

DSMNRU

Papers of Economics

Bachelor of Arts (Economics)

Credits

Semester I

ECO101: Micro Economics-I	3
ECO102: Elementary Mathematics	3
Orientation on Disability (Non-Credit)	

Semester II

ECO103: Micro Economics-II	3
ECO104: Elementary Statistics	3

Semester III

ECO201: Money, Banking & Exchange -I	3
ECO202: Public Finance & International Trade –I	3

Semester IV

ECO203: Money, Banking & Exchange –II	3
ECO204: Public Finance & International Trade –II	3

Semester V

ECO301: Macro Economics-I	3
ECO302: Social Economics	3
ECO303: History of Economic Thought-I	3

Semester VI

ECO304: Macro Economics-II	3
ECO305: Indian Economic Policy	3
ECO306: History of Economic Thought-II	3

Master of Arts (Economics)

Semester I

ECO401: Macro Economic Analysis-I	3
ECO402: International Economics –I	3
ECO403: Quantitative Methods-I	3
ECO404: Environmental Economics –I	3
ECO405: Economics of Agriculture-I / Economics of Industry-I	3
Orientation on Disability (Non-Credit)	

Semester II

ECO406: Macro Economic Analysis-II	3
ECO407: International Economics –II	3
ECO408: Quantitative Methods-II	3
ECO409: Environmental Economics –II	3
ECO410: Economics of Agriculture-II / Economics of Industry-II	3

Semester III

ECO501:	Micro Economic Analysis-I	3
ECO502:	Public Economics-I	3
ECO503:	Development Economics-I	3
ECO504:	Introductory Econometrics	3
ECO505:	Ethics and Economics	3

Semester IV

ECO506:	Micro Economic Analysis-II	3
ECO507:	Public Economics-II	3
ECO508:	Development Economics-II	3
ECO509:	Structural Modeling for Policy Analysis	3
ECO510:	Viva Voce	

DSMNRU
डॉ शकुंतला मिश्रा राष्ट्रीय पुनर्वास विश्वविद्यालयलखनऊ
DEPARTMENT OF ECONOMICS
अर्थशास्त्र विभाग
Bachelor of Arts

Semester –I

**ECO-101
MICRO ECONOMICS-I**

OBJECTIVE-

This course seeks to acquaint the students with the fundamentals of microeconomics incorporating its nature and scope, methodology, demand and utility analysis along with laws of production and producer's equilibrium.

Unit-I

Lectures required: 10

Economic Activities-Micro and Macro, Definitional Approaches to Economics, Nature and Scope of Economics, Methods of Economic Analysis-Inductive and Deductive, Concept of Equilibrium

Unit-II

Lectures required: 15

Law of Demand, Demand Curve Analysis, Elasticity of Demand- Types and Measurement, Factors affecting Elasticity of Demand, Application of Elasticity of Demand

Unit-III

Lectures required: 10

Utility Analysis: Cardinal and Ordinal Approaches, Diminishing and Equi-Marginal Analysis, Indifference Curve Analysis-Consumer's equilibrium; Price, Income and Substitution Effects. Consumer-Surplus

Unit-IV

Lectures required: 10

Production Function; Laws of Production- Returns to Scale, Law of Variable Proportions, Isoquants- Nature and Characteristics, Producer's Equilibrium

SUGGESTED READINGS

- Samuelson, Paul A & Nordhaus, William D (2010) : Economics", Tata McGraw Hill.
- Koutsoyiannis, A (2008) (2nd ed): Modern Microeconomics", Macmillan.

- Salvatore, Dominic(2010) : Principles of Microeconomics”, Oxford University Press Publications, New Delhi.
- Stonier,A.W & Hague.Douglas.C (2003)(5thed) : A Text Book of Economic Theory”, Pearson.
- Ahuja ,H.L(2013) : Advanced Economic Theory”, S.Chand & Company.
- Shastri,Rahul.A (1999) : Microeconomics”, Orient Blackswan.
- Pindyck,Robert.S., Rubinfeld.Daniel.L., Mehta.Prem.L(2009): Microeconomics”, Pearson.
- Dwivedi,D.N (2011) :Microeconomics-Theory & Applications”, Pearson.
- Lipsey,Richard &Chrystal,Alec (2011) : Economics”, Oxford University Press Publications, New Delhi.
- Lal, S.N (2013):Arthshastra Ke Siddhant”, Shiva Publishing House, Allahabad.
- Seth,M.L (2012) : Arthshastra Ke Siddhant”,Laxmi Narayan Publications,Agra.
- Ahuja,H.L (2012) :Uchchar Arthik Siddhant”, S.Chand & Company, New Delhi.
- Agarwal.Anupam (2012): “Vyashti AArthik Vishleshan”, Saahitya BHawan Publication, Agra.

ECO102: Elementary Mathematics

OBJECTIVE-

This course aims to provide elementary knowledge of mathematics to the students and equip them with use of mathematics in economic analysis.

Unit-I

Lectures Required: 10

Basic Concepts: Variables, Sets, Functions, Equations, Identities, Systems of Equations, Application of Straight Line System, Slope of the Line, Homogeneous Function.

Unit-II

Lectures Required: 10

Role Of Mathematical Techniques In Economic Analysis, Theory of Numbers, Indices and Factorization, Progression, Growth Rate, Equilibrium

Unit-III

Lectures Required: 15

Basics of Calculus: Rules of Differentiation of a Function; Maxima and Minima, Elasticities; Inter-relationships among Total, Marginal and Average Cost and Revenues; Constrained Optimisation Problem; Integration of a Function, Consumer's and Producer's Surplus

Unit-IV

Lectures Required: 10

Matrix and Determinants: Various types of Matrices, Determinants, Inverse of a Matrix, Crammer's Rule, Concept of Linear Programming — Graphic Method

SUGGESTED READINGS

- Agarwal, D.R. (2009): Mathematics for Economics, Vrinda Publications, Delhi.
- Livernois, John., Rees, Ray., & Hoy, Michael (2012) : Mathematics for Economics , PHI Learning.
- Dowling, Edward.T (2005) : Schaum's Easy Outline of Introduction to Mathematical Economics , Tata Mcgraw Hill Education.
- Bhardwaj, R.S (2006) : Mathematics for Economics and Business, Excel Books.
- Sharma, J.K (2007) : Business Mathematics , Ane Books Pvt.Ltd.
- Yamane, Taro (2007) : Mathematics For Economists : An Elementary Survey , PHI Learning.
- Allen, R.G.D (2008) : Mathematical Analysis for Economics , AITBS.

- Rosser, Mike (2003) : Basic Mathematics for Economists , Routledge.
- Chiang, A.C & Wainwright, Kevin (2013) : Fundamental Methods of Mathematical Economics” McGraw Hill Publication.
- Agarwal, D.R. “Prarambhik Ganitiya Arthshastra (Hindi)”, Vrinda Publications, Delhi.
- Mishra, J.P. “Ganiteeya Arthshastra”, Pratiyogita Sahitya.
- Seth, M.L., “ Arthshastra mei Prarambhik Ganit”, Laxmi Narayan Publications, Agra.

Semester II

ECO103

Micro Economics-II

OBJECTIVE-

This course seeks to acquaint the students with the fundamentals of microeconomics incorporating the cost theory, market equilibrium analysis and factor pricing.

Unit-I

Lectures Required: 10

Theory of Cost and Revenue: Types and Behaviour of Cost Curves; Total-Fixed and Variable, Long Run and Short Run Cost Curves, Marginal and Average Costs and their Relationship; Revenue Curves

Unit-II

Lectures Required: 15

Firm's Equilibrium- TR & TC Method and MR& MC Method, Market Structures: Perfect Competition- Time Element in Pricing. Equilibrium of Firm and Industry under Perfect Competition in the Short and Long Run, Market Equilibrium, Oligopoly

Unit-III

Lectures required: 10

Monopoly- Price and Output Determination, Price Discrimination. Monopolistic Competition: Product Differentiation, Selling Costs, Price and Output Determination.

Unit-IV

Lectures required: 10

Factor Pricing: Marginal Productivity Theory of Distribution. Theories of Wages, Rent, Interest and Profit

SUGGESTED READINGS

- Samuelson, Paul A & Nordhaus, William D (2010) : Economics", Tata McGraw Hill.
- Koutsoyiannis, A (2008) (2nded): Modern Microeconomics", Macmillan.
- Salvatore, Dominic (2010): Principles of Microeconomics", Oxford University Press Publications, New Delhi
- Stonier, A.W & Hague, Douglas C (2003) (5thed) : A Text Book of Economic Theory", Pearson.
- Ahuja, H.L (2013) : Advanced Economic Theory", S.Chand & Company.

- Shastri,Rahul.A (1999) : Microeconomics”, Orient Blackswan.
- Pindyck,Robert.S., Rubinfeld.Daniel.L.,Mehta.Prem.L(2009) : Microeconomics”, Pearson.
- Dwivedi,D.N (2011) :Microeconomics-Theory & Applications”, Pearson.
- Lipsey,Richard &Chrystal,Alec (2011) : Economics”, Oxford University Press Publications, New Delhi.
- Lal, S.N (2013):Arthshastra Ke Siddhant”, Shiva Publishing House, Allahabad.
- Seth,M.L (2012) : Arthshastra Ke Siddhant”,Laxmi Narayan Publications,Agra.
- Ahuja,H.L (2012) :Ucchatar Arthik Siddhant”, S.Chand & Company, New Delhi.

ECO 104
Elementary Statistics

Objective:

This course aims to acquaint the students with the elementary/basic knowledge of statistics.

Unit 1:

Lectures Required: 10

Introduction to Basic Concepts in Statistics: Population, Sample, Parameter, Data-Meaning & types. Questionnaire, Schedule & Interview Schedule (meaning, concept & types), Frequency Distribution, Cumulative frequency; Graphic and Diagrammatic representation of data

Unit II:

Lectures Required: 12

Measures of Central Tendency - Mean, Median, Mode, Geometric mean and Harmonic mean. (Meaning, concept, properties & methods of measurement-in brief)

Measure of Dispersion: Range, Mean Deviation, Standard deviation, Coefficient of Variation, Quartile deviation, Skewness and Kurtosis (Meaning, concept, properties & methods of measurement-in brief)

Unit III:

Lectures Required: 13

Correlation: Meaning, Concept, Types & Properties. Methods of measurement of Correlation: Karl Pearson and Spearman. Coefficient of Correlation

Regression: Meaning and Concept. Least squares method, Interpretation of Regression Coefficients.

Unit IV:

Lectures Required: 10

Time Series: Concept, Meaning & Components - Determination of Regular, Trend and Seasonal Indices.

Index Number: Concept, Classification of Index Numbers-price relative, quantity relative, value relative & special purpose (in brief). Consumer Price Index(CPI), Whole Sale Price Index (WPI), Methods of Construction of Index Numbers- i Unweighted & ii Weighted indices (in brief). Test of Adequacy of Index Number Formulae (in brief)

SUGGESTED READINGS:

- Adams John et al., (2010) Research Methods, Sage Publications, Singapore.
- Ahuja, Ram (2007): Research Methods, Rawat Publications, Jaipur.
- Anderson,David.R, Sweeney,Dennis.J &Williams,Thomas.A (2012) : Statistics for Business and Economics “South Western.
- Bryman, Alan (2008) Social Research Methods, Oxford University Press, New Delhi.
- Elhance,D.L (2010) : Sankhiki Ke Siddhant (Hindi), Kitab Mahal.
- Gerard Guthrie (2010), Basic Research Methods, Sage Publications, New Delhi.
- Gujarati, D.N and Sangeetha (2007), Basic Econometrics, Tata McGraw Hills, New Delhi.
- Gupta,S.P (2011) : Statistical Methods, Sultan Chand & Sons, Delhi.
- Hazarika,Padmalochan (2006) : Essential Statistics for Economics and Commerce , Akansha Publishing House.
- Goode WJ and Hatt PK: Methods is Social Research, Mc Graw-Hill Book Company, USA, 1952 and reprinted by Surjeet Publishers Delhi, 2006.
- Kothari, C R (2011): Research Methodology, New Age International , New Delhi.
- Leighton,Thomas (2011) : Using Statistics in Economics, Tata McGraw Hill Education.
- Lind, Wathen &Marchal (2013): Basic Statistics for Business & Economics, McGraw Hill Education.
- Newbold, Paul (2008) : Statistics for Business and Economics , Pearson Education.
- Rajaraman, V (2008), Fundamentals of Computers, Prentice Hall of India, New Delhi
- Sharma,J.K(2011) : Business Statistics “Pearson Education.

Semester -III

ECO201:

Money, Banking and Exchange –I

OBJECTIVE-

This course aims to provide basic knowledge of money, banking & exchange to students with focus on the concept of money, quantitative theory, inflation, commercial and central banking.

