

**M.A.: ECONOMICS (NEP 2020)**  
**SEMESTER-I**  
**PRINCIPALES OF MICROECONOMICS –I**

**TOTAL CREDITS: 04**

**Total Lectures: 60**

**Course Objectives:**

- To provide a thorough understanding of the principles of economics
- To enable students to apply micro economic concepts in various contexts.
- To enable understanding the basic theories in microeconomics such as demand theory, production theory, market structures.
- To discuss the modern developments in micro economics such as Modern Demand theories.

**Programme Outcome:**

- Ability to apply the concepts of micro economics such as demand, supply, revenue, cost, elasticity, etc.
- Ability to analyze and demonstrate knowledge of the basic theories/laws in economics- law of demand, law of supply, production function, etc.
- At the end of the course, the student should be able to evaluate microeconomic concepts, models and its use in real life situations.

**1. Introduction**

- 1.1 Meaning, Importance and use of Micro economics
- 1.2 The Basic Principles of Microeconomics.

**2. Consumer Theory**

- 2.1 The Market forces of Demand and Supply
- 2.2 The Theory of Consumer Choice: Preference Ordering, Marginal Utility Theory, Indifference Curve Approach, Income and Price Expansion Paths, Income and Substitution Effects: Slutsky and Hicksian Approach.
- 2.3 Theory of Revealed Preference
- 2.4 Concept of Total Revenue, Average Revenue and Marginal Revenue- Mathematical Applications; Concept of Elasticity: Price, Income and Cross Elasticity-Mathematical Applications
- 2.5 The Concept of Consumers' Surplus.
- 2.6 Modern Demand Theory – Introduction to Choice under Uncertainty (Von Newman-Morgenstern Expected Utility Theory); Pragmatic Approach to Demand Analysis

**3. Production Theory**

- 3.1 Production Function – One Input, Two Inputs: Isoquants
- 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, Total, Average and Marginal Cost, Short Run and Long Run Costs, Concept of Economic Cost, Mathematical Applications

3.5 Derivation of Supply curve, Firm and Industry, Short and Long Run.

3.6 Concept of Producers' Surplus

#### **4. Introduction to Welfare Economics**

4.1 Concept of Social Welfare

4.2 Pigou's Contribution to Welfare Economics

4.3 Pareto Optimality; Product Exhaustion Theorem (Euler's Theorem)

4.4 Social Welfare Function, Compensation Criteria

4.5 Amartya Sen- Social Choice and Welfare

#### **Basic Reading List:**

1. D.N.Dwivedi (2011) Micro Economics – Pearson Publication, New Delhi.
2. Misra S.K. and V.K. Puri (2001): Advanced Microeconomic Theory, Himalaya Publishing House, New Delhi.
3. Mansfield, E. (1997), Micro Economics, W. W. Norton and Company, New York.
4. Mankiw, N.G. (2002), Principles of Economics, Thomson Asia Pvt. Ltd., Singapore.
5. Salvatore, D. (2003), Micro Economics, Oxford University Press.
6. Sen Amartya (2017) 'Collective Choice and Social Welfare' Penguin [Original Edition (1970)]
7. Kenneth Arrow, Amartya Sen and Kotaro Suzumura (2001) 'Handbook of Social Choice and Welfare' Edited

#### **Recommended Readings:**

1. Arthur O'Sullivan (2013) Micro Economics: Principles, Applications and Tools, Pearson Publication
2. Dominick Salvatore (2003) Principles of Microeconomics, OUP, 5<sup>th</sup> Edition
3. Hirschleifer J and A. Glazer (1997): Price Theory and Applications, Prentice Hall of India, New Delhi.
4. James Gerber (2012) Microeconomics, Pearson Publication New Delhi
5. Kreps, David, M (1990): A Course in Microeconomic Theory, Princeton University Press.
6. Pindyck, Robert S Rubinfeld, Daniel L, Mehta, Prem (2009) Microeconomics, Pearson India
7. Sen, A. (1999): Micro Economics: Theory and Applications, Oxford University Press, New Delhi.
8. Stigler, G (1996): Theory of Price, Prentice Hall of India, New Delhi.
9. Varian, Hal (1996): Intermediate Microeconomics, W.W. Norton and Company, New York.
10. William J. Baumol and Alan H. Blinder (2005) Microeconomics-Principles and Policy

#### **Recommended Journals:**

Studies in Micro Economics- Sage Journal

The Indian Economic Journal- Sage Journal

Journal of Applied Economics- Science Direct

# M.A. ECONOMICS (NEP 2020)

## SEMESTER-I

### PUBLIC FINANCE –I

**TOTAL CREDITS: 04**

**Total Lectures: 60**

#### **Course Objectives:**

- To develop an understanding of the changing role of the government and the fiscal functions of the modern governments.
- To discuss and deliberate on the concepts and theories in public economies like public policy, principles of taxation, theories of public expenditure, etc.
- To develop an understanding of various policies in public economics like fiscal policy, taxation policy, public debt policy, public expenditure policy etc.

#### **Programme Outcome:**

- Ability to recognize, apply and analyze concepts and theories in public economics.
- Ability to appraise and assess the theory of public economics in real life situations.

