

Course Code: BMGT E1055
Title: Mathematics for Business
Aim: To; (i) develop basic mathematical knowledge of students,
(ii) develop students' analytical and decision making skills with the application of mathematical techniques learnt.

Learning Outcome:

On completion of this course unit, students should be able to:

- Identify the various mathematical methods required in managerial decision making
- Describe and explain the management issues using mathematical techniques
- Demonstrate critical thinking, modeling, and problem solving skills required in the managerial capacity
- Solve problems in business using appropriate mathematical techniques.

Content: **Number systems;** Real Number Line; Natural Numbers; Even Numbers; Odd Numbers; Prime Numbers; Rational Numbers; Irrational Numbers; Real Numbers. **Algebra;** Factors, Least Common Multiplier; Highest Common Divisor; Indices; Logarithms Operation of Quotients; Operations of Algebraic Expressions. **Equations;** Simple Equations; Simultaneous Equations; Quadratic Equations; Problems Leading to Equations. **Progressions;** Arithmetic Progressions; Geometric Progressions. **Mathematics of Finance;** Simple Interest; Compound Interest; Discounts; Depreciations; Present Value; Annuities. **Analytical Geometry;** Distance between points; Equation of a straight line; Graphs of curves; Circle; parabola; Demand, Supply and Revenue Functions. **Discrete Mathematics;** Sets; Permutations; Combinations; Binomial Theorem. **Calculus;** Limits; Slope of a curve; Rate of Change; Differentiation; Marginal Cost; Marginal Revenue; Marginal Profit; Integration; Area of a curve. **Matrices;** Simple matrix; Mathematical operations in Matrices; Type of matrices.

Method of Teaching and Learning:

Lectures, Seminars

Assessment :

Examination, Assignments

Recommended Readings:

Bharadwaj R. (2010). *Mathematics for Managers*, New Delhi: University science Press.

Johnsonbaugh, R. (2009). *Discrete mathematics*, (6thEdition) New York: Pearson Education Asia Ltd.

Slater, J. (2011). *Practical Business Math Procedures*, (10th Edition) New York: McGraw Hill.

Waner, S., Costenoble, S. R. (2011). *Finite Mathematics and Applied Calculus*. Canada: Nelson Education Ltd.