Unit-I

Lectures Required: 15

Money and Value of Money: Money - Meaning, Functions and Classification; Gresham's Law; Role of Money in Capitalist, Socialist and Mixed Economies; Monetary Standards -Metallic and Paper Systems of Note Issue. Uses and Limitations of Index Numbers; Quantity Theory of Money - Cash Transaction and Cash Balance Approaches; The Keynesian Approach

Unit-II

Lectures Required: 10

Inflation: Concept, Types, Causes and Effects of Inflation on Different Sectors of the Economy; Demand-Pull and Cost-Push Inflation; Measures to Control Inflation; Trade-Offs between Inflation and Unemployment

Unit-III

Lectures Required: 10

Commercial Banking: Meaning and types; Functions of Commercial Banks; The process of Credit Creation - Purpose and Limitations; Liabilities and Assets of banks; Evolution of Commercial Banking in India after Independence; A Critical Appraisal of the Progress Of Commercial Banking after Nationalization; Recent Reforms in Banking Sector in India.

Unit-IV

Lectures Required: 10

Functions of a Central Bank; Quantitative and Qualitative Methods of Credit Control - Bank Rate Policy, Open Market Operations, Variable Reserve Ratio and Selective Methods; Role and Functions of the Reserve Bank of India; Objectives and Limitations of Monetary Policy with Special Reference to India

SUGGESTED READINGS

- Nadar,E.Narayanan (2013) : Money and Banking , PHI Learning Press.
- Uppal, R.K (2011): Money, Banking and Finance in India- Evolution & Present Structure , New Century Publications.
- Gupta,S.B (2009) : Monetary Economics-Institutions, Theory & Policy , S.Chand & Company, New Delhi.
- Eyler,Robert (2009) : Money and Banking-An International Text ,Routledge.
- Khanna, Perminder (2005): Advanced Study in Money and Banking: Theory and Policy Relevance in The Indian Economy , Atlantic.
- Paul, R.R (2011): Money, Banking & Exchange , Kalyani Publishers, Delhi.
- Jhingan ,M.L (2012) : Monetary Economics , Vrinda Publications, New Delhi.
- Lal,S.N (2012) : Mudra,Banking Avam Videshi Vinimay , Shiva Publishing House,Allahabad.
- Jhingan,M.L (2012) : Maudrik Arthshastra , Vrinda Publications, New Delhi.
- Seth. M.L (2012) : Maudrik Arthshastra , Laxmi Narayan Publications,Agra.

ECO202

Public Finance and International Trade-I

OBJECTIVE-

This course introduces the students with the fundamentals of public expenditure & taxation besides theories of international trade.

Unit-I

Lectures Required: 10

Nature and Scope of Public Finance: Meaning and scope of Public Finance; Distinction between Private and Public Finance; Public Goods Vs. Private Goods; The Principle of Maximum Social Advantage; Market Failure; Role of the Government.

Unit-II

Lectures Required: 10

Public Expenditure: Meaning, Classification and Principle of Public Expenditure; Canons and Effects of Public Expenditure; Trends in Public Expenditure and Causes of Growth of Public Expenditure in India.

Unit-III

Lectures Required: 15

Taxation: Sources of Public Revenue; Taxation — Meaning, Canons and Classification of Taxes; Division of Tax Burden — The Benefit and Ability-To-Pay Approaches; Impact and Incidence of Taxes; Taxable Capacity; Effects of Taxation; Characteristics of A Good Tax System.

Unit-IV

Lectures Required: 10

Importance of the Study of International Economics; Inter-Regional and International Trade; Theories of Absolute Advantage, Comparative Advantage and Opportunity Cost; Reciprocal Demand, Heckscher-Ohlin Theory of Trade, Terms of trade and Gains from trade.

- **SUGGESTED READINGS**

- Jha,Rajesh.Kumar (2012) : Public Finance , Pearson.
- Bhatia,H.L (2012) : Public Finance , Vikash Publishing House.
- Musgrave,R.A (1959) : Public Finance, McGraw Hill, New York.
- Lekhi,R.K (2013) : Public Finance , Kalyani Publishers.

- Salvatore, Dominick (2012) : International Economics: Trade & Finance , Wiley Publishers.
- Bhatia, H.L (2006) : International Economics , Vikash Publishing House.
- Mannur, H.G (2001) : International Economics , Vikash Publishing House Pvt Ltd.
- Cherunilam, Francis (2008) : International Economics, Tata McGraw Hill Education.
- Vaishya, M.C. & Singh, Sudama (2006) : International Economics , Oxford & IBH Publishing House, Delhi.
- Jhingan, M.L (2009) : Antarrastriya Arthshastra , Vrinda Publications, New Delhi.
- Lal, S.N (2012) : Antarrastriya Arthshastra , Shiva Publishing House, Allahabad.
- Sinha, V.C., Sinha, Pushpa & Sinha, Vivek (2011) : Antarrastriya Vyapar Avam Vitt , Mayur Publications.
- Bhatia, H.L (2012) : Lok Vitt , Vikash Publishing House.
- Lal, S.N (2012) : Lok Vitt , Shiva Publishing House, Allahabad.
- Tyagi, B.P (2012) : Lok Vitt , Jai Prakash Publishers, Meerut.

Semester –IV

ECO203: Money, Banking and Exchange –II

OBJECTIVE- *This course focuses on capital and money markets besides foreign exchange and international monetary arrangements.*

Unit-I

Lectures Required-15

Capital Market in India- Primary and Secondary Markets, SEBI, FII. Capital Inflows and Monetary Policy, Debt market in India: Issuers, Instruments & Investors. Foreign Exchange Management- FEMA

Unit-II

Lectures Required-10

Indian Money Market: Structure, Concept and Sources of Change in Money Supply, Reserve Bank of India, Regulatory And Promotional functions.

Unit-III

Lectures Required-10

Foreign Exchange: Concepts, Demand and Supply of Foreign Exchange; External Value of Money-Gold Standard, Exchange Rate Determination, Purchasing Power Parity Theory.

Unit-IV

Lectures Required-10

International Monetary Institutions: IMF and IBRD. Exchange Control: Objectives and Methods.

SUGGESTED READINGS

- Nadar,E.Narayanan (2013) : Money and Banking , PHI Learning Press.
- Uppal, R.K (2011): Money, Banking and Finance in India- Evolution & Present Structure , New Century Publications.
- Gupta,S.B (2009) : Monetary Economics-Institutions, Theory & Policy , S.Chand & Company, New Delhi.
- Eyler,Robert (2009) : Money and Banking-An International Text ,Routledge.
- Khanna, Perminder (2005): Advanced Study in Money and Banking: Theory and Policy Relevance in The Indian Economy , Atlantic.
- Paul, R.R (2011): Money, Banking & Exchange , Kalyani Publishers, Delhi.
- Jhingan ,M.L (2012) : Monetary Economics , Vrinda Publications, New Delhi.

- Lal,S.N (2012) : Mudra,Banking Avam Videshi Vinimay , Shiva Publishing House,Allahabad.
- Jhingan,M.L (2012) : Maudrik Arthshastra , Vrinda Publications, New Delhi.
- Seth. M.L (2012) : Maudrik Arthshastra , Laxmi Narayan Publications,Agra.

ECO-204

Public Finance and International Trade-II

OBJECTIVE-

This course focuses on public debt, fiscal policy, fiscal federalism and trade policy.

Unit-I

Lectures Required-10

Public Debt: Sources, Effects, Repayment. Fiscal Crisis and Debt Management, Public Budget –Revenue and Capital Accounts, Alternative measures of Fiscal Imbalance, Fiscal Reforms in India, FRBM Act

Unit-II

Lectures Required-15

Fiscal policy: Components, Instruments, Objectives. Role of Fiscal Policy in Developed and Developing Countries, Budget Structure of the Government of India, State Budget- Sources of Revenues and Expenditures. Major Tax Reforms in India

Unit-III

Lectures Required-10

Fiscal Federalism in India: Union-State Fiscal Relations, Federal Fiscal Imbalances and the Role of Finance Commission. Finances of Local Bodies

Unit-IV

Lecture Required -10

Trade Policy- Free Trade vs. Protection, Balance of Payments- Equilibrium and Disequilibrium, Convertibility of Rupee, India's Foreign Trade and Policy

SUGGESTED READINGS

- Jha,Rajesh.Kumar (2012) : Public Finance , Pearson.
- Bhatia,H.L (2012) : Public Finance , Vikash Publishing House.
- Musgrave,R.A (1959) : Public Finance, McGraw Hill, New York.
- Lekhi,R.K (2013) : Public Finance , Kalyani Publishers.

- Salvatore, Dominick (2012) : International Economics: Trade & Finance , Wiley Publishers.
- Bhatia, H.L (2006) : International Economics , Vikash Publishing House.
- Mannur, H.G (2001) : International Economics , Vikash Publishing House Pvt Ltd.
- Cherunilam, Francis (2008) : International Economics, Tata McGraw Hill Education.
- Vaishya, M.C. & Singh, Sudama (2006) : International Economics , Oxford & IBH Publishing House, Delhi.
- Jhingan, M.L (2009) : Antarrastriya Arthshastra , Vrinda Publications, New Delhi.
- Lal, S.N (2012) : Antarrastriya Arthshastra , Shiva Publishing House, Allahabad.
- Sinha, V.C., Sinha, Pushpa & Sinha, Vivek (2011) : Antarrastriya Vyapar Avam Vitt , Mayur Publications.
- Bhatia, H.L (2012) : Lok Vitt , Vikash Publishing House.
- Lal, S.N (2012) : Lok Vitt , Shiva Publishing House, Allahabad.
- Tyagi, B.P (2012) : Lok Vitt , Jai Prakash Publishers, Meerut.

Semester V

EC0301

Macro Economics-I

OBJECTIVE-

This course introduces the students with the fundamentals of macroeconomics.

Unit-I

Lecture Required -12

Concept and Measurement of National Income; National Income Identities with Government and International Trade; Incorporation of Environmental Concerns in National Accounts - Green Accounting

Unit-II

Lecture Required -13

Say's Law of Markets and the Classical Theory of Employment; Keynes' Objection to the Classical Theory; Aggregate Demand and Aggregate Supply Functions; The Principle of Effective Demand; Consumption Function - Average and Marginal Propensity to Consume; Factors influencing Consumption Spending;.

Unit-III

Lecture Required -10

The Investment Multiplier and its Effectiveness in LDCs; Theory of Investment - Autonomous and Induced Investment; Marginal Efficiency of Capital; Savings and Investment - Ex Post and Ex Ante, Equality and Equilibrium

Unit-IV

Lecture Required -10

Rate of Interest: Classical, Neo-Classical and Keynesian Theories of Interest. Indeterminateness in Liquidity Preference Theory

SUGGESTED READINGS

- Dornbusch, Rudiger&startz, Richard (2012): Macroeconomics , Tata McGraw Hill Education.
- Shapiro, Edward (2005): Macroeconomic Analysis, Galgotia Publications, New Delhi.
- Hansen,A.H (1953) : A Guide To Keynes, McGraw Hill.
- Branson,W.A (1989) : Macroeconomics Theory And Policy, Harper & Row.

- Surrey,M.J.C (1976) : Macroeconomic Themes, Oxford University Press.
- Romer,D.L (1969) : Advanced Macroeconomics, McGraw Hill, New York.
- Gupta,R.D. &Rana,A.S (2009) : Keynes post-Keynesian Economics , Kalyani Publishers, New Delhi &Ludhiana.
- Ackley.G (1976) : Macroeconomics: Theory And Policy, Macmillan,New York.
- Ahuja,H.L (2012) : Macroeconomics: Theory and Policy , S.Chand&Company, New Delhi.
- Sikdar,Saumyen (2011) : Principles of Macroeconomics , Oxford University Press, New Delhi.
- Dwivedi,D.N (2010) : Macroeconomics: Theory and Policy , Tata McGraw Hill Education.
- Jhingan, M.L (2010): Macroeconomics ,Vrinda Publications, New Delhi.
- Ahuja,H.L (2012) : SamastiArthshastra , S.Chand&Company, New Delhi.
- Lal,S.N (2012) : SamastibhaviVisleshan , Shiva Publishing House,Allahabad.
- Jhingan, M.L (2012) :SamastiArthshastra , Vrinda Publications, New Delhi.

ECO302: Social Economics

OBJECTIVE-

This course has been formulated with a view to link social and economic dynamics with focus on policy analytics.

