

Faculty of Economics and Political Science

Mathematical Economics

Information :

Course Code : ECO 303

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Department of Economics

Instructor Information :

Title	Name	Office hours
Lecturer	Fawzia Ahmed Abdelhamid Ibrahim	2
Teaching Assistant	AMR MOSTAFA MAHMOUD MOSTAFA	10

Description :

Part I: Equilibrium Analysis: Vector Space and Linear Dependence; Linear- Equation Systems and Cramer's Rule; Jacobian Matrix and Determinants; Inverse- Function Theorem and Optimization; Quadratic Forms, Hessian Matrix, and Tests for sign Definiteness; Concavity and Convexity; Quasi- concavity and quasi- convexity, Homogeneous and Homothetic Functions, Economic Applications.

- Part II: Dynamic Analysis: Riemann Integrals and the Fundamental Theorem of Calculus; Techniques of Integration, Improper Integrals and Convergence, First- Order Linear Difference and Differential Equations, Non- Linear Difference and Differential Equations of the First Order, Dynamic Stability, Economic Applications.