

SYLLABUS

Introduction to Mathematical Economics

UECE August/September 2022

Session 1 : sets, functions, correspondences and equilibrium theory, sequences and series, real functions of a real variable

Session 2 : real functions of a real variable (cont.) differential calculus, integration, rates of growth, elasticities

Session 3: functions of n variables, differential of a function at a point, higher order partial derivatives, optimization, multiple integrals

Session 4: differential equations, difference equations, dynamical systems, growth theory

Session 5: matrices, operations with matrices, positive (negative) definite matrices, jacobian matrix, solution of equation systems, the Leontief model, eigenvalues and eigenvectors