

SAVITRIBAI PHULE PUNE UNIVERSITY
DEPARTMENT OF ECONOMICS

REVISED SYLLABUS FOR M.A. ECONOMICS
CREDIT SEMESTER COURSE-2017

Syllabus for M.A Part I Semester I, II and M.A Part II Semester III, IV to be started from July 2017.

1. There will be a total of FOUR courses in Semester I and II each for M.A in Economics. The students will have THREE Core courses and will have to select ONE Non-Core course in Semester I and II each.
2. There will be a total of FOUR courses in Semester III and IV each. In Semester III the students will have TWO Core courses and will have to select ONE EACH from the TWO Non-Core courses (I & II). In Semester IV the students will have to take THREE core courses and ONE non- Core course.

M. A Part I (Sem. I and II) and Part II (Sem. III and IV) - Each course will have FOUR credits. Syllabus only for University Department of Economics

Course Structure of MA Economics Part I and Part II Semester Wise

Course No.	Semester I	Course No.	Semester II
	Core		Core
EC- 101	Micro Economics –I	EC- 201	Micro Economics –II
EC- 102	Public Finance- I	EC- 202	Public Finance – II
EC- 103	International Economics-I	EC- 203	International Economics – II
	Non- Core		Non-Core
EC- 104	Basic Statistics	EC- 204	Economics of Agriculture
EC- 105	Mathematics for Economics	EC -205	Statistical Techniques
	Semester III		Semester IV
	Core		Core
EC- 301	Macro Economics –I	EC- 401	Macro Economics-II
EC- 302	Economic of Growth and Development – I	EC- 402	Economic of Growth and Development - II
		EC- 403	Research Project
	Non- Core -I		Non-Core
EC- 303	Research Methodology for Economics	EC- 404	Banking and financial Institutions - II
EC- 304	Methods of Econometrics	EC- 405	Economics of Finance
	Non- Core-II	EC- 406	Environmental Economics
EC- 305	Banking and financial Institutions –I	EC- 407	Gender Economics
EC- 306	Institutional Economics		
EC- 307	Economics of Discrimination		
EC- 308	National Income Accounting		

Semester -I Core course
EC-101 Micro Economics - I

Topic I Introduction

1. Introduction to Microeconomics
2. Market and Price Mechanism
3. Disturbances to equilibrium, floor price, ceiling price.

Topic II Consumer Theory

1. The concept of and Measurement of Utility: Cardinal and Ordinal.
2. Theory of Consumer Choice: Marginal Utility Theory, Indifference curve approach, Income and Price expansion paths, Demand Curve. Income and Substitution Effects: Slutsky and Hicksian approach.
3. Theory of Revealed Preference.
4. Concept of Elasticity: Price, Income and Cross Elasticities.
5. Concept and Measurement of Consumers' Surplus.

Topic III Production Theory

1. Production Function – One input, two inputs: Isoquants, Isocosts. Cobb- Douglas Production Function.
2. Law of Variable Proportions Returns to the Variable Factor Returns to Scale.
3. Producer's Equilibrium with One Input and Two Inputs.
4. Cost Curves, Total, Average and Marginal Cost Curves. Short Run and Long Run Cost Curves.
5. Derivation of Supply curve, Firm and Industry, Short Run and Long Run.
6. Concept and Measurement of Producers' Surplus.

Topic IV The Theory of Public Choice

1. Pareto Optimality
2. Bergson-Samuelson Social Welfare Function.
3. Compensation Criteria.
4. Arrow's Social Welfare Function and Impossibility Theorem.
5. Amartya Sen's Collective Choice Theory.

Recommended Books:

1. Varian, Hal (1996): Intermediate Microeconomics, W.W. Norton and Company, New York.
2. Hirschleifer J and A. Glazer and D Hirschleifer (2005): Price Theory and Applications, Prentice Hall of India, New Delhi.
3. Pindyck, Robert, Rubinfeld and Prem Mehta (2009): Micro Economics, Pearson, Prentice Hall of India, New Dehli.

4. Sen, A.(1999): Micro Economics: Theory and Applications, Oxford University Press, New Delhi.
5. Misra S.K. and V.K. Puri (2001): Advanced Microeconomic Theory, Himalay Publishing House, Mumbai.
6. Kreps, David, M (1990): A Course in Microeconomic Theory, Prentice Hall of India, New Dehli.

Semester -I Core Course

EC-102 Public Finance-I

Topic I Introduction

1. Role of government in organized society: changing perspective
2. Government in a mixed economy, public and private sector, government as an agent for economic planning and development Stabilization policy
3. Private goods, public goods and merit goods.

Topic II Rationale for Public Policy

1. Allocation of resource provision of public goods
2. Voluntary exchange models – Impossibility of decentralized provision of public goods - contributions of Samuelson and Musgrave
3. Demand revealing schemes for public goods, contributions of Clark, Groves and Leyard, Tiebout model
4. Theory of club goods

Topic III Public Expenditure

1. Wagner's law of increasing state activities
2. Wiseman-Peacock hypothesis, Pure theory of public expenditure
3. Structure and growth of public expenditure – Criteria for public investment – Social cost-benefit analysis – Project evaluation – Estimation of costs – Discount rate – Reforms in expenditure budgeting
4. Gender budgeting

Topic IV Taxation

1. Theory of incidence Alternative concepts of incidence –
2. Allocative and equity aspects of individual taxes, Benefit and ability to pay approaches
3. Theory of optimal taxation, Excess burden of taxes, Trade-off between equity and efficiency.

Topic V Public Debt

1. Burden of public debt
2. Sources of public debt

3. Public borrowings and price level, Crowding out of private investment and activity
4. Principles of debt management and repayment.

Recommended Books

1. Musgrave R. A. and Musgrave P. S. – The theory of Public Finance (different editions)
2. Stiglitz Joseph – Economics of the Public Sector (different editions)
3. Herber – Modern Public Finance (different editions)

Semester- I Core Course
EC-103 International Economics -I

Topic I Overview of classical and modern trade theories

1. Classical theories of trade – Ricardo and the concept of Comparative Cost theory - opportunity cost
2. Heckscher Ohlin theorem, Verification of physical criterion and price criterion, Leontief paradox
3. Factor price equalization and explanation with Edgeworth Box diagram

Topic II New trade theories

1. New theories of trade, product life cycle and technology gap models
2. Preference similarity and intra-industry trade, economies of scale and monopolistic competition – Krugman
3. Theory of economic geography – Krugman, Neo-Heckscher Ohlin theorem

Topic III Terms of Trade

1. Gains from trade – offer curve
2. Growth and Terms of Trade
3. Different concepts of Terms of Trade and factors affecting Terms of Trade

Topic IV Trade Policy

1. Free trade vs. controlled trade
2. Tariffs and non-tariff barriers on trade, Effects of tariffs under partial equilibrium. (Price effect, terms of trade effect, competitive effect, income effect, revenue effect)
3. Effects under general equilibrium, Stolper – Samuelson theorem

Topic V Regional Integration

1. Customs Unions: Features of customs union theory.
2. Trade creation and trade diversion under customs union (with graphical treatment)
3. The creation of European Union

Topic VI GATT and WTO

1. International trade agreements. Dunkel proposal.
2. WTO, Important Agreements under WTO,
3. Major developments since 1995,

4. Expected effects on the Indian economy.

Recommended Books

1. Paul R. Krugman & Maurice Obstfeld (2009) International Economics Theory and Policy. Pearson Education Publication New Delhi
2. Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan.
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. Soderston, Bo (2005), International Economics, The Macmillan Press Ltd., London.
6. GATT, the Dunkel Draft and India J. M. Economic and Political Weekly, Vol. 27, No. 4 (Jan. 25, 1992), pp. 140-142

Semester- I Non- Core Course

EC- 104 Basic Statistics

Topic I Basic Math

1. Ratios
2. Writing a ratio in its simplest form, average rate
3. Direct and Inverse proportion, Problems involving ratio, rate and proportion
4. Expressing one quantity as a percentage of another, comparing two quantities by percentage greater than 100 %, Increasing/Decreasing a quantity by a given percentage, reverse percentages, problems involving percentages