#### **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

#### **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

#### **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

#### **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); Crowding-out Hypothesis
- 4.3 Structure and Growth of Public Expenditure
- 4.4 Criteria for Public Investment; Social Cost-Benefit Analysis, Project Evaluation, Estimation of Costs, Discount Rate,

**Basic Reading List:**

1. Goode, R. (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
2. Houghton, J.M. (1970), The Public Finance: Selected Readings, Penguin, Harmondsworth.
3. Rajesh K.Jha (2012) Public Finance. Pearson Publication New Delhi
4. Musgrave, Richard A and Musgrave, Peggy B (1989), Public Finance in Theory and Practice, Tata McGraw Hill
5. Stiglitz, Joseph E (1999), Economics of the Public Sector, W. W. Norton and Company

**Recommended Readings:**

1. Buchanan, J.M. (1968), The Demand and Supply of Public Goods, Rand McNally, Chicago
2. Cornes, R. and T. Sandler (1986), The Theory of Externalities, Public Goods and Club Goods, Cambridge University Press, Cambridge.
3. Duff, L. (1997), Government and Market, Orient Longman, New Delhi. Herber, B.P. (1967), Modern Public Finance, Richard D. Irwin, Homewood. Spulber, N. (1998), Redefining the State, Cambridge University Press, Cambridge.
4. Dorfman, R. (Ed.) (1970), Measuring the Benefits of Government Investment, Brookings Institution, Washington.
5. Herber, B.P. (1967), Modern Public Finance, Richard D. Irwin, Homewood
6. Mueller, D.C. (1979), Public Choice, Cambridge University Press, Cambridge.
7. Spulber, N. (1998), Redefining the State, Cambridge University Press, Cambridge. Stiglitz, J.E. (1986), Economics of Public Sector, Norton, New York.

**Recommended Journals:**

Journal of Public Economics- Science Direct

South Asian Journal of Macroeconomics and Public Economics- Sage Journals

Journal of Public Economics-Elsevier

**M.A.: ECONOMICS (NEP 2020)**  
**SEMESTER-I**  
**INTERNATIONAL ECONOMICS-I**

**TOTAL CREDITS: 04**

**Total Lectures: 60**

**Course Objectives:**

- To develop an understanding of the theoretical concept in international trade.
- To analyze international economics with reference to terms of trade, trade policy, trade agreements etc.
- To provide knowledge to students regarding recent developments and changes in international banking, international banking agreements etc.
- To make the students understand role of international economic organization and global crisis development.

**Programme Outcome:**

- Ability to understand the concepts of international economics such as comparative cost, terms of trade, trade policies and trade agreements
- Ability to interpret and apply theory relating to understand international trade
- Ability to discuss and debate the effects of trade policy, trade agreements, exchange rate policies on the world economy/trade

**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

**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

**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

**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,

**Basic Reading List:**

1. Gupta, K.R.(latest edition): “International Economics”, AtmaRam& Sons, Delhi
2. Kindleberger, C.P. International Economics, R.D. Irwin, Homewood
3. Salvatore, D. (1997), International Economics, Prentice Hall, New York
4. Salvatore, D. (Latest edition.) “International Economics”, Prentice Hall, NY
5. Soderston, Bo (2005), International Economics, The Macmillan Press Ltd., London
6. Srivastava, O.S.(latest edition), “International Economics”, Kalyani Publishers

**Recommended Readings:**

1. Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill.
2. Paul R. Krugman & Maurice Obstfeld (2009) International Economics Theory and Policy. Pearson Education Publication New Delhi
3. James Gerber (2012) International Economics Pearson Publication. ND
4. Paul, Justin (2004) ed., “International Business”, Prentice-Hall India Pvt. Ltd
5. Pugel T.A (2008) “International Economics”, Tata McGraw-Hill
6. Salvatore, D (2004) “Theory and Problems of International Economics” Schaum’s Outline Series, Tata McGraw Hill Publishing Co. Ltd., New Delhi.
7. Sawyer, W.C and Sprinkle, R.L (2003) “International Economics”, Pearson Education
8. Williamson, J & Milner, C (1991): “The World Economy-A Textbook International Economics”, New York University Press, N. York.

**Recommended Journals:**

Journal of International Economics- Elsevier

The Journal of International Trade and Economic Development- Taylor and Francis Online

Foreign Trade Review- Sage Journals

**M.A.: ECONOMICS (NEP 2020)**  
**SEMESTER-I**  
**FUNDAMENTALS OF INVESTMENT**

**TOTAL CREDITS: 02**

**Total Lectures: 30**

**Course Objectives:**

- To provide a thorough understanding of money market
- To enable students to apply the instruments of money market
- To enable understanding the basics of capital market
- To discuss the secured investment through the mutual funds

**Programme Outcome:**

- Ability to apply the instruments of money market
- Ability to analyze and demonstrate knowledge stock market.
- At the end of the course, the student should be able to understand the fundamentals of investment

