

**Progressive Education Society's  
Modern College of Arts, Science & Commerce,  
Ganeshkhind, Pune-16 (Autonomous)**

**Department of Economics**

**First Year of Post-Graduation Course Structure of Economics  
as per the NEP**

**(To be implemented from the Academic Year 2023-2024)**

Level: 6.0			Semester I	Cr	Semester I	Cr
2 Year PG						
Verticals Under NEP			Paper Titles		Paper Titles	
1	Major	Mandatory	Microeconomics Analysis-I	4	Microeconomics Analysis-II	4
			Public Economics-I	4	Public Economics-II	4
			International Trade	4	International Finance	4
			Statistical Methods	2	Mathematical Economics	2
		Elective	Agriculture Economics	4	Labour Economics	4
2	RM	Research Methodology	4			
3	OJT / FP			Community Engagement and Survey	4	
4	RP					

**Assessment:** There will be 40% weightage to continues internal assessment and 60% weightage external / end semester examination. Continues internal assessment includes tutorial, assignments, class tests, presentation, books / articles reviews, attendance, viva, paper writing, projects work etc,

**Syllabi (Course Content) for**  
**First Year Postgraduate Course of Economics under NEP**

**SEMESTER-I**

**Major Mandatory**

<b>Paper Title</b>	:	Microeconomics Analysis-I
<b>Credits</b>	:	04
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

**Unit 1. Introduction**

- 1.1 Micro- Economics
- 1.2 Basic Principles of Microeconomics- Tools, Variables

**Unit 2. Consumer Theory**

- 2.1 Market Forces of Demand and Supply
- 2.2 Theory of Consumer Choice: MUT, IDC
- 2.3 Income and Substitution Effects: Slutsky and Hicksian approach.
- 2.4 Theory of Revealed Preference, Index Numbers.
- 2.5 Concept of Elasticity: Price, Income and Cross Elasticity.
- 2.6 Concept of Consumers' Surplus.
- 2.7 Modern Demand Theory

**Unit 3. Production Theory**

- 3.1 Production Function
- 3.2 Law of Variable Proportions, Returns to the Variable Factor, Returns to Scale, Cobb- Douglas Production Function
- 3.3 Producer's Equilibrium with one and two inputs.
- 3.4 Cost Curves
- 3.5 Derivation of Supply curve
- 3.6 Concept of Producers' Surplus

**Unit 4. Introduction to Welfare Economics**

- 4.1 Concept of Social Welfare
- 4.2 Pigou's Contribution to Welfare Economic
- 4.3 Pareto Optimality
- 4.4 Social Welfare Function
- 4.5 Amartya Sen-Social Choice and Welfare

**Major Mandatory**

<b>Paper Title</b>	:	Public Economics-I
<b>Credits</b>	:	04
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

**Unit 1. Introduction**

- 1.1 Changing Role of Government – Fiscal Functions of Modern Governments - The Allocation Function, The Distribution Function, The Stabilization Function, (Case Study: The Great Depression- From Police to Welfare State)
- 1.2 Private Goods, Public Goods, Social Goods, Merit Goods, Club Goods

**Unit 2. Rationale for Public Policy**

- 2.1 Allocation of Resources- Provision of Public Goods.
- 2.2 Voluntary Exchange Models- Lindahl, Johansen and Samuelson
- 2.3 Impossibility of Decentralized Provision of Public Goods
- 2.4 Contributions of Paul Samuelson, Robert Musgrave, Hugh Dalton- Demand Revealing Schemes for Public goods
- 2.5 The Clarke Tax, the Tiebout Hypothesis

**Unit 3. Taxation**

- 3.1 Principles of Taxation- Benefit and Ability to Pay Approaches
- 3.2 Theory of Incidence; Alternative concepts of Incidence
- 3.3 Allocative and equity aspects of Individual Taxes
- 3.4 Theory of Optimal Taxation; Excess Burden of Taxes
- 3.5 The problem of Double Taxation.
- 3.6 Shifting of Tax Burden
- 3.7 Incidence under Market Structures

**Unit 4. Public Expenditure**

- 4.1 Wagner's Law of Increasing State Activities
- 4.2 Pattern of Public Expenditure- Wiseman-Peacock Hypothesis; Pure Theory of Public Expenditure- Samuelson (Collective Consumption Goods)
- 4.3 Crowding-out Hypothesis
- 4.4 Structure and Growth of Public Expenditure Criteria for Public Investment; Social Cost-Benefit Analysis, Project Evaluation, Estimation of Costs, Discount Rate

