

SYBA Economics (NEP1)
Sem-III
DSC-5 ECO23101
Principles of Microeconomics

Unit 1: Introduction

- 1.1 Meaning, Nature, and Scope of Microeconomics
- 1.2 Tools of Economic Analysis
 - 1.2.1 Functional relationship
 - 1.2.2 Schedules and Graphs
 - 1.2.3 Equations
- 1.3 Variables
 - 1.3.1 Dependent and Independent Variable
 - 1.3.2 Endogenous and Exogenous Variable
- 1.4 Economic Models

Unit 2: Consumer's Behaviour

- 2.1 The Cardinal Approach
 - 2.1.1 Law of Diminishing Marginal Utility
 - 2.1.2 Law of Equi- Marginal Utility
 - 2.1.3 Consumer's Equilibrium
 - 2.1.4 Consumer Surplus
- 2.2 Derivation of Demand curve
- 2.3 The Ordinal Approach
 - 2.3.1 Indifference Curve Analysis- Meaning, Definition, and Characteristics
 - 2.3.2 Consumer's Equilibrium – Price effect, Income Effect and Substitution Effect.
- 2.4 Applications of Indifference Curves Analysis

Unit 3: Theory of Demand

- 3.1 Meaning of Demand and determinants of Demand
- 3.2 The Law of Demand & Its Exceptions
 - 3.2.1 Market Demand
 - 3.2.2 Changes in Demand
- 3.3 Elasticity of Demand - Meaning and Types

Unit 4: Theory of Production and Supply

- 4.1 Supply: Meaning, Law of Supply and determinants of Supply
- 4.2 Production Function
 - 4.2.1 Law of Variable Proportion
 - 4.2.2 Law of Returns to Scale
- 4.3 Economies and Diseconomies of Scale
- 4.4 Producers' Equilibrium: Iso-quant curve and Iso-cost line, MRTS

SYBA Economics (NEP1)
Sem-IV
DSC-7 ECO24101
Theory of Price

Unit 1: Cost and Revenue Analysis

1.1 Cost Concepts

- 1.1.1 Real Cost, Money Cost, Opportunity Cost
- 1.1.2 Prime and Social Cost, Sunk and Incremental Cost
- 1.1.3 Explicit and Implicit Cost
- 1.1.4 Economic and Accounting Cost

1.2 Short-run Costs

- 1.2.1 Fixed and Variable Costs
- 1.2.2 Total Costs, Average Fixed, Average Variable, and Marginal Cost

1.3 Long-run Cost

1.4 Revenue Concepts

- 1.4.1 Total Revenue, Average Revenue, Marginal Revenue
- 1.4.2 Revenue curves under perfect and imperfect markets

Unit 2: Market Structure

2.1 Perfect Competition

- 2.1.1 Meaning and Characteristics
- 2.1.2 Equilibrium of Firm and Industry in the Short Run and Long Run

2.2 Monopoly

- 2.2.1 Meaning and Characteristics
- 2.2.2 Short and Long Run Equilibrium
- 2.2.3 Discriminating Monopoly

2.3 Monopolistic Competition

- 2.3.1 Meaning and Characteristics
- 2.3.2 Short & Long Run Equilibrium of firm and Industry
- 2.3.3 Selling cost and Combined Costs

2.4 Oligopoly and Duopoly: Meaning and Characteristics

2.5 Introduction to Game theory

Unit 3: Factor Pricing

3.1 Personal Income and Functional Distribution of Income

3.2 Marginal Productivity Theory of Distribution

3.3 Rent

- 3.3.1 Ricardian Theory of Rent
- 3.3.2 Modern Theory of Rent
- 3.3.3 Quasi Rent

3.4 Wages

- 3.4.1 Demand and Supply of Labour
- 3.4.2 Modern Theory of Wages
- 3.4.3 Types of wages

3.5 Interest

- 3.5.1 Classical Theory of Interest
- 3.5.2 Keynesian Liquidity Preference Theory
- 3.5.3 Loanable Fund Theory

