

PROGRAMME NAME: B. A. (Hons.) Business Economics
COURSE NAME: Mathematics for Business Economics II
SEMESTER DURATION: July-November

WEEK	TOPIC(S)	TEACHING METHODOLOGY ADOPTED/CONTINUOUS INTERNAL EVALUATION
1-3	<p>UNIT-I: Multivariable Functions</p> <p>Geometric representations: graphs and level curves.</p> <p>Differentiability: characterisations, properties with respect to various operations and applications; higher order derivatives: properties and applications; the implicit function theorem and application to comparative statics problems; homogeneous and homothetic functions: characterisations and applications.</p>	Classroom Teaching and Practice Questions
4-6	<p>UNIT-II: Multivariable Optimization</p> <p>Multivariate optimisation: Convex sets, geometric properties of functions: convex functions, their characterisations, properties and applications; further geometric properties of functions</p>	Classroom Teaching and Practice Questions Surprise Test
7-8	Quasiconvex functions, their characterisations, properties and	Classroom Teaching and Practice Questions

	applications; unconstrained optimisation: geometric characterisations, characterisations using calculus and applications.	Remedial Classes for slow students
9-10	Multivariate Optimization with constraints: Constrained optimisation with equality constraints: geometric characterisations,	Classroom Teaching and Practice Questions
11	Lagrange characterisation using calculus and applications properties of value function: envelope theorem and applications.	Classroom Teaching, Problem Solving and Practice Questions
12-13	UNIT-III: Economic Dynamics-1 First order differential equations, phase diagrams and stability.	Classroom Teaching and Practice Questions
14-15	UNIT - IV: Economic Dynamics-2 First order difference equations, equilibrium and stability	Classroom Teaching, Problem Solving and Practice Questions Remedial Classes
16	Revision and Tests	