Unit-I

Lecture Required -10

Communities and Markets, Common Property Resources, Social Sector and Social Development Planning, Economic Reforms and Social Sector

Unit-II

Lecture Required -10

Poverty and Poverty Reduction: Poverty in Rural and Urban Areas; Social Dynamics of Poverty-Poverty Patterns among Social Groups, Migration and Poverty.

Unit-III

Lecture Required -10

Population and Human Resource Development, Gender Aspects of Development and Women Empowerment, Patterns of Fertility, Child mortality and Gender- bias in India.

Unit-IV

Lecture Required -15

Social Protection in Changing India; Food Security, Job Security, MNREGA and Beyond; Right to Education; Budgetary Perspectives of Social Sector.

SUGGESTED READINGS

- Prabhu, K.Seeta(2001) : Economic Reforms and Social Sector Development, Sage Publications, New Delhi.
- Sen,Raj Kumar (2005) : Social Sector Development in India, Deep & Deep Publications, New Delhi.
- Chaturvedi, Chinmayee (2012): Economic Reforms and Social Sector With special Reference to Primary Education in Uttar Pradesh, Pragun Publications.
- Mathur, Vibha (2004): India- Economic Reforms and Social Sector, New Century Publications.
- Schultz,T.W (1971) : Investment In Human Capital, Free Press, New York.
- Klarman,H.E (1965) : The Economics Of Health, Columbia University Press, New York.
- Blaug,M (1972) : Introduction To Economics of Education, Penguin, London.
- Tilak, J.B.G (1994): Education for Development in Asia, Sage Publications, Delhi.

ECO 303

HISTORY OF ECONOMIC THOUGHT-I

OBJECTIVE

This course aims to teach the students history of economic thought with focus on early and classical periods besides socialists and marginalist ideas

UNIT-I

Lectures required-10

Early Period: Economic thought of Plato and Aristotle - Doctrines of Just Cost and Just price - Mercantilism: Main Characteristics; Thomas Munn - Physiocracy: Natural Order, Primacy of Agriculture, Social Classes, Tableau Economique, Taxation, Turgot - Economic ideas of Petty, Locke and Hume.

UNIT-II

Lectures required-10

Classical Period: Adam Smith - Division of Labour, Theory of Value, Capital Accumulation, Distribution, Views on Trade, Economic Progress; David Ricardo - Value, Theory of Rent, Stationary State, Distribution, Ideas on International Trade; Thomas R. Malthus - Theory of Population, Theory of Gluts.

UNIT-III

Lectures required-10

German Romantics and Socialists — Sismondi, Karl Marx — Dynamics of Social Change, Labour Theory of Value, Surplus Value, Profit, And Theory of Capitalist Crisis; Economic Ideas of J.B. Say, J.S. Mill; Historical School — Senior, List.

UNIT-IV

Lectures required-15

Marginalists: The Precursors of Marginalism — Cournot , Gossen — The Marginalist Revolution: Jevons, Walras and Menger - Bohm-Bawark, Wicksell and Fisher: Quantity Theory of Money ;Economic Ideas of Wicksteed and Weiser

SUGGESTED READINGS

- Hunt,E.K &Lautzenheiser,Mark (2011) : History of Economic Thought: A Critical Perspective , Phi Learning.

- Loknathan,V (2009) : History of Economic Thought , S.Chand & Company.
- Bhatia,H.L : History of Economic Thought ,Vikash Publishing House.
- Staley,Charles.E, “A History of Economic Thought: From Aristotle To Arrow”, Blackwell Publishing.
- Roll,Eric : History of Economic Thought, Faber.
- Blackhouse,R (1985) : A History of Modern Economic Analysis, Basil Blackwell, Oxford.
- Ganguli, B.N(1977) : Indian Economic Thought : A 19th Century Perspective, Tata McGraw Hill.
- Gide,C & Rist,G (1956) : A History Of Economic Doctrines, George Harrop & Co.
- Schumpeter, J.A (1954): History of Economic Analysis, Oxford University Press, New York.
- Kautilya (1992), The Arthashastra, Translated And Introduced By L.N.Rangarajan, Penguin Books.
- Hajela,T.N (2011) : History Of Economic Thought , Ane Books.
- Jhingan, M.L (2008) : Aarthik Vicharon Ka Itihas , Vrinda Publications, New Delhi.
- Hajela,T.N (2011) : Aarthik Vicharon Ka Itihas , Ane Books.
- Sinha,V.C (2011) : Aarthik Vicharon Ka Itihas , Mayur Pu

Semester VI

ECO304

Macro Economics-II

OBJECTIVE-

This course is designed as such to enhance the understanding of students on some basic macroeconomic models and their policy implications.

Unit-I

Lecture Required -10

General Equilibrium: IS-LM Framework. Factors affecting Effectiveness of Fiscal and Monetary Policy

Unit-II

Lecture Required -15

Trade Cycles: Nature and Characteristics; Hawtrey's Monetary Theory; Hayek's Over-Investment Theory; Keynes' View on Trade Cycle; The Concept Of Accelerator; Samuelson and Hicks Multiplier-Accelerator Interaction Model.

Unit-III

Lecture Required -10

Economic Growth: Sources of Growth; Growth models - Harrod and Domar; Instability of Equilibrium; Neo-classical Growth Models - Solow; Economic Growth and Technical Progress

Unit-IV

Lecture Required -10

Basic Issues of Macro Economic Policy: The Theory of Macro Economic Policy. International Adjustment Problems and Economic Policy- Monetary and Fiscal Policy Trade- Offs

SUGGESTED READINGS

- Dornbusch, Rudiger&startz, Richard (2012): Macroeconomics , Tata McGraw Hill Education.
- Shapiro, Edward (2005): Macroeconomic Analysis, Galgotia Publications, New Delhi.
- Hansen,A.H (1953) : A Guide To Keynes, McGraw Hill.
- Branson,W.A (1989) : Macroeconomics Theory And Policy, Harper & Row.
- Surrey,M.J.C (1976) : Macroeconomic Themes, Oxford University Press.

- Romer,D.L (1969) : Advanced Macroeconomics, McGraw Hill, New York.
- Gupta,R.D. &Rana,A.S (2009) : Keynes post-Keynesian Economics , Kalyani Publishers, New Delhi &Ludhiana.
- Ackley.G (1976) : Macroeconomics: Theory And Policy, Macmillan,New York.
- Ahuja,H.L (2012) : Macroeconomics: Theory and Policy , S.Chand&Company, New Delhi.
- Sikdar,Saumyen (2011) : Principles of Macroeconomics , Oxford University Press, New Delhi.
- Dwivedi,D.N (2010) : Macroeconomics: Theory and Policy , Tata McGraw Hill Education.
- Jhingan, M.L (2010): Macroeconomics ,Vrinda Publications, New Delhi.
- Ahuja,H.L (2012) : SamastiArthshastra , S.Chand&Company, New Delhi.
- Lal,S.N (2012) : SamastibhaviVisleshan , Shiva Publishing House,Allahabad.
- Jhingan, M.L (2012) :SamastiArthshastra , Vrinda Publications, New Delhi.

ECO305

Indian Economic Policy

OBJECTIVE-

This course is aimed at raising the student's analytical understanding of the making of Indian economic policy and its practice.

Unit-I

Lecture Required -10

Structure and Features of Indian Economy: Indian economy as a Developing Economy. Comparative Development of Indian States

Unit-II

Lecture Required -10

The Agricultural Sector: Institutional Reforms, Technological change in Agriculture, Terms of Trade between Agriculture and Industry; New Agricultural Policy, Policies for Sustainable Agriculture. Agrarian Crisis and Farmer Suicides

Unit-III

Lecture Required -10

The Industrial Sector: Industrial Policy; Public Sector Enterprises and their Performance, Privatisation and Disinvestment debate, Small-scale Sector, Exit Policy- Issues in Labour Market Reforms

Unit-IV

Lecture Required -15

Planning in India: Objectives and Strategy of Planning; Failures and Achievements of Plans; Strategy of Inclusive Development, Dichotomy of Plan and Non-plan: Plan Transfers and Non-Plan Transfers.

SUGGESTED READINGS

- Srivastava,S (2011) : Indian Economic Policy and Agricultural Development”, Classical Publishing Company.
- Mohan,Narender (2012) : Indian Economic Policy , Neha Publishers & Distributors.
- Kapila,Uma (2013) : Indian Economy: Performance and Policies , Academic Foundation.
- Jalan,Bimal (2000) : India's Economic Policy: Preparing for the Twenty-First Century , Penguin.

- DattGaurav&Mahajan, Ashwani (2013) :Datt&Sundharam Indian Economy , S. Chand.
- Bauer,P.T (2013) : Indian Economic Policy and Development , Routledge.
- Mishra ,S.K&Puri,V.K (2012) : Indian Economy, Himalaya Publishers, Mumbai.
- DattGaurav&Mahajan, Ashwani (2013) :Datt&SundharamBhartiyaArthvyawastha , S. Chand.
- Sharma,Vinod. “ Bharat Ki ArthNitiAvemYojnayein”, Raj Publication.
- Mishra,S.K&Puri,V.K (2013) : BhartiyaArthvyawastha , Himalaya Publishing House.

ECO 306

HISTORY OF ECONOMIC THOUGHT-II

OBJECTIVE

This course focuses on economic ideas of Marshall, Pigou, J.M.Keynes, besides old and new Indian economic thoughts.

UNIT-I

Lectures required-10

Marshall as a Great Synthesizer: Role of Time in Price Determination, Economic Methods, Ideas on Consumer's Surplus, Elasticity, Representative Firm, Quasi-Rent, Pigou: Welfare Economics; Schumpeter: Role of Entrepreneur And Innovations.

UNIT-II

Lectures required-10

Keynesian Ideas: Effective Demand, Consumption Function, Liquidity Preference Theory and Liquidity trap, Marginal Efficiency of Capital and Marginal Efficiency of Investment, Investment Multiplier.

UNIT-III

Lectures required-10

Indian Economic Thought: Early Economic Ideas: Kautilya, Valluvar; Modern Economic Ideas: Naoroji, Ranade, R.C. Dutt And M.N. Roy.

UNIT-IV

Lectures required-15

Economic ideas of Gandhi, Jawahar Lal Nehru, B.R. Ambedkar, Ram Manohar Lohia, D.R.Gadgil, J.K.Mehta, Amartya Sen, Jagdish Bhagwati.

- **SUGGESTED READINGS**

- Basu, Rattan Lal & Sen, Rajkumar. "Ancient Indian Economic Thought: Relevance for Today", Rawat Publications.
- Hunt, E.K & Lautzenheiser, Mark (2011) : History of Economic Thought: A Critical Perspective, Phi Learning.
- Loknathan, V (2009) : History of Economic Thought, S.Chand & Company.
- Bhatia, H.L : History of Economic Thought, Vikash Publishing House.

- Staley, Charles.E, "A History of Economic Thought: From Aristotle To Arrow", Blackwell Publishing.
- Roll, Eric : History of Economic Thought, Faber.
- Blackhouse, R (1985) : A History of Modern Economic Analysis, Basil Blackwell, Oxford.
- Ganguli, B.N (1977) : Indian Economic Thought : A 19th Century Perspective, Tata McGraw Hill.
- Gide, C & Rist, G (1956) : A History Of Economic Doctrines, George Harrop & Co.
- Schumpeter, J.A (1954): History of Economic Analysis, Oxford University Press, New York.
- Kautilya (1992), The Arthashastra, Translated And Introduced By L.N.Rangarajan, Penguin Books.
- Hajela, T.N (2011) : History Of Economic Thought , Ane Books.
- Jhingan, M.L (2008) : Aarthik Vicharon Ka Itihas , Vrinda Publications, New Delhi.
- Hajela, T.N (2011) : Aarthik Vicharon Ka Itihas , Ane Books.
- Sinha, V.C (2011) : Aarthik Vicharon Ka Itihas , Mayur Publications.

Master of Arts

Semester-I

ECO401: MACRO ECONOMIC ANALYSIS – I

OBJECTIVE-

This course is aimed at enhancing student's ability to understand and apply fundamentals of macroeconomics at advanced level.

Unit -I

Lectures Required: 15

National Income: Concepts, National Income Accounts: Social Accounting Matrix, Determination of National Income and Price level: Keynesian Model –Growth Rates – Inflation, price Indices-Unemployment, Deficit Concepts, Some Key Identities

Unit -II

Lectures Required: 10

Theories of Interest Rate Determination: Classical, Loanable, Liquidity Preference, IS-LM Analysis; Fiscal and Monetary Policy Multipliers - Phillips Curves.

Unit-III

Lectures Required: 10

Monetary Economics: Monetary Policy- Tools, Central Banking: Credit control, Monetary Policy as a tool for Economic Growth and Equity, Jan Dhan Yojana.