**Major Mandatory**

<b>Paper Title</b>	:	International Trade
<b>Credits</b>	:	04
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

**Unit 1. Overview of Classical and Modern Trade Theories**

- 1.1 The Theory of Comparative Cost- David Ricardo
- 1.2 The Heckscher-Ohlin Theorem- The Opportunity Cost Approach
- 1.3 Verification of Physical Criterion and Price Criterion
- 1.4 Leontief Paradox – Factor Price Equalization [Edgeworth Box Diagram]
- 1.5 New Theories of Trade, Product Life Cycle and Technology Gap Models
- 1.6 Preference Similarity and Intra-Industry Trade
- 1.7 Economies of Scale and Monopolistic Competition
- 1.8 Krugman- Theory of Economic Geography
- 1.9 Neo-Heckscher Ohlin Theorem

**Unit 2. Terms of Trade**

- 2.1 Concepts of Terms of Trade, Factors affecting Terms of Trade
- 2.2 Gross & Net Barter Terms of Trade
- 2.3 Terms of Trade and Economic Development

**Unit 3. Trade Policy**

- 3.1 Free Trade vs. Controlled Trade
- 3.2 Tariffs and Non-Tariff Barriers on Trade
- 3.3 Effects of Tariffs under Partial Equilibrium. (Price Effect, Terms of Trade Effect, Competitive Effect, Income Effect, Revenue Effect)
- 3.4 Effects under General Equilibrium, Stolper-Samuelson Theorem

**Unit 4. Trade Agreements and Organization**

- 4.1 Introduction to International Trade Agreements- Dunkel Proposal and WTO, Important Agreements,
- 4.2 Major developments since 1995, Effects on the Indian Economy.
- 4.3 Composition of the Global Trade Growth, Developing Countries and participation in Global Trade, Growth of Trade in Services

**Major Mandatory**

<b>Paper Title</b>	:	Statistical Methods
<b>Credits</b>	:	02
<b>Subject Code</b>	:	
<b>Lectures</b>	:	30 Clock Hours

**Unit 1. Descriptive Statistics**

- 1.1 Collection, Organization and Presentation of Data
- 1.2 Measures of Central Tendency and Dispersion-Mean, Median, Mode, Standard Deviation, Variance, Covariance and Correlation Coefficients
- 1.3 Correlation and Regression Analysis.
- 1.4 Measures of Skewness and Peakedness

**Unit 2. Sampling and Sampling Methods**

- 2.1 Sample and Population, Parameters and Statistics
- 2.2 Variables and Attributes; Sampling and Non-sampling Errors
- 2.3 Types of Sampling

**Unit 3. Theory of Probability**

- 3.1 Probability, Distribution, Events Spaces
- 3.2 Joint, Marginal and Conditional Probability- Certainty & Uncertainty conditions
- 3.3 Random Variable: Expectation and Distribution
- 3.4 Addition and Multiplication Theorems
- 3.5 Probability Distribution, Discrete and Continuous and Expected Values
- 3.6 Probability Distribution Function-Binomial, Poisson
- 3.7 Normal T-test, Chi-square

**Unit 4. Statistical Estimation and Testing of Hypothesis**

- 4.1 Types of Estimators and their Properties
- 4.2 Sampling Distribution for Sample Mean and Proportion
- 4.3 Point and Interval Estimation
- 4.4 Null and Alternate Hypothesis
- 4.5 Level of Significance & Level of Confidence, Confidence Limits, Critical Region, Tests of Significance-Type I and II Errors.

**Unit 5. Time Series**

- 5.1 Nature and Decomposition of a Time Series-Trend.
- 5.2 Cyclical, Seasonal and Random Components.
- 5.3 Fitting Trend Curves.

