

# Learning Objectives and Learning Outcomes

## Semester-I

### Economics Core Course –I Introductory Microeconomics

#### **Unit-I: Exploring the subject matter of Economics**

##### **Learning Objective:**

- Explain the role of scarcity, specialization, opportunity cost and cost/benefit analysis in economic decision-making.
- Develop the ability to explain core economic terms, concepts and theories
- It also aims to explain that human wants are unlimited but resources are scarce and how these scarce resources are allocated efficiently to meet the ends.

##### **Learning outcomes:**

##### **On completion of this unit, students will be able to know-**

- About wants, scarcity, competing end and choice
- The basic economic questions
- Difference between microeconomics and macroeconomics
- Principles of individual decision making and of economic interaction
- Concepts of trade-off, property rights, market failure and externalities
- Interdependence and gains from trade

#### **Unit-II: Demand and Supply: How Markets Work**

##### **Learning Objective:**

- This unit targets to explain the students about how markets work.
- Identify the determinants of supply and demand; demonstrate the impact of shifts in both market supply and demand curves on equilibrium price and output.

##### **Learning Outcomes:**

##### **On completion of this unit, students will be able to know-**

- Determinants of household demand and market demand, movement along and shift of the demand curve
- factors influencing supply, the supply curve, movement along and shift of the supply curve
- Determination of equilibrium price in a competitive market.
- Market Adjustment without Government (with illustrations)

#### **Unit-III: Market and Adjustments**

##### **Learning Objective:**

- This unit aims at introducing to students the concept of market and adjustment
- Analyse how markets can function automatically without any government intervention
- Learn how markets can be classified in different forms

### **Learning Outcomes:**

**On completion of this unit, students will be able to know-**

- The Evolution of Market Economies, Price System and the Invisible Hand
- Different Concepts of Markets, difference among markets- competitiveness, goods and factor markets, free and controlled markets, public and private sectors, economies - free market, command and mixed.
- Public goods, Private goods, Common resources and Natural Monopolies

### **Unit-IV: Market Sensitivity and Elasticity**

#### **Learning Objective:**

- This unit aims at introducing to students the different aspects of market sensibility and elasticity.
- Calculate supply and demand elasticities, identify the determinants of price elasticity of demand and supply, and demonstrate the relationship between elasticity and total revenue

### **Learning Outcomes:**

**On completion of this unit, students will be able to know-**

- Importance of Elasticity in Choice-Decisions
- Method of Calculation- Arc Elasticity, Point Elasticity-definition
- Demand and supply Elasticities-types of elasticity and factors affecting elasticity
- Income and Cross Price Elasticity

### **Unit-V: Government Intervention**

#### **Learning Objective:**

- This unit aims at introducing to students the Economic Role of Government with respect to Market
- Describe governmental efforts to address market failure such as monopoly power, externalities, and public goods

### **Learning Outcomes:**

**On completion of this unit, students will be able to know-**

- The concepts of Price Ceiling, Price Floor and Market Adjustment
- Black Market, Tax and market adjustment , Elasticity and Tax incidence
- Comparison of markets with and without government

### **Unit-VI: Utilitarian Approach**

#### **Learning Objective:**

- This unit focuses on imparting an intuitive explanation of the Utilitarian approach to the students.
- Summarize the law of diminishing marginal utility; describe the process of utility maximization

### **Learning Outcomes:**

**On completion of this unit, students will be able to know-**

- The History of Utility Theory – From Cardinal to Ordinal Approach
- The different attributes of Cardinal approach
- The different attributes of Ordinal approach; Indifference curve and its properties
- Price consumption curve, Income consumption curve and Engel curve. Price effect - Income and Substitution effect (Hicks and Slutsky), inferior goods and Giffen goods, Marshallian and compensated demand curves

## **Learning Objectives and Learning Outcomes**

## Semester- III

### Economics Core Course-VII Statistical methods for Economics

#### **Module-I: Introduction and Overview**

##### **Learning Objectives:**

- This module aims at introducing the students to the basic concepts and terminologies which are required to be known for further understanding in statistics, data, population and sample.
- It also aims to introduce the understanding of how data can be represented through different graphs and tables.
- It also introduces to students the concept of frequency distribution

##### **Learning Outcomes:**

**On completion of this unit, students will be able to know-**

- The knowledge of key terms in statistics
- The meaning of data, its source/types ( primary and secondary data)
- The knowledge of how data can be presented through line diagram, bar diagram, pie chart and through tables
- The meaning of frequency distribution and how it is constructed

#### **Module-II: Descriptive Statistics**

##### **Learning Objectives:**

- This module aims at introducing to students the preliminary analytical skills of finding a single figure which describes the entire series of observations of varying sizes and also computing the variability or inequality among data.
- This module also aims at explaining measures which determines the co-relationship between two variables.

