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5th SEMESTER
SKILL ENHANCEMENT COURSE (SEC)
(ECONOMICS)

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EC517S: MATHEMATICAL ECONOMICS

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CREDITS: THEORY: 2, TUTORIAL: 2

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Course Description:

This course introduces the student to Mathematical techniques to be applied in core subjects of economics like microeconomics, macroeconomics, public economics, and econometrics at advanced stages.

THEORY (2 CREDITS)

Unit I: Basic Concepts in Quantitative Methods

Coordinate Geometry: Straight Line; Parabola; Rectangular Hyperbola, Types of Functions; Limits, Continuity and Derivatives—Definition and Evaluation

Unit II: Differentiation and Integration

Rules of Differentiation - derivation and applications in Economics; Partial differentiation; Basic Integration, Marginal Concepts and Elasticities

TUTORIALS

- Role of Mathematics in Economics
- Different Functions used in Economics
- Uses of Differentiation in Economics
- Uses of integration in Economics

READINGS

1. R. G. D Allen, (2003); Mathematical Analysis for Economists. The Macmillan Press, New Delhi.
2. A.C Chiang, (1984); Fundamental Methods of Mathematical Economics, Tata McGraw Hill.
3. D. T. Edward, (2008); Introduction to Mathematical Economics, Tata McGraw Hill, Delhi.
4. S. C. Gupta and V. K. Kapoor; Fundamentals of Mathematical Statistics, Himalaya publishing House, New Delhi.
5. Edward T. Dowling (2000), Introduction to Mathematical Economics, Schaum's Outline.