3.5 Profit: Risk and Uncertainty Theory, Innovation Theory

Unit 4: Introduction to Welfare Economics

4.1 Welfare Economics: Definition and Meaning

4.2 Pigouvian Welfare Economics

4.3 Thought of Amartya Sen on Welfare Economics

Reference Books

1. Mansfield, E., *Microeconomics*, W.W. Norton and Company, New York.
2. Koutsoyiannis, A., *Modern Microeconomics*, Macmillan, London.
3. Lipsey & Cristal, *Introduction to Positive Economics*, Oxford Press.
4. Jack Hirshlifer, *Price Theory and Applications*, Prentice Hall of India Pvt. Ltd. Delhi
5. Ahuja H.L., *Modern Microeconomics*, S. Chand & Company Ltd New Delhi
6. Jhingan M.L., *Microeconomic Theory*, Vrinda Publication, Delhi.
7. K.K. Dewett, *Modern Economics Theory*, S. Chand Publications, New Delhi.
8. KPM Sundaram and E. N. Sundaram, *Microeconomics*, S. Chand Publication, New Delhi.
9. Seth M.L., *Microeconomics*, Lakshmi Narain Agrawal Publisher

SYBA Economics (NEP1)
Sem-III
DSC-6 ECO23102
Principles of Macroeconomics

- Unit 1 Introduction and national income accounting** **20**
1. Origin and evolution of Macroeconomics
 2. Subject matter and methods of macroeconomics
 3. Microeconomics and Macroeconomics
 4. National Income Meaning and Definitions
 5. Various Concepts of National Income and their interrelationship– {GDP, GNP, NNP, NDP, at market price and factor cost, PCI, Personal Income, Disposable Income, Real Income and Nominal Income}
 6. Methods of National Income Measurement, Difficulties and Significance
 7. Circular Flow of National Income in closed and open economy, Leakages, and Injections.
- Unit 2 Classical, Keynesian and Post Keynesian Macroeconomics** **20**
1. Classical Theory of Employment, Say's Law of Market.
 2. Great Depression- Causes and Nature
 3. Keynes and Birth of Macroeconomics
 4. Keynesian Theory of Employment- Aggregate Supply and Aggregate Demand Model, Effective Demand Principle
 5. The Rise and Fall of Keynesian Economics
 6. Post Keynesian Macroeconomics
- Unit 3 Consumption and Investment** **20**
1. Consumption Function- Meaning, APC, MPC, Psychological Law of Consumption, Influencing Factors,
 2. Saving Function- APS, MPS.
 3. Investment- Meaning, Types, Marginal Efficiency of Capital
 4. The Concept and Working of Multiplier
 5. The Principle of Acceleration
 6. Super Multiplier
 7. Introduction to IS-LM curve, Case Studies

SYBA Economics (NEP1)
Sem-IV
DSC-8 ECO24102
Monetary Economics

Unit 1 Money

- 1 Money- Meaning and Functions, Concepts of Money
- 2 Evolution and Types of Money
- 3 Value of Money- Meaning, Quantity Theory of Money, Cash Balance Approach, Tobin and Baumol's Approach
- 4 Supply of Money- Measurement of Money and Liquidity,
- 5 Role of Commercial Banks- Credit Creation

Unit 2 Inflation

- 1 Inflation- Meaning and Types
- 2 Causes of inflation- Demand Pull and Cost Push Inflation, Effects of inflation
- 3 Measures to Control Inflation
- 4 Deflation – Meaning, Causes and Effects
- 5 Inflationary and Deflationary Gap
- 6 Philips Curve- Inflation vs Unemployment
- 7 Stagflation- Meaning, Emergence and Causes

Unit 3 Business Cycles

1. Meaning, Features and Phases of Business Cycle
2. Causes and Effects of Business Cycle
3. Keynes' Theory of Business Cycle
4. Monetarist and Post Monetarist Approach to Business Cycle
5. Control of Business Cycles – Monetary and Fiscal Controls

Unit 4 Macroeconomic Policies

1. Objectives of Macroeconomic Policies
2. Macroeconomic Variables
3. Monetary Policy - Meaning, Instruments, Advantages and Limitations
4. Fiscal Policy - Meaning, Instruments, Advantages and Limitations