**Major Elective**

<b>Paper Title</b>	:	Agriculture Economics
<b>Credits</b>	:	04
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

**Unit 1. Introduction**

- 1.1 Role of Agriculture in Indian Economy
- 1.2 Agrarian Structure in India in a Liberalizing and Globalizing Economy,
- 1.3 Barriers to Agricultural Growth in India
- 1.4 Need for Policy Intervention – Productivity, Equity and Sustainability

**Unit 2. Agriculture Productivity and Agricultural Labour**

- 2.1 Trends in Agricultural Productivity in India since 1991
- 2.2 Challenges to Agricultural Productivity– Crop Insurance, Irrigation, Exports
- 2.3 Agricultural Labour- Trends in Agricultural Employment and Efficiency
- 2.4 Technology Inputs in Agriculture and Impact on Agriculture Labour
- 2.5 Review of the National Employment Guarantee Scheme

**Unit 3. Agriculture and Credit**

- 3.1 Financial Sector Reforms and Rural Credit
- 3.2 Role of NABARD, Commercial Banks and Cooperative Institutions
- 3.3 Micro Finance in Rural Finance – Emergence, Role and Challenges
- 3.4 Challenges to Rural and Agricultural Credit in India

**Unit 4. Agriculture and Markets**

- 4.1 Characteristics of Agricultural Markets in India
- 4.2 Agriculture and Price System in India
- 4.3 Role of Farmers’ Marketing Cooperatives
- 4.4 Agro Processing- Need and Challenges
- 4.5 Agriculture in India and WTO Agreement

**Unit 5. Agricultural Growth and Rural Development**

- 5.1 Food Security in India
- 5.2 Gender and Rural Poverty
- 5.3 Agriculture and Industry- Interrelations and Management
- 5.4 Sustainable Agriculture- Concept, Need and Issue

## **Research Methodology**

<b>Paper Title</b>	:	Research Methodology
<b>Credits</b>	:	04
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

### **Unit 1 Introduction**

- 1.1 Research: Meaning, Importance
- 1.2 Scientific Research: Methods - Stages /Steps
- 1.3 Social Science Research - Meaning, Nature, Scope. And Importance
- 1.4 Review of Literature- Need, Scope, Use and Precautions

### **Unit 2 Research Problems and Design**

- 2.1 Research Problem- Meaning, Identification and Selection of Research Problems
- 2.2 Research design; Meaning, Objective,
- 2.3 Need, Characteristics of Research design
- 2.4 Types of research Design – Descriptive, Diagnostic, Exploratory, Experimental

### **Unit 3 Data Collection and Data Analysis 12**

- 3.1 Collection of Data – Meaning, Importance
- 3.2 Sources of data – Primary Data and secondary data
- 3.3 Methods of Primary Data Collection- Questionnaire and Interview method, Schedule, Observation Method
- 3.4 Secondary Data Sources
- 3.5 Sampling Method –Meaning and Types—(Probability and Non-probability)
- 3.6 Analysis of Data- Classification and Tabulation of Data
- 3.7 Computer Use of Data Analysis

### **Unit 4 Testing of Hypothesis 12**

- 4.1 Hypothesis: Definitions, Characteristics and Importance
- 4.2 Types of Hypothesis
- 4.3 Procedure of Testing of Hypothesis- Parametric and Non-Parametric tests
- 4.4 Basic Concepts: Level of Significance, Statistical Errors (Type --I and Type II Error)

### **Unit 5 Report Writing 10**

- 5.1 Objective of Report Writing
- 5.2 Importance of Research Report,
- 5.3 Features of Research Report
- 5.4 Steps/ Element of Research Report
- 5.5 Report Writing: Considerations and Precautions, Ordering References, Bibliography and Appendix in Research

**Syllabi (Course Content) for**  
**First Year Postgraduate Course of Economics under NEP**

**SEMESTER-II**

**Major Mandatory**

<b>Paper Title</b>	:	Microeconomics Analysis-II
<b>Credits</b>	:	04
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

**Unit 1. Market Structures**

- 1.1 Perfect Competition - Short Run and Long Run Equilibrium
- 1.2 Equilibrium of a Firm and Industry

**Unit 2. Monopoly**

- 2.1 Short Run and Long Run Equilibrium of a Firm under Monopoly
- 2.2 Price Discrimination under Monopoly, Degrees of price Discrimination
- 2.3 Comparison of Monopoly and Perfectly Competitive Market outcomes
- 2.4 Regulation of Monopoly Power

**Unit 3. Monopolistic Competition**

- 3.1 Price and Non-price Competition Equilibrium
- 3.2 Product Differentiation Selling Costs and Excess Capacity

