INTRODUCTORY ECONOMICS

Course Outcomes:

After completing this course, the students shall be able to:

CO1: Thinking like an economist and demonstrating how to apply microeconomic concepts to realworld problems. The scope and method of economics; the economic problem: scarcity and choice. **CO2:** Understand the determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together;

CO3: know the fundamental concepts involved in calculating and measuring aggregate macroeconomic, measurements, money, inflation, macroeconomic policies.

CO4: Analyse the concepts of economic growth and development, international trade and finance with the given focus on taxes and budgets.

Unit I: Introduction to Economics

What is Economics-Definition and Scope of economics; Microeconomics and Macroeconomics; Positive and Normative Economics; Scarcity, Choice and Opportunity Cost; Resource allocation; Central Problems of an Economy- what to produce, how to produce and for whom to produce, Economic Systems – Basics of Capitalism, Socialism and mixed Economy.

Unit II: Introduction to Microeconomics

Determinants of Demand, Law of Demand and its Exceptions; Supply – Determinants and Law of Supply; Market Equilibrium; Utility – Concepts and Approaches, Total Utility, Marginal Utility; Indifference Curve – Assumptions and Properties; Budget Line, Consumer Preferences - Concept of Cost and revenue, Fixed cost, variable cost, total cost, Total revenue, average revenue, marginal revenue; production function- meaning and types; Market- concept and Types.

Unit III: Introduction to Macroeconomics

Macro Economics- Meaning and Definition; National Income- Meaning, concept and measurements, Difficulties in measurements of national income; Circulation flow of national income; Price Indices – WPI, CPI and GDP deflator; Say's Market law; Money – Types and Functions; Measures of Money Supply; Inflation – Meaning and Types; Stabilization policies-Fiscal and monetary policy.

Credits: 04

Unit: IV: Introduction to Development, Trade and Finance

Economic Development and growth- Meaning; Indicators of Economic Development; Economic planning-Meaning, definition, objective, types and need; International Trade- Meaning, Similarities and differences between Internal and International trade; Basis of International Trade; Public Finance- Meaning, Definitions and Importance of public finance; Tax and non-tax revenue, classification of taxes, Role of taxes in Economy; Budget: Meaning, Types of Deficit Finance.

Suggested Readings

- 1. Mankiw, N (2020). Economics: Principles and Applications, 9th Ed. Cengage Learning.
- 2. Samuelson, P. & Nordhas, W (2010). Principles of Economics. 9th McGraw-Hill, New York.
- Ahuja H.L. (2020), Advanced Economic Theory— Microeconomic Analysis, 20th Edition, S. Chand & Company, New Delhi.
- **4.** Ahuja, H. L (2020), "Macroeconomic -theory and Policy, 20th Edition, S. Chand and Company Ltd. New Delhi.
- Dornbusch, R.andF.Stanley(2018). Macroeconomics. 12th Edition. McGraw Hill Education.
- Froyen, R.T. (2013). Macroeconomics: Theories and Policies. 10th Edition. Pearson Education India.
- 7. RR Paul (2010), Monetary Economics, , Kalyani Publishers.
- 8. Money, Banking, Trade & Public Finance, M.V.Vaish, New Age International Pvt.Ltd.
- 9. Misra & Puri (2023), Economic Development and Planning, theory and practice

MICROECONOMICS –I

Credits: 04

Course Outcomes:

After completing this course, the students shall be able to:

CO1: To understand and evaluate the tools used for the analysis of consumer behavior.

CO2: Familiarizing with the tools that are important for analysis of producer behavior

CO3: Enhance the knowledge regarding different market structures

CO4: In depth understanding of different models of market analysis

UNIT-I: Theory of Consumer Behavior

Demand and supply: Elasticity of Demand and its applications; Utility: Cardinal and Ordinal; Laws of Cardinal Utility Analysis, equilibrium of consumer and Derivation of Demand curve; Indifference Curve Analysis; Budget line; consumer's Equilibrium; Substitution and Income effect; Hicks-Allen Substitution Effect; Income Compensated Demand Curve; Revealed Preference theory; Critical evaluation.

UNIT-II: Production and Cost

Production function: Short period and Long Period, Law of variable proportions and returns to scale; Homogenous and Non Homogenous production functions; Cob –Doglas and CES production function; Isoquants: Producer's Equilibrium; Technical Progress and production function; Elasticity of Technical Substitution between factors; Theory of cost: Traditional vs Modern Theory of cost; Short Run Costs and Long Run Costs; Economies of Scale.

UNIT-III: Market

Market structures and forms: perfect competition: features: short run and long run equilibrium; Monopoly features: Profit maximizing output of a monopolist, short run and long run equilibrium; Price discrimination; Monopolistic competition: Meaning and characteristics: short run equilibrium and long run equilibrium; Excess capacity under monopolistic competition.

UNIT-IV: Oligopoly Market

Oligopoly: Characteristics, Collusive and Non collusive; Models: Cournot's Duopoly Model; Bertrand's Duopoly Model, The kinked demand curve and Stacklberg's Model; Cartels: Market sharing Cartels, Price leadership Model of Low Cost price leader, The model of Dominant Firm Price Leader; Bilateral Monopoly Model; Wage Determination under collective Bargaining.