Reading List

1. Ben Fine & Ourania Dimakou, *Macroeconomics: A Critical Companion*, Pluto Press
2. Brian Snowdon & Howard Vane, *Modern Macroeconomics: Its Origins, Developments and Current State*, Edward Elgar
3. David Colander, *Macro Economics*, McGraw Hill Education Private Limited.
4. Dilip Nachane, *Critique of the New Consensus Macroeconomics and Implications for India*, Springer.
5. H. L. Ahuja, *Macro Economics: Theory and Policy*, S. Chand & Company Limited
6. John McDonald, *Rethinking Macroeconomics: An Introduction*, Routledge
7. Michel De Vroey, *A History of Macroeconomics: From Keynes to Lucas and Beyond*, Cambridge University Press.
8. *Monetary Economics*, S. B. Gupta, Himalaya Publication
9. N. Gregory Mankiw, *Principles of Macroeconomics*, Cengage Learning.
10. Olivier Blanchard & David Johnson, *Macroeconomics*, Pearson.
11. Roger Backhouse, *Interpreting Macroeconomics: Explorations in the History of Macroeconomic Thought*, Routledge.
12. Rudiger Dornbusch, Stanley Fischer & Richard Startz, *Macroeconomics*, Tata McGraw Hill Education Private Limited.

SYBA Economics (NEP1)
Sem-III
IKS: ECO23103
IKS: Revisiting Kautilya's Arthshastra

Total Credits : 02

Course Objectives :

To acquaint students with Indian Knowledge System in Political Science

Semester- III

Unit 1 : Introduction

- Kautilya a Thinker
- Historical Background

Unit 2 : Political Thought

- State in Kautilya's Arthshastra
- Justice and Law

Course Outcomes:

CO 1: Understand different political concepts explained in Indian Traditional Knowledge systems

CO 2: Enumerate political concepts discussed by Kautilya in his volume 'Arthshastra' and compare those with Western Political Concepts

References

1. Misra R K, 2012 An Introduction to Political Thought, Pearson, New Delhi

SYBA Economics (NEP1)
Sem-III
VSEC2: ECO23405
Mathematical Economics

Objectives:

- To revise Basic concepts of Mathematics and understand their relevance in Economics.
- To evaluate and examine subject areas in economics with mathematical economics.
- To provide an understanding of Mathematics and its application for various concepts in economics.
- To demonstrate the practical and the applied aspects of economics with the help of Mathematics.

Unit I: Basic concepts

- 1.1 The concept of Sets and set operations, relations, Real number systems
- 1.2 Use of Graphs, Identities, Equations, and Inequalities.
- 1.3 Power of number; Logarithms and their Properties.

Unit 2: Functions

- 2.1 Types of functions- (Algebraic, Exponential and Logarithmic, Explicit, Implicit, and inverse Functions. Polynomial Function)
- 2.2 Characterisations, properties of Functions with respect to various operations and applications.
- 2.3 Market demand, supply curves, total revenue, cost functions.

Unit 3: Differential Calculus

- 3.1 Limits of functions, Continuity at a point and over an interval,
- 3.2 Rules of Differentiation including product, quotient, and chain rule.
- 3.3 Derivatives of implicit functions, Partial derivatives, constrained optimization.
- 3.4 Profit maximization in the different types of markets.
- 3.5 Indefinite integral of algebraic, exponential, and logarithmic functions.
- 3.6 The relation between average and marginal concepts.

Unit 4: Integration

- 4.1 Indefinite integral of algebraic, exponential, and logarithmic functions.
- 4.2 Define integrals.
- 4.3 The relation between average and marginal concepts.