**Unit 4. Oligopoly**

- 4.1 Oligopoly, Basic market structure, Kinky Demand curve, Price and Output Determination
- 4.2 Non-collusive oligopoly, Cournot- Bertrand Solution
- 4.3 Collusive Oligopoly, Price Leadership, Cartels

**Unit 5. Introduction to Game Theory**

- 5.1 Basic concepts of Game Theory
- 5.2 Dominant Strategy Equilibrium
- 5.3 Nash Equilibrium
- 5.4 Repeated and Sequential Games



**Major Mandatory**

<b>Paper Title</b>	:	Public Economics-II
<b>Credits</b>	:	04
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

**Unit 1. Public Finance in India**

- 1.1 Indian Tax System
- 1.2 Taxes in India-Direct & Indirect
- 1.3 Reforms in Direct & Indirect Taxes
- 1.4 Introduction to GST
- 1.5 Budget
- 1.6 Gender Budget
- 1.7 Budget deficits and their Implications

**Unit 2. Public Debt**

- 2.1 Public Debt
- 2.2 Burden of Public Debt on Indian Economy
- 2.3 Deficit Financing
- 2.4 Public Borrowings and Price Level
- 2.5 Principles of Debt Management and Repayment

**Unit 3. Fiscal Policy**

- 3.1 Fiscal Policy
- 3.2 Fiscal Policy for Stabilization
- 3.3 Fiscal Sector Reforms in India

**Unit 4. Indian Fiscal Federalism**

- 4.1 Fiscal Federalism in India
- 4.2 Vertical and Horizontal Imbalance
- 4.3 Assignment of Function and Sources of Revenue
- 4.4 Constitutional provisions
- 4.5 Theory of Grants
- 4.6 Centre-State Financial Relations in India

**Major Mandatory**

<b>Paper Title</b>	:	International Finance
<b>Credits</b>	:	04
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

**Unit 1. Balance of Payment**

- 1.1 Balance of Trade- Concept, Structure & Components
- 1.2 Balance of Payments- Concept, Disequilibrium, Causes of Disequilibrium.
- 1.3 Correction of Disequilibrium-Automatic Correction, Deliberate Correction,
- 1.4 Foreign Trade Multiplier- Meaning, Working, Implications & Limitations
- 1.5 Policies for Internal and External Balance-Fiscal and Monetary Policy Under Fixed and Floating Exchange Rates
- 1.6 Devaluation of Indian Rupee- Effect on Balance of Payment in 1991.

**Unit 2. Foreign Exchange**

- 2.1 Components of Foreign Exchange Market- Transfer of Purchasing Power, Provision of Credit, Provision of Hedging Facilities
- 2.2 Transactions in the Foreign Exchange Market- Options, Forwards, Futures, and Swap, Concept of Arbitrage, Hedging and Speculation; Types of Risk in International Markets
- 2.3 Determination of Rate of Exchange- Purchasing Power Parity Theory, Balance of Payments Theory, Monetary Models.
- 2.4 Exchange Control-Scope of Exchange Control, Objectives and Methods of Exchange Control.
- 2.5 Exchange Rate Systems- Fixed and Flexible Exchange Rates-Case for and against Fixed and Flexible Exchange Rates

**Unit 3. International Capital Flows**

- 3.1 Classification of International Capital Flows-Direct and Portfolio Investment, Government, Institutional and Private Capital, Short term and Long term Capital, Home and Foreign Capital, Foreign Aid
- 3.2 Importance and Role of Foreign Capital-Trade and Investment, Theories of International Investment, Factors Affecting International Capital Movements
- 3.3 Current and Capital Account Convertibility- Concept and Prerequisites, Developments on Convertibility in the Indian Context
- 3.4 Foreign Exchange Management Act- Objectives and Features

**Unit 4. International Banking**

- 4.1 International Banking- Concept, Classification - Offshore Banking Unit, Foreign Banks, Foreign Subsidiaries/ Affiliates, Correspondent Banks
- 4.2 International Banking Laws- Choice of Law, Proper Law, Use of Language and Nature of Legal Disputes.
- 4.3 International Banking Agreements-Basel Norms; Introduction to LIBOR
- 4.4 Changing Role of International Economic Organizations- IMF and IBRD (World Bank)- Global Crisis and Development, Introduction to BRICS Bank