Suggested Readings

- 1. Baumol, W.j. (1982) Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi, Delhi.
- 2. Da Costa GC (1980) Production, Prices and Distribution, Tata Macgraw Hill, New Delhi
- Hirshleifer, J and A. Glazer (1997) Price Theory and Application, Prentice Hall of India, New Delhi.
- Jack Hirshleifer, Amihal Glazer (1997) Price Theory and Application, Prentice Hall of India, New Delhi.
- 5. Koutsoyiannis, A (1979), Modern Microeconomics, (2nd Edition) Macmillan Press, London.
- 6. Richard G Lipsey: Cohn Harbury, (1992) First Principles of Economics, (2nd Edition), Oxford University Press.
- Stigler, G. (1996) Theory of Price, (4th Edition), Prentice Hall of India, New Delhi. 8. Varian, H. (2000) Microeconomics Analysis, W.W, Norton, New York
- 8. Varian, H. (2000) Microeconomics Analysis, W.W, Norton, New York

Credits: 04

Max Marks: - 100 Internal=50 External =50

MICROECONOMICS –II

Course Outcomes:

After completing this course, the students shall be able to:

CO1: To analyze and understand the consumer behavior under uncertainty.

CO2: Familiarized with tools important for a general assessment of welfare economics, general equilibrium and resource allocation.

CO3: Emphasis on the development of knowledge regarding the alternative goals of firm

CO4: Develop the knowledge regarding the factor Pricing

Unit – I: Consumer Behaviour under Uncertainty

Behavior under Uncertainty: An introduction; Expected Utility Theory, Von Neumann -Morgenstern method of constructing utility Index under risky situations, Attitude towards Risk -Measures of absolute and relative. Risk Averter v/s Risk Lover. Dealing with asymmetric information. Asymmetric Information - The Market for Lemons & Quality Choice, Adverse Selection, Moral hazard, Signaling, Incentive - Systems.

Unit – II: Game Theory and General Equilibrium

Game theory The Payoff Matrix of a Game, Definition of Nash Equilibrium, Pure nod Mixed Strategies, Prisoners' Dilemma, Repeated Games - applications, Sequential Games, Sub-game perfect equilibrium - examples - Entry deterrence. Partial and General Equilibrium, The Walrasian System, Existence, Uniqueness and stability of equilibrium. General equilibrium and allocation of resources.

Unit – III: Behaviour of Firm

Critical evaluation of marginal analysis: Alternative theories of firm:Baumol's Sales Maximization Model, Williamsons model, Maris's model of managerial discretion, Full cost pricing rule. Bain's limit pricing theory and its recent developments including Sylos - labini model of the firm Behavioral model of the firm. Information Technology - System Competition, problem of complements, Lock in, Network Externalities and it Effects and implications, Rights Management and Sharing of Intellectual Property.

Unit – IV: Distribution Theory and Market Failure

Marginal Productivity Theory of Distribution, Product exhaustion Theorem: social welfare function, compensation principle, Theory of Second best, Arrow's impossibility Theorem. Market

failure: Externalities – Different Externalities and Market Failure; Public Goods. - Definitions and characteristics, when to provide a public good, optimal Provision for a Public Good, Private Provision for Public Good and the Free - Rider Problem.

Suggested Readings:

- 1. Henderson J and R Quandt: Microeconomics Theory, A Mathematical Approach, McGraw-Hill
- 2. Hader, J. : Mathematical Theory of Economic Behaviour, AddisonWesley
- 3. Koutsoyarmis, A: Modem Microeconomics, Macmillian.
- 4. Mas-collel A, M.D. Whinston & J.R. Greene: Microeconomics Theory, OUP.
- 5. Salvatore, D: Microeconomics, OUP
- 6. Sen, A: Microeconomics, OUP
- 7. Varian, I-I: Intermediate Microeconomics, East West press.

Credits: 04

Max Marks: - 100 Internal=50 External =50

MACROECONOMICS-I

Course Outcomes:

After completing this course, the students shall be able to:

CO1: Analyze interdependence of different sectors of the economy and work on various forms of national accounting.

CO2: Evaluate the classical line of thought regarding output and employment determination and identify its merits and demerits.

CO3: Assess the effectiveness of the Keynesian economic ideology in the context of developing and developed economies.

CO4: Suggest better solutions to control the inflation problem in developing countries.

Unit-I: National Income Accounting

Definition and concepts of national income; Methods of measuring national income; Difficulties in measurement of national income; Circular - Flow of income in two, three and four-sector economy; National income accounting - social accounting and balance of payments accounting. Neo-classical theory of distribution of National Income;

Unit-II: Classical Economics

Say's Law of Market; Output and Employment determination; Wage-Price Flexibility and Employment; The Pigou Effect/Real Balances Hypothesis; Goods market equilibrium and Money Market Equilibrium; Complete classical system; The Neutrality of money and classical dichotomy; Criticism of Classical theory;

Unit-III: Keynesian Economics

Keynes's theory of employment; Effective demand: Concept and Determinants; aggregate supply function and aggregate demand function; Keynes's General equilibrium analysis of wage cut and employment. Underemployment equilibrium; Concepts of MPC, Multiplier, and MEC; Determination of equilibrium national income in Keynes's theory.

Unit-IV: Theories of Consumption, Saving & Investment

Keynes's psychological law of consumption; Absolute income hypothesis; Permanent income hypothesis; Life cycle income hypothesis; Relative income hypothesis; Savings and investment in the national income accounting; Market for loanable funds; Theories of investment: Neoclassical theory, accelerator theory and internal funds theory.