Topic II Graphs and Diagrams

1. Graphs and Interpretation of graphs
2. Types of graphs: Bar Diagram, Flow charts, Pie charts, Pictograph, line Graphs, time series graphs, Stem and leaf Plot, Histogram, Dot Plot, Scatter plot
3. Types of Functions, and functions and graphs

Topic III Set Theory

1. Set language and Notations

Topic IV Basic Statistics

1. Measures of Central Tendency
2. Dispersion and Standard deviation
3. Skewness and Kurtosis

Topic V Sampling and Sampling Techniques

1. Principles of Sampling and factors affecting the inferences drawn from a sample
2. Concept of population, Sample, Sampling Frame and Sampling unit
3. Characteristics of representative sample
4. Sampling error
5. Types of Probability sampling techniques
6. Types of Non-probability sampling techniques

Recommended Books

1. Basic Statistics - A. L. Nagar and R. K. Das
2. Mathematics and statistics for Economics- G.S. Monga
3. Statistical Methods - S.P. Gupta
4. Statistical Methods – S.C. Gupta
5. Statistics- Schaum's outlines , Murray R. Spiegel; Larry J Stephen

Semester- I Non- Core Course**EC-105 Mathematical techniques for Economics****Topic I Basic Application in Economics**

1. Review and Basic Applications in Economics

Topic II Exponential and Logarithmic Functions

1. Single Variable Calculus
2. Marginal Concepts b Elasticity
3. Optimization Techniques in Consumer and Production Theory
4. Consumer and Producer Surplus

Topic III Multivariate Calculus

1. Economic Functions
2. Unconstraint Optimization
3. Constraint Optimization
4. Special Matrices (Jacobian and Hessian)
5. Comparative Statics and Concave Programming

Topic IV

1. First Order Differential Equation
2. First Order Difference Equations
3. Second Order Differential Equations

Topic V Growth Models**Recommended Readings**

1. Introduction to Mathematical Economics - Edward Dowling
2. Mathematics for Economists - Simon and Blume
3. Fundamental Methods of Mathematical Economics - Chiang

Semester- II Core course
EC-201 Micro Economics- II

Topic I Classification of Markets

1. Classification of Markets.
2. Various types of Markets.
3. Short Run, Long Run Equilibrium of a Single Firm under Competitive conditions.

Topic II Monopoly

1. Measurement of Monopoly power.
2. Equilibrium of a Firm under Monopoly.
3. Price Discrimination under Monopoly, different types.
4. Comparison of monopoly and perfectly competitive market outcomes.
5. Regulation of Monopoly Power.

Topic III Imperfect Competition

1. Monopolistic Competition, Price and Non-price competition, Equilibrium.
2. Product Differentiation, Selling Costs and Excess Capacity.
3. Oligopoly, Basic market structure, Non-collusive oligopoly.
4. Collusive oligopoly, Cartels, Price and Output Determination.
5. Goal of Profit Maximization in Oligopoly.
6. Game Theory, Basic Concepts, Dominant Strategy Equilibrium, Nash Equilibrium, Repeated and Sequential Games.

Topic IV Imperfect Markets

1. Asymmetric Information: Markets for Lemons
2. Moral Hazard
3. Adverse Selection: Incomplete Information
4. Signalling

Recommended Books

1. Varian, Hal (1996): Intermediate Microeconomics, W.W. Norton and Company, New York.

2. Hirschleifer J and A. Glazer and D Hirschleifer (2005): Price Theory and Applications, Prentice Hall of India, New Delhi.
3. Pindyck, Robert, Rubinfeld and Prem Mehta (2009): MicroEconomics, Pearson, Prentice Hall of India, New Dehli.
4. Sen, A.(1999): Micro Economics: Theory and Applications, Oxford University Press, New Delhi.
5. Misra S.K. and V.K. Puri (2001): Advanced Microeconomic Theory, Himalaya Publishing House, Mumbai.
6. Kreps, David, M (1990): A Course in Microeconomic Theory, Prentice Hall of India, New Delhi.

Semester- II Core course**EC-202 Public Finance -II****Topic I Fiscal Policy**

1. Objectives of fiscal policy: Full employment, Inflation Targeting, Economic growth, Redistribution of income and wealth
2. Fiscal policy for stabilization: Automatic vs. discretionary stabilization, Alternative measures of resource mobilization and their impact on growth, Distribution and prices
Balanced budget multiplier
3. Interdependence of fiscal and monetary policies, budgetary deficits and their implications

Topic II Indian Tax system

1. Tax Revenue and Non-tax revenue of the Union, State and local bodies
2. Analysis of central and state government budgets – Fiscal situation of the PRIs, Current Budget Analysis
3. Major taxes in India: Direct and indirect taxes,
4. Major issues in Indian Taxation: Taxation of agriculture, Expenditure tax, Taxes on Services, Issue of Subsidies
5. Reform in direct and indirect taxes
6. Goods and Services Tax (GST)
7. Trends in public expenditure and public debt

Topic III Fiscal Federalism

1. Fiscal federalism in India: Vertical and horizontal imbalance
2. Assignment of function and sources of revenue: Constitutional provisions, Finance commission and planning commission, NITI Ayog
3. Devolution of resources and grants: Theory of grants, Resource transfer from union to state, Criteria for transfer of resources
4. Center-state financial relations in India: Problems if states' resources and indebtedness

Topic IV Issues in India's Fiscal system

1. Reports of Finance Commissions (FC) in India: Recommendations of the latest FC -
Fiscal crisis and fiscal sector reforms in India

Recommended Books

1. Ulbrich – Public Finance in Theory and Practice
2. Bagchi A. – Readings in Public Finance
3. Various Budget Documents in India
4. Economic Surveys of India

Semester-II Core course
EC-203 International Economics -II

Topic I Balance of payments

1. Equilibrium and Disequilibrium in BOP, adjustment mechanisms.
2. Marshall-Lerner elasticity approach, absorption approach, monetary approach.
3. Internal and External Balance. Swan model.
4. Foreign Trade Multiplier, National Income and BOP

Topic II Exchange rates and International Finance

1. Exchange rates. Flexible and fixed exchange rates.
2. Determination of exchange rates. Revaluation and Devaluation, Appreciation and Depreciation.
3. Spot rates and forward contracts, options and futures.
4. International financial markets. Euro currency markets, International Bond Markets

Topic III Exchange control

1. Convertibility on current account and capital account
2. Exchange control: objectives of exchange control. Methods of exchange control,
3. Indian Rupee and its fluctuations in the international currency markets.

Topic IV Optimum Currency Area

1. Optimum currency area theories - Factor mobility theory, propensity to inflation theory
2. The process of development of Euro as an optimum currency area

Topic V FDI and Multinational Corporations

1. International financial movements and types of risk involved. Portfolio and direct investments and their impact on the economy.
2. Multinational and transnational corporations and their role in the international financial movements.

Topic VI International Financial System and Financial Crises

1. Rise and fall of Bretton Wood and the emerging International Monetary system,
2. IMF, mechanism of membership quota and borrowing, Conditionality. Role of SDRs

3. Important International Financial Crisis and the role of IMF (Oil crisis, International debt crisis, South East Asian crisis, Brazil Argentina and Mexico, Russia and Eastern Europe, The sub-prime crisis)

Recommended readings

1. James Ingram: International Economics (Ed. 1995)
2. Krugman International Economics (latest edition)
3. Kennen International Economics (latest edition)
4. Maurice Levi: International Finance
5. Killick, T (1995), IMF Stabilisation Programme, Journal of Development Economics; Volume 32, No. 1, pp.158-178.
6. Mukherjee Smriti, Capital Account Liberalization & Flexible Exchange Rate
7. Salvatore, D ., International Economics 8th edition John Wiley and Sons, Inc

Semester- II Non- Core course
EC-204 Economics of Agriculture

Topic I Introduction

1. Fundamental differences between agricultural economics and economics of other businesses
2. Agrarian Questions and Differing forms of Capitalist Agrarian Transition
3. Mode of Agricultural Sectors
4. Classification of Farmers
5. Structure of Backward Agriculture- Causes of low investment and low productivity
6. Risk and Uncertainty in production- Inputs related risk and risk aversion, Adoption of Modern Technology under production uncertainty

Topic II Demand and Supply of agricultural products

1. Production function analysis in agricultural production behavior
2. Economics of supply of agricultural products
3. Theories of Marketable and Marketed Surplus
4. Theory of Demand for agricultural products
5. Price and Income elasticities of Demand for agricultural products
6. Factors affecting demand for agricultural products

Topic III Price determination in agriculture

1. Free market mechanism analysis
2. Fluctuation in agricultural prices
3. Wholesale and retail markets
4. Price spread
5. Role of hedging and speculation
6. Forward markets in agricultural commodities.