Unit-IV

Lectures Required: 10

Micro-Foundations of Macroeconomic Relationships: Consumption Analysis: Theories of Consumption Function -Consumption under Uncertainty-Savings in Inter temporal Models –Investment Functions: Neo Classical and Keynesian-Money Demand- Money Supply Process, Money Multiplier

SUGGESTED READINGS

- Hansen,A.H (1953) : A Guide To Keynes, McGraw Hill.
- Branson,W.A (1989) : Macroeconomics Theory And Policy, Harper & Row.
- Surrey,M.J.C (1976) : Macroeconomic Themes, Oxford University Press.
- Romer,D.L (1969) : Advanced Macroeconomics, McGraw Hill, New York.

- Dwivedi,D.N (2010) : Macroeconomics: Theory and Policy , Tata McGraw Hill Education.
 - Gupta,R.D. & Rana,A.S (2009) : Keynes post-Keynesian Economics , Kalyani Publishers, New Delhi & Ludhiana.
 - Ahuja,H.L (2012) : Macroeconomics: Theory and Policy , S.Chand & Company, New Delhi.
 - Dornbusch, Rudiger & Startz, Richard (2012): Macroeconomics, Tata McGraw Hill Education.
 - Shapiro, Edward (2005) : Macroeconomic Analysis , Galgotia Publications, New Delhi.
 - Jhingan, M.L (2010) : Macroeconomics, Vrinda Publications, New Delhi.
 - Froyen, Richard.T (2005) : Macroeconomics: Theories and Policies, Pearson.
 - Gordon, R.J (2011) : Macroeconomics, PHI Learning.
 - Mankiw, N. George (2012) : Principles of Macroeconomics , South Western Publishers.
 - Ahuja, H.L (2012) : Uchatar Samasti Arthshastra , S.Chand & Company, New Delhi.
 - Lal, S.N (2012) : Samastibhavi Visleshan , Shiva Publishing House, Allahabad.
 - Jhingan, M.L (2012) : Samasti Arthshastra , Vrinda Publications, New Delhi.
 - Seth, M.L (2011) : Samasti Arthshastra , Laxmi Narayan Publications, Agra.
 - Mathur, B.L (2012): Samasti Arthshastra, Neha Publishers & Distributors.
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ECO 402

INTERNATIONAL ECONOMICS- I

OBJECTIVE

This course seeks to train the students in the field of international economics by raising their understanding of the theoretical as well as policy facets of international trade.

UNIT-I

Lectures Required-10

Early Trade Theory-Mercantilism; The Classical Theories of Trade -Adam Smith, David Ricardo; Opportunity Cost Approach; Terms of Trade-Meaning and Concepts, Factors affecting Terms of Trade; Mill's Reciprocal Demand Analysis.

UNIT-II

Lectures Required-10

Free Trade and Protection-Meaning of Free Trade, Arguments For and Against Free Trade, Meaning of Protection, Arguments for Protection-Economic and Non-Economic Arguments; Protection and Less Developed Countries.

UNIT-III

Lectures Required-10

Theories and Forms of Economics Integration-Meaning &Benefits; Forms of Economic Integration- Custom Union: Production and Consumption Effects of Customs Union; Problems Involved in the Formation of Customs Union; Political Economy of Protection; SAFTA,BRICS,IBSA.

UNIT-IV

Lectures Required-15

Balance of Payments-Concepts ; Adjustment Mechanisms of Balance of Payments-Adjustment Through Variations in Exchange Rates, Devaluation and Balance of Payments Adjustment, The Elasticity Approach, Marshall-Lerner Condition.

SUGGESTED READINGS

- Krugnan,Paul.R & obstfeld, Maurice (2008) : International Economics, Pearson.
- Salvatore,Dominick (2012) : International Economics: Trade & Finance, Wiley Publishers.
- Gerber,James (2012) : International Economics, Pearson.
- Field,Alfred.J & Appleyard, Dennis.R (2013) : International Economics, McGraw Hill Education.
- Bhatia,H.L (2006) :International Economics, Vikash Publishing House.
- Mannur,H.G (2001) :International Economics, Vikash Publishing House Pvt Ltd.
- Cherunilam,Francis (2008) :International Economics” Tata McGraw Hill Education.
- Vaishya,M.C. & Singh,Sudama (2006) : International Economics , Oxford &IBH Publishing House, Delhi.
- Jhingan, M.L (2011): Antarrastriya Arthshastra, Vrinda Publications, New Delhi.
- Lal,S.N (2012) :Antarrastriya Arthshastra, Shiva Publishing House,Allahabad.
- Sinha,V.C., Sinha,Pushpa & Sinha,Vivek (2011) : Antarrastriya Vyapar Avam Vitt, Mayur Publications.

ECO 403
Quantitative Methods-I

OBJECTIVE-

This course is aimed at enhancing student's understanding of statistical methods as applied to economics.

Unit-I

Lectures Required: 12

Introduction to Basic Concepts of Statistics: Population, Universe, Data, Questionnaire, Schedule, Interview Schedule. Review of Descriptive Statistics – Central Tendency, Dispersion, Skewness and Kurtosis, Correlation Analysis – Karl Pearson's Correlation, Rank Correlation, Partial Correlation, Difference in Correlation and Regression, Regression Analysis – Method of Least Squares. Standard Error of Estimate

Unit-II

Lectures Required: 12

Probability Theory and Probability Distribution – Basic Terminology, Types of Probability, Approaches - Classical Approach, Relative Frequency & Subjective Probability, Probability Rules- Addition & Multiplication Rule, Probability Distributions– Binomial, Poisson and Normal Distribution.

Unit-III

Lectures Required: 10

Sampling Distribution and Estimation - Census and Sample Survey, Reason to Sample, Sampling Methods- Probability and Non Probability Sampling , Sampling Distribution- Student's t, Chi-Square, F Distribution; Determinants of Sample Size, Sampling Error, Point and Interval Estimation, Properties of Good Estimator.

Unit-IV

Lectures Required: 11

Testing of Hypothesis – One Sample Test- Mean & Proportion, Two Sample Test- Mean & Proportion (Z & t test), Type I and Type II errors, Power of a Test, Analysis of Variance, Chi Square and F- Test.

SUGGESTED READINGS

- Agarwal, D.R(2009) : Quantitative Methods, Vrinda Publications, Delhi.
- Agarwal, D.R. "Prarambhik Ganitiya Arthshastra (Hindi)", Vrinda Publications, Delhi.
- Allen, R.G.D (2008) : Mathematical Analysis for Economics , AITBS.

- Bhardwaj,R.S(2005) :Mathematics for Economics and Business, Excel Books.
- Boumol, W.J (1984), Economic Theory and Operations Analysis, Prentice Hall, Englewood, Cliffs, Jersey.
- Burton, Glyn., Carroll, George & Wall,Stuart (2002) :Quantitative Methods for Business and Economics, Dorling Publications.
- Chiang,A.C & Wainwright,Kevin(2013) : Fundamental Methods of Mathematical Economics, McGraw Hill Publication.
- Elhance, D.N.(1996), Fundamental of Statistics, Kitab Mahal, Allahabad
- Elhance,D.L (2010) : Sankhiki Ke Siddhant (Hindi), Kitab Mahal
- Ellen RGD (1974), Mathematical Analysis for Economists, Macmillan Press and ELBS,
- Ghou, Y. (1975), Analysis, HOLT, Reinhart and Winston, New York.
- Goon, A.M., M.K. Gupta and B. Dasgupta, (1993), Fundamentals of Statistics, Vol. I & II, The World Press Ltd, Kolkata.
- Gupta, S.C.(1993), Fundamental of applied statistics, Chand & Sons New Delhi
- Hogg, R.V. and A.T. Craig (1970), Introduction to Mathematical Statistics, Macmillan Publishing Co. New York.
- Levin, Richard I. & Rubin, David S.(2005), Statistics for Management, Pearson Education, Singapore
- Lind, Douglas A, Marchal, William G. & Wathen Samuel A.(2005), Statistical Techniques in Business & Economics, McGraw Hill, New York, London.
- Livernois,John., Rees,Ray., & Hoy,Michael (2012) :Mathematics for Economics, PHI Learning.
- Miller, J. (1976, 1996), Statistics for Advanced Level, CUP, Cambridge. Latest Edition.
- Monga,G.S (1972) : Mathematics and Statistics for Economics, Vikash Publishing House. Latest Edition.
- Nagar, A.L.and R.K.Das (1993), Basic Statistics, Oxford University Press, New Delhi.
- Sharma,B.S(2006) : Quantitative Methods, Anmol Publishers.
- Sharma,J.K (2010) :Quantitative Methods: Theory and Applications, Macmillan Publishers India LTD.
- Sharma,J.K (2011) : Business Statistics : Problems and Solutions, Pearson Education.
- Sharma,J.K(2007) : Business Mathematics, Ane Books Pvt.Ltd.
- Sukhatme, P.V. and B.V. Sukhatme (1970), Sampling Theory of Survey with Application, IOWA State Univ., Press and Ames.
- Veerachamy,R (2008) : Quantitative Methods for Economists, New Age International (P) Limited Publishers.
- Yamane,Taro (2007):Mathematics For Economists: An Elementary Survey, PHI Learning.

ECO 404

ENVIRONMENTAL ECONOMICS- I

OBJECTIVE

This course focuses on the interaction between environment and economic development. The idea is to train the students in using economic theory to analyse environmental and natural resource issues.

UNIT-I

Lectures Required-10

Meaning of Environmental Economics; The Origin of Environmental Economics; Nature & Scope of Environmental Economics; Effects of Economic Development on Environment; Relationship between Environment and the Economy; Environment and Economic System; Impact of Human Activities on Environment

UNIT-II

Lectures Required-15

Environmental Kuznets' Curve; Ecology-Meaning & Scope, Ecological Factors; Ecological Niche; Eco-System- Meaning and Components of Eco-System; The Material Balance Principle; Steady- State Approach of Ecological Economics; Balanced Eco-System, Ecological Pyramid.

UNIT-III

Lectures Required-10

Biodiversity- Meaning, Stratification and Importance; Concept of Sustainable Development; Principles of Sustainable Development, Indicators of Sustainable Development; Sustainable Accounting; Eco-Economy; Carbon Tax

UNIT-IV

Lectures Required-10

Economics of Pollution- Air Pollution, Water Pollution, Noise Pollution, Waste Management and Environment Degradation; Natural Resources- Renewable and Non-Renewable Resources ;Sources of Pollution, Eco-Tourism; Eco-Farming, Carbon Footprint.

SUGGESTED READINGS

- Bhattacharya, Rabindra Nath (2002): Environmental Economics – An Indian Perspective, Oxford University Press.
- Singh, Kartar & Shishodia (2007): Environmental Economics: Theory and Applications, Sage India.
- Smith, Stephen (2011): Environmental Economics: A Very Short Introduction, Oxford University Press.
- Singh, S.R (2012): Environmental Economics, APH Publishing Corporation, Delhi.
- Kolstad, Charles. D (2012): Intermediate Environmental Economics, Oxford University Press.
- Nagre,Vijay.H (2012) : Environmental Economics, Chandralok Prakashan.
- Eugene,T (2005) : Environmental Economics, Vrinda publications, Delhi.
- Jhingan,M.L & Sharma,C.K (2009) : Environmental Economics Theory Mgt & Policy, Vrinda publications, Delhi.
- Bharucha, Erach : Paryavaran Adhyann, Orient Blackswan.
- Tripathi, Daya Shanker : Paryaavaran Addhyayan, Motilal Banarasidass Pvt Ltd.

ECO405:

Economics of Industry-I

OBJECTIVE-

This course focuses on the interaction between industrial activities and economic development incorporating infrastructural and institutional development in industry.

Unit-I

Lecture Required -10

Concept and Organization of A Firm - Ownership, Control and Objectives of the Firm; Passive and Active Behaviour of the Firm

Unit-II

Lecture Required -15

Sellers' Concentration; Product Differentiation; Entry Conditions; Economies of Scale; Market Structure and Profitability; Market Structure and Innovation; Theories of Industrial Location - Weber and Sargent Florence; Factors affecting Location

Unit-III

Lecture Required -10

Product Pricing - Theories and Evidence; Investment Expenditure - Methods of Evaluating Investment Expenditure; Theories and Empirical Evidence on Mergers and Acquisitions (M & As) and Diversification

Unit-IV

Lecture Required -10

Growth of the Firm - Size and Growth of a Firm; Growth and Profitability of the Firm; Constraints on Growth; Productivity, Efficiency and Capacity Utilization - Concept and Measurement, Indian Situation

SUGGESTED READINGS

- Sharma,A.K (2007) : Industrial Economics, Anmol Publications.
- Seth,Ranjana (2010) : Industrial Economics, Ane Books.
- Singh,S.P (2008) : Industrial Economics And Management, AITBS.
- Barthwal,R.R (2000) : Industrial Economics: An Introductory Text Book, New Age Publications.