Suggested References

- 1. Mankiw, N.G. (2018). Principles of Macroeconomics. 7th Edition. Cengage India.
- 2. Dornbusch, R.andF.Stanley(2018). Macroeconomics. 12th Edition. McGraw Hill Education.
- 3. Froyen, R.T. (2013). Macroeconomics: Theories and Policies. 10th Edition. Pearson Education India.
- 4. Mankiw, N.G. (2017). Macroeconomics. 4th edition. Cengage Learning India Pvt. Ltd.
- 5. Rana & Verma (2014). Macroeconomic analysis. 11th Edition. Vishal Publishing Co.
- Dwivedi, D.N. (2018). Macroeconomics: Theory and Policy. 5th Edition. McGraw Hill Education.

Credits: 04

Max Marks: - 100 Internal=50 External =50

MACROECONOMICS-II

Course Outcomes:

After completing this course, the students shall be able to:

CO1: Analyze RBI's approach to money supply and suggest better ways of regulating supply and demand for money.

CO2: Examine the behaviour of goods and money markets within the framework of general equilibrium analysis, identify suitability of monetary and fiscal policies especially in developing country context.

CO3: Conceptualise the nature of business cycles and offer policy suggestions to minimize their duration and negative economic impact.

CO4: Assesses the merits of the new classical critique against Keynesian economics and evaluate the relevance of new Keynesian thought in solving unemployment problem in contemporary economies.

Unit-I: Supply and Demand for Money

Functions of money; Four concepts of money supply; High Powered Money; Determinants of money supply; Money multiplier and its derivation; Deposit multiplier; RBI approach to money supply; Demand for money: Classical approach (Fisher's and Cambridge approach); Keynesian Approach (Keynes's Liquidity Preference theory); and Post-Keynesian approach (Baumol's approach, Tobin's approach, Friedman's approach). Determination of rate of interest: money market equilibrium.

Unit-II: Neoclassical and Keynesian Synthesis

IS-LM Model: Derivation of IS and LM curves; Slope and position of IS-LM curves; Factors causing shift in LS-LM curves; Equilibrium in the Product and Money Markets – the combined IS-LM model; Monetary and fiscal policies; Effectiveness of monetary and fiscal policies; Crowd-out and crowd-in effects.

Unit-III: Theories of Inflation and Business Cycles

Inflation: meaning and types; Causes of Inflation; Effects of inflation; Stagflation; Philips Curve: Short-run and long-run; Tobin's Views on Philips curve; Strategies to control inflation.

Business Cycle: definition and features; Concepts of Accelerator and super-multiplier; Budget multiplier and Foreign Trade multiplier; Theories of trade cycle: Hicks and Samuelson's theories; Kaldor's theory of business cycle; Real business cycle theory; Control of business cycles.

Unit-IV: New Classical and New Keynesian Economics

New Classical critique of Micro foundations of macroeconomics; Rational Expectations Hypothesis; Empirical validity of rational expectations hypothesis; Policy implications and critique of new classical economics; New Keynesian Economics: Assumptions; Nominal and real wage-price rigidities; Efficiency wage theory, Insider-outsider model; Policy implications of New Keynesian models.

Suggested References

- 1. Mankiw, N.G. (2018). Principles of Macroeconomics. 7th Edition. Cengage India.
- 2. Dornbusch, R. and F. Stanley (2018). Macroeconomics. 12th Edition. McGraw Hill Education.
- Froyen, R.T. (2013). Macroeconomics: Theories and Policies. 10th Edition. Pearson Education India.
- 4. Mankiw, N.G. (2017). Macroeconomics. 4th edition. Cengage Learning India Pvt. Ltd.
- 5. Rana & Verma (2014). Macroeconomic analysis. 11th Edition. Vishal Publishing Co.
- 6. Romer, D. (2018). Advanced Macroeconoics. 5th Edition. McGraw-Hill Education.
- Dwivedi, D.N. (2018). Macroeconomics: Theory and Policy. 5th Edition. McGraw Hill Education.

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

Max Marks: 100 Internal: 50 External: 50

BASICS OF MATHEMATICAL ECONOMICS

Course Outcomes:

After the completion of the course, the students will be able to:

CO1: Know the basic concepts of mathematics applicable in economics

CO2: Use equations to frame models and make analysis

CO3: Apply the knowledge of calculus in Economics Models

CO4: Develop analytical skills in input-output models

Unit-I: Basic Mathematical Concepts and Applications in Economics

Sets and sets operations; Functions and their properties; Types of Functions; Graphs and graphs of functions, Economic applications of graphs; Budget Lines, Isocost, Calculation of Simple and Compound interest; Present and future value of annuities; Arithmetic and Geometric progression.

Unit-II: Equations and Applications in Economics

Equations: Different types and solutions- Linear equation, quadratic equation, Solution by factorization; Simultaneous equation solutions; Applications in supply and demand, consumer equilibrium, Income determination. Matrices meaning and types, Operations of matrices; Addition, subtraction, multiplication; Determinants and properties; Rank of a matrix; Trace of a Matrix; Minor, cofactor and inverse of a matrix; Solution to a simultaneous equations; Cramers rule and matrix inversion.