Topic IV Major aspects of Indian Agriculture

1. Institutional aspects of agricultural development in India
2. Growth and fluctuations in Indian Agriculture
3. Farm size, productivity and efficiency in Indian Agriculture
4. Price and Terms of Trade
5. Risk and Uncertainty

Topic V Agricultural Policy

1. Agricultural Price Policy in India - Minimum Support Price
2. Food Security– Food Corporation of India and Public Distribution System
3. Indian Agriculture in context of WTO regime

Recommended Books

- 1) Drummond E. V. and Goodwin J. W. – Agricultural Economics
- 2) Penson J, Capps O and Rosson – Introduction to Agricultural Economics
- 3) Sadhu and Singh - Agricultural Economics
- 4) Reddy R and Sastry D – Agricultural Economics
- 5) Lakhi and Singh – Agricultural Economics
- 6) Basu, K (1990): Agrarian Structure and Economic Development, Hardware Economic Publisher
- 7) Basu, K and P. Nayak (1992): Development Policy and Economic Theory, Oxford University Press
- 8) Basu, K (1997): Agrarian Questions, Oxford University Press, New Delhi
- 9) Bhaduri, A (1983): The Economic Structure of Backward Agriculture, Macmillan India Limited
- 10) Bardhan, Pranab (1989). The Economic Theory of Agrarian Institutions (Ed), Clarendon Press Oxford
- 11) Abhirup Sarkar (1993): On the formation of Agricultural Price, Journal of Development Economics
- 12) Ghatak, S and K. Inseigent (1984): Agriculture and Economic Development, Select Book Service
- 13) Acharya S S and N L Agarwal (1994): Agricultural Prices- Analysis and Policy, Oxford and IBH, New Delhi
- 14) Gulati, A, Maurice R. Landes, Ganguly, K. (2009): Indian Agriculture: Managing Growth with Equity, A publication of the Agricultural and Applied Economics Association
- 15) Dandekar, M L (1987): Growth and Equity in Agriculture, International Journal of Agriculture Economics
- 16) Shah, C H (1986): Growth and Inequality in Agriculture, International Journal of Agriculture Economics
- 17) Sen A K, and Rudra A (1980): Farm Size and Labour Use: Analysis and Policy, Economic and Political Economics
- 18) Ramesh Chand, P A, Lakshmi Prasanna, Arun Singh (2011): Farm Size and Productivity: Understanding the Strengths of Smallholders and Improving their Livelihood, Economic and Political Weekly Supplements
- 19) Rudra, Ashok (1984): Indian Agriculture: Myths and Realities
- 20) Joshi, P C (1987): Institutional Aspects of Agricultural Development

Semester- II Non- Core course**EC-205 Statistical Techniques****Topic I Introduction to statistics**

1. Overview of Basic statistical concepts,
2. Central tendency and dispersion, Skewness and Kurtosis

Topic II Correlation and regression

1. Correlation coefficient, Standard error and regression equations,
2. One variable regression analysis

Topic III Fundamentals of Probability

1. Random Variable, and Mathematical Expectation,
2. Theoretical Distributions (Binomial, Normal, and Poisson)

Topic IV Sampling Techniques

1. Fundamentals of Sampling, Estimation, Statistical Inference,
2. Chi-Square Test, F-Distribution, ANOVA, Association of Attributes, Non-Parametric Tests

Topic V Index Numbers and Time Series

1. Introduction to index numbers, construction of indices.
2. different forms of indices Introduction to time series

Recommended Books:

1. Comprehensive Statistical Methods - Arora, P.N.; Arora, Sumeet; Arora,
2. Statistical Methods – S. P. Gupta
3. Statistical Methods – S. C. Gupta

Semester- III Core Course
EC-301 Macro Economics- I

Topic I National Income

1. Concepts: Gross Domestic Product, Gross National Product, Net Domestic Product- Nominal and Real domestic product
2. Price Indexes and GDP deflator Concept of disposable Income and Relationships between Income consumption, Saving, Investment, Government Expenditure, Taxes, Imports and Exports
3. National Accounts Statistics-system of national income accounting in India. Green Income

Topic II Aggregate Supply Aggregate Demand

1. Difference between Potential Output and Actual Output, Classical Approach, Keynesian approach
2. Determination of Equilibrium, of Aggregate Demand and Supply, Determination of output and employment Effects of change in Aggregate Demand and Supply Curves, Classical Approach, Keynesian approach-neutrality of money
3. Multiplier Effect, Multiplier effect with inclusion of Government sector. (Automatic stabilizers, balanced budget multiplier)

Topic III Brief structure of IS-LM Model

1. Derivation of IS curve and LM curve, Equilibrium in the Goods and Assets under fixed and flexible prices, Derivation of aggregate demand schedule
2. **Monetary and Fiscal policy:** The transmission Mechanism, Liquidity Trap, Fiscal policy and crowding out Optimum Policy mix with IS-LM model.

Topic IV Consumption Saving, Investment Spending

1. Consumption and saving
2. Theories of consumption: Life cycle hypothesis, Permanent income hypothesis.
3. Investment spending, Marginal productivity of capital, Concept of accelerator and super multiplier.

Topic V New Keynesian and New classical Approaches:

1. The Real Business cycle Theory, The Rational expectations Revolution
2. New Classical Macroeconomics: Perfect Information, Rational Expectations, Lucas critique- Imperfect information and asymmetric information, Real business cycle theory

Topic VI Open Economy Issues

1. Open Economy IS-LM-BP: The Mundell - Fleming Model, Macroeconomic policy Stabilization and exchange rate regimes

Topic VII India's Macro economy

1. Overview. Changes in macro economic variables after 1991
2. Problems and policy

Recommended Books

1. Rudiger Dornbush and Stanley Fisher - Macroeconomics (latest edition)
2. Mankiw-Macroeconomics (latest edition)
3. Branson-Macroeconomics Analysis
4. G. Ackley-Macroeconomics Theory and policy (latest edition)
5. National Accounts Statistics-NAS Measures, Concepts of National Accounts Statistics

Semester- III Core course

EC-302 Economics of Growth and Development -I

Topic I Development and Underdevelopment: An Overview

1. The relevance of economic development. Problems in defining economic development
2. Economic growth in historical perspective: Marx, Schumpeter, Gerschenkron
3. Characteristics of LDCs - structural view of underdevelopment
4. The world distribution of income. Development gap.
5. Per capita income as an index of development. Difficulties of measurement and comparability problems involved in the calculation of per capita according to exchange rate and purchasing power parity
6. Alternative measures of development gap - HDI

Topic II Poverty and Inequality

1. Poverty and income distribution. Defining poverty and problems of measurement.
2. Income inequality, measurements of inequality.
3. Understanding inequality in the developed and underdeveloped worlds. Impact of inequality on the process of development.

Topic III Theories of Economic Growth and Development

1. The Harrod-Domar growth model and its application to LDCs
2. Solow's model of economic growth - The production function approach to the study of causes of growth
3. The Cobb- Douglas Production function - Embodied and disembodied technical progress
4. Surplus labour (Lewis), big push (Rosenstein-Rodan) , Balanced growth (Nurkse) , Unbalanced growth (Hirshman) - The process of cumulative causation (Myrdal), the center and periphery hypothesis - the dependency school
5. New Endogenous growth models- Intellectual capital: role of learning, education and research; AK model — Explanations of cross country differentials in economic growth

Topic IV Population growth and economic development

1. Population - basic concepts –
2. the theory of demographic transition - age structures of population
3. Migration - Rural and Urban migrations -The Harris - Todaro Model - problems of urbanization
4. Employment markets - Formal and informal employments - wage rates

Recommended Books

1. Debraj Ray (1998)- development Economics - Latest edition
2. Meier G. and J. Rauch (2004) - leading Issues in Development Economics 7th edition, Oxford University Press
3. Thirlwall A P.- Growth and Development (6th or 7th edition)
4. Basu, K. (2003), Analytical Development Economics: The Less Developed Economy Revisited, The MIT press.
5. Bardhan,P. and C. Udry (eds) (2000), 1st edition, Readings in Development Economics, The MIT Press

Semester-III Non-Core Courses -I
EC-303 Research Methodology for Economics

Topic I Meaning of Research

1. Meaning of research in Economics.
2. Types of research (descriptive vs. analytical, fundamental vs. applied, qualitative vs. quantitative, conceptual vs. empirical, empirical vs. simulation based, conclusion oriented vs. decision-oriented, historical vs. a-historical.)
3. Importance and utility of Social Science research, Limitations of and difficulties in Social Science research.