Reference Books:

1. Chaing A. C (2017) 'Fundamental Methods of Mathematical Economics' McGraw Hill Education
2. Edward Dowling (2011) 'Schaum's Outline of Introduction to Mathematical
3. Economics' 3rd Edition (Schaum's Outlines), McGraw Hill Education
4. Simon Carl P. and Blume Lawrence (1994) 'Mathematics for Economists' W. W. Norton & Co.
5. Hoy (2012) Mathematics for Economics, Prentice Hall India
6. Pemberton Malcolm, Nicholas Ray (2016) 'Mathematics for Economists' Manchester University Press
7. Rosser M. J. (1993) 'Basic Mathematics for Economists' Routledge
8. Sydsaeder Knut, Hammond p., Strom A. (2013) 'Essential Mathematics for Economics' Pearson Education
9. Yamane Taro (1981) 'Mathematics for Economists: An Elementary Survey' Prentice Hall India Learning Private Ltd.

Recommended Journals:

Indian Journal of Pure and Applied Mathematics-Springer
Journal of Mathematical Economics- Elsevier

Class	:	SYBA Sem IV
Course Title	:	VSEC4 - Intermediate Statistics
Credits	:	02
Subject Code	:	ECO24405
Lectures	:	30 Clock Hours

Course Description:

This course provides a strong foundation in statistical methods with applications in economics and social sciences. The course combines theoretical concepts of probability and statistics with practical applications using R software. Students will learn probability theory, sampling techniques, hypothesis testing, and data analysis methods essential for economic research and decision-making. The course emphasizes both theoretical understanding and practical implementation through R software, preparing students for advanced statistical analysis in economics and related fields.

Course Outcomes:

1. Apply probability concepts and distributions to solve economic and demographic problems.
2. Execute appropriate sampling techniques and conduct statistical hypothesis testing for real-world data analysis.
3. Perform estimations and construct confidence intervals to make statistical inferences about populations.
4. Implement various statistical tests including Chi-Square, F-test, and ANOVA using real datasets.
5. Utilize R software to conduct basic statistical analysis and interpret results in economic context.

Module	Name of the Topic and Content	No of Lectures
01	Basic concepts of probability	06
	1.1 Spaces and events; probability concepts, conditional probabilities	
	1.2 Moment in terms of expectation, moment generating function of a random variable, their properties and uses	
02	Probability distributions and Sampling Techniques	08
	2.1 Random variables – discrete and continuous, various probability distributions - functions and characteristics; Theoretical Distributions (Binomial, Normal, and Poisson)	
	2.2 Fundamentals of Sampling, Estimation, Statistical Inference,	
	2.3 Distribution Tests: Chi-Square Test, F-Distribution, ANOVA, Association of Attributes, Non-Parametric Tests	
03	Estimation and Hypothesis testing	10
	3.1 Estimator and estimate, properties of estimators (definition and	

examples only)

3.2 Tests of statistical inference - Hypothesis: Statistics and parameters, null and alternative hypothesis, one sided and two-sided alternative hypothesis, critical region,

3.3 Type I error, type II error, level of significance, p-value. Confidence interval

04 Basic data analysis using R software
(Practical work on R software)

06

Recommended Readings

1. Comprehensive Statistical Methods - Arora, P.N.; Arora, Sumeet; Arora,
2. Statistical Methods – S. P. Gupta
3. Statistical Methods – S. C. Gupta
4. John A. Rice (2007). Mathematical Statistics and Data Analysis, 3rd ed. Thomson Brooks/Cole
5. Larsen, R., Marx, M. (2011). An introduction to mathematical statistics and its applications. Prentice Hall.
6. Miller, I., Miller, M. (2017). J.Freund’s mathematical statistics with applications, 8th ed. Pearson.
7. Demetri Kantarelis, D. and Malcolm O. Asadoorian, M. O. (2009). Essentials of Inferential Statistics, 5th edition, University Press of America.
8. Hogg, R., Tanis, E., Zimmerman, D. (2021) Probability and Statistical inference, 10TH Edition, Pearson
9. Anderson, Sweeney and Williams, Statistics for Business and Economics, 12th Edition, Cengage India
10. Aczel and Sounderpandian. Complete Business Statistics, 7th Edition
11. Andy Field, Discovering Statistics using IBM SPSS Statistics, 4th edition, Sage Publication
12. Wayne Winston, Microsoft Excel 2016 - Data Analysis and Business Modeling, Prentice Hall India

SYBA Economics (NEP1)
Sem-III
Minor2: ECO23203
Indian Financial System

Unit 1 Indian Financial System

- 1.1 Meaning, Nature, Role and Importance of Financial System.
- 1.2 Components and Structure of Indian Financial System.
- 1.3 Characteristics and Functions of Indian Financial System.