Unit –III: Calculus and it's Applications in Economics

Concept of derivatives, Rules of differentiation, Higher order derivatives, Implicit Differentiation, Increasing and Decreasing Functions, Maxima, Minima and Inflection Points of functions, Optimisation of Functions: First and second order derivative test, Optimising Economics Functions: Marginal revenue, Marginal cost, Relationship between Functions and Graphs, Partial Differentiation, Application of partial differentiation in Economics: Marginal productivity, Income and cross price elasticity of demand, Constrained optimization and applications in Economics.

Integration: Concept of a indefinite and definite integral, Applications in Economics-calculation of Consumer and Producer's Surplus.

Total Credits: 04

Unit IV: Differential, Difference Equations and Linear Model

First order difference and differential equations-basic concept and applications in economics, Inputoutput model: Basic concepts and structure of Leontiff's open and static input-output model; Solution for equilibrium output in two and three industries model; Closed model.

Suggested Readings:

1. Allen, R.G.D.(1974), Mathematical Analysis for Economists, Macmillan Press, London.

2. Archibald, G.C &Lipsey, R (1990) (Third Edition), An Introduction to a Mathematical Treatment of Economics, New, Delhi, All India Traveller Bookseller, Indian Reprint.

3. Chiang, A.C. (1984), Fundamental Methods of Mathematical Economics, 3rd Edition, McGraw Hill. Auckland.

4. Chiang, A.C. and Kevin Wainwright (2005), Fundamental Methods of Mathematical Economics, McGraw-Hill. Boston.

5. Dixit, A.K. (1990), Optimization in Economic Theory, 2nd Edition, Oxford University Press, London.

6. Dowling, Edward T. (1992), Schaum's Outline of Theory and Problems of Introduction Mathematical for Economics, McGraw-Hill, New Delhi.

7. Dowling, Edward T. (2004), Introduction to Mathematical Economics, 3rd Ed. McGraw-Hill.

8. Henderson, J.M&R.E.Quandt, Micro-economic Theory: A Mathematical Approach, McGraw Hill, New Delhi,

9. Hoy, M., J. Livernois, C. Mckenna, R. Rees and T. Stengos (2001), Mathematics for Economics, 2nd Ed. Mit Press

10. M.W. Klein (2002), Mathematical Methods for Economics, 2nd Ed. Addison-Wesley. Pemberton M. and N. Rau, Mathematics for Economists, Manchester University Press, London.

11. Simon, Carl P. and Blume, Lawrence (1994), Mathematics for Economists, First Edition, 1994, W.W. Norton and Company. New York/ London.

12. Sundarm (1996), A First Course in optimization, Oxford University Press, London.

13. Hirshleifer, J.and A. Glazer, Price, Theory and Applications, Prentice Hall., India, New Delhi.

14. Sydsaeter K Hammond, P Seierstad, A , and Strom A (2005), Further Mathematics for Economic Analysis, London, Prentice Hall.

15. Sydsaeter K, Strom A, and Berck P (1999) Economists' Mathematical Manual, New York, Springer Verlag

16. Sydsaeter, Knut, Peter Hammond (2002), Mathematics for Economic Analysis, Pearson, Delhi

ENVIRONMENTAL ECONOMICS

Credits: 04

Course Outcome:

After the completion of this course, the students will be able to:

CO1: Understand the linkages between environment and economy

CO2: Evaluate various tools and techniques of valuation of environmental

CO3: Learn the regulatory interventions needed to address environmental challenges.

CO4: Analyze the role of global institutions and market regulations in environmental protection

Unit-I: Economics of Environment

Environmental Economics- Meaning, Definition, Nature, Scope and Limitations, Economy-Environment Linkages; The natural environment and the human economy: the neoclassical and ecological perspective; Biophysical limits to economic growth: the Malthusian, neoclassical and ecological economics perspective; Market failure: Common property resources, Public goods and environment externalities; free ride problem; Environmental Kuznets Hypothesis (EKH); the economics of sustainable development, The Hartwick–Solow approach to sustainability.

Unit- II: Environmental Valuation

Economic valuation of environmental services; Market and non-market benefits, user and non-user benefits and option value benefits; Methods of valuation: Stated Preferences Methods: contingent valuation, contingent ranking and choice experiment methods; Revealed Preference Methods: Travel Cost, hedonic pricing and benefit transfer methods; selected case-studies on CVM and TCM.

Unit-III: Environmental Regulations

Regulating pollution through standards Pigouvian tax, Emissions fees and marketable pollution permits; Property rights and the Coase theorem; Cost–benefit analysis and the environment; Cost-Effectiveness Analysis; enforcement and moral hazard Environmental policy and technological changes Porter's hypothesis

Unit-IV: Global Environmental Issues

Trans-boundary environmental problems; Greenhouse Gas Emissions and Global Climate Change; Modeling Carbon Dioxide Emissions trends in Greenhouse Gas Emissions, Global Climate Change Predictions International Action on Global Climate Change; the Earth Summit, the Kyoto Protocol, the Political Economy of International Environmental Accords: The Case of the Montreal Protocol, Stockholm conference; Bhopal gas tragedy; Rio conference; Wetlands – policy briefs,

Suggested Readings:

- Kolstad C.D. (2003) Environmental Economics, Oxford University Press.
- Freeman, A M, 1993. The Measurement of Environmental and Resource Values, Resource for the Future, Washington DC.
- Tietenberg, Tom, 2008. Environmental and Natural Resource Economics, 8th Edition.
- Hussain M. A. (2004) Principles of Environmental Economics, second edition
- Hanley N., Shogren J.F. and White B. (1997) Environmental Economics in Theory and Practice, Macmillan Publishers, India.
- C. Chopra "Handbook of Environmental Economics in India"
- <u>Bhattacharya Rabindranath</u> (2002) Environmental Economics: An Indian Perspective

Credits: 04

PUBLIC ECONOMICS

Course Outcome:

After the completion of this course, the students will be able to:

CO1: analyzes the impact of public policy on the allocation and distribution of resources

CO2: Use the tools to study the tax system and implication of tax policies.