- Lekhi,R.K (2012): Industrial economics, Kalyani Publishers, New Delhi.
- Shah, M.A (1994): Management of Indian Industry, Akashdeep Publishing House.
- Mohan,Narender (2012) : Indian Economic Policy , Neha Publishers & Distributors.
- Kapila,Uma (2013) : Indian Economy: Performance and Policies , Academic Foundation.
- Sinha,V.C: AudyogikArthashastra, RajkamalPrakashan.

ECO 405
Economics of Agriculture-I

OBJECTIVE-

This course focuses to familiarise the students with the basic framework and the thought process that lays the foundation of agricultural development and also the issues confronting India.

Unit-I

Lecture Required: 15

Models of Agricultural Development: Physiocrats approach, W. A. Lewis model, Fei & Ranis Model, Schultz Theory of Agricultural Development, Jorgenson's Dual Economy Model, J W Mellor 's Approach, Y Hayami and V W Ruttan's Model of Agricultural Development.

Unit-II

Lecture Required: 10

Agricultural Production Function, Supply Response, Farm Size, Returns to Scale and Productivity. Cobweb Theorems. Farm Size and Productivity Debate; Theoretical And Empirical Findings. Agricultural Price Policy in India

Unit-III

Lecture Required: 10

Labour in Agriculture- Interlocking of Factor Markets, Labour and Work Force in Rural Farm and Non-Farm Sectors. Agricultural Labour- Problem and Policy

Concept and Measurement of Rural Poverty & Employment, Poverty Alleviation Programmes (in brief-the Objectives, Achievements & the Shortcomings)

Unit-IV

Lecture Required: 10

Current Issues in Indian Agriculture- Poverty & Food Security in India, Agro- Subsidies in India, Subsidy Vs Public Investment. Export and Imports of Agricultural Commodities, Terms of Trade in Indian Agriculture, WTO and Indian Agriculture-Bali Negotiations

Suggested Readings:

- Bardhan, P. (1984) Land, Labour and Poverty; Essays in Economic Development, OUP, New Delhi.
- Bhaduri, A. (1984), The Economic Structure of Backward Agriculture; Macmillan, Delhi.

- Bhalla, G.S., (2007) Indian Agriculture since Independence, National Book Trust, India
- Bharadwaj, K. (1974), Production Condition in India Agriculture; OUP, Cambridge.
- Black, J.D, (1953) Introduction to Economics for Agriculture, Macmillan.
- Dantawala, M.L. et al. (1991): Indian Agricultural Development since Independence, Oxford & IBH, New Delhi.
- Dash,Mrutyunjay (2013): Agricultural Economics, Anmol Publications.
- Dhawan B.D., (1993), Trends and New Tendencies in Irrigated Agriculture, Common Wealth Publishers, New Delhi.
- Dutta, B.K. (2003): Theories of Sharecropping, Mittal Publications New Delhi.
- Ghatak, S and K. Ingerscant (1984), Agriculture and Economic Development; Select Books, New Delhi.
- Griffin, K.(1973): Political Economy of Agrarian Change.
- Gulati, A. and T. Kelly (1999): Trade Liberalization and Indian Agriculture, OUP, New Delhi..
- Gupta,P.K (2012) : Agricultural Economics, Vrinda Publications,Delhi.
- Gupta,P.K (2012) : Krishi Arthsastra , Vrinda Publications,Delhi.
- Kahlon and Tyagi (1983): Agricultural Price Policy in India, Allied Publishers, New Delhi.
- Khusro, A.M.(1973), The Economics of Land Reforms and Farm Size in India, MacMillan.
- Kumar,N.S.Ravi (2010) : Agricultural Economics, Neha Publishers.
- Lekhi,R.K(2013) : Agricultural Economics, Kalyani Publishers.
- Lekhi,R.K(2013) : Krishi Arthsastra, Kalyani Publishers.
- Mahajan, Ashwani (2010): Agricultural Economics, Centrum Press.
- Meier, G.M. (1995), Leading Issues in Economic Development; OUP, New Delhi.
- Mellor, J.W., The Economics of Agricultural Development, Vora and Co., Bombay, 1964.
- Raghavan and L. Sarkar (Eds.) (1996), Poverty and Employment: New Delhi.
- Raj, K.N. et.al. (1988), Essays in the Commercialization of Indian Agriculture; OUP, New Delhi.
- Rao, CHH (1993) Agricultural Growth, Rural Poverty and Environmental Degradation in India, OUP, New Delhi.
- Rao, CHH, (1975), Technological Change and Distribution of Gains in Indian Agriculture, MacMillan.
- Rudra, A. (1982), India Agriculture Economics; Myths and Reality: Allied Publishers, New, Delhi.
- Sarap Kailash (1991), Interlinked Agrarian Markets in Rural India, Sage Publication, New Delhi.
- Schultz, T.W. (1964), Transforming Traditional Agriculture, Yale University Press.
- Soni, R.N (2011) : Krishi Arthshastra Ke Mukhya Vishay, Vishal Publishing Company,Jalandhar (New Delhi)
- Soni, R.N (2011) : Leading Issues In Agricultural Economics, Vishal Publishing Company,Jalandhar (New Delhi)

- Sunder,I (2010) : Principles of agricultural economics, Neha Publishers.
- Talathi,J.M (2008) : Introduction To Agricultural Economics And Agribusiness Management, Ane Books.
- Taylor, H.C., (1949), Outlines of Agricultural Economics, MacMillan.
- Verma, N.M.P. (1990), Irrigation Change and Agricultural Development, Uppal, New Delhi.
- Visarioa, B and R. Basant (1994), Non-Agricultural Employment in India, Trends and Prospects,Sage Publication, New Delhi.
- Wanmali S. and C. Ramasamy (Eds.) (1995). Developing Rural Infrastructure; Macmillan, New Delhi.

Semester-II

ECO406: Macro Economic Analysis-II

OBJECTIVE-

This course is aimed at enhancing student's ability to understand and apply fundamentals of macroeconomics at advanced level.

Unit -I

Lectures Required: 15

Theories of Business Cycles: Models of Samuelson, Hicks, Kaldor; New Classical Macroeconomics and Real Business Cycles: Rational Expectations and Lucas Critique, Mankiw Tests- Search and Matching Models- Real Business Cycle Theory

Unit -II

Lectures Required: 10

Theories of Patinkin, Baumol, Tobin; The Efficiency Model- The Insider- Outside Model

Unit -III

Lectures Required: 10

Macroeconomic Policy Issues –Targets, Indicators and Instruments –Activist Policy – Gradualism versus Shock Therapy –Rules versus Discretion- Role of Credibility Dynamic Inconsistency Problem –Inflation Targeting

Unit -IV

Lectures Required: 10

Open Economy Macroeconomics: Mundell-Fleming Model under Fixed and Flexible Exchange Rates –Automatic Adjustment-Adjustment Policies: External versus Internal Balance

SUGGESTED READINGS

- Hansen,A.H (1953) : A Guide To Keynes, McGraw Hill.
- Branson,W.A (1989) : Macroeconomics Theory And Policy, Harper & Row.
- Surrey,M.J.C (1976) : Macroeconomic Themes, Oxford University Press.
- Romer,D.L (1969) : Advanced Macroeconomics, McGraw Hill, New York.
- Dwivedi,D.N (2010) : Macroeconomics: Theory and Policy , Tata McGraw Hill Education.
- Gupta,R.D. & Rana,A.S (2009) : Keynes post-Keynesian Economics , Kalyani Publishers, New Delhi & Ludhiana.

- Ahuja,H.L (2012) : Macroeconomics: Theory and Policy , S.Chand &Company, New Delhi.
- Dornbusch, Rudiger &startz, Richard (2012): Macroeconomics , Tata McGraw Hill Education.
- Shapiro, Edward (2005) : Macroeconomic Analysis , Galgotia Publications, New Delhi.
- Jhingan, M.L (2010) : Macroeconomics, Vrinda Publications, New Delhi.
- Froyen,Richard.T(2005) : Macroeconomics: Theories and Policies, Pearson.
- Gordon,R.J (2011) : Macroeconomics, PHI Learning.
- Mankiw,N.George (2012) : Principles of Macroeconomics , South Western Publishers.
- Ahuja,H.L (2012) : Uchatar Samasti Arthshastra , S.Chand &Company, New Delhi.
- Lal,S.N (2012) : Samastibhavi Visleshan , Shiva Publishing House,Allahabad.
- Jhingan, M.L (2012) : Samasti Arthshastra , Vrinda Publications, New Delhi.
- Seth,M.L (2011) : Samasti Arthshastra , Laxmi Narayan Publications,Agra.
- Mathur, B.L (2012): Samasti Arthshastra, Neha Publishers & Distributors.

ECO 407
INTERNATIONAL ECONOMICS-II

OBJECTIVE

This course is designed to acquaint the students with some emerging aspects of international economy in the general equilibrium framework.

UNIT-I

Lectures Required-15

Heckscher-Ohlin Theorem, The Leontief Paradox, Post-Heckscher-Ohlin Theories of Trade- Technological Gap Model; The Krugman Model, Effects of Growth on International Trade-Production & Consumption Effects, Export Pessimism, Immiserising Growth; Gains from Trade-Meaning and Types, Factors Determining Gains from Trade.

UNIT-II

Lectures Required-10

International Financial Institutions-IMF,WORLD BANK,ADB; GATT, WTO- TRIPS &TRIMS, WTO and India;, UNCTAD, North-South Trade Dialogue, South-South Cooperation; Globalization; FDI.

UNIT- III

Lectures Required-10

Quantitative Restrictions: Quota-Meaning, objectives, Types and Effects of Import Quotas; Tariffs-Meaning Types and Effects of Tariffs; Non-Tariff Barriers-Meaning, Classification and Types.

UNIT-IV

Lectures Required-10

Foreign Exchange-Meaning and Instruments, Exchange Rate Determination, Mint Par Parity theory, Purchasing Power Parity Theory, Hedging, Foreign Exchange Rate Policy-Fixed, Flexible & Multiple Exchange Rate System; Convertibility of Rupee in Current Account and Capital Account, Move Towards Capital Account Convertibility; Global Financial Crisis.

SUGGESTED READINGS

- Krugnan,Paul.R & obstfeld, Maurice (2008) : International Economics, Pearson.
- Salvatore,Dominick (2012) : International Economics: Trade & Finance, Wiley Publishers.
- Gerber,James (2012) : International Economics, Pearson.
- Field,Alfred.J & Appleyard, Dennis.R (2013) : International Economics, McGraw Hill Education.
- Bhatia,H.L (2006) :International Economics, Vikash Publishing House.
- Mannur,H.G (2001) :International Economics, Vikash Publishing House Pvt Ltd.
- Cherunilam,Francis (2008) :International Economics” Tata McGraw Hill Education.
- Vaishya,M.C. & Singh,Sudama (2006) : International Economics , Oxford &IBH Publishing House, Delhi.
- Jhingan, M.L (2011): Antarrastriya Arthshastra, Vrinda Publications, New Delhi.
- Lal,S.N (2012) :Antarrastriya Arthshastra, Shiva Publishing House,Allahabad.
- Sinha,V.C., Sinha,Pushpa & Sinha,Vivek (2011) : Antarrastriya Vyapar Avam Vitt, Mayur Publications.
- Agarwal,Babita (2009) : Antarrastriya Arthshastra, Omega Publications.

ECO408: Quantitative Methods-II

OBJECTIVE-

This course is aimed at enhancing student's understanding of mathematical techniques as applied to economics. The paper shall cater to the better understanding of the economic functions through mathematical derivation.

Unit-I

Lectures Required: 15

Concepts of Function and Types of functions; Limit, Continuity and Derivative; Rules of Differentiation; Interpretation of Revenue, Cost, Demand, Supply Functions; Elasticity and their Types; Multivariable Functions; Concept and Types of Production Functions; Rules of Partial Differentiation and Interpretation of Partial Derivatives.

Unit-II

Lectures Required: 10

Concept of Matrix: their Types, Simple Operations on Matrices, Determinants and their Basic Properties; Solution of Simultaneous Equations through Cramer's Rule; Matrix Inversion and Rank of A Matrix; Matrices and Vectors; Concept of Quadratic Forms - Eigen Roots And Eigen Vectors

Unit-III

Lectures Required: 10

Introduction to Input-Output Analysis: I-O Matrix; Difference Equations - Solution of First Order and Second Order Difference Equations; Applications in Trade Cycle Models; Growth Models and Lagged Market Equilibrium Models

Unit-IV

Lectures Required: 15

Linear programming - Basic Concept; Formulation of a Linear Programming Problem - Its Structure and Variables; Nature of Feasible, Basic and Optimal Solution; Solution of Linear Programming through Graphical and Simplex Method; Statement of Basic Theorems of Linear Programming; Formulation of the Dual of A Programme and its Interpretation

SUGGESTED READINGS

- Sharma,B.S(2006) : Quantitative Methods, Anmol Publishers.
- Agarwal, D.R(2009) : Quantitative Methods, Vrinda Publications, Delhi.