Topic II Research Design

1. Stages involved in designing research -Conceptualizing the research topic.
2. Identifying and formulating the objectives.
3. Understanding the role played by methodology.

Topic III Research Methods and Techniques

1. Research methods and techniques- differences among them, the logical framework of investigation, the nature of problem and appropriate methodology.
2. Macro-level vs. Micro level research.
3. Data Collection, Sources of Data,
4. Primary Data, Surveys, Interviews, Questionnaires, personal interviews, group interviews, small group studies, Schedule, Observation, participant or nonparticipant observation.
5. Secondary data - Collection of Secondary data
6. Case studies.
7. Experimental Method in Social Sciences.

Topic IV Analysis of Data

1. Examination of the collected data - (primary or secondary)
2. Classification and Tabulation, Bi-variate presentation.
3. Graphs and Diagrams
4. Measures of Central Tendencies. Dispersion, Correlation
5. Hypothesis Testing - Definition and Formulation

Topic V Research Report Writing

1. Stages of report writing - survey of literature, development of working hypotheses, preparation of research design, collection of information, processing of collected information, hypothesis testing, interpretation and generalization,
2. Report writing, references and bibliography.
3. Presentation - Power Point

Recommended Books

1. Guthrie Gerard (2010): Basic Research Methods: An Entry to Social Science Research, sage Publications, New Delhi.
2. Kothari C.R.(2004) : Research Methodology: Methods and Technique, New Age International Publishers.
3. Kumar Ranjit (2014): Research Methodology: A Step By Step Guide for Beginners, Sage Publications, New Dehli.
4. Krishnaswamy K N. and M. Ranganathan (2005): Methodology of Research in Social Sciences, Himalaya Publishing House.

Semester- III Non- Core Course I
EC- 304 Methods of Econometrics

Topic I The nature of regression analysis

1. Two variable Regression model: Concept of PRF, Meaning of Linear Stochastic specification of PRF
2. Significance of the Stochastic Disturbance Term

Topic II Two variable regressions

1. Estimation through OLS-Assumptions, Estimators and their Properties, Gauss-Markov Theorem, coefficient of determination,
2. Two Variable Regression: Interval Estimation and hypothesis Testing-Normality Assumption and Properties of OLS Estimators under Normality Assumption,
3. Confidence Interval and Test of Significance Approach for Regression Coefficients, Analysis of Variance, Extensions of Two Variable Linear Regression Model - Regression through the Origin, Functional Forms

Topic III Multiple Regression Analysis

1. Problem of Estimation, Meaning of Partial Regression Coefficients, Adjusted R Square, Partial Correlation Coefficients, Problem of Inference,
2. Hypothesis testing, Uses of F test, Relaxing the Assumption of the OLS Multicollinearity and Consequences, Detection through Graphical Method, Spearman's rank Correlation Method, Goldfeld-Quandt Test, White's test-remedial measures, Autocorrelation.
3. Nature of the Problem, BLUE Estimator in the Presence of Autocorrelation, Consequences, Detection of the Problem through Graphical Method and Durbin-Watson d test, Remedial Measures

Topic IV Regression on Dummy Variables

1. Nature of Dummy Variables, Regression on Quantitative and Qualitative Variables,
2. Testing for Structural Stability, Interaction Effects, Use of Dummy variables in Seasonal Analysis,
3. Use of dummy variables in combining Time series and Cross Sectional Data

Topic V Simultaneous Equation Models

1. Examples, Simultaneous Equation bias, Problem of Identification Definition and Rules for Identification
2. Estimation of Simultaneous Equation models Recursive Models, Indirect Least Squares Two stage Least Squares

Topic VI Introduction to Time Series

1. Autoregressive and Distributed Lag Models, Stationary and Non-Stationary Process,
2. Concept of Unit Root Process and Testing, Transforming Non-Stationary Time Series,
3. Introduction to Forecasting using Time Series, Vector Autoregressive Model

Recommended Books

1. Basic Econometrics - Damodar Gujarati
2. Introductory Econometrics A Modern Approach - Jeffrey Wooldridge
3. Theory of Econometrics - A Koutsoyinnis
4. Introduction to Econometrics - G. S Maddala
5. Econometric Methods - G S Maddala

Semester- III Non- Core Course II

EC- 305 Banking and Financial Institutions – I

Topic I Introduction

1. Overview of Financial System, Function of Financial Markets-role of Financing Intermediaries, Aspects of risk sharing, transaction costs, information costs, diversification and conflict of interests.

Topic II Banking system in India

1. Structure of Banking System in India, Central Banking – Reserve Bank of India Functions & Role, Role of RBI in currency Management. Reserve Management and Liquidity Management in the post Liberalization period, Monetary Policy of RBI since 1991.

Topic III Commercial Banking

1. Public Sector Banks- Nationalization of Banks – progress and problems post-nationalization,
2. Private Sector Banks – Old Private Banks in India, Progress & Problems: Guidelines for New Private Banks, Emergence, Progress & Problems.
3. Regional Rural Banks- Progress & Problems, Role of RRBs in Post reform period (1991)
4. Introduction of Local Area Banks Cooperative Banking – Progress & Problems of Cooperative Banking, Policy for Urban Cooperative Banks.

Topic IV Banking sector Reforms after 1991

1. Committee on Indian Financial System 1991 & 1998
2. Objectives of Financial Reforms, Reforms in the Indian Banking Sector since 1991.

Topic V Non - Banking Financial Institutions

1. Definition of NBFC – RBI Classification of NBFCs. Non- banking Institutions-small savings, Pension Funds, Mutual Funds, Insurance Companies-Meaning & Features,
2. Regulations of NBFCs in India, Performance of NBFCs in India (since 1985) – Number, Size, volume and structure of deposits.

Recommended Books

1. Bhole L. M. (2004) “Financial Institutions and Markets Structure, Growth and Innovations” Tata McGraw Hill Publishing Company Ltd. New Delhi

2. Bhasin, Niti (2006) “Banking Developments in India 1947 to 2007” New Century Publications.
3. Frederic Mishkin and Stanley Eakins (2006) “Financial Markets and institutions”, Pearson 5th Ed.
4. Kohn Meir “Financial Institutions and markets” Tata McGraw Hill
5. Tannan M L (2010) “Banking Law and Practice in India” Lexis – Nexis India

Reports

1. Report on Trend & Progress of Banking - RBI Annual Reports
2. Report on Currency & Finance – RBI Publication
3. Report of the Committee on Financial Inclusion, 2008
4. Report of the Committee on Financial Sector Reforms (Raghuram Rajan Committee)
5. Report (2009) (A Hundred Small Steps by Sage Publication)

Semester -III Non- Core Course II

EC- 306 Institutional Economics

Topic I Institutions

1. What are Institutions?
2. Social, Political, Cultural and Economic Institutions
3. What do the Institutions do?

Topic II What is Institutional Economics?

1. What does it try to do? The need for Institutional economics
2. Old Institutionalism and New Institutionalism, Challenges posed to Neo-Classical economics
3. Transactions Costs and Imperfect Information
4. Economies of Scale and Division of Labour

Topic III Institutions as a Fundamental Cause of Long Run Growth vs. High Growth leading to better Institutions- Empirical evidence.

Topic IV Interface between Institutional economics and Development economics

1. Institutions as a constraint for developing economies

Topic V How do institutions develop/change?