CO3: Analyzing the impact of government expenditure on various sectors of the economy

CO4: Understand public debt and budget incentives and prevention policies

UNIT – I: Nature and Scope of Public Finance

Meaning and scope of public finance; Distinction between private and public finance; fiscal functions of the state; public goods, private goods, merit goods, free ride problem; Trade-off between equity and efficiency,; Market failure, Rationale for state intervention; Public Choice and the Political Process, voting system, Arrow's impossibility theorem; impossibility of decentralized provision of public goods, voluntary exchange model; theory of club goods, local public goods.

UNIT-II: Public Revenue

Sources of Public Revenue, Taxation: Direct and Indirect Taxes, Progressive, Proportional and Regressive Taxes; Approaches to taxation- Benefit approach, Ability to pay approach and Neutrality approach; Elasticity and buoyancy of taxation; incidence and shifting of taxation; Theory of optimal taxation-The Inverse Elasticity Rule and the Ramsey Rule; Efficiency of Taxation-Excess burden and deadweight loss; The problem of double taxation, Tax evasion and the black economy;

UNIT-III: Public Expenditure

Theories of public expenditure- Wagner' s law of increasing state activities – Peacock Wisemans hypothesis- Principle of Maximum Social advantage –Growth and pattern of public expenditure, Effects of public expenditure-Cost benefit analysis; Structure and growth of public expenditure, Evaluation of Government Expenditure; Reforms in public expenditure programme;

UNIT-IV: Public Debt and Financial Administration

Sources of public debt, Debt through created money, approaches of public debt, Compensatory aspect of debt policy, Burden of public debt, Crowding out of private investment and activity, The sustainability of public debt, Ricardian equivalence; Principles of debt management and repayment; The government budget constraint (GBC); Measurement and determinants of deficits; Fiscal policy rules: types and characteristics; Discretionary fiscal policy changes.

Suggested Readings:

- 1. Musgrave, L.A. (1959), theory of public finance, McGraw HillKogakhusa. Tokyo.
- 2. Shoup, C.S. (1970), Public Finance, Aldine, Chicago.
- 3. Buchanan, J.M. (1970), the Public Finance, Richard D, Irwin, Hovewood.
- 4. Jha, R (1998), Modem Public Economic, Rutledge, London.
- 5. Atkinson, A.B. and J.E. Siglitz (1980) Lecture on public Economics.
- 6. Musgrave, R.A. and C.S. Shoup(Ecls.) 1970, Readings in the Economics of taxation, George Allen and Unwin, London.
- 7. Barman, K. (1986) Public debt management in India, Uppal Publishing House, New Delhi.

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

Max Marks: - 100 Internal=50 External =50

Credits: 04

INDIAN ECONOMY- POLICY AND DEVELOPMENT-I

Course Outcome:

After the completion of this course, the students will be able to:

CO1: Develop an understanding of the basic structure of the Indian economy.

CO2: Understand the major issues like Income Equality, Poverty and Unemployment

CO3: Analyze the role of planning and reforms in the economic development

CO4: Understand the macroeconomic policies and their dynamics in development

Unit – I: Structure of the Indian Economy

Major economic features of the Indian economy at the eve of independence; Demographic features and trends, Size and growth rates of population, trends in birth and death rates, Density of population, Age and Sex Composition, "Concept of Demographic Dividend from Indian Perspective, Population as a factor of economic development, Human Development in India-Meaning, Human Development indicators, Human Development Index: Meaning &India"s global ranking.

Unit – II: Income Equality, Poverty and Unemployment

Trends and Composition of National Income: Income Inequalities, Magnitude, Causes, Consequences and Remedial Measures; Lorenz curve; properties of a desirable inequality measure; Goulet's and A. K. Sen's concept of development – capabilities approach; Poverty: Concept, Types, Causes and Consequences; Poverty-absolute and relatives, Incidence of poverty, Multidimensional poverty, alleviation programmes; Unemployment: meaning, types, nature and estimation, causes of unemployment, Major employment programmes.

Unit – III: Planning and Public Policy

Planning in India: Objectives and strategy of planning; Types of planning, structure of planning, Achievements and Failures of planning in India; NITI Aayog; New Economic Reforms: Liberalization, Privatization, Globalization and its progress; Rationale for reforms and LPG policy;

social infrastructure-Education and Health; WTO and its impact on Indian Economy; Need for and issues in good governance.

