BA (Prog.) with Economics as Major
Category-II

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Introductory Microeconomics ECON001	4	3	1	0	Class XII pass	NIL

Learning Objectives

The Learning Objectives of this course are as follows:
- To expose students to the basic principles of microeconomic theory
- To emphasis on the fundamental economic trade-offs and allocation problems due to scarcity of resources
- To use graphical methods to illustrate how microeconomic concepts can be applied to analyze real-life situations

Learning outcomes

The Learning Outcomes of this course are as follows:
- By studying the course, the students will understand economic trade-offs and opportunities.
- By studying the course, the students will understand the fundamentals of market mechanisms and government interventions.

SYLLABUS OF DSC-1

UNIT – I: Introduction to economic trade-offs   **(12 Hours)**
Resources and opportunities, Gains from trade, Individual and society

UNIT – II: How market works   **(16 Hours)**
Supply and demand, Price and resource allocation, Elasticity, Market, trade and welfare

UNIT – III: Role of government   **(16 Hours)**
Taxation, Public good, Inequality and poverty

UNIT – IV: Individual decision and interactions   **(16 Hours)**
Decision versus strategic interaction, How to think about strategic interactions, Real life

examples

Practical component (if any) - NIL

Essential/recommended readings:

- Mankiw, N. G. (2018). *Principles of Microeconomics* 8th ed.
- Frank, R. H., & Cartwright, E. (2010). *Microeconomics and behavior*. New York: McGraw-Hill.
- Dixit, A. K., & Skeath, S. (2015). *Games of strategy*: Fourth international student edition. WW Norton & Company.
- Acemoglu, D., Laibson, D., & List, J. (2017). *Microeconomics*. Pearson.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

DISCIPLINE SPECIFIC CORE COURSE – 2 (DSC-2): BASIC MATHEMATICS FOR ECONOMIC ANALYSIS

CREDIT DISTRIBUTION, ELIGIBILITY AND PREREQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Basic Mathematics for Economic Analysis ECON021	4	3	1	0	Class XII pass	NIL

Learning Objectives

The Learning Objectives of this course are as follows:
- The objective of the course is train basic algebras that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomics, macroeconomics, statistics and econometrics set out in this syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. It contains understanding of basic functions, relations, real number systems, set operations, linear algebras and matrix operations used in economics.

Learning outcomes

The Learning Outcomes of this course are as follows:
- The course equips the students with exposition of economic problems with formal pre- situations algebraically and offers solution techniques to find equilibrium analysis. These tools are necessary for anyone seeking employment as an analyst in the corporate and policy framing world.

SYLLABUS OF DSC- 2

UNIT – I: Economic

Models **(20 Hours)**
Ingredients of mathematical models - variables, constants, parameters, equations, and identities; Real number system; Sets and functions; relations and their proper- ties; types of functions; functions of more than one variables; Limit, sequences and series: convergence, algebraic properties and applications; continuous functions: characterisation, properties with respect to various operations and applications; differentiable functions: characterisation, properties with respect to various operations and applications; second and higher order derivatives: properties and applications.

UNIT – II: Equilibrium Analysis in Economics   **(20 Hours)**
Meaning of equilibrium; partial market equilibrium - linear and non-linear models; General market equilibrium

UNIT – III: Linear Models and Matrix Algebras and their Applications in Economics
(20 Hours)
Matrix operations, Determinants and Cramer's Rule and their applications

Practical component (if any) - NIL

Essential/recommended readings

- Chiang, A and Wainwright, K. (2005). Fundamental methods of mathematical economics. Boston, Mass. McGraw-Hill/Irwin.

- Sydsaeter, K., Hammond, P. (2002). *Mathematics for economic analysis.* Pearson Educational.

- Hoy, M., Livernois, J., McKenna, C., Rees, R., Stengos, T. (2001). *Mathematics for Economics,* Prentice-Hall India.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.