readings:

1. Allen, R.G.D. Mathematical Analysis for Economists, Macmillan Press.
2. Chiang, A.C' Fundamental Methods of Mathematical Economics, Tata McGraw Hill.
3.]acques, I. Mathematics for Economics and Business, Pearson.
4. Kapoor, V. K. Business Mathematics, Sultan Chand & Sons.
5. Qazi., Khanna, V. K. & Bhambri, S. K. Business Mathematics, Vikas Publishing House Pvt Ltd.
6. Raghavachari, M. Mathematics for Management-An Introduction, Tata McGraw Hill.
7. Renshaw, G. Maths for Economics, Oxford University Press.
8. Sancheti, D. C. & Kapoor, V. K., Business Mathematics, Sultan Chand & Son.
9. P. Mariappan, Business Mathematics, Pearson.