

Course Code: BCOM E1045

Title: Mathematics for Business

Type/Status: Core

Aims: This course unit is designed to provide the basic mathematical skills needed to understand, analyze, and solve mathematical problems encountered in business, finance, and in investment decision making

Learning outcomes:

By the end of this course unit, students should be able to:

- identify mathematical tools and techniques which are required in order to tackle and analyze problems in businesses
- apply the basic mathematical methods and further advanced mathematical methods required in the managerial capacity

Course Content:

Fundamental concepts of algebra. Mathematical operations. Factors. Indices. Equations; Linear, Fractional, Simultaneous, Quadratic and Simultaneous quadratic. Applications of Equations. Functions; Demand, Supply, and Revenue functions. Logarithm. Binomial Theorem. Progressions; Arithmetic and geometric Progressions. Analytical geometry; Slope, Intercept, Equation of a straight line, Equations of simple curves. Permutations and combinations. Sets and their applications. Matrix algebra. Mathematics of Finance. Calculus; The fundamental theorem of calculus, Differentiations of functions, Rate of change, Turning points, Maxima and minima, Graphs. Integration; Types of integration, Laws of integrals, Features of definite integrals, Integration and its applications.

Method of Teaching & Learning :

Seminar & self learning

Scheme of Evaluation:

End year examination

Recommended Reading:

Jerome F. Ernest, (2004). *Business Mathematics*. (5th Edition). Mc Graw-Hill.

Robert L. Dansby. (2000). *Business Mathematics Essentials*. Prentice Hall.

[Andrew Kaplan](#) ,[Carol Debold](#) ,[Susan Rogalski](#), (2004). *A Mathematics Handbook*. (1st edition.). Great Source Education Group.