Business Mathematics

Course Description

Mathematics is a foundational course in Business Studies and provides access to quantitative methods that apply across disciplines. These basics are required in various other courses and modules such as investment and finance theory, micro- and macroeconomics, logistics, and marketing. Consequently, Business Mathematics is a prerequisite for business economists and political economists before confronting more advanced content. This course in Business Mathematics focuses on mathematical methods applied to economics.

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   1. Arithmetic and Algebraic Basics
   2. Sums and Products
   3. Equations
   4. Inequalities
2. Functions
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   2. Forms of Data Depiction
   3. Features of Functions
   4. Basic Function Types
   5. Selected Economic Applications
3. Differential Calculus I
   1. Difference and Differential Quotient
   2. Derivative Methods
   3. Higher Derivations
   4. Meaning of First and Second Derivative
4. Differential Calculus II: Applications
   1. Marginal Analysis
   2. Curve Sketching
   3. Cournot Point
5. Multivariate functions
   1. Linear and Nonlinear Multivariate Functions
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6. Sequences and Series

6.1 Arithmetic and Geometric Sequences

1. Arithmetic and Geometric Sequences
2. Financial Mathematical Applications
3. Integral Calculus

7.1 Indefinite Integrals

1. Definite Integrals