Unit – IV: Growth Dynamics and Macroeconomic Policies

Macroeconomic Policies and Their Impact Fiscal reform measures in the context of India's New Economic Policy, Fiscal Responsibility and Budget Management (FRBM) Act; banking polices; Monetary Reforms and its impact. Black money and Parallel economy in India- consequences and corrective government intervention; Issues and policies in financing infrastructure development;

Suggested Readings:

- 1. SK Misra and Puri: Indian Economy, Himalaya Publishing House Ishwar C Dhigra : The Indian Economy: Environment and Policy, SC Chand & Sons, New Delhi.
- 2. Dutt and Sundaram : Indian Economy.
- Jalan, B. (1992). The Indian Economy Problems and Prospects, Viking, New Delhi.
 (1996), India's Policy preparing for the Twenty First Century, Viking, New Delhi.
- 4. Sandesara, J.C. (1992), Industrial Policy and Planning, 1947-1991: Tendencies, Interpretations and Issues, Sage Publications, New Delhi.
- 5. Ahluwalia, I.J. (1997), Industrial Policy and Planning, 1947-1991: Tendencies, Interpretations and Issues, Sage Publications, New Delhi.

Credits: 04

Max Marks: - 100 Internal=50 External =50

ECONOMICS OF DEVELOPMENT

Course Outcomes

After completing this course, the students will be able to:

C01: Understand the basics of development economics, with in-depth discussions on the different measures/indicators of development including GNP, PQLI, HDI, and Happiness indices

C02: Demonstrate the understanding of the major development theories and their relevance in development of underdeveloped countries.

C03: Demonstrate familiarity with some central themes and issues of economic development like development gap, Poverty, inequality different methods of estimation of poverty as well as the relationship between population, poverty and environment.

C04: Analyse empirical evidence on the various patterns of economic development and institution with the given empirical evidence. The learners will also work on case studies in recent Development Economics literature.

Unit-I: Economic Development- Measures and Approaches

Meaning of Development: Factors affecting Economic Development; Economic growth and development; Indicators of development: GDP as development indicator; Physical Quality of Life Index; Human Development Index; Gender Related Development Index; SDGs; Indices of Quality of Life: Entitlement approach; Capabilities and Functioning; Gross National Happiness; Three Core Values of Development.

Unit-II: Theories of Economic Development

Classical theories; Adam Smith, David Ricardo, Karl Marx, Joseph Schumpeter; Partial theories of development -- vicious circle of poverty, Critical minimum effort thesis, Low Level Equilibrium trap, theory of circular causation; Strategies of Development--- Big push, Balanced growth, Unbalanced growth, Rostow's Stages of economic growth.

Unit-III: Issues in Economic Development

Development Gap and Poverty; Development gap and income distribution in the world economy; Measures of inequality: International inequality, Global inequality, Lorenz curve and Gini coefficient, Kuznets's Inverted-U Hypothesis; Consequences of Inequality; Poverty- Absolute and relative poverty; Measures of poverty: Head count index, Income gap index, Human Poverty Index (HPI-MHPI); Population problems: Theory of demographic transition; Population, Poverty and environment.

Unit-IV: Economic Development and Institutions

Economic development and Institutions: Markets and market failure; Role of state, Issues of good governance; Government failure as barrier to development: case studies of corruption and ineffective provisioning of public goods; Social institutions as barrier to development: social discrimination; impact of caste, religion and gender discrimination on developmental outcomes; Environment and Development: Climate Change and Development.

Suggested Readings:

- 1. A.P Thirwal, (2005), "Growth and Development", Palgrave Macmillan, Eighth Edition.
- 2. M.P Todaro, (2010), "Economic Development", Pearson Education Limited. Seventh Edition.
- 3. I Adelman, (1961), "Theories of Economic Growth and Development", Stanford University Press, Stanford.
- 4. Sen, Amariya (1999), Development as freedom, Oxford university Press, Oxford.
- 5. C P Kindleberger, (1977), "Economic Development", McGraw Hill, New York.
- 6. Debraj Ray, (2009), "Development Economics", Oxford University Press, 2009.
- 7. Banerjee, A., L. Iyer and Somanathan. R. (2008) "Public Action for Public Goods" Handbook of Development Economics, Vol. 4, Ch II.1. Edited by T. Schultz and John Strauss, Amsterdam: North Holland.
- Pande, Rohini. (2008) "Understanding Political Corruption in Low Income Countries" Handbook of Development Economics. Vol. 4. Ch II.2. Edited by T. Schultz and John Strauss, Vol. 4. Amsterdam: North Holland.
- 9. Basu, Kaushik. 2015. "Discrimination as a Coordination Device: Markets and the Emergence of Identity." World Bank Policy Research Working Paper 7490.
- 10. Vegard Iversen. 2012. "Caste and Upward Mobility." In The Oxford Handbook of the Indian Economy, edited by Ghate, Chetan. New York: Oxford University Press.

INTERNATIONAL ECONOMICS

Credits: 04

Course Outcomes:

After the completion of the course, students shall be able to:

CO1: Know the basic concepts of international economics

- **CO2:** Understand the role and importance of International Trade
- **CO3:** Apply the knowledge to working of trade and foreign investment
- CO4: Evaluate the implications of various policies and suggest ways to boost trade and investment

Unit-I: Nature of International Trade

International economics: meaning, scope and importance; an overview of international trade; Need for separate theory of international trade; Absolute cost advantage theory; Comparative cost advantage theoryOpportunity cost and comparative advantage; Factor endowments and the Heckscher-Ohlin theory; Factor Price Equalisation theorem; Leontiff paradox; Concept of terms of trade.