Unit 2 Banking Institutions in India

- 2.1 Banking Institution- Meaning and Significance
- 2.2 Structure and Classification of Indian Banking System
- 2.3 Functions of Banking Institutions
- 2.4 Regional Rural Banks, Small Finance Banks and Payment Banks
- 2.5 Reforms in Indian Banking System

Unit 3 Non-Banking Financial Institutions in India

- 3.1 Non-Banking Institution- Meaning and Significance
- 3.2 Structure and Classification of Indian Non-Banking Institution
- 3.3 Specialized financial institutions
- 3.4 Functions of Non-Banking Institutions
- 3.5 Reforms in Non-Indian Banking System

Unit 4 Financial Regulation in India

- 2.1 Regulatory Bodies:
 - 2.1.1 RBI- Structure, Role, and Monetary Policy Tools
 - 2.1.2 SEBI- Role and Functions
 - 2.1.3 IRDA- Role and Functions
 - 2.1.4 MoF- Role, Functions and Policy

SYBA Economics (NEP1)
Sem-IV
Minor3: ECO24203
Financial Markets and Instruments

Unit 1 Financial Markets in India and The Money Market

- 1.1 Classification of Financial Market
- 1.2 Benefits of an Efficient Money Market
- 1.2 Indian Money Market
- 1.3 Money Market Instruments
 - 1.3.1 Treasury Bills
 - 1.3.2 Commercial Paper
 - 1.3.3 Commercial Bills
 - 1.3.4 Certificates of Deposits
 - 1.3.5 Call / Notice Money, Mibor, CBLO
- 1.4 Link Between Money Market and Monetary Policy

Unit 2 The Capital Market

- 2.1 Benefits of an Efficient Capital Market
- 2.2 Classification of Indian Capital Market
- 2.3 Capital Market Instruments
- 2.4 Capital Market Scams (Harshad Mehta and Ketan Parekh Scam)
- 2.5 Reforms in the Indian Capital Market

Unit 3 The Debt and Derivative Market

- 3.1 The Indian Debt Market- Introduction, Features and Participants
- 3.2 Link between Money Market and Debt Market
- 3.3 Derivatives- Meaning and History
- 3.4 Economic Benefits of Derivative Market
- 3.5 Forwards, Futures and Option- Meanings and Trading
- 3.6 Derivative Markets in India- NSE

Unit 4 Financial Services

- 4.1 Investment Banking- Investment Banks, Merchant Banking
- 4.2 Depositories and Custodians
- 4.3 Credit Rating
- 4.4 Factoring and Forfaiting
- 4.5 Housing Finance
- 4.6 Leasing and Hire Purchase

Unit 5 Recent Developments in Indian Financial Sector

- 4.1 Objectives and Outcomes of Changing Landscape of Banking Sector in India
- 4.2 FERA and FEMA: Objectives and Features

4.3 Insolvency and Bankruptcy Code
4.4 Risk Management in Banking Sector

Reading List:

1. Financial Institutions and Markets: Jitendra Mahakund and L.M. Bhole, McGraw Hill India, 2017
2. Financial System & Economic Reforms: P. Mohan Rao, Deep & Deep Publication Pvt.Ltd. New Delhi 2008.
3. Indian Banking Towards 21st Century: Chawla A.S. & others, Deep & Deep Publications, New Delhi.
4. Indian Banking, R. Parmeshwaram & S. Natrajan, S. Chand Publishing, Delhi.
5. Indian Financial Markets, Ajay Shah, Michael Gorham and Susan Thomas, Elsevier,2008.
6. Indian Financial System, Jaydeb Sarkhel, Seikh Salim, McGraw-Hill India Pvt. Ltd. Chennai, 2018.
7. Securities Market and Products: Mr. Sunder Sankaran, Taxman Publication Pvt.Ltd New Delhi.
8. The Indian Financial System, Markets, Institutions and Services, Bharati V. Pathak, Kindle Edition.
9. The Story of the Reserve Bank of India, Rahul Bajoria, Kindle Editon.