**I. Money Market**

- 1.1 Meaning of money market
- 1.2 Functions of Money Market
- 1.3 Players of Money Market
- 1.4 Structure of Indian money market
- 1.5 Organized Sector of Money Market
- 1.6 Unorganized Sector of Money Market:-
- 1.7 Deficiencies of Indian money market

**II. Capital Market**

- 2.1 Meaning of capital market
- 2.2 Structure and Functions of capital market in India.
- 2.3 Segments of Securities Market-Primary Market, Secondary market
- 2.4 Different kinds of issues
- 2.5 Instruments in the Secondary Markets
- 2.6 Role and functions of stock exchange
- 2.7 National Stock Exchange and Regional Stock Exchanges in India
- 2.8 SEBI-Role and Functions

**III. MUTUAL FUNDS**

- 3.1 Definition of Mutual Fund
- 3.2 History of Mutual Funds
- 3.3 The Mutual Fund Industry Iin India
- 3.4 Advantages of Mutual Funds
- 3.5 Disadvantages of Mutual Funds
- 3.6 Classification of Mutual Funds Open-End Mutual Fund

## **SUGGESTED READINGS**

1. Pathak Bharati (2018). *Indian Financial System*. Pearson Education; Fifth edition.
2. Gomez Clifford (2008). *Financial Markets, Institutions and Financial Services*. PrenticeHall of India,
3. Meir Kohn (2013). *Financial Institutions and Markets*. Oxford University Press
4. Rajesh Kothari (2012). *Financial Services in India: Concept and Application*. Sagepublications, New Delhi.
5. Madhu Vij & Swati Dhawan (2000). *Merchant Banking and Financial Services*. Jain Book Agency, Mumbai
6. R. P. Rustogi, fundamentals of investment, sultan chand & sons, New Delhi
7. N.D. Vohra & B.R. Bagri, futures & options , McGraw hill education
8. May, an introduction to investment, Cengage Learning



# M.A.: ECONOMICS (NEP 2020)

## SEMESTER-I

### AGRICULTURE ECONOMICS

**TOTAL CREDITS: 04**

**Total Lectures: 60**

#### **Course Objectives:**

- To develop an understanding of agricultural economics in the theoretical as well as practical context.
- To discuss and debate the various issues and challenges faced by agrarian economies w.r.t. production, productivity, efficiency, employment, etc.

#### **Programme Outcome:**

- Ability to analyze and evaluate the subject with reference to various aspects of agrarian economies.
- Ability to develop an understanding of agriculture with its intricacies and imperfections and to be able to construct intellectual dialogue on the challenges of agriculture.

#### **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

#### **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
- 2.3 Technology Inputs in Agriculture and Impact on Agriculture Labour
- 2.4 Review of the National Employment Guarantee Scheme

#### **3. Agriculture and Credit**

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

#### **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 Agreements

#### **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 Issues

**Basic Reading List:**

1. Subha Reddy (2008) 'Agricultural Economics' OUP
2. Agrawal A.N.(Latest Edition) Indian Economy Problem of Development and Planning
3. Datt R.& K.P.M Sundharm (Latest Edition) Indian Economy, S. Chand & Co.
4. Misra S.K.&V.K.Puri (Latest Edition) Indian Economy, Himalaya Publication House Mumbai.

**Recommended Readings:**

1. Ajit Singh and Hamid Tabatabai (1993) 'Economic Crisis and Third World Agriculture', Cambridge University Press
2. B.N.P Singh (2004) 'Indian Economy Today Changing Contours' .Deep and Deep Publications
3. C.S.Prasad (2006) 'Sixty years of Indian Agriculture'–New Delhi
4. DewettKewal (2005) Indian Economy C. Chand &Co. Ltd, New Delhi
5. GopalJi&SumanBhakari (2012) 'Indian Economy Performance and Policies, Pearson Publication Delhi
6. Gulati & Kelley(1999), 'Trade Liberalization of Indian Agriculture' OUP
7. HansraParumal and Chandrakarn–'Modernization of Indian Agriculture in the 21<sup>st</sup> Century- Challenges, Opportunity and Strategies' Concept Publication Co. New Delhi.
8. Johnson P.A Development Issues of Indian Economy (2003) Manan Prakashan
9. Kapila Uma (ed.) Indian Economy Since Independence, Academic Foundation (2003)
10. Mamoria C.B.(2005) 'Agricultural Problems of India' Kitab Mahal Pub.
11. M.P.Singh (2004) 'Indian Economy Today-Problems Planning and Development' Deep and Deep Publication.
12. Singh Acharya, Sagar (2002) 'Sustainable Agricultural Poverty and Food Securities' Rawat Publications Jaipur Vol-I&II
13. S. Mahendra Dev (2010) Inclusive Growth in India: Agriculture, Poverty and Human Development, OUP
14. Norton George W. And Jeffery Alwang (1993) 'The Introduction to Economic and Agricultural Development' McGraw Hill Co. Publication

**Recommended Journals:**

Journal of Agricultural Economics- Wiley Online  
The Indian Economic Journal- Sage Journals  
International Journal of Agricultural Economics- Science Publishing  
American Journal of Agricultural Economics-Oxford Academic  
Journal of Agricultural and Applied Economics- Cambridge University Press  
Economic & Political Weekly

# M.A.: ECONOMICS (NEP 2020)

## SEMESTER-I

### BASICS OF MATHEMATICAL ECONOMICS

**TOTAL CREDITS: 04**

**Total Lectures: 60**

#### **Course Objectives:**

- To provide an understanding of Mathematics and its application under various topics under economics.
- To demonstrate the practical and the applied aspects of economics with the help of Mathematics.