1. How and why do 'good' institutions not develop?
2. Which institutions matter?
3. How to get 'good' institutions? What should be the institutional agenda for developing economies? Debate between the two schools of thought
4. What are the 'right' institutions for a developing economy? Bardhan's perspective on persistence of socially suboptimal institutions
5. Why poor nations remain poor?

Topic V Violence and Social Orders

1. Open Access Order and Limited Access Order

Recommended Books

1. North, Douglas 1990. Institutions, Institutional Change and Economic Performance, Cambridge University Press
2. North D 1991. Institutions, Journal of Economic Perspectives, Vol. 5, No. 1, pp 97-112.
3. North, Douglas 1993. The New Institutional Economics and Development, Washington University.

4. Williamson O 2000. New Institutional Economics, Taking Stock, Looking Ahead, *Journal of Economic Literature* Vol. 38, pp 595-613.
5. Acemoglu, D and Johnson, S. James Robinson 2004. Institutions as a Fundamental Cause of Long Run Growth, in *Handbook of Economic Growth*, eds by P. Aghinon and S.Durlauf
6. Bardhan P.K 1989 The New Institutional Economics and Development Theory: A Brief Critical Assessment, *World Development*, Vol. 17, No.9 pp. 1389-1395
7. Bardhan P.K 2000 Understanding Underdevelopment : Challenges for Institutional Economics from the Point of View of Poor Countries, *Journal of Institutional and Theoretical Economics*, March, Vol. 156, No. 1, pp 216-235.
8. Bardhan P.K 2005. Institutions Matter, But Which Ones? *Economics of Transition*, Vol. 13, No. 3, 2005, pp 499-532.
9. North D , Wallis, J.J Weingest, B.R 2009 *Violence and Social Orders : A Conceptual Framework for Interpreting Recorded Human History*, New York, Cambridge University Press.
10. North D , Wallis, J.J, Webb S.B , Weingest, B.R 2013 *In the Shadow of Violence: Politics, Economics, and the Problems of Development*, New York, Cambridge University Press.
11. Acemoglu , D and Johnson, James 2012 *Why Nations Fail: The Origins of Power, Prosperity and Poverty* , Great Britain, Profile Books.

Semester- III Non- Core Course II
EC- 307 Economics of Discrimination

Topic I Introduction, History and Economic Modeling

1. Introduction to Economics of Discrimination
2. Historical perspective on Discrimination
3. Causes and forms of Economic Discrimination
4. Economic models of Discrimination- Competitive and collective models, Overcrowding model, The Human capital Model

Topic II Inequality, Social Exclusion and Theories of Discrimination

1. Concept of Inequality- Group-based Inequality and Inter-personal Inequality
2. Social Exclusion: Concepts and types
3. Theories on Discrimination:
 - i. Gary Becker (Test for Discrimination)
 - ii. Kenneth Arrow (Belief Theory of Discrimination)
 - iii. George Akerlof (Identity theory of Discrimination)
 - iv. Herbert Blumer's theory of discrimination
4. Caste based Exclusion and Discrimination- Ambedkar's approach towards economics of Caste, and Untouchability, Gandhian views of Economic dimension of Caste system.

Topic III Market based Discrimination

1. Market discrimination- Discrimination in Factor Market
2. Input Market- Land Market, Labour Market, Gender, Occupation, and Agricultural Inputs
3. Discrimination in Commodity market-Discrimination in imperfect market
4. Econometrics models of labour market discrimination

Topic IV Public Policies to overcome Economic Discrimination and Experiences

1. Empowerment Policies,
1. Reservation policy or Affirmative Action Policies,
2. Land Policies, and
3. Experiences of USA, India, and South Africa

Recommended Books and Articles

1. Chakravarti, Achin (2001). Concept and Measurement of Group Inequality, Centre for Development Studies, working paper no. 315, May

2. Akerlof, George (1976). The Economics of caste and of the Rat Race and other woeful tales, *Quarterly Journal of Economics*, Vol. 90
3. Akerlof, George and Rachel Kranton (2010): Identity Economics: How Our Identities Shaped Our Work, Wages and Well-being: Princeton University Press, New Jersey.
4. Arrow, Kenneth (1972), Models of Job Discrimination in A.H. Pascall, ed., Racial Discrimination in Economic Life, D.C. Heath publishers, Lexington MA.
5. Arrow, Kenneth (1973). The Theory of Discrimination in the labour market, Orley Albert Rees (ed), Princeton: Princeton University Press
6. Becker, Gary (1956): The Economics of Discrimination, Chicago: University of Chicago Press.
7. Blank, R. M., M. Dabady, C.F. Citro (2004), Measuring Racial Discrimination, National Research Council Panel on Methods for Assessing Discrimination, National Academies press, Washington D.C (Available at <https://www.nap.edu/read/10887/chapter/1>).
8. Blumer, Herbert (1958). Race prejudice as a sense of group position, *Pacific Sociological Review*, Spring, Vol 1, P.3
9. Borooah, V.K., N.S. Sabharwal, D.G. Diwakar, V.K. Mishra, A.K. Naik. (2015). Caste, Discrimination, and Exclusion in Modern India: Sage Publication.
10. Cowell, Frank A (2016). How much inequality we can explain A Methodology and an application to the Topiced States, *Economic Journal* Vol 105,
11. Dan A. Black (1995), "Discrimination in an Equilibrium Search Model", *Journal of Labour Economics*, vol.13, no.2, April.
12. Darity, William and Ashwini Deshpande (2003), *Boundaries of Clan and Color*, Routledge, New York.
13. Darity, William, and Darrick Hamilton. 2012. *Bold Policies for Economic Justice*. Springer
14. Desai, S and Amaresh Dubey (2011): "Caste in 21st Century India: Competing Narratives", *Economic and Political Weekly*, Vol 46(11), pp 40-49.
15. Deshpande Ashwini. 2011. *The Grammar of Caste: Economic Discrimination in Contemporary India*. Oxford publication
16. Deshpande, Ashwini (2005), Do Market Discriminate? Some Insights from Economic Theories, pp.59-65 in Thorat, Aryama, and Negi, eds., *Reservation and Private Sector: Quest for Equal Opportunity and Growth*, Rawat Publishers, New Delhi.
17. Deshpande, Ashwini and Thomas Weisskopf (2010): "Does Affirmative Action Affect Productivity in the Indian Railways?," Working Paper No 185, Centre for Development Economics, Delhi School of Economics, Delhi.
18. HAAN, De, Arjan (1999) *Social Exclusion: Towards and holistic understanding of deprivation*. Social Development Dept. Dept. of International Development.
19. Hills, John, Julian Le Grand, and David Piachaud (2002), *Understanding Social Exclusion*, Oxford University Press, New York.
20. Holzer, Harry (1999), *What Employers Want: Job Prospects for Less-Educated*

Workers, Russell Sage, New York.