SYBA Economics (NEP1)
Sem-III
OE5: ECO23304
Introduction to Forex Market and Commodity Market

Course Objectives:

1. To understand the ecosystem of foreign exchange market and commodity market
2. To understand the exchange rate mechanism
3. To understand the development of forex market in India
4. 4. To understand the instruments, participants, and trading mechanism of Indian commodity market

Unit I: Overview of Foreign Exchange market

- 1.1 Foreign Exchange Market: An Overview
- 1.2 Exchange rate systems: Fixed v/s floating
- 1.3 Exchange Rates: Importance and Quotation
- 1.4 Participants in the Foreign Exchange Markets
- 1.5 Exchange Rates Fluctuation

Unit II: Foreign Exchange Market in India

- 2.1 Background of Forex market in India:
- 2.2 Forex Regulation in India: FERA Vs. FEMA
- 2.3 Pre-liberalization exchange rate regime in India and Hawala (Informal) market
- 2.4 Currency (Rupee) convertibility on current and capital account.
- 2.5 Reforms related to the forex Market.

Unit III: Commodity Markets

- 3.1 Introduction to Indian Commodity Markets
- 3.2 Commodity markets and major Exchanges
- 3.3 Major Commodities Traded in Derivatives Exchanges in India
- 3.4 Participants in Commodity Derivatives Markets
- 3.5 Factors Impacting the Commodity Prices
- 3.6 Difference between Commodity and other markets.

Unit IV: Commodity Market Derivatives: Instruments & Uses

- 4.1 Commodity futures and commodity forward
- 4.2 Commodity Options
- 4.3 Uses of Commodity Trading: hedging, Speculation, Arbitrage & Spread trading
- 4.4 Regulatory structure of derivative commodity market

References:

1. International Financial Management by P. G. Apte, TMH Publication, 4th Ed.
2. International Finance Management, Eun & Resnick TMH Publication, 4th Ed.
3. Trader's First Book on Commodities" by Carley Garner
4. "Commodities Market" by Chatnani

SYBA Economics (NEP1)
Sem-IV
OE6: ECO24304
Introduction to Stock Market BSE and NSE

Course Objectives:

1. To understand the ecosystem of Stock exchange in India
2. To understand the Stock trading mechanism
3. To understand the Construction of major Stock market indices
4. 4. To understand the regulatory body and depositories in India

Unit I: Overview of Indian Securities Market

- 1.1 Background of Indian Stock market
- 1.2 New Issue market (Primary market): Role and Functions
- 1.3 Old Issue market (Secondary market): Role and Functions
- 1.4 Indian Stock Market: Problems

Unit II: Trading and Settlement System

- 2.1 Trading systems – BSE - BOLT System and NSE – NEAT system
- 2.2 Market types, Order types and books – De-mat settlement – Physical settlement- Institutional segment – Funds settlement
- 2.3 Risk management system in BSE & NSE – Margins – Exposure limits
- 2.4 Surveillance system in BSE & NSE – Circuit breakers

Unit III: Stock Market Indices

- 3.1 BSE Indices: SENSEX Meaning, Purpose, and Construction in developing index
- 3.2 NSE indices – S&P CNX Nifty, S&P CNX Bank Nifty, India Vix
- 3.3 Meaning, Purpose, and Construction in developing index

Unit IV: Stock Market Regulator and Depositories

- 4.1 SEBI: Objectives, Functions and Role
- 4.2 Achievements and Failures of SEBI as a regulatory body
- 4.3 Depositories: CDSL and NSDL
- 4.4 Role and Functions

References:

1. V. A. Avadhani, Investment and Securities Market in India, Himalaya Publishing House.
2. Sanjeev Agarwal, A Guide to Indian Capital Market, Bharat Publishers
3. Ravi Puliani and Mahesh Puliani, Manual of SEBI, Bharat Publication