Unit-II: Balance of Payments

Equilibrium and disequilibrium in the balance of payments; Elasticity, absorption, Monetary and Portfolio-balance approach to balance of payments adjustment, Role of Expenditure reducing and expenditure – switching policies in an open-economy; Salter-Swan model, Mundell-Flemming Model; Foreign trade multiplier; Crypto currency: Nature and working

Unit-III: Exchange Rate System

Meaning of foreign exchange, Exchange rate quotations, Spot and forward exchange markets, Exchange rate systems: Fixed vs Floating; International Monetary Systems, Exchange rate determination, Purchasing power parity theory.

Unit-IV: Trade policy

Tariff: meaning, types and effects; Quota: meaning, types and effects; Optimum tariff; Free trade and protection: Arguments for and against, Methods of protection, Effective rate of protection; Other non-tariff measures of trade GATT and WTO: Functions and agreements: IMF: Functions and achievements; World Bank: Objectives, functions and achievements; India's foreign trade policy.

Suggested References:

- 1. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N.J., New York.
- 2. Soderston, B.O. (1994), International Economics, The Macmillan Press Ltd., London.
- 3. Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill,
- 4. Kogakusha, Japan. Kenen, P.B. (1994), The International Economy, Cambridge University Press, London.
- 5. Kindlberger, C.P. (1973), International Economics, R.D. Irwin, Homewood. Krugman,
- 6. P.R. and M. Obstgeld (1994), International Economics: Theory and Policy, Glenview, Foresman.
- 7. Yeager, L.B. (1976), International Monetary Relations: Theory, History and Policy, Harper and Row, New York.
- 8. Solomon, R. (1982), The International monetary System, 1945-81, Harper and Row, New York.
- 9. Tew, B. (1985), The Evolution of the International Monetary System: 1945 85, Hutchinson.
- 10. Aggarwal, M.R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

Max Marks: - 100 Internal=50 External =50

History of Economic Thought- I

Credits: 04

Course Outcomes:

After completing this course, students are expected to:

C01: Assess early economic doctrines to comprehend their core principles and limitations.

C02: Analyse growth, value, distribution, and population theories proposed by classical economists.

C03: Investigate the emergence of socialism, delve into Marx's surplus value theory, and understand key concepts from the Marginalist Revolution.

C04: Examine welfare economics, Pareto optimality, and the historical and contemporary insights of Indian Economic Thought.

Unit I: Pre-Classical Economic Thought

Mercantilism - Basic Tenants of Mercantilist Philosophy and its Critical appraisal. Physiocracy; Natural order, Net Product and Circulation of Wealth, Taxation, A Critical appraisal of Physiocratic School of thought.

Unit II: Classical School of Thought

Adam Smith– philosophy of naturalism, theory of value and distribution; David Ricardo– theory of value, and theory of rent; Malthus– theory of population; J B Say – Law of Market.

Unit III: Socialistic School of Thought and Marginalism

Rise of Socialism; Karl Marx and Engels; Marx's theory of surplus value; Marx analysis of economic crises. Marginalist Revolution; Contribution of S.W Jevons, Jeon Walras and Karl Manger (a brief sketch) – Jevons theory of marginal utility and exchange; Karl Manger Philosophy and Method.

Unit IV: Welfare Economics and Indian Economic Thought

A.C. Pigou – welfare economics, V, Pareto - pareto optimality; The emergence of Modern Indian Economic Thought: Dadabhi Naoroji, Mahatma Ghandhi and Dr. B.R. Ambedkar; Recent contributions of Amartya Sen's– ideas on freedoms, capabilities, and justice.

Suggested Readings:

1. Batia, H. L. 1985. History of Economic Thought. Author, Edition, 4, revised. Publisher, Vikas Publishing House.

2. T.N Hajela, "History of economic thought".

3. Brue, Stanley L. And Grant, Randy R. 2013 The Evolution of Economic Thought South-Wetern Cengage Learning. 8th Edition

4. Haney, L. H. (1917). History of economic thought: a critical account of the origin and development of the economic theories of the leading thinkers in the leading nations.Macmillan.

Additional Readings:

1. Eagleton, T. (2013). The illusions of postmodernism. John Wiley & Sons.

2. Gurley, J. (1978). The capitalist system, 2nd ed. Prentice-Hall.

3. Tonkiss, F. (2008). Contemporary economic sociology: Globalisation, production, inequality. Routledge

4. Schumpeter, J. (1976). Capitalism, socialism and democracy. Chapters 6, 7 and 8. George Allen and Unwin.

5. P. N. Dhar, 1987. "The Political Economy of Development in India," Indian Economic Review, Department of Economics, Delhi School of Economics, vol. 22(1), pages 1-18,

6. Harvey, D. (2005). A brief history of neoliberalism. Introduction, Oxford University Press.

*Further Readings are available with the concerned teacher

Credits: 04

ECONOMICS OF GROWTH

Course Outcomes: After the completion of the course, students shall be able to:

CO1: Develop a critical understanding of growth determinants and growth differences

CO2: Understand and analyze the application part of the growth models.