21. Jodhka, S.S. *Caste: A Short Introduction*, Oxford University Press, 2013
22. Killick, Tony (2002). *Responding to Inequality*, Inequality Briefing, Briefing Papers No. 3 (3 of 3), Overseas Develop Institute.
23. Lackshmanasamy, T. and S. Madheswaran (1995), *Caste Discrimination: Evidence from Indian Scientific and Technical Labour Market*, Indian Journal of Social Sciences, Vol. 8, No. 1, Pp.59-77.
24. Lareau, Annette (2003), *Unequal Childhoods: Race, Class, and Family Life*, University of California Press, Berkeley CA.
25. Madheswaran, S. (2008). *Is Affirmative Action Policy for Private Sector Necessary?* *Indian Journal of Industrial Relations: Economics & Social Dev.*, 44(2), 164-184.
<http://www.i-scholar.in/index.php/ijir/article/view/41672>
26. Marc Fosset and Scot J South (2016). *Measurement of intergroup income inequality: A Conceptual review*, Social Force, vol. 61,
27. Massey, Douglas and Nancy Denton (1993), *American Apartheid: Segregation and the Making of the Underclass*, Harvard University Press, Cambridge MA.
28. Mckay Andrew (2002). *Defining and Measuring inequality*, Inequality Briefing, Briefing Papers No. 1 (1 of 3), Overseas Develop Institute
29. Mendelsohn, Oliver and Marika Vicziany (1998), *The Untouchables: Subordination, poverty, and the state in modern India*, Cambridge University Press, Cambridge UK.
30. Michael Sattinger (1996): "Search and Discrimination", *Labour Economics*, 3(2).
31. Mohanty, B.B (2001), "Land Distribution among Scheduled Castes and Tribes", *EPW*.
32. Nancharaiah, G.(1984), *Land and Cast*, Himalaya Publications, Bombay.
33. Naschold, Felix (2002). *Why inequality Matters for Poverty*, Inequality Briefing, Briefing Papers No. 2 (2 of 3), Overseas Develop Institute
34. Nesiah Devanesan (1997). *Discrimination with Reason*, Oxford University Press, Delhi.
35. Piketty, Thomas (2015) *Economics of inequality*, Harvard University Press, *Handbook of Income Distribution*, Volume 1, 2000, Pages 429-476
36. Prakash, Aseem (2015): *Dalit Capital: State, Market and Civil Society in Urban India*: Routledge, Delhi.
37. Quillian, Lincoln (2006), *New Approaches to Understanding Racial Prejudice and Discrimination*, *Annual Review of Sociology*, 23:299-328.
38. Randive, B.T (1997), "Caste, Class and Property Relations", *EPW*, February.
39. Ravillion, M and S Chen (2003): "Measuring Pro-poor Growth", *Economic Letters*, 78(1).
40. Scoville, James (1991), *Towards a Formal Model of a Caste Economy in Status Influences in Third World Labour Markets: Caste, Gender, Custom*, De Gruyter, New York.
41. Scoville, James (1996), *Labour Market underpinnings of a caste economy*, *The*

- American Journal of Economics and Sociology*, 55(4).
42. Sen Amartya (1997). From income inequality to Economic inequality, *Economic Journal*, Vol. 64.
 43. Sen, A. (2000). Social Exclusion: Concept, Application and Scrutiny', Social Development Papers No. 1. Office of the Environment and Social Development, Asian Development Bank.
 44. Sen, A.K. (1995), Inequality Re-examined, Oxford University Press
 45. Sen, A.K.(1990): Gender and Cooperative Conflicts' in Tinker(Ed) Persistent Inequalities: Women and World Development, Oxford University Press, New York.
 46. Silver, Hillary and Wilkinson, F (1995), Policies to combat Social Exclusion: A French British Comparison, Geneva: ILS, Discussion Papers, Series No. 83
 47. Solomon W. Polachek and W. Stanley Siebert (1993): "The Economics of Earnings", Cambridge University Press, USA.
 48. Thorat S.K, N. Tagade, A.K. Naik (2016). Prejudice against Reservation Policies: How and Why?, *Economic and Political Weekly*, Vol. LI, No 8, Feb 20.
 49. Thorat, S. and K. Newman (2010). Blocked by Caste: Economic Discrimination in Modern India (eds.). Oxford University Press. New Delhi. 2010. Pp. 287-310
 50. Thorat, S.K and Joel Lee (2006), "Dalits and the Right to Food-discrimination and Exclusion in food-related Government Programmes", IIDS, Working paper, November, 3.
 51. Thorat, S.K. (2001). Caste Untouchability and Economic and Market Discrimination: Theory, Concept and Consequences, Artha Vigyana, Journal of Gokhale Institute of Politics and Economics. Vol. XLIII, Nos. 1-2
 52. Thorat, S.K. (2004), Caste System in India: Social and Economic Exclusion and Poverty, Indian Institute of Dalit Studies, New Delhi.
 53. Thorat, S.K. (2005). Caste, Social Exclusion and Poverty Linkages: Concept, Measurement and Empirical Evidences, IIDS Working Paper.
 54. Thorat, S.K. and Umakant (2004), Caste, Race, and Discrimination: Discourses in International Context, Rawat Publications, New Delhi.
 55. Thorat, S.K., Aryama, and Prasant Negi (2005), Reservation and Private Sector: Quest for Equal Opportunity and Growth, Rawat Publications, New Delhi.
 56. Thorat, Sukhadeo, M Mahamallick and Nidhi Sadana Nidhi (2010): "Caste System and Pattern of Discrimination in Rural Markets", in Sukadeo Thorat and Katherine Newman (ed.), Blocked By Caste - Economic Discrimination in Modern India (New Delhi: Oxford University Press) .
 57. Thurow, Lester (1969), Poverty and Discrimination, Browking Institution, Washington, Chapter VII.
 58. Weber, Max (1968), Economy and Society. (Edited by Guenther Roth and Claus Wittich) Bedminister Press, New York.
 59. William Darity, Jr. (1995). Economics and Discrimination. Vol-I & II, Edward Elgar Publication.

60. William M. Rodgers (2009): Handbook on the Economics of Discrimination, Edward Elgar publishing.
61. Xaxa, V (2001), "Protective Discrimination: Why Scheduled Tribes lag behind Scheduled Castes?", Economic and Political Weekly, July 21.

Semester- III Non- Core Course II
EC- 308 National Income Accounting

Topic I Concept of National Product

1. Concept of Production. Production exchanged in the market, Self Consumed Produce, Services of Housewives, Owner Occupied Dwellings, and Consumer durables.
2. Concept of value added by production. Distinction between intermediate and final product. Problem of deducting for intermediate products.
3. Distinction between Value added from a particular sector and the final product available from the sector.
4. Gross and Net Production: Netting for depreciation
5. Domestic Product and National Product at Market Prices and Factor costs
6. Disposable Income and Personal Income.

Topic II Treatment of Special Sectors

1. Valuing the Product of / Treatment of Government sector
2. Valuing the Product of /Treatment Financial Intermediaries
3. Valuing the Product- Rest of the World.
4. Accounts for the producing sector, Consuming Sector, the government sector and the Rest of World.

Topic III Methods of Income Estimation

1. The Product Method
2. The Income Method
3. The Expenditure Method
4. The Equivalence of the three methods.

Topic IV Accounts for Different Sectors

1. Accounts for the producing sector
2. Accounts for the Consuming Sector
3. Accounts for the government sector
4. Accounts for the Rest of World

Topic V Related Topics

1. The United Nations System of National Accounts.
2. National Income at Current and Constant Prices.
3. Green GDP
4. National Account Statistics of India. An Introduction.

Recommended Book

1. Beckerman, Wilfred (1968): An Introduction to National Income Analysis, Weidenfeld and Nicolson, London.
2. Uma Dutt Roy Choudhury (2000): National Income Accounting, MacMillan Publishers, India.
3. Paul Studentski (1961): The Income of Nations, New York university press.
4. CSO Government of India (2012): National Accounts Statistics: Sources and Methods.
5. United Nations: The System of National Accounts

Semester- IV Core course
EC - 401 Macro Economics- II

Topic I Money and Liquidity

1. Definitions of Money, Money-ness and liquidity, Nature, functions, types and evaluation of money- The debate relating to the definition of money, endogenous and exogenous supply of money.
2. Measures of Money Supply Liquidity measures according to Reddy Committee Report Liquidity theory.
3. Alternative money stock measures, The quantity and components of money stock in India and broad trend in them

Topic II Demand for Money

1. Nominal v/s Real Cash Balance.
2. Neo Classical theory
3. Keynes's Theory
4. Friedman's Theory, Empirical Evidence.

Topic III Money and Prices

1. The Quantity Theory of Money (QTM): Fishers QTM, Cambridge Cash Balance Approach QTM and Income Equation.
2. QTM as the theory of Price level
3. Baumol , Tobin theory

Topic IV Money Supply

1. Goals Targets, Indicators and instruments of Monetary Policy
2. Theory of Money Supply: high Powered Money, Money Multiplier Process, Determinants of Money Multiplier,
3. High Powered Money: Factors Affecting High Powered Money, Autonomy of High powered money

Topic V Inflation

1. Definition and sources of Inflation
2. Demand Pull Inflation, Cost Push Inflation, Income Shares Inflation
3. Phillips Curve

Topic VI Theories of Interest Rates

1. Real and monetary theories of the interest rate, Loanable funds theory, Keynesian theory
2. Wicksellian theory, Fisher's theory, Hicksian theory,
3. Interest rate differentials: Term-structure of interest rates, Role of interest rates in Macro economy, Credit market imperfections