#### **Programme Outcome:**

- Ability to develop, demonstrate and examine various topics under economics with the help of Mathematics.
- Ability to evaluate and examine subject areas in economics with the mathematical economics.

#### **1. Review & Basic Applications in Economics**

- 1.1 The concept of Sets, Real and Number System
- 1.2 Identities, Equations and Inequalities
- 1.3 Power of Number; Logarithms and their Properties
- 1.4 Binomial Theorem; Sequences and their Formulas

#### **2. Functions of a Single & Multiple Dependent Variable:**

- 2.1 Algebraic, Exponential and Logarithmic
- 2.2 Explicit, Implicit, and Inverse Functions
- 2.3 Polynomial Functional Diagrammatic Representation of Higher Order Function of a Single Variable
- 2.4 Market Demand, Supply Curves, Total Revenue, Cost Functions
- 2.5 Extensions of function - More than two independent variables
- 2.6 Indifference Curves, General Production Function, Isoquants
- 2.7 Production Possibility Frontiers and its use in Economics

#### **3. Matrix Algebra**

- 3.1 Elementary operations of Addition, Multiplication etc.
- 3.2 Transpose and Inverse of Matrices. Rank of a Matrix
- 3.3 Solution of Simultaneous Equation using Matrices

#### **4. Differential Calculus**

- 4.1 Limits of functions, Continuity at a point, Over and Interval
- 4.2 Rules of Differentiation Including Product, Quotient, and Chain Rule
- 4.3 Derivatives of Implicit Functions, Partial Derivatives, Constrained Optimization
- 4.4 Profit Maximization in the different types of Markets
- 4.5 Price Discrimination by Monopolist to Maximize Profits

#### **5. Integration**

- 5.1 Indefinite integral of Algebraic, Exponential and Logarithmic Functions
- 5.2 Define Integrals
- 5.3 The relation between Average and Marginal concepts
- 5.4 Capital values under Continuous Interest

**Basic Reading List:**

1. Chaing A. C (2017) 'Fundamental Methods of Mathematical Economics' McGraw Hill Education
2. Edward Dowling (2011) 'Schaum's Outline of Introduction to Mathematical Economics' 3rd Edition (Schaum's Outlines), McGraw Hill Education
3. Simon Carl P. and Blume Lawrence (1994) 'Mathematics for Economists' W. W. Norton & Co.

**Recommended Books:**

1. Simpson Carl P. (2010) 'Mathematics for Economics' Viva Books
2. Hoy (2012) Mathematics for Economics, Prentice Hall India
3. Pemberton Malcolm, Nicholas Ray (2016) 'Mathematics for Economists' Manchester University Press
4. Rosser M. J. (1993) 'Basic Mathematics for Economists' Routledge
5. Sydsaeder Knut, Hammond p., Strom A. (2013) 'Essential Mathematics for Economics' Pearson Education
6. 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

**M.A.: ECONOMICS (NEP 2020)**  
**SEMESTER-I**  
**RESEARCH METHODOLOGY-I**

**TOTAL CREDITS: 04**

**Total Lectures: 60**

**Course Objectives:**

- To enable an understanding of Research and its methods under various areas of economics.
- To demonstrate the practical and the applied aspects of research in relation to Economics.

**Programme Outcome:**

- Ability to develop, demonstrate and examine topics under Economics to pursue research.
- Ability to evaluate and examine subject areas in economics and explore possibilities of research.

**1 Introduction**

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

**2 Research Problem 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

**3 Data Collection And Data Analysis**

- 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

**4 Testing of Hypothesis**

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

**5 Report Writing**

- 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

### **Basic Reading List:**

1. Banamati Mohanty (2015) 'Statistics for Behavioral and Social Sciences' Sage Texts
2. Bryman Alan (2018) 'Social research methods' OUP
3. Cooper Donald R. & Pamela S. Schindler (1999), "Business Research Methods", Tata McGraw-Hill Edition, New Delhi
4. Flick Uwe (2011) 'Introducing Research Methodology' Sage Publications
5. Kothari C. R, Gaurau Garg (2019) 'Research Methodology, Methods and Techniques', New Age International Publications, 4<sup>th</sup> Edition
6. Kumar Ranjit, (2012), "Research Methodology" 2<sup>nd</sup> Ed, Pearson Education
7. Wilkinson and Bhandarkar (2016) 'Methodology and Techniques of Social Science Research; HPH
8. Willson Jonathan (2017) 'Essentials of Business Research: A Guide to Doing Your Research Project' Sage Publications