**Major Mandatory**

<b>Paper Title</b>	:	Mathematical Economics
<b>Credits</b>	:	02
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

**Unit 1. Descriptive Statistics**

- 1.1 Collection, Organization and Presentation of Data
- 1.2 Measures of Central Tendency and Dispersion-Mean, Median, Mode, Standard Deviation, Variance, Covariance and Correlation Coefficients
- 1.3 Correlation and Regression Analysis.
- 1.4 Measures of Skewness and Peakedness

**Unit 2. Sampling and Sampling Methods**

- 2.1 Sample and Population, Parameters and Statistics
- 2.2 Variables and Attributes; Sampling and Non-sampling Errors
- 2.3 Types of Sampling

**Unit 3. Theory of Probability**

- 3.1 Probability, Distribution, Events Spaces
- 3.2 Joint, Marginal and Conditional Probability- Certainty & Uncertainty conditions
- 3.3 Random Variable: Expectation and Distribution
- 3.4 Addition and Multiplication Theorems
- 3.5 Probability Distribution, Discrete and Continuous and Expected Values
- 3.6 Probability Distribution Function-Binomial, Poisson
- 3.7 Normal T-test, Chi-square

**Unit 4. Statistical Estimation and Testing of Hypothesis**

- 4.1 Types of Estimators and their Properties
- 4.2 Sampling Distribution for Sample Mean and Proportion
- 4.3 Point and Interval Estimation
- 4.4 Null and Alternate Hypothesis
- 4.5 Level of Significance & Level of Confidence, Confidence Limits, Critical Region, Tests of Significance-Type I and II Errors.

**Unit 5. Time Series**

- 5.2 Nature and Decomposition of a Time Series-Trend.
- 5.2 Cyclical, Seasonal and Random Components.
- 5.3 Fitting Trend Curves.

**Major Elective**

<b>Paper Title</b>	:	Labour Economics
<b>Credits</b>	:	04
<b>Subject Code</b>	:	
<b>Lectures</b>	:	60 Clock Hours

**Unit 1. Introduction**

- 1.1 Concept of Labour Force, Determinants of Labour Force Participation
- 1.2 Historical Emergence and Relevance of Labour Economics
- 1.3 Indian Labour Market- Changing Structure and Impact of Globalization
- 1.4 Unemployment in India and Policies for Employment Generation

**Unit 2. Labour Markets and Wage Determination**

- 2.1 Labour Markets- Rural & Urban, Formal, and Informal, Organized and Unorganized, Contract Labour
- 2.2 Growth and Trends in Labour Market, - New Legislation, Unionization, Labour Dynamics, Labour Market Flexibility
- 2.3 Theories of Wages- Marginal Productivity Theory, Theory of Collective Bargaining, Modern Theory of Wages- Demand and Supply Theory
- 2.4 Wage Structure, Minimum Wage, Fair Wage, Wage Differentials- Inequality, Inter-sectoral Differences, Gender Differences
- 2.5 Evolution and Features of Wage Policy in India

**Unit 3. Migration and Absenteeism**

- 3.1 Approaches to Labour Migration, Inter-sectoral and International Migration, Trends, Causes and Effects of Migration
- 3.2 Labour Turnover and Absenteeism in Labour Markets in India- Causes, Effects and Policy Measures

**Unit 4. Industrial Relations**

- 4.1 Labour Unions in India- Growth, Structure and Development
- 4.2 Employers' Organization in India- History, Emergence and Role
- 4.3 Globalization and Labour Markets- International Division of Labour, Impact on Developing Economies
- 4.4 Current trends in Collective Bargaining
- 4.5 Social Security Measures.

**Unit 5. Labour Market reforms**

- 5.1 Exit Policy since 1991, Need for an Effective Policy
- 5.2 Child Labour in India- Cause for Concern and Policy Measures
- 5.3 Women Workforce- Need for equal Opportunity, Skill and Earnings
- 5.4 Contract Labour- Increasing Use and Need for Regulation

**OJT / FP**  
**Paper Title** : Community Engagement and Survey  
**Credits** : 04  
**Subject Code** :  
**Lectures** : 60 Clock Hours

Community Engagement and Survey will be organised / conducted according to the project requirement at individual level and group level.