Topic VII Monetary Policy and Macro economy

1. Monetary transmission mechanism and targeting Inflation
2. Money growth and interest rates Interest rate rules, Taylor rule: Rules versus discretion
3. Central Bank autonomy, Dynamic inconsistency of monetary policy credibility and reputation

Recommended Books

1. Mishkin Frederic (2007), The Economics of Money Banking and Financial Markets, 8th edition Addison Wesley Longman Publishers
2. *Bain, Keith & Howells, Peter (2009), Monetary Economics: Policy and Its Theoretical Basis, Palgrave*
3. Wrightman D:- An Introduction to Monetary Theory and Policy
4. Gupta S. B. :- Monetary Economics Institutions, theory and policy
5. Gupta S B :- Monetary Planning for India
6. Harris:- Monetary Theory
7. RBI's Monetary Policy Documents

Semester- IV Core Course
EC-402 Economics of Growth and Development -II

Topic I The role of agriculture and Industry in development

1. Role of Agriculture in development - The supply response of Agriculture
2. The concept of 'Marketed surplus' - Size holdings and output.
3. Limitations of price policy and alternatives. Disguised unemployment
4. Role of industry. Major reasons for industrialization in LDCs. The infant industry argument. The employment argument. Export promotion vs import substitution. Capital-Intensive technology and employment in industry
5. The Role of Infrastructure - social and physical infrastructure - education and health infrastructure

Topic II Mobilization of resources and the role of the government

1. Domestic Resources: The Prior-savings approach. Monetary Policy, Fiscal Policy - Inflation, savings and growth.
2. Non -inflationary finance of investment. Inflation and credit. Inflation and growth
3. The role of the government and markets in the developmental process - Development of distributive institutions. Poverty alleviation measures, public distribution systems.
4. Public policies like NREGA in India. Microfinance - issues related to microfinance. Self Help Groups and savings and Gender

Topic III Trade and development

1. Trade as an engine of growth - Dual gap analysis - Prebisch, Singer and Myrdal views.
2. Gains from trade and LDCs, foreign borrowing. Savings - Investment gap.
3. The foreign exchange gap. Models of capital imports and growth - Capital imports, domestic savings the ICOR - foreign borrowing and debt - servicing problem - types and measurement of international capital flows - the role of IMF and World Bank - Case studies of countries with trade as a growth engine

Topic IV Sustainable Development

1. Basic concept, strategies and measurements
2. Instruments for sustainable development
3. Climate change
4. Biodiversity

Topic IV Economic Performance/ progress of developing countries over the recent past

1. East Asian Miracle- East Asian Crisis
2. Latin American Economic Development
3. China's Economic Development and Reforms
4. Africa's Economic Development

Recommended Books

1. Meier G.M leading Issues in Development Economics
2. Thirval A P - Development Economics
3. Ray Debraj Development Economics
4. Hoffmann, A. J. / Woody, J. G. (2008): Climate Change: What's Your Business Strategy? Boston, MA (Harvard Business School Publishing)
5. Duflo, Esther / Banerjee, Abhijit V. (2001): Poor Economics. A Radical Rethinking of the Way to Fight Global Poverty, New York (PublicAffairs) soz 3.19 2012 93
6. Perman, Roger et al. (2011): Natural Resource and Environmental Economics, 4th ed., Harlow (Pearson)

Semester- IV Core Course
EC - 403 Research Project

The following are the guidelines for the students.

1. The students are expected to identify the area of research and choose the topic of research project.
2. The students are expected to formulate the objectives of research and identify the appropriate research methodology.
3. Students can do research based on primary data or secondary data.
4. The students are expected to engage in literature review and place the research in the context of existing research body of work.
5. Students can do survey work if the research topic requires it.
6. The students will be expected to analyze the data etc.
7. The students are expected to write a research project. This will consist of preparing an abstract, learning the skills of organizing the text, writing of introduction, objectives of research project, main body of the text, conclusions and suggestions; providing references etc.

Students will have to work on their chosen topic and submit a dissertation of minimum 6,000 words & maximum 8,000 words in two copies to the Department.

Semester- IV Non -Core course
EC-404 Banking and Financial Institutions – II

Topic I Introduction to Financial Markets

1. Structure of Financial Markets
2. Money and Capital Markets, Equity and Bond Markets, Primary and Secondary Markets; Exchanges and Over-the-Counter Markets, Foreign Exchange Markets

Topic II Money Markets

1. Money Market - Features & Constituents of the Money Market-Call Money Market, Treasury Bill Market, Reforms in the Indian Money Market; Certificate of Deposit (CDs); Commercial Paper (CPs), Repo market; Money Market Mutual Funds, Role of Discount and Finance House of India (DFHI)

Topic III Capital Market

1. Features & Constituents of Capital Market-Government, Corporate Sector, Financial Institutions, Commercial Banks & Others; Government Securities Market (Gilt Edged Market) and Industrial Securities Market; Equity Market, Debt Market & Derivatives Market; Reforms in the Indian Capital Market; Role of Securities and Exchange Board of India (SEBI)

Topic IV Foreign Exchange Markets

1. Foreign Exchange Rates; Risks in a foreign exchange market; Factors affecting foreign exchange rates, Equilibrium in Foreign Exchange Market; Intervention in Foreign Exchange Markets

Topic V Financial Regulation

1. RBI - Banking Regulation and Supervision- Bank Capital, International Banking Regulation, Banking Crisis and Central Bank Independence,
2. IRDA- Objectives & Role, Insurance Sector Reforms in India,
3. PFRDA - Objectives & Role, Pension Reforms in India

Recommended Books

1. Bhole L M (2004) "Financial Institutions and Markets: Structure, Growth and Innovations" Tata McGraw Hill Publishing Company Ltd , New Delhi
2. Frederic Mishkin and Stanley Eakins (2006) "Financial Markets and Institutions", Pearson 5th Ed
3. Gurusamy S (2004) "Financial Services and Markets", Vijay Nicole Imprints Pvt Ltd
4. Gurusamy S, (2004) "Financial Markets and Institutions", Vijay Nicole Imprints Pvt Ltd
5. Saunders Anthony & Cornett Marica Millon "Financial Markets and Institutions- An Introduction to the Risk Management Approach," 3rd Ed,
6. VOICE New Century Machiraju H R "Indian Financial System", New Delhi Vikas Publications, 2006
7. Khan M Y "Indian Financial System", New Delhi: Tata McGraw-Hill Publishing Company Ltd.,

**Semester- IV Non- Core course
EC- 405 Economics of Finance**

Topic I Introduction

1. Role of finance in economic development.
2. Structure and functioning of the Indian financial system -financial markets, intermediaries and instruments, Financial sector reforms since 1991.
3. Financial sector participants - firms, individuals, Government.
4. General characteristics of securities classification between fixed income and random cash flow -government bonds, index-linked bonds, corporate Securities.

Topic II Time value of money

1. Future value of an asset, Present value of an asset.
2. Future and present values of multiple cash flows.
3. Level cash flows- perpetuities and annuities.
4. Inflation and interest rates, Real v/s nominal cash flows, Valuing real cash payments, Effective annual interest rates

Topic III Financial Planning

1. Requirements of effective planning, Capital budgeting and capital structures of a firm
2. Regulations governing supply of securities.
3. Placing debt and equity in a firm's finance, measurement of debt vs. equity.
4. Components of a financial planning model, Percentage of sales model.
5. Pitfalls in financial planning, Investment criteria- Net Present Value (NPV), internal rate of return -concept and applications in project appraisal, investment criteria when projects interact, Mutually Exclusive Projects and the IRR Rule

Topic IV Financial statement analysis

1. Balance sheets, income statements, cash flow statements.
2. Financial ratios - leverage ratios, liquidity ratios, efficiency ratios, profitability ratios.
3. Using financial ratios for measuring company's performance

Topic V Stock markets

1. Primary markets- IPOs, role of underwriters,
2. Secondary markets and dematerialization.
3. Efficient market hypothesis, Valuing Stocks, Reading the Stock Market Listings, Book Values, Liquidation Values, and Market Values, Valuing Common Stocks, The Dividend Discount Model -The Dividend Discount Model with No Growth, The Constant-Growth Dividend Discount Model.