##### **Learning Outcomes:**

**On completion of this unit, students will be able to know-**

- The computational knowledge of finding
- The concepts and computational knowledge of range, quartile deviation, mean deviation, standard deviation, coefficient of variation, coefficient of mean deviation, coefficient of quartile deviation, Lorenz curve and Gini coefficient.
- The definition and computation of Moments, Skewness and Kurtosis
- The meaning of correlation and regression, its properties and its computation

#### **Module-III: Elementary Probability Theory**

##### **Learning Objectives:**

- This module aims at introducing to students the concept of probability using set theory.
- To familiarize students with the four approaches to probability theory and particularly the axiomatic approach

##### **Learning Outcomes:**

**On completion of this unit, students will be able to know-**

- The meaning of probability and probabilistic experiment
- Use and manipulate the four axioms of probability comfortably to derive the results of other set operations.
- The meaning of conditional probability, theorem of compound probability, Bayes' theorem and its application

#### **Module-IV: Probability Distributions**

##### **Learning Objectives:**

- Providing students with a formal treatment of probability theory.
- Equipping students with essential tools for statistical analyses at the graduate level.
- Fostering understanding through real-world statistical applications.

##### **Learning Outcomes:**

##### **On completion of this unit, students will be able to know-**

- The concepts of a random variable and a probability distribution
- Difference between discrete and continuous random variables
- To compute and interpret the expected value, variance, and standard deviation for a discrete random variable
- To compute probabilities using a binomial probability distribution.
- To compute probabilities using a Poisson probability distribution.
- The difference between how probabilities are computed for discrete and continuous random variables.
- To compute probability values for a continuous uniform probability distribution and be able to compute the expected value and variance for such a distribution.
- To compute probabilities using a normal probability distribution. Understand the role of the standard normal distribution in this process
- To compute probabilities using an exponential probability distribution.

#### **Module-V: Sampling**

##### **Learning Objectives:**

- To make students understand the importance of sampling and how results from samples can be used to provide estimates of population characteristics such as the population mean, the population standard deviation and / or the population proportion.
- To introduce to students the methods of sampling and concepts of Stratified sampling and Multi-staged sampling.
- Understand what a *sampling distribution* is.
- To make students familiar with the concepts of: Standard normal, chi-square, Student's t and F distributions.

##### **Learning Outcomes:**

##### **On completion of this unit, students will be able to know-**

- The concepts of population, sample, parameter, statistic, Stratified sampling and multi-stage sampling
- Difference between SRSWR and SRSWOR
- The definitions and properties of Standard normal, chi-square, Student's t and F distributions

#### **Module-VI: Statistical Inference**

##### **Learning Objectives:**

- The course aims at providing an introduction to statistical inference and its application to predictive statistical models.
- Subsequently, the course will deal with the theory of statistical inference (point estimation, interval estimation, hypothesis testing).

**Learning Outcomes:**

**On completion of this unit, students will be able to know-**

- The concept of estimation of parameters
- Compute the problems related to point estimation
- The concepts of Testing of Hypothesis, (Large Sample Tests and small sample test)
- Solve the problems related to testing of hypothesis, (Large Sample Tests and small sample test)
- Hypothesize various advanced statistical techniques for modeling and exploring practical situations

## **Economics Core Course II: ECO-A-CC-1-2-TH-TU Mathematical Methods in Economics-I**

**[For Semester-I]**

Upon successful completion of the course a student will be able to

1. Understand the connections between diagrammatic models and their mathematical structures using calculus and algebra.
2. Understand how to use game theories to solve problems.
3. Develop numerical examples to explain variety of theoretical result.
4. How to use maxima and minima concept to solve problems like cost minimization, output maximization, and profit maximization for a firm.

## **Economics Core Course V: ECO-A-CC-3-5-TH-TU Intermediate Microeconomics –I**

**[For Semester- III]**

Upon successful completion of the course a student will be able to

1. How to make decisions by using marginal analysis and opportunity cost.
2. How to use supply and demand for determining changes in market equilibrium.
3. Understand the meaning of perfect competition in the market, and help us to understand how equilibrium price and output is attained in this type of market.

4. How to reach equilibrium prices and output in imperfect competition (e.g. monopoly, monopolistic competition, and oligopoly).
5. It will help us to understand the concept of market failure, how to use supply and demand concept to eliminate this types of market failure.
6. How to use comparative static analysis, producer and consumer welfare, govt. intervention by using price ceiling and price floor.
7. Understand the importance and consequences of general equilibrium and welfare economics (Pareto Optimality).

**Core Course 1 (CC 1) BA/BSc (General) / Generic Elective Course I (GE -1) for BA/BSc Honours students [other than students having Economics (Honours)]/BA (General) Generic Elective Course I (GE-I) for students not having Economics as Core Course**

## **Learning Objectives and Learning Outcomes**

### **Semester-I Introductory Microeconomics**

#### **Module-I: Exploring the subject matter of Economics**

##### **Learning Objective:**

- To make students understand; why we need to study economics?
- What are the central economic problems?
- To introduce to students the basic concepts of; property rights, rationing; opportunity sets and economic systems.