### **Recommended Readings:**

1. Basotia G.R. Sharma K.K. (1999) 'Research Methodology' MangalDeeop Publications
2. Don E. Ehridge (2004) 'Research Methodology in Applied Economics: Organizing Planning and Conducting Economics Research', John Wiley and Sons
3. Gopal M.H. (1971) 'An Introduction to Research Procedure in Social Sciences', Asia Publishing House
4. Kothari S. R (2012) 'Research Methodology, Methods and Techniques', Pragun Publications.
5. Khandhare V.B., Yadav Y., 2016, Chinmay Publication, Aurangabad.
6. Krishnaswamy, O.R. (1993) 'Methodology of Research In Social Sciences, HPH
7. Kurein C. T. (1973) A Guide to Research in Economics' Sangam Publishers for Madras Institute of Development Studies
8. Les Oakshott (2012) 'Essential Quantitative Methods for Business, Management and Finance', Palgrave Macmilan, 5<sup>th</sup> edition
9. Moser C.A., G. Kalton (1985) 'Survey Methods in Social Investigations' Routeledge
10. BAV Sharma D Ravindra Prasad and P. Satyanarayana (1983) Research Methods in Social Sciences' Sterling publishers, New Delhi
11. Sadhu AN, Amarjit Singh (2007) 'Research Methodology in Social Sciences' HPH
12. Thakur Devendra (2009) 'Research Methodology in Social Sciences' Deep and Deep Publications
13. Young P.V. (1984) 'Scientific Social Survey and Research', Prentice Hall –India

### **Recommended Journals:**

Journal of Mixed Methods Research- Sage  
Journal of Applied Social Sciences- Sage  
Research in Economics- Elsevier  
Social Science Research- Elsevier  
The Social Science Journal – Elsevier/ Science Direct

**M.A.: ECONOMICS (NEP 2020)**  
**SEMESTER-II**  
**PRINCIPALES OF MICROECONOMICS-II**

**TOTAL CREDITS: 04**

**Total Lectures: 60**

**Course Objectives:**

- To provide a thorough understanding of the principles of economics
- To enable students to apply micro economic concepts in various contexts.
- To enable understanding the basic theories in microeconomics such as demand theory, production theory, market structures.
- To discuss the modern developments in micro economics such as Game Theory.

**Programme Outcome:**

- Ability to apply the concepts of micro economics such as demand, supply, revenue, cost, elasticity, etc.
- Ability to compare and contrast various market structures and understand concept of equilibrium, price determination
- At the end of the course, the student should be able to evaluate microeconomic concepts, models and its use in real life situations.

**1. Market Structures**

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

**2. Monopoly**

- 2.1 Short Run & 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.

**3. Monopolistic Competition**

- 3.1 Monopolistic Competition, Price and Non-price competition, Equilibrium.
- 3.2 Product Differentiation, Selling Costs and Excess Capacity.

**4. Oligopoly**

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

**5. Introduction to Game Theory**

- 5.1 Game Theory, Basic Concepts, Dominant Strategy Equilibrium,
- 5.2 Nash Equilibrium, Repeated and Sequential Games

**Basic Reading List:**

1. Misra S.K. and V.K. Puri (2001): Advanced Microeconomic Theory, Himalaya Publishing House, New Delhi.
2. Mansfield, E. (1997), Micro Economics, W. W. Norton and Company, New York.
3. Mankiw, N.G. (2002), Principles of Economics, Thomson Asia Pvt. Ltd., Singapore.
4. Salvatore, D. (2003), Micro Economics, Oxford University Press.

**Recommended Readings:**

1. Arthur O'Sullivan (2013) Micro Economics: Principles, Applications and Tools, Pearson Publication
2. Dominick Salvatore (2003) Principles of Microeconomics, OUP, 5<sup>th</sup> Edition
3. Hirschleifer J and A. Glazer (1997): Price Theory and Applications, Prentice Hall of India, New Delhi.
4. James Gerber (2012) Microeconomics, Pearson Publication New Delhi
5. Kreps, David, M (1990): A Course in Microeconomic Theory, Princeton University Press.
6. Pindyck, Robert S Rubinfeld, Daniel L, Mehta, Prem (2009) Microeconomics, Pearson India
7. Sen, A. (1999): Micro Economics: Theory and Applications, Oxford University Press, New Delhi.
8. Stigler, G (1996): Theory of Price, Prentice Hall of India, New Delhi.
9. Varian, Hal (1996): Intermediate Microeconomics, W.W. Norton and Company, New York.
10. William J. Baumol and Alan H. Blinder (2005) Microeconomics-Principles and Policy

**Recommended Journals:**

Studies in Micro Economics- Sage Journal  
The Indian Economic Journal- Sage Journal  
Applied Economics- Taylor & Francis Online

**M.A.: ECONOMICS (NEP 2020)****SEMESTER-II****PUBLIC FINANCE-II****TOTAL CREDITS: 04****Total Lectures: 60****Course Objectives:**

- To develop an understanding of various policies in public economics like fiscal policy, public debt policy, fiscal finances, etc.
- To help the students to understand the normative policies and compare it with the policies framed and followed by Indian economy.
- To impart information to the students about the reforms like taxation reforms in India.