- Sharma,J.K (2010) :Quantitative Methods: Theory and Applications, Macmillan Publishers India LTD.
- Burton, Glyn., Carroll, George & Wall,Stuart (2002) :Quantitative Methods for Business and Economics, Dorling Publications.
- Livernois,John., Rees,Ray., & Hoy,Michael (2012) :Mathematics for Economics, PHI Learning.
- Bhardwaj,R.S(2005) :Mathematics for Economics and Business, Excel Books.
- Sharma,J.K(2007) : Business Mathematics, Ane Books Pvt.Ltd.
- Yamane,Taro (2007):Mathematics For Economists: An Elementary Survey, PHI Learning.
- Allen,R.G.D (2008) : Mathematical Analysis for Economics , AITBS.
- Chiang,A.C & Wainwright,Kevin(2013) : Fundamental Methods of Mathematical Economics, McGraw Hill Publication.
- Veerachamy,R (2008) : Quantitative Methods for Economists, New Age International (P) Limited Publishers.
- Monga,G.S :Mathematics and Statistics for Economics, Vikash Publishing House.
- Madnani G.M.K and B.C.Mehta (2012): “Mathematics for Economists”, Sultan Chand and Sons, New Delhi.
- Sharma,J.K (2011) : Business Statistics : Problems and Solutions, Pearson Education.
- Agarwal, D.R. “Prarambhik Ganitiya Arthshastra (Hindi)”, Vrinda Publications, Delhi.
- Elhance,D.H(2010) : Sankhiki Ke Siddhant (Hindi), Kitab Mahal.

ECO 409

ENVIRONMENTAL ECONOMICS- II

OBJECTIVE

This course focuses the economic theory of pollution control using the framework of externalities.

UNIT-I

Lectures Required-10

The Theory of Externality- Positive & Negative Externality; Public Goods; Private Goods; Public Bads; Market Failure and Pigouvian Solution- Pigouvian Tax.; Coase's Theorem And Property Rights; Eco-Labeling; Eco-Efficiency.

UNIT-II

Lectures Required-10

Social Limits to Growth Model; Green Accounting; Environmental Valuation- Meaning, Need for Environmental Valuation, Methods of Environmental Valuation; Difficulty in Measuring Environmental Values, Environmental Damages and Its Valuation.

UNIT-III

Lectures Required-10

Indian Constitution and the Environment; Environmental Management-Meaning and Concept, Objectives and Goals, Obstacles; Environmental Impact Assessment; Environmental Education and Awareness-Dilemma of Environmental Ethics and Practical Problems, Environmental Education in India

UNIT-IV

Lectures Required-15

Population and Environment; Trade and Environment in the WTO Regime; Climate Change-Meaning and Concept, Ozone Depletion, Acid Rain, Global Warming and Greenhouse Effect; Indian Environmental Issues and Legislations; Role of Judiciary in Environmental Protection and Conservation; International Environmental Issues and Legislations, Carbon Trading

SUGGESTED READINGS

- Bhattacharya, Rabindra Nath (2002): Environmental Economics – An Indian Perspective, Oxford University Press.

- Singh, Kartar & Shishodia (2007): Environmental Economics: Theory and Applications, Sage India.
- Smith, Stephen (2011): Environmental Economics: A Very Short Introduction, Oxford University Press.
- Singh, S.R (2012): Environmental Economics, APH Publishing Corporation, Delhi.
- Kolstad, Charles. D (2012): Intermediate Environmental Economics, Oxford University Press.
- Nagre,Vijay.H (2012) : Environmental Economics, Chandralok Prakashan.
- Eugene,T (2005) : Environmental Economics, Vrinda publications, Delhi.
- Jhingan,M.L & Sharma,C.K (2009) : Environmental Economics Theory Mgt & Policy, Vrinda publications, Delhi.
- Bharucha, Erach : Paryavaran Adhyann, Orient Blackswan.
- Tripathi, Daya Shanker : Paryaavaran Addhyayan, Motilal Banarasidass Pvt Ltd.
- Avasthi, N.M : Paryavaraniya Adhyan, Laxmi Narayan Agarwal,Agra.

ECO 410
Economics of Agriculture-II

OBJECTIVE-

This course focuses on the interaction between agricultural activities and economic development incorporating infrastructural and institutional development in agriculture.

Unit-I

Lecture Required: 12

Role Of Agriculture in Economic Growth and Development in India. Backward, Forward Linkage between Agriculture and Industry, Approaches towards Agriculture And Allocation of Resources under Different Plans in India. Employment Elasticity in Indian Agriculture, Challenges & Issues Regarding Agricultural Area Expansion, Production and Productivity in India (With Focus On Post Reform (Post 1991 & 1995) Period

Unit-II

Lecture Required: 10

Land Reforms in India & Its Contemporary Relevance, Green Revolution and the Need for Second Generation, Green Revolution, Role of Infrastructural Support-Irrigation, Power, Seeds Fertilizers, Marketing Support System and Roads in Agricultural Development in India

Unit-III

Lecture Required: 12

Role of Credit in Agricultural Development, Institutional & Non- Institutional Sources of Credit in India, Cooperative Movement in India (In Brief). Role of Schedule Commercial Banks, Lead Banks, Regional Rural Banks and NARBAD to Promote Agricultural Development (With Brief Introductory Note on the Objectives and Achievement of the Respective Institutions Emphasis will be on their Approaches, Challenges & Issues in the Post Reform Era). Agricultural Insurance, Indebtedness of Rural Households

Unit-IV

Lecture Required: 11

Agricultural Marketing: Meaning and Concept. Structure of Agricultural Markets in India, Issues and Challenges in the Marketing of Agricultural Products in India (With Focus On The Post Reform Period-Post 1991), Future Trading of Agricultural Commodities & Price Trends, Food Processing Industries in India. Commercial Crops, Traditional Vs Non-traditional crops, Agricultural Diversification: Meaning, Concept & Issues. Crop Diversification: Meaning, Concept and Issues. Farm Incomes and Employment in Indian Agriculture

SUGGESTED READINGS:

- Bardhan, P. (1984) Land, Labour and Poverty; Essays in Economic Development, OUP, New Delhi.
- Bhaduri, A. (1984), The Economic Structure of Backward Agriculture; Macmillan, Delhi.
- Bhalla, G.S., (2007) Indian Agriculture since Independence, National Book Trust, India
- Bharadwaj, K. (1974), Production Condition in India Agriculture; OUP, Cambridge.
- Black, J.D, (1953) Introduction to Economics for Agriculture, Macmillan.
- Dantawala, M.L. et al. (1991): Indian Agricultural Development since Independence, Oxford & IBH, New Delhi.
- Dash,Mrutyunjay (2013): Agricultural Economics, Anmol Publications.
- Dhawan B.D., (1993), Trends and New Tendencies in Irrigated Agriculture, Common Wealth Publishers, New Delhi.
- Dutta, B.K. (2003): Theories of Sharecropping, Mittal Publications New Delhi.
- Ghatak, S and K. Ingerscant (1984), Agriculture and Economic Development; Select Books, New Delhi.
- Griffin, K.(1973): Political Economy of Agrarian Change.
- Gupta,P.K (2012) : Agricultural Economics, Vrinda Publications,Delhi.
- Gupta,P.K (2012) : Krishi Arthsastra , Vrinda Publications,Delhi.
- Khushro, A.M.(1973), The Economics of Land Reforms and Farm Size in India, MacMillan.
- Kumar,N.S.Ravi (2010) : Agricultural Economics, Neha Publishers.
- Lekhi,R.K(2013) : Agricultural Economics, Kalyani Publishers.
- Lekhi,R.K(2013) : Krishi Arthsastra, Kalyani Publishers.
- Mahajan, ashwani (2010): Agricultural Economics, Centrum Press.
- Mellor, J.W., The Economics of Agricultural Development, Vora and Co., Bombay, 1964.
- Raghavan and L. Sarkar (Eds.) (1996): Poverty and Employment: New Delhi.
- Raj, K.N. et.al. (1988): Essays in the Commercialization of Indian Agriculture; OUP, New Delhi.
- Rao, CHH (1993):Agricultural Growth, Rural Poverty and Environmental Degradation in India, OUP, New Delhi.
- Rao, CHH, (1975): Technological Change and Distribution of Gains in Indian Agriculture, MacMillan.
- Rudra, A. (1982): India Agriculture Economics; Myths and Reality: Allied Publishers, New, Delhi.
- Sarap Kailash (1991): Interlinked Agrarian Markets in Rural India, Sage Publication, New Delhi.
- Schultz, T.W. (1964): Transforming Traditional Agriculture, Yale University Press.
- Soni, R.N (2011): Krishi Arthshastra Ke Mukhya Vishay, Vishal Publishing Company,Jalandhar (New Delhi)

- Soni, R.N (2011): Leading Issues In Agricultural Economics, Vishal Publishing Company, Jalandhar (New Delhi)
- Sunder, I (2010): Principles of agricultural economics, Neha Publishers.
- Talathi, J.M (2008): Introduction To Agricultural Economics And Agribusiness Management, Ane Books.
- Taylor, H.C., (1949), Outlines of Agricultural Economics, MacMillan.
- Verma, N.M.P. (1990), Irrigation Change and Agricultural Development, Uppal, New Delhi.
- Visaria, B and R. Basant (1994), Non-Agricultural Employment in India, Trends and Prospects, Sage Publication, New Delhi.
- Wanmali S. and C. Ramasamy (Eds.) (1995). Developing Rural Infrastructure; Macmillan, New Delhi.

ECO410

Economics of Industry-II

OBJECTIVE-.

This course focuses on the trends and patterns of industrial growth besides industrial finance and labour problems.

Unit-I

Lecture Required -15

Indian Industrial Growth and Pattern: Classification of Industries; Industrial Policy in India- Role of Public and private sectors; Recent trends in Indian industrial growth; MNCs and transfer of technology; Liberalization and privatization; Issues in Industrial proliferation and environmental preservation; Pollution Control Policies.

Unit-II

Lecture Required -10

Industrial Finance: Owned, External and other Components of Funds; Role, Nature, Volume and Types of Institutional Finance-IDBI, IFCI, SFCs, SIDC, Commercial banks, etc.; Financial Statement- Balance Sheet, Profit and Loss account; Assessment of Financial Soundness, Ratio Analysis.

Unit-III

Lecture Required -10

Industrial Labor: Structure of Industrial labor; Employment Dimensions of Indian industry; Industrial legislation; Industrial Relations: Exit Policy and Social Security; Wages and problem of Bonus- Labor Market Reforms.

Unit-IV

Lecture Required -10

Current Problems of Selected Industries: Iron and Steel; Cotton textiles; Jute; Sugar; Coal; Cement and Engineering Goods; Development of Small-scale and Cottage industries in India, MSME

SUGGESTED READINGS

- Sharma,A.K (2007) : Industrial Economics, Anmol Publications.
- Seth,Ranjana (2010) : Industrial Economics, Ane Books.
- Singh,S.P (2008) : Industrial Economics And Management, AITBS.
- Barthwal,R.R (2000) : Industrial Economics: An Introductory Text Book, New Age Publications.
- Lekhi,R.K (2012): Industrial economics, Kalyani Publishers, New Delhi.
- Shah, M.A (1994): Management of Indian Industry, Akashdeep Publishing House.
- Mohan,Narender (2012) : Indian Economic Policy , Neha Publishers & Distributors.
- Kapila,Uma (2013) : Indian Economy: Performance and Policies , Academic Foundation.
- Sinha,V.C: AudyogikArthashastra, RajkamalPrakashan.

Semester-III

EC0501: Micro Economic Analysis –I

OBJECTIVE-

This course is intended to communicate the basic tools and techniques of modern microeconomic theory with the basic focus on the behaviour of individual economic agents, various production functions and market structure incorporating welfare economics as well.