CO2: Students will be equipped with critical approach of analyzing contemporary growth models

CO4: Enhance the understanding of the importance of Trade in growth

UNIT-I: Growth and Determinants

Growth concept and measurements; Historical evolution of growth: Why countries are rich and Poor; Growth and Development Comparison; Factors affecting Growth: Technical Progress: Hicks vs Harrod; Embodied and Disembodied Technical Progress; Production Function Approach to the Determinants of Growth; Total Factor Productivity and Growth Accounting.

UNIT-II: Growth Models

Macro economic growth Models; Classical Vs Keynes; Criticism of Keynes Arguments; Harrod and Domar Models; Neo-Classical Growth Models: Solow, Meade; Cambridge Models of Economic Growth— Mrs. Joan Robinson's Model; Cambridge Criticism of Neo-Classical Analysis of Growth.

UNIT-III: Endogenous Growth Models

Human capital and Growth; Role of Technology in Growth; Innovation and growth; Determinants of R&D spending; Modeling relationship between technology creation and growth; Endogenous Growth Models— AK, Romer and Lucas Model.

UNIT-IV: Trade and Growth

Trade and growth; Gains from trade: Static and Dynamic; Models of Regional Growth and Differences; Prebisch and Seers; Dependency Theory of Development and Unequal Exchange; Balance of Payments Constrained Growth, Dual Gap Analysis.

Suggested Readings:

1. M.P. Todaro and S.C. Smith, (2003), 8thed; Economic Development, Pearson Education, Delhi.

2. A P Thirwal (1999/2006), 6th/8thed; Growth and Development, Palgrave Macmillan, U.K.

3. M. Gills, Perkins, Romer, Snodgrass; Economics of Development, W.W.Norton and Company, New York.

- 4. D.N. Weil, (2009), 2nded; Economic Growth, Pearson Education, India.
- 5. R.J. Barro and Sala-i-Martin, (2007), 2nded; Economics

ECONOMETRICS-I

Credits: 04

Course Outcomes:

After completing this course, the students shall be able to:

CO1: Formulate regression models to estimate relationship between economic variables.

CO2: Identify econometric issues with data and resolve them using various econometric techniques.

CO3: Use dummy variable models and binary response variable models to analyze qualitative variables.

CO4: Estimate complex linkages using simultaneous equations and perform two stage least square analyses for endogenous variables.

Unit-I: Basic Econometrics

Nature, meaning and scope of econometrics; Methodology of Econometrics; Types of Data: Cross section, time series, panel, pooled panel; Concepts of Population and Sample Regression Functions; Simple and general linear regression model – Assumptions, Estimation, The Ordinary Least Square (OLS) Method; Properties of OLS estimators: Gauss Markov Theorem.

Unit-II: Multiple Regression Models and Econometric Issues

Multiple Regression Model: Assumptions and Estimation; Coefficient of Determination (R-square) and Adjusted R-square; Multi-collinearity: meaning, consequences, detection, and remedial measures; Heterocedasticity: meaning, causes, detection, and remedial measures; Autocorrelation: meaning, causes, detection (Durbin-Watson Test), and remedial measures.

Unit-III: Dummy Variable and Qualitative Response Models

Dummy Variable: meaning: Uses of Dummy Variable Technique: Testing of structural stability of regression models; Interaction Effects, Seasonal analysis, Piecewise linear regression; Regression with Qualitative Response Variables: Linear Probability Model, Logit, Probit and Tobit Models.

Unit-IV: Simultaneous Equation Models

Simultaneous Equation Models: Introduction and Examples; the simultaneous equation bias and inconsistency of OLS estimators; The Identification Problem: under-identification and over-identification; Rules of identification – order and rank conditions; Methods of estimating

simultaneous equation system: the Method of Two Stage Least Squares (2SLS).

Suggested References

- 1. Gujarati, D.N (2005). Basic Econometrics, Tata Mcgraw Hill, New Delhi.
- 2. Baltagi, B.H. (2011). Econometrics.Berlin: Springer.
- 3. P. Kennedy, (1998) 4thed; A Guide to Econometrics, MIT Press, New York.
- 4. G.S Maddala (ed.), (1993), Econometric Methods and Application (2 Volumes).
- 5. Greene, W.H. (2003). Econometric Analysis. Upper Saddle River, N.J: Prentice Hall

Credits: 04

Max Marks: - 100 Internal=50 External =50

MONEY, BANKING AND FINANCE

Course Outcomes:

After the completion of the course, students shall be able to:

CO1: Understand the functions of money

CO2: Know the history of money and it's importance

CO3: Comprehend various theories of demand and supply of money

CO4: Understand the role of central and commercial banks in an economy and Understand the concept of credit and structure of financial system

Unit I: Money

Money: Definition-theoretical and empirical, classification and functions, Monetary standard, Gold standard, paper standard; Gresham's law; Principles and Methods of note issue; Brief history of Indian Rupee; Virtual Money; Value of money-Concept and measurement; Near money

Unit-II: Theories of Money and Interest

Demand for money; Quantity theory of demand for money; Cash transactions and Cash balances approach, Liquidity preference theory; Baumol's inventory theoretic approach; Tobin and portfolio approach; Freidman's restatement of quantity theory of money.

Supply of money: Components and determinants; Money and Business cycle, Monetary Policytargets, Instruments and effectiveness; Expectation of yield curve, market segmentation hypothesis, Expectations hypothesis; Reserve bank's analysis of money supply

Unit-III: Introduction to financial system and Banking and NBFIs in India