##### **Learning outcomes:**

##### **On completion of this unit, students will be able to know-**

- The need for studying economics
- The central economic problems; scarcity and choice; the question of what to produce, how to produce and how to distribute output
- The meaning of property rights, rationing; opportunity sets and economic systems.

#### **Module-II: Supply and Demand: How Markets Work, Markets and Welfare**

##### **Learning Objective:**

- To introduce to the students the basic concepts of market and competition
- This module aims to introduce to students the meaning of demand and supply in economics; how different factors effect demand and supply; laws of demand and supply.
- What causes shifts in demand/supply curves?
- To introduce to students the concept and types of elasticity of demand
- It also aims to explain the concepts of consumer surplus; producer surplus and the efficiency of the markets.

##### **Learning outcomes:**

##### **On completion of this unit, students will be able to know-**

- The meaning of market and how competition affects markets.

- The economic definition of demand and supply and the different factors affecting the demand/supply of a commodity
- The laws of demand and supply
- The reasons behind the shift in demand and supply curves
- The meaning of elasticity of demand and its different types; price elasticity, income elasticity and cross-price elasticity
- The concepts of consumer surplus; producer surplus and the efficiency of the markets.

### **Module-III: The Households**

#### **Learning Objective:**

- This module aims at introducing to students the concept of utility
- The explanation of the two approaches to measure utility
- To help students understand the meaning of diminishing marginal utility
- To help students understand the concept of indifference curve and its properties
- To help understand the concepts of price consumption curve and the income consumption curve, income and substitution effects
- To help students know how demand curve can be derived from price consumption curve

#### **Learning outcomes:**

##### **On completion of this unit, students will be able to know-**

- The meaning of utility
- The two approaches to measure utility; Cardinal approach and Ordinal approach
- Cardinal utility is the utility wherein the satisfaction derived by the consumers from the consumption of good or service can be measured numerically
- The concepts of Total utility and Marginal utility and the law of diminishing marginal utility
- The relation between law of demand and law of diminishing marginal utility
- The Ordinal Utility approach is based on the fact that the utility of a commodity cannot be measured in absolute quantity, but however, it will be possible for a consumer to tell subjectively whether the commodity derives more or less or equal satisfaction when compared to another.
- How preferences can be represented with the help of indifference curves and what are its properties
- The concepts of price consumption curve and the income consumption curve, income and substitution effects

### **Module-IV: The Firm and Perfect Market Structure**

#### **Learning Objective:**

- To familiarise students with the production and cost structure under different stages of production.
- To understand the pricing and output decisions under various market structure.
- To understand the short-run and long-run equilibrium under perfect competition
- To help students understand and apply the various decision tools to understand the market structure.

**Learning outcomes:**

**On completion of this unit, students will be able to know-**

- To understand the concepts of cost, nature of production and its relationship to firm operations.
- The concepts of production function, total product, average product and marginal product; isoquant ; returns to scale.
- The different features of perfectly competitive market
- how equilibrium can be achieved in the short-run and long-run under perfectly competitive market

**Module-V: Imperfect Market Structure**

**Learning Objective:**

- To familiarize students with different forms of market under imperfect market structure
- Learn why some markets have only one seller
- Analyse how a monopoly determines the quantity to produce and the price to charge
- See why monopolies try to charge different prices to different customers

**Learning outcomes:**

**On completion of this unit, students will be able to know-**

- List three reasons why a monopoly can remain the sole seller of a product in a market
- Use a monopolist's cost curves and the demand curve it faces to show the profit earned by a monopolist
- Show why forcing a natural monopoly to set its selling price equal to its marginal cost of production creates losses for the monopolist
- The concept of price discrimination in the monopoly market

**Module-VI: Input Markets**

**Learning Objective:**

- To familiarize students with the concept of factor markets in microeconomics
- This module aims at introducing to students the concepts of labour and land markets
- Learn different concepts related to labour market such as derived demand, productivity of an input; marginal productivity of labour, marginal revenue product
- Learn different concepts related to land market such as rent and quasi rent.

**Learning outcomes:**

**On completion of this unit, students will be able to know-**

- About the functioning of the factor markets
- If labour markets are competitive, the wages in those markets are determined by the interaction of demand and supply
- The meaning of derived demand, productivity of an input, marginal productivity of labour and marginal revenue product
- The supply of land is perfectly inelastic
- As the supply of land is fixed, its price is determined exclusively by what households and firms are willing to pay for it.
- A firm will pay for and use land as long as the revenue earned from selling the output produced on that land is sufficient to cover the price of the land