UNIT-I

Lectures Required: 10

Consumer Behavior: Rational Choice And Revealed Preference, Feasible Set and Consumption Decisions, Consumer's Utility Maximization Problem, Income and Substitution Effects, Expenditure Function, Indirect Utility Function, Roy's Identity and Slutsky Equation, Bandwagon, Veblen and snob effects

UNIT-II

Lectures Required: 15

Production, Cost and Supply: Production, Laws of Variable Proportions and Returns to Scale, Production Functions (Cob Douglas, CES), Variations In Scale, Variations in Input Proportions, Cost: Long And Short Run Cost Minimization

UNIT-III

Lectures Required: 15

Industrial Organization and Market Structures: Perfect Competition, Monopoly: Price Discrimination, Monopolistic competition: group equilibrium, Collusive oligopoly models: Cartels and mergers- price leadership, Cournot, Bertrand and Stackelberg Models (in Game Theoretic Perspective), Bertrand Paradox, Monopoly and Deadweight Loss; First, Second and Third Degree Price Discrimination.

UNIT-IV

Lectures Required: 10

General Equilibrium and Welfare Economics: Walrasian Equilibrium in a Competitive Economy, Existence and Stability of Equilibrium, Pareto Efficiency and Competitive Markets, Kaldor- Hicks Compensation Principle, Market Failures, Theory of Second Best, Measuring the Welfare Effects of Price Changes.

SUGGESTED READINGS

- Koutsoyiannis, A. "Modern Microeconomics", Macmillan.
- Mansfield, E., "Microeconomics", W.W. Norton and Company, New York.
- Salvatore, Dominic, "Principles of Microeconomics", Oxford University Press Publications, New Delhi.
- Cowell, Frank, "Microeconomics: Principles and Analysis" Oxford University Press Publications, New Delhi.
- Stonier, A.W & Hague, Douglas.C., "A Text Book of Economic Theory", Pearson.
- Ahuja, H.L., "Advanced Economic Theory", S.Chand, Delhi.
- Shastri, Rahul.A., "Microeconomics", Orient Blackswan.
- Pindyck, Robert.S., Rubinfeld, Daniel.L., Mehta, Prem.L., "Microeconomics", Pearson.
- Mankiw, N.George., "Principles of Microeconomics", South Western Publishers.
- Perloff, Jeffrey.M., "Microeconomics-Theory & Applications with Calculus", Pearson.
- Jhingan, M.L., "Ucchatar Arthik Siddhant", Shiva Publishing House, Allahabad.
- Seth, M.L., "Arthshastra Ke Siddhant", Laxmi Narayan Publications, Agra.
- Ahuja, H.L., "Ucchatar Arthik Siddhant", S.Chand & Company, New Delhi.

EC0502: Public Economics-1

OBJECTIVE-

This course provides a comprehensive overview of modern public economics with a detailed discussion on public goods, externalities, governmental expenditures, taxation theory and the issue of tax incidence and others

UNIT-I

Lectures Required: 15

The Theory of Public Goods: The Optimal Provision of Public Goods, The Free Rider Problem-Lindahl Equilibrium The Theory of Clubs-Incentive Mechanisms for the Provision of Public Goods

UNIT-II

Lectures Required: 10

Externalities; Pigouvian Corrective Taxes- Coasian Bargaining- Common Property Resources, Neuro-Economics: Emotional and Cognitive Costs.

UNIT-III

Lectures Required: 10

Taxation and Resource Allocation: The Efficiency of Taxes-Equity-The Conflict between Equity and Efficiency-Optimal Income and Commodity Taxes-Tax Reform-Effects of Taxation on Savings and Risk Taking

UNIT-IV

Lectures Required: 10

Tax Incidence: Partial and General Equilibrium Incidence Analysis-The Incidence of the Corporate Income Tax

SUGGESTED READINGS

- Margolis,J & Guitton,H : Public Economics (1974), Mcmiillan.
- Musgrave,R.A (1959) , The Theory Of Public Finance, McGraw Hill.
- Musgrave,R.A & P.B. Musgrave (1989) : Public Theory: Theory & Practice, Mcgraw Hill.
- Bagchi,Amaresh (2005) : Readings in Public Finance, Oxford University Press.
- Inge Kaul, Pedro Conceicao (2006): The New Public Finance, Oxford University Press.
- Due,John.F, Friedlaender, Ann. F (2002) : Government Finance, Economics Of The Public Sector, Aitbs Publishers & Distributors.

- Head, J.C (1974): Public Goods and Public Welfare, Durham, NC, Duke University Press.
- Johansen,Life (1965) :Public Economics, Chicago: Rand McNally.
- Shome Parthasarathi (2002): India's Fiscal Matters, Oxford University Press, New Delhi.
- Gupta, Janak Raj (2011): Public Economics in India Theory and Practice, Atlantic.
- Cullis,John & Jones Philip (2009) : Public Finance and Public Choice, Oxford University Press.

EC0503
Development Economics-I

OBJECTIVE:

This course imparts knowledge of theories and models of development and attempts to focus the emerging development perspectives.

Unit-I

Lectures Required: 15

Meaning and Measurement of Economic Growth and Development- Measuring Development and Development Gap-Per Capita Income, Inequality of Income, HDI and Quality of Life Indices. Development and Sustainability – Traditional View and Modern View, Sen's Capabilities Approach, Core Value of Development, Theories of Development – Classical Theory (Smith, Ricardo, Malthus, Mill). Karl Marx and Development of Capitalistic Economy, Crisis in Capitalism –Schumpeter and Capitalistic Development, Myrdal's Backwash and Spread Effects

Unit-II

Lectures Required: 10

Approaches to Development: Partial Theories, Vicious Circle of Poverty. Big Push Approach, Balanced Growth Approach, Unbalanced Growth Approach. Critical Minimum Effort Theory, Nelson's Low Level Equilibrium Trap, The Listian Trap, Samuelson & Swan's model

Unit-III

Lectures Required: 10

Growth Theories: Rostow Theory of Stages of Growth, Technology and Economic Growth. Harrod-Domar - Instability of Equilibrium: Neo Classical Growth Models – Solow. Growth Models of Kaldor, Growth Model of Passinetti, Optimal Savings and Ramsay's Rule. Romer Model of Endogenous Growth, Education, Human Capital and Economic Growth- the Schultz Model

Unit-IV

Lectures Required: 10

Theory of Demographic Transition, Population as Limits to Growth and as Ultimate Source Indicators and Measurement of Poverty, The Concept of Inclusive Growth- with Reference to India. Market Failure and Government Failure, Food Security, Education, Health and Nutrition, Gender and Development

SUGGESTED READINGS:

- Barro, Robert J and Xavier Sala-i- Martin, Economic Growth, The MIT Press, Cambridge, Latest Edition.
- Basu, Kaushik (2010): Analytical Development Economics: The Less Developed Economy, Oxford University Press.
- Basu, Kaushik, Issues in Economic Theory, part I and II, Oxford University Press, 2010
- Dasgupta, Dipankar: Growth Theory, Oxford University Press, 2007
- Ghatak, S., An Introduction to Development Economics. Allen and Unwin London, latest edition.
- Hayami, Y., Development Economics, Oxford University Press, New York, 2010 (5th Impression)
- Hayami, Yujiro & Godo, Yoshihisa (2005) : Development Economics: From the Poverty to the Wealth of Nations, Oxford University Press.
- Hendrik Van Den Berg, Economic Growth and Development, McGraw-Hill International Edition, 2005
- Jhingan ,M.L (2013): Economics of Development and Planning, Vrinda Publications, NewDelhi.
- Jhingan ,M.L (2013): Vikas Ka Arthshastra Awam Niyojan, Vrinda Publications, NewDelhi.
- Lal ,S.N (2012): Vikas, Niyojan Awam Paryavaran, Shiva Publishing House,Allahabad.
- Lekhi, R.K (2013): Economics of Development and Planning, Kalyani Publishers, New Delhi.
- Mankiw, G, Macroeconomics: Theory and Practices, Harvard Publication (Latest Impression)
- Meier, G.M., Leading Issues in Economics Development, Oxford University Press, New Delhi, Latest edition.
- Mishra ,S.K & Puri,V.K (2012): Economics of Development and Planning, Himalaya Publishers, Mumbai.
- Ray Debraj, Development Economics, Oxford University Press, Latest Edition.
- Somashekar, NT: Developmental Economics, New Age Publication (Latest edition)
- Taneja,M.L & Myer,R.M (2011): Arthshastra Ki Yojnaye Awam Vistaar, Vishal PublishingCompany,Jalandhar (New Delhi).
- Thirlwall, A.P., Growth and Development with Special Reference to Developing Economies, Macmillan, UK, 1999.
- Todaro,Michael.P & Smith,Stephen.C (2011) : Economic Development, Pearson.

ECO 504

Introductory Econometrics

OBJECTIVE- *This course aims to train the students with basic econometric models and enable the students to apply these.*

UNIT-I

Lectures Required: 12

Simultaneous Equation Models: Introduction and Examples, Simultaneous Equation Bias and Inconsistency of OLS Estimators; The Identification Problem; Rules of Identification-Order and Rank Conditions; Methods of Estimating Simultaneous Equation System.

UNIT-II

Lectures Required: 12

Econometrics Modelling: Model Specification and Diagnostic Testing, Panel Data Regression Models, Dynamic Econometric Model: Autoregressive and Distributed Lag Models.

UNIT-III

Lectures Required: 11

Stationary, Unit Roots, Co-Integration, Approaches to Economic Forecasting, AR, MA, ARIMA, Box-Jenkins Methodology; Problems with VAR Modelling.

UNIT-IV

Lectures Required: 10

Multivariate Analysis: Factor Analysis, Principal Component Analysis, Canonical Correlation Analysis, Discriminant Analysis.

SUGGESTED READINGS:

- Baltagi, B.H (2005) : Econometrics, Springer (India) Pvt Ltd.
- Chatfield C. and A.J. Collins, (1980), Introduction to Multivariate Analysis, Chapman and Hall, London.
- Chaw, G.C. (1983), Econometrics, McGraw Hill, New York.
- Dhanasekaran, K : Econometrics, Vrinda Publications, New Delhi
- Dougherty, Christopher (2011): Introduction to Econometrics, Oxford University Press.
- Francies, P.H. (1998), Time Series Modules for Business and Economic Forecasting Cambridge University Press, Cambridge.

- Greene, William H. (2003): *Econometric Analysis*, 5th Edition, Pearson Education, Inc., New Jersey.
- Greene, William H. (2003) : *Econometric Analysis*, Pearson Education.
- Gujarati, D. N. and Sangeetha (2007): *Basic Econometrics*, 4th Edition, Tata McGraw-Hill Publishing Company Ltd., New Delhi.
- Gujarati, Damodar N., Gunasekar Sangeetha (2011): *Basic Econometrics*, Tata McGraw Hill.
- Harvey, A.C. (1981), *Econometric Analysis of time series*, Philip Allen, London.
- Hatekar, Neeraj R. (2010) : *Principles Of Econometrics : An Introduction*, Sage India.
- Intriligator, M.D. (1978), *Econometrics Methods, Techniques and Applications*, Prentice Hall, Englewood Cliffs, New Jersey.
- Jacques Tacq (1998), *Multivariate Analysis Techniques in Social Science Research*, Sage Publications.
- Johnston, J. (1991), *Econometric Methods*, McGraw Hill Book Co., London.
- Kmenta, J. (1997): *Elements of Econometrics*, Univ. of Michigan Press, New York.
- Koutsoyiannis, A. (1977): *Theory of Econometrics* (2e), Macmillan, London
- Maddala, G.S., (1997), *Econometrics*, McGraw Hill, New York.
- Maddala, G.S. & Lahiri, Kajal (2012) : *Introduction To Econometrics*, Wiley India Pvt Ltd.
- Madnani, G.M.K (2008) : *Introduction To Econometrics*, Oxford & IBH Publishing Company, Delhi.
- Nachane Dilip M. (2010), *Econometrics: Theoretical Foundations and Empirical Perspectives*, Oxford University Press, New Delhi.
- Nachane, Dilip M. (2006) : *Econometrics: Theoretical Foundations and Empirical Perspectives*, Oxford University Press.
- Pindyck, R.S. and D.L. Rubinfeld (1976). *Econometric Models and Econometric Models and Economic Forecasts*, McGraw Hill, Kogakusha, Tokyo.
- Ramanathan Ramu, (2002), *Introductory Econometrics with Applications*, Thomson, South-Western.
- Wooldridge, Jeffrey M. (2012) : *Introductory Econometrics: A Modern Approach*, Cengage Learning India.

ECO505: Ethics and Economics

OBJECTIVE-

This course has been formulated to focus the relevance of moral concerns to the practice of both positive and normative economics. It also seeks to sensitise students to the influence of economic theory and its tools on moral philosophy.