## **Programme Outcome:**

- Ability to understand, apply and analyze concepts-public debt, budget, fiscal policy in public economics.
- Ability to interpret the theories relating to public economics in real life situations.
- Ability to discuss and debate on the public finance and policies w.r.t. India

### **1. Public Finance in India**

- 1.1 Indian Tax System- Tax and Non-tax Revenue
- 1.2 Taxes in India - Direct and Indirect Taxes
- 1.3 Reforms in Direct and Indirect Taxes, Introduction of GST
- 1.4 Budget- Meaning and Components, Economic Classification of Budget, Balanced Budget Multiplier, Gender Budget- Concept, Objectives & Purpose
- 1.5 Budget Deficits and Their Implications.

### **2. Public Debt**

- 2.1 Sources of Public Debt w.r.t India;
- 2.2 Burden of Public Debt on Indian Economy
- 2.3 Deficit financing, Public Borrowings and Level of Prices
- 2.4 Principles of Debt Management and Repayment

### **3. Fiscal Policy**

- 3.1 Objectives of Fiscal Policy in Countries like India, Interdependence between Fiscal and Monetary Policies
- 3.2 Fiscal Policy for Stabilization - Automatic v/s. Discretionary Stabilization
- 3.3 Fiscal Sector Reforms in India-Budget Management, Objectives of Fiscal Responsibility and Budget Management Act

### **4 Indian Fiscal Federalism**

- 4.1 Fiscal Federalism in India- Meaning and Relevance;
- 4.2 Vertical and Horizontal Imbalance
- 4.3 Assignment of Function and Sources of Revenue
- 4.4 Constitutional provisions; Finance Commission and Planning Commission
- 4.5 Devolution of Resources and Grants
- 4.6 Theory of Grants; Resource transfer from Union to States — Criteria for Transfer of Resources
- 4.7 Centre-State Financial Relations in India

## **Basic Reading List:-**

1. Bhatia H.L “Public Finance “ Vikas Publishing House, 18<sup>th</sup> edition
2. Jha Rajesh K. (2012) Public Finance. Pearson Publication New Delhi
3. Mankar& Sharma (2001) “Public Finance Theory & Practice, Himalaya Publishing
4. Stiglitz, Joseph E (1999), Economics of the Public Sector, W. W. Norton & Co
5. Tyagi B.P., Public Finance, Jai Prakash Nath Publisher, Meerat (UP).

## **Recommended Readings:**

1. Shome, P. (Ed.) (1995), Tax Policy : Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.
2. Tripathy R.N. (2002) Public Finance in Underdeveloped Countries, Indus Publishing Company
3. Rajesh K.Jha (2012) Public Finance. Pearson Publication New Delhi
4. GopalanSwapna (2008) Gender Budgeting: Concepts and Experiences, ICFAI University Press

5. GopalanSwapna (2008) Gender Budgeting in India: Towards achieving Gender Equity, ICFAI University Press
6. MundleSudipto (2005) “ Public Finance: Policy Issues for India” Oxford University Press
7. Rangarajan C, D. K. Srivastava (2011) Federalism and Fiscal Transfers in India’ OUP, India
8. Y. V. Reddy, G. R. Reddy (2019) ‘Indian Fiscal Federalism’ Oxford University Press
9. Latest Budget Papers- Government of India
10. Economic Survey (Annual)

**Recommended Journals:**

Journal of Public Economics- Science Direct  
 South Asian Journal of Macroeconomics and Public Economics- Sage Journals  
 Indian Journal of Finance  
 The Indian Economic Journal- Sage Journals

**M.A.: ECONOMICS (NEP 2020)  
 SEMESTER-II  
 INTERNATIONAL ECONOMICS-II**

**TOTAL CREDITS: 04**

**Total Lectures: 60**

**Course Objectives:**

- To develop an understanding of the theoretical concept in international finance- Balance of Payments, exchange rate policies, capital flows, etc.
- To compare and contrast the scenarios on international trade in India vis-à-vis the world economy.
- To provide knowledge to students regarding recent developments and changes in international banking, international banking agreements etc.
- To make the students understand role of international economic organization and global crisis development.

**Programme Outcome:**

- Ability to understand and interpret the concepts such as Balance of Payments, Exchange Rates, Foreign Exchange transactions, International capital flows, etc.
- Ability to critically analyze the effects of deficits, exchange risk, role of foreign capital on the world economy/trade
- Ability to discuss and debate on subjects related to international trade and finance w.r.t the Indian Economy

**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.

## **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

## **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

## **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

### **Basic Reading List:**

1. Gupta, K.R.(latest edition): “International Economics”, Atma Ram & Sons, Delhi
2. Indian Institute of Banking & Finance (2011) ‘International Banking’
3. Kindleberger, C.P. International Economics, R.D. Irwin, Homewood.
4. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N.J., New York.
5. Srivastava, O.S. (latest edition), “International Economics”, Kalyani Publishers

### **Recommended Readings:**

1. Ellsworth P.T., (1969) ‘The International Economy’ New York Macmillan Publishing Co.
2. Frederic Mishkin and Stanley Eakins (2006) “Financial Markets and Institutions”, Pearson 5<sup>th</sup> Ed.

3. Heller, Robert H., (1968) 'International Trade' Prentice Hall, Englewood Cliffs
4. Indian Institute of Banking & Finance (2017) 'International Banking Legal & Regulatory Aspects'
5. Joyce Joseph (2013) 'IMF and the Global Economic Crisis' Cambridge University Press
6. O'Neill Jim (2013) 'The Growth Map: Economic Opportunity in BRICS and Beyond' Penguin, UK
7. Sharma Ruchir (2013) 'Breakout Nations: In pursuit of Next Economic Miracles' Penguin UK
8. Sharma Ruchir (2017) 'The Rise and Fall of Nations' Penguin UK
9. Verghese, S.K., (1986) 'Foreign Exchange and Financing of Foreign Trade', Vikas Publishing House, NewDelhi.
10. Williamson, J & Milner, C (1991): 'The World Economy-A Textbook in International Economics', New York University Press, N. York.

**Recommended Journals:**

Journal of International Economics- Elsevier

Journal of Finance- Wiley Online

Journal of Emerging Market Finance- Sage Journals

**M.A.: ECONOMICS (NEP 2020)**

**SEMESTER-I**

**MANAGEMENT OF INVESTMENT**

**TOTAL CREDITS: 02**

**Total Lectures: 30**

**Course Objectives:**

- To provide a thorough understanding of investment environment
- To enable students to apply the tax saving investment
- To enable understanding the basics of life insurance

**Programme Outcome:**

- Ability to apply the instruments of instruments
- Ability to analyze and demonstrate knowledge saving scheme.
- At the end of the course, the student should be able to understand the management of investment

**I. INVESTMENT ENVIRONMENT**

- 1.1 Meaning of investment
- 1.2 Investment decision process
- 1.3 Defining the investment objective
- 1.4 Analyzing securities
- 1.5 Construct a portfolio
- 1.6 Evaluate the performance of portfolio
- 1.7 Review the portfolio
- 1.8 Types of Investments
- 1.9 Nonnegotiable securities

**II. Tax sheltered saving schemes**

- 2.1 Bank Deposits
- 2.2 Post Office Deposits
- 2.3 Public Provident Fund
- 2.4 National Saving Scheme
- 2.5 National Saving Certificate

**III. Life insurance**

- 1.1 Type of life insurance policy

- A) Endowment policy;
- B) Term policy;
- C) Whole life policy
- D) Money back policy
- E) ULIPs:

### **SUGGESTED READINGS**

9. Pathak Bharati (2018). *Indian Financial System*. Pearson Education; Fifth edition.
10. Gomez Clifford (2008). *Financial Markets, Institutions and Financial Services*. PrenticeHall of India,
11. Meir Kohn (2013). *Financial Institutions and Markets*. Oxford University Press
12. Rajesh Kothari (2012). *Financial Services in India: Concept and Application*. Sage publications, New Delhi.
13. Madhu Vij & Swati Dhawan (2000). *Merchant Banking and Financial Services*. JainBook Agency, Mumbai
14. R. P. Rustogi, fundamentals of investment, sultan chand & sons, New Delhi
15. N.D. Vohra & B.R. Bagri, futures & options , McGraw hill education
16. May, an introduction to investment, Cengage Learning

**M.A.: ECONOMICS (NEP 2020)**  
**SEMESTER-II**  
**INDIAN FINANCIAL SYSTEM**

**TOTAL CREDITS: 04**

**Total Lectures :60**

**Course Objectives:**

- To develop an understanding of the financial system with the help of theoretical contours.
- To interpret the developments in the financial and banking system in the backdrop of current developments in the Indian Economy.
- To examine the changing structures, growth and development in banking and financial systems.
- To understand the subject in the context of developments and changes in the Indian Financial system.

**Programme Outcome:**

- Ability to relate to the on-going changes in the banking and financial system in India.
- Ability to discuss and debate on the changing structures and developments in the banking and financial system in India.

**1. Introduction**

- 1.1 Structure of Financial System, Role of Financial System in Economic Development
- 1.2 Functions of financial system - Aspects of Risk Sharing, Transaction Costs, Information Costs, Diversification and Conflict of Interests
- 1.3 Theories of financial development- The Credit Creation Theory, The Financial Regulation Theory, The Financial Liberalization Theory

**2. Banking System in India**

- 2.1 Structure of Banking System in India
- 2.2 Changing Structure of Banking System- New Private Banks, Small Banks, Payment Banks
- 2.2 Role of Central Bank- Banking Supervision (Basel Norms), Liquidity Management, Central Bank Independence
- 2.3 Developments in Banking Sector in India- NPA Management, E-Banking, Banking Ombudsman
- 2.4 Challenges and Changes in Banking Sector in India- Mergers, Consolidations and Amalgamations

**3. Non-banking Financial Institutions in India**

- 3.1 Meaning and Features of NBFIs, Difference between Banks and Non-Banks, RBI Classification of NBFIs in India
- 3.2 RBI Guidelines for NBFIs in India
- 3.3 Reforms in the Non-Banking Sector in India- Insurance, Mutual Funds, Pension Funds
- 3.4 Performance of the NBFIs since 1991; Need for Supervision and Regulation; Case Studies

#### **4. Developments in Indian Financial System**

- 4.1 Financial Services in India- Meaning, Features and Type-Fund-Non-Fund
- 4.2 Financial Instruments- Bonds- floating rate, deep-discount, zero coupon, Masala bonds; Convertible-Non-convertible debentures, Equity Warrants
- 4.3 Financial Institutions- Venture Capital, Credit Rating, Angel Finance, Crowd Funding
- 4.4 Financial Regulation- RBI, SEBI, IRDA, PFRDA- Need and Objectives

#### **Basic Reading List:**

- 1 Bhole, L. M., JitendraMahakud (2017) 'Financial Institutions and Markets' Tata McGraw Hill, ND
- 2 Das S. C. (2015) 'The Indian Financial System: Markets, Instruments, Institutions, Services and Regulations' PHI Learning
- 3 Pathak, Bharati (2009) 'The Indian Financial System, Pearson Education
- 4 Frederic Mishkin and Stanley Eakins (2006) 'Financial Markets and Institutions', Pearson 5<sup>th</sup> Ed
- 5 Gurusamy S. (2004) "Financial Markets and Institutions", Vijay Nicole Imprints
- 6 Machiraju H.R. (2006) 'Indian Financial System, Vikas Publications, ND
- 7 Khan M.Y. "Indian Financial System", New Delhi: Tata McGraw-Hill Pub. Co

#### **Recommended Readings:**

- 1 Bhasin, Niti (2014) "Indian Financial System: Evolution and Present Structure" New Century Publications.
- 2 ChandavarkarAnand (1996) "Central Banking in Developing Countries" St. Martin's Press, USA
3. D. Muralidharan (2009) 'Modern Banking Theory and Practice,' PHI Learning Pvt. Ltd. New Delhi
4. Harker, P.T. ,S. A. Zenios (2000) 'Performance of Financial Institutions', CUP, UK
5. Indian Institute of Banking and Finance (2018) 'Central Banking', Macmillan Publishers, India
6. Indian Institute of Banking and Finance (2017) 'Information Systems for Banks', Taxmann Publishers, India
7. Prasad, K.N.(2001) 'Development of India's Financial System,' Sarup and Sons, New Delhi
8. Saha Siddhartha (2017) 'Indian Financial Systems and Markets, McGraw Hill Education
9. Sharma, K.C. (2007) 'Modern Banking in India,' Deep and Deep Publications New Delhi
10. Vasudevan A. (2003) "Central Banking in Emerging Economies" Academic Foundation

#### **Reports:**

RBI Annual Reports, Monthly Reviews, Occasional Papers ([www.rbi.org.in](http://www.rbi.org.in))  
Reports on Currency and Finance  
Economic and Political Weekly

#### **Recommended Journals:**

Prajnan [NIBM],  
Journal of Banking and Finance- Elsevier  
Journal of Money, Credit and Banking- Wiley Online  
Journal of Banking and Financial Technology-Springer

**M.A.: ECONOMICS (NEP 2020)**  
**SEMESTER-II**  
**STATISTICAL TECHNIQUES**

**TOTAL CREDITS: 04**

**Total Lectures: 60**

## **Course Objectives:**

- To provide an understanding of Statistics and its application under various topics under economics.
- To demonstrate the practical and the applied aspects of economics with the help of Statistical techniques.

## **Programme Outcome:**

- Ability to develop, demonstrate and examine various topics under economics with the help of statistical techniques.
- Ability to examine subject areas in economics with the use of statistical tools.

## **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

## **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

## **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

## **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.

## **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.

## **Books :**

1. Anderson David & al (2015) 'Statistics for Business and Economics', 12<sup>th</sup> Edition, Cengage India
2. Gupta S.C. (Latest Edition) 'Fundamentals of Applied Statistics' Sultan Chand & Sons,
3. Gupta S.C. (2014) 'Fundamentals of Mathematical Statistics' Sultan Chand & Sons,
4. Nagar A.L. & Das R.K. (1997) 'Basic Statistics' 2<sup>nd</sup> Edition, OUP



5. Rohatgi Vijay K., A.K. Md. Ehsanes Saleh (2008) 'An Introduction to Probability and Statistics, Wiley, 2<sup>nd</sup> Edition
6. Vohra N.D. (2017) "Business Statistics' McGraw Hill Education

**Recommended Reading:**

1. Croxton F. E and Cowden D. J. (1968) 'Applied General Statistics' Pitman Publishing
2. Croxton F. E and Cowden D. J. (2012) 'Practical Business Statistics' Literary Licensing, LLC
3. Keller Gerald (2015) Statistics for Management and Economics, South Western
4. Lind, Marchal and Wathen (2017) 'Basic Statistics for Business and Economics' McGraw Hill Education, 7<sup>th</sup> Edition
5. Richard I. L, M. H. Siddiqui, D S. Rubin, Sanjay Rastogi (2017) Statistics for Management and Economics' 5<sup>th</sup> Edition, Pearson Education

**Recommended Journals:**

Journal of International Economics- Elsevier

Journal of Finance- Wiley Online

Journal of Applied Statistics- Francis & Taylor

Journal of Statistics Education- Francis & Taylor