4. Estimating Expected Rates of Return, The Price-Earnings Ratio, Bond valuation-characteristics of bonds, bond prices and yields, variation in bond prices due to interest rate changes, yield to maturity v/s current yield the yield curve, nominal and real interest rates valuation of corporate bonds.
5. Functions and powers of SEBI

Topic VI Risk, Return, and Capital Budgeting

1. Measuring Market Risk, the CAPM, Risk and Return, Using the CAPM to Estimate Expected Returns.
2. Capital Budgeting and Project Risk, Determinants of Project Risk, Arbitrage pricing theory, Introduction to risk, return and opportunity cost of capital, Market indexes, Measuring Risk variance and Standard Deviation
3. Measuring the Variation in Stock Returns Risk and Diversification Asset versus Portfolio Risk

Topic VII Derivatives markets

1. Derivative-Meaning & types Futures market-Evolution & History Hedgers, Speculators, Arbitrageurs Financial futures and commodity futures forward contracts.
2. Swaps- Meaning, Mechanics and types.
3. Options markets - meaning, Mechanics and types. Trading Strategies-Exchange traded, stock options and the pay-offs from buying and selling options.

Recommended Books

1. Corporate Finance 6th Edition, Volume 1, Stephen A. Ross, Randolph W. Westerfield, Jeffrey F. Jaffe ISBN 0-390-32000-5 *McGraw-Hill/Irwin*
2. *Bhole L.M. (2004): Financial institutions and Markets, Tata McGrawHill Publishing Company.*
3. Fundamentals of Corporate Finance, Third Edition; Richard A Brealey, Stewart C Myers, and Alan J. Marcus McGraw-Hill Companies, Inc
4. Financial Derivatives, Third Edition, Robert W Kolb and James A. Overdahl; John Wiley & Sons, Inc.
5. Financial Statement Analysis, Third Edition, Martin Fridson and Fernando Alvarez John Wiley & Sons, Inc.
6. The Efficient Markets Hypothesis ; Jonathan Clarke, Tomas Jandik, Gershon Mandelker
7. Uncertainty & Risk Analysis ; Chris Rodger and Jason Petch , Business Dynamics PricewaterhouseCoopers, MCS United Kingdom; April 1999
8. Equity derivatives in India- The state of the art; Susan Thomas and Ajay Shah
9. Introduction to Project Finance ; Edited by Andrew Fight; Butterworth-Heinemann

Semester- IV Non- Core Course
EC- 406 Environmental Economics

Topic I Introduction to the key concepts in Environmental Economics

1. Definition of Environmental Economics
2. Economy - Environment Interaction, Environment as a social asset
3. Markets and market failures, government regulation, Cost Benefit Analysis

Topic II Natural Resource Management

1. Entropy law and Material balance - resources and waste generation, Stock and Flow of exhaustible resources and Fund services of Eco-system resources, Problems of Resources Depletion and degeneration
2. Classification of resources: Renewable and Non-renewable. Biotic and Abiotic, Exhaustible and Non-exhaustible resources
3. Biotic Resources: Vegetation and forests; Agriculture, Fishery and livestock; Biodiversity: Exhaustion and Degradation
4. Abiotic Resources: Land and Soil, Surface Water and ground water; Energy resources; Non-Energy mineral resources; Problems of their depletion and exhaustion (Land and Soil use and erosion)
5. The Planet and Concept of eco-system, Major eco-systems of the world: Solar energy Flow,
6. Bio-Geo chemical cycles:- Carbon Cycle, Hydrological Cycle, Nitrogen cycles

Topic III Some Theoretical Contributions to Environmental Economics

1. Coase Theorem, Hardin's Tragedy of the Commons, "Polluter Pays" Principle , Environmental Kuznet Curves, The Coal Question, Green Paradox

2. Topic IV Environment Problems of India:

3. State of India's Environment: Problems of Pollution due to Overuse of Ecosystem Services (With reference to sectoral activities of agriculture, mining, industry and other activities such as transport and Health services)
4. Air, Water and Soil Pollution:
5. Air Pollution: Types of pollutants and their impact, Ozone Depletion, Global Warming ,
6. Water Pollution: The Concepts of Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD), Ph values, Fluoride; Biotic Waste; Fertilizer use Arsenic pollution; Heavy metals and Toxic wastes; Sewage Land Degradation- the problem of Solid waste disposal and contamination; The problem of Salinity and water logging

7. Natural Resource Depletion, Deforestation, Industrial and Agricultural Pollution,
8. Urbanization: Urban Pollution and Urban Health, Vehicular Pollution, Impact of Green Revolution Techniques.

Topic V Introduction to Sustainable Development

1. Concept: Weak vs. Strong Sustainability Criteria
2. Sustainable resource use
3. Carbon Footprints as threat to Sustainable Development.
4. Indian Environmental policy instruments: Functions of Ministry of Environment and Forest, Pollution Control Boards, Environmental Laws in India.
5. International Environmental policy: Major issues like climate change, carbon trading, international co-operation: Kyoto Protocol

Recommended Readings:

1. Bhattacharya, R.N. ed. (2001): Environmental Economics, An Indian Perspective ,
2. Oxford University Press, New Delhi.
3. Hanley, N., Shogren, J. F., and White, B. (2007). Environmental economics in theory
4. and practice. Palgrave macmillan, 2 edition.
5. Kolstad, C. C. (2010). Environmental economics. Oxford university press, 2 edition.
6. Sengupta, Ramprasad, Ecology and Economics: An Approach to Sustainable Development, Oxford University Press, 2001.
7. Solow, R. M. (1993). An almost practical step toward sustainability. Resources policy,
8. 19(3):162-172.
9. Varian, H. R. (2007). Intermediate microeconomics: A modern approach. W. W. Norton
10. & Company.

Semester- IV Non- Core Course

EC- 407 Gender Economics

Topic I Introduction

1. Nature and Significance of Gender Studies
2. Institutionalization of gender economic studies. Methods of gender economics. Inter-disciplinary approach in gender studies. Macro- and micro level of studies.
3. System of gender inequality factors: the development factor, discrimination and behavioral factors. Gender order. Gender gap in access to resources and control over economic resources. Gender risk groups

Topic II Economic Growth and Gender Equality

1. Globalization of the world economy and gender status.
2. Feminization of poverty. Concept of the “feminization of poverty”. Basic causes of the feminization of poverty. Problems of measuring the feminization of poverty.
3. Women’s contribution to GDP. Life cycle and gender differences in incomes
4. Impact of gender equality on economic growth and socio-economic development.

Topic III The gender factor in household economics. Distribution of resources and decision- Making mechanisms within the household

1. Household economics: theoretical concepts and gender critique
2. Gender critique of the neo-Marxist approach.
3. Gender critique of neo-classic household theory. The gender contract, negotiation models within families.
4. Model of investment in human capital. Function of production of human capital. Investments in human capital at household level and the sex factor.

Topic IV Gender inequality in the labour market

1. Inequality in the labour market: entry into and exit from the labour market, careers, wages, skills training.
2. Inequality and discrimination. Types of segregation. Measurement of segregation.
3. Models of gender inequality and gender discrimination in the labour market. Factors in wage disparities.

Topic V Gender policy: national and global level.

1. Role of UNO and World Bank in Gender equality
2. Indian policy considerations regarding gender equality
3. Gender Budgets

Recommended Books

1. Maithreyi Krishnaraj, Gender Population and Development
2. R.K.Sen and Anita Banaerji, Women and Economic Development
3. Jo Little, (1987), Gender relations in rural area: the importance of women's domestic role, Vol.3, Issue. 4, Journal of Rural Studies
4. D Sainsbury, (1999), Gender and Welfare State Regimes, Oxford University Press.
5. AR Morrison, D Raju, N Sinha (2007), Gender equality, poverty and economic growth, World Bank Publications
6. Bina Agarwal, (1997), "Bargaining" and Gender Relations: Within and beyond the Household, Vol.3, Issue 1, Journal of Feminist Economics
7. Hausmann, LD Tyson, suadia Zahidi, (2009) 'The Global Gender Gap Report', World Economic Forum
8. Ronald Inglehart, Pippa Norris, (2003) Rising Tide: Gender Equality and Cultural Change around the World, Cambridge University Press.