UNIT I

Lecture Required -15

The Economic importance of Morality; Morality and Economic Outcomes; Ethics and the Market; Economists and Morality-an overview, Ethics and Profitability CSR, National Happiness Index

UNIT II

Lecture Required -10

Morality and Economic Rationality, Preferences vs. Rights vs. Needs; Norms and Economic behavior- 'adaptive preferences'

UNIT III

Lecture Required -10

Morality and welfare: The Pareto principle and its Critics: Outcomes Vs Procedures, Liberty and Right.

UNIT IV

Lecture Required -10

Measurement of Standard of Living and Quality of life .The Doctrine of Equality; Critics, Theories of Justice, Ethics and Good Governance

SUGGESTED READINGS

- Sen,Amartya (2001) : On Ethics And Economics, Oxford University Press.
- Sen,Amartya (2001) : On Economic Inequality, Oxford University Press.
- Sen,Amartya (2001) : Poverty and Famines, Oxford University Press.
- Sen,Amartya (2010) : The Idea of Justice, Penguin.
- Sen,Amartya (2001) : Development as Freedom, Oxford University Press.

- Sen,Amartya (1999) : Choice Welfare and Measurement, Oxford University Press.
- Sen,Amartya (1997) : Inequality Re-examined, Oxford University Press.
- Dutt,Amitava Krishna &Wilber,Charles.K (2013) : Economics and Ethics: An Introduction, Palgrave MacMillan.
- Backerman,Wilfred (2011) : Economics as Applied Ethics: Value Judgements in Welfare Economics, Palgrave MacMillan.
- Graafland,Johan.J (2009) : Economics, Ethics and the Market: Introduction and Applications, Routledge.
- Sen,A.K&Williams,B (1982) : Utilitarianism And Beyond, Cambridge University Press.
- Rawls,John (1971) : Theory Of Justice, Harward University Press.
- Roemer,John (1982) : Free To Lose, Harward University Press.
- Sen,Amartya (1999) : AarthikVikasAurSwatantra (Hindi), Neha Publishers & Distributors.

Semester IV

ECO506: Micro Economic Analysis-II

OBJECTIVE-

This course is intended to communicate the basic tools and techniques of modern microeconomic theory with the basic focus on the behaviour of individual economic agents and market structure.

UNIT-I

Lectures Required: 10

Uncertainty and Game Theory: Constant and Non Constant Sum Game, Prisoner's Dilemma, Concepts Including Nash Equilibrium, Choice under Uncertainty: Bernoulli, Neumann-Morgenstern Utility Functions, Risk Aversion

UNIT-II

Lectures Required: 10

Moral Hazard and Adverse Selection, Optimal Contracts Under Symmetric Information, Principal Agent Models, Properties of Contracts Under Moral Hazard And Adverse Selection, Signaling and Screening, Spence's Labor Market Signaling Model.

UNIT-III

Lectures Required: 10

Theories of distribution: Wages, Rent, Interest, Profit; Macro Theories of Income distribution: Ricardo, Marx, Kalecki, Kaldor

UNIT-IV

Lectures Required: 15

Alternative Theories of the Firm: Marris' model of Managerial Enterprise; Williamson's Model of Managerial Discretion; Behavioral Theory of The Firm (Model of Cyert and March); Full Cost Pricing Principle; Limit Price Principles (Bain, Sylos-Labini, Modigliani and Bhagwati); Issues regarding Existence, Purpose and Objectives of a Firm; Boundaries and Internal Organization, Resource-based, Transaction Cost-based and Knowledge-based Theories of Firm.

SUGGESTED READINGS

- Koutsoyiannis, A. "Modern Microeconomics", Macmillan.

- Mansfield, E., "Microeconomics", W.W. Norton and Company, New York.
 - Salvatore, Dominic, "Principles of Microeconomics", Oxford University Press Publications, New Delhi.
 - Cowell, Frank, "Microeconomics: Principles and Analysis" Oxford University Press Publications, New Delhi.
 - Stonier, A.W & Hague, Douglas.C., "A Text Book of Economic Theory", Pearson.
 - Ahuja, H.L., "Advanced Economic Theory", S.Chand, Delhi.
 - Shastri, Rahul.A., "Microeconomics", Orient Blackswan.
 - Pindyck, Robert.S., Rubinfeld, Daniel.L., Mehta, Prem.L., "Microeconomics", Pearson.
 - Mankiw, N.George., "Principles of Microeconomics", South Western Publishers.
 - Perloff, Jeffrey.M., "Microeconomics-Theory & Applications with Calculus", Pearson.
 - Jhingan, M.L., "Ucchatar Arthik Siddhant", Shiva Publishing House, Allahabad.
 - Seth, M.L., "Arthshastra Ke Siddhant", Laxmi Narayan Publications, Agra.
 - Ahuja, H.L., "Ucchatar Arthik Siddhant", S.Chand & Company, New Delhi.
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ECO 507: Public Economics-II

OBJECTIVE-

This course seeks to focus on pricing and investment decisions of public sector enterprises. Besides, it seeks to study fiscal federalism and some core aspects of Indian public finances.

UNIT-I

Lectures Required: 15

The Economics of the Public Sector: Pricing and Investment Decisions in the Public Sector-Marginal Cost Pricing- Departures from MC Pricing-The Theory of The Second Best-Peak Load Pricing

UNIT-II

Lectures Required: 10

Cost Benefit Analysis: Valuation of Benefit and Cost-Choice of Discount Rate-Shadow Price of Investment and Labour.

UNIT-III

Lectures Required: 10

Fiscal Federalism: Fiscal Imbalances-The Economic Case for Decentralisation-The Tiebout Model, Finance Commission.

UNIT-IV

Lectures Required: 10

Topics in Indian Public Finances: Analysis of the Indian Tax System-The Pattern of Government Expenditure-General Issues in Indian Fiscal Policy-Centre -State Relations in India, Fiscal Policy as a Tool for Redistribution and Equity.

SUGGESTED READINGS

- Margolis,J & Guitton,H : Public Economics (1974), Mcmillan.
- Musgrave,R.A (1959) , The Theory Of Public Finance, McGraw Hill.
- Musgrave,R.A & P.B. Musgrave (1989) : Public Theory: Theory & Practice, McGraw Hill.
- Bagchi,Amaresh (2005) : Readings in Public Finance, Oxford University Press.
- Inge Kaul, Pedro Conceicao (2006): The New Public Finance, Oxford University Press.

- Due, John.F, Friedlaender, Ann. F (2002) : Government Finance, Economics Of The Public Sector, Aitbs Publishers & Distributors.
- Head, J.C (1974): Public Goods and Public Welfare, Durham, NC, Duke University Press.
- Johansen, Life (1965) : Public Economics, Chicago: Rand McNally.
- Shome Parthasarathi (2002): India's Fiscal Matters, Oxford University Press, New Delhi.
- Gupta, Janak Raj (2011): Public Economics in India Theory and Practice, Atlantic.
- Cullis, John & Jones Philip (2009) : Public Finance and Public Choice, Oxford University Press.

EC0508

Development Economics-II

OBJECTIVE-

This course focuses on the recent theoretical advancements in development theory and policy. Furthermore, this seeks to expose the students to the linkages between international trade and development.

Unit-I

Lectures Required: 15

Development & Underdevelopment: an Overview; The Characteristics and Explanations Of Underdevelopment- Vicious Circle of Poverty, Circular Causation, Dualism-Social, Technological, Financial, Organizational, Model of Dual Economy, Lewis, Ranis-Fei, Jorgenson, Kelly Et Al. Dependency Theories of Underdevelopment.

Unit-II

Lectures Required: 10

Models of Technical Progress, Embodied and Disembodied Technical Progress, Neutral Technical Progress- Hicks, Harrod, Solow, Kaldor, Mirrlees Technical Progress Function, Arrow's Learning by Doing Approach to Economic Growth, Total Factor Productivity and Growth Accounting

Unit-III

Lectures Required: 10

Optimal Growth Theory- Ramsay, Von Neumann, Turnpike theorems, Golden Rule of Accumulation Endogenous growth, Intellectual capital, Role of Learning, Education and Research, A.K.Sen model, Explanations of Cross country Differentials in Economic Growth, Information Paradigm-Stiglitz

Unit-IV

Lectures Required: 10

International Trade, Aid, Finance in the Development of Developing Countries-with special reference to India. FDI & FII, Role of Technology Transfer and Multinational Corporations in promoting development in development of developing countries-with Special Reference to India. WTO & developing and least developed countries, Economic development and institutions- state failure, Issues of Good Governance

SUGGESTED READINGS:

- Barro, Robert J and Xavier Sala-i- Martin, Economic Growth, The MIT Press, Cambridge, Latest Edition.
- Basu, Kaushik (2010): Analytical Development Economics: The Less Developed Economy, Oxford University Press.
- Basu, Kaushik, Issues in Economic Theory, part I and II, Oxford University Press, 2010
- Dasgupta, Dipankar: Growth Theory, Oxford University Press, 2007
- Ghatak, S., An Introduction to Development Economics. Allen and Unwin London, latest edition.
- Hayami, Y., Development Economics, Oxford University Press, New York, 2010 (5th Impression)
- Hayami, Yujiro & Godo, Yoshihisa (2005) : Development Economics: From the Poverty to the Wealth of Nations, Oxford University Press.
- Hendrik Van Den Berg, Economic Growth and Development, McGraw-Hill International Edition, 2005
- Jhingan ,M.L (2013) : Economics of Development and Planning, Vrinda Publications, NewDelhi.
- Jhingan ,M.L (2013) : Vikas Ka Arthshastra Awam Niyojan, Vrinda Publications, NewDelhi.
- Lal ,S.N (2012): Vikas, Niyojan Awam Paryavaran, Shiva Publishing House,Allahabad.
- Lekhi, R.K (2013): Economics of Development and Planning, Kalyani Publishers, New Delhi.
- Mankiw, G, Macroeconomics: Theory and Practices, Harvard Publication (Latest Impression)
- Meier, G.M., Leading Issues in Economics Development, Oxford University Press, New Delhi, Latest edition.
- Mishra ,S.K & Puri,V.K(2012) : Economics of Development and Planning, Himalaya Publishers, Mumbai.
- Ray Debraj, Development Economics, Oxford University Press, Latest Edition.
- Somashekar, NT: Developmental Economics, New Age Publication (Latest edition)
- Taneja,M.L & Myer,R.M (2011): Arthshastra Ki Yojnaye Awam Vistaar, Vishal PublishingCompany,Jalandhar (New Delhi).
- Thirlwall, A.P., Growth and Development with Special Reference to Developing Economies, Macmillan, UK, 1999.
- Todaro,Michael.P & Smith,Stephen.C (2011): Economic Development, Pearson.

ECO 509

Structural Modelling For Policy Analysis

OBJECTIVE-

This course aims to impart analytical and quantitative skills to handle macroeconomic policy issues.

UNIT-I

Lectures Required: 15

Specification and identification of Simultaneous Equations Models; Estimation and Simulation; Model Evaluation.

UNIT-II

Lectures Required: 10

Simple demand/supply Constrained models, Large Scale models; Expectations; Switching regimes

UNIT-III

Lectures Required: 10

Lucas Critiques; Rational Expectations; Vector Autoregression Models and Policy Analysis; Long Run Relationships and Fluctuations; Dynamic Stochastic General Equilibrium Models

UNIT-IV

Lectures Required: 10

Modelling Consumption, Saving, Trade, Finance, Inflation and Investment: Policy Modelling for India

SUGGESTED READINGS:

- Bodkin,R , Klein,L.R & Marwak,K (1991) : History of Macroeconomic Modelling, Edward Elgar.
- Eckaus,Richard.S &Parikh,Kirit.S (1968) : Planning for Growth: Multi sectoral, Intertemporal Models Applied to India, MIT Press.
- Fair,R.C (1994) : Testing Macroeconomic Models, Harvard.
- Fisher,P (1992) : Rational Expectations In Macroeconomic Models, Kluwer.
- Geoffrey, Maruyama (1997): Basics of Structural Equation Modeling, Sage Publications.
- Grace, James.B (2006): Structural Equation Modeling and Natural Systems,Cambridge University Press.
- Huang,Xiaoming (2012) : China, India and the End of Development Models, Palgrave MacMillan.

- Krishnamurty,K & Pandit,V (1985) : Macroeconometric Modelling of The Indian Economy, Hindustan.
- Pearson,M.H & Wickens.M (Eds)(1986) : Handbook of Applied Econometrics, Blackwell.
- Pesaran,M.Hashem, Garratt,Anthony &Lee, Kevin (2006) : Global and National Macroeconometric Modelling: A Long-Run Structural Approach, Oxford University Press.
- Schumacker,Randall.E & Lomax, Richard.G (2010) : A Beginner's Guide To Structural Equation Modeling, Information Science Reference.
- Wang,Jichuan & Wang,Xiaoqian : Structural Equation Modeling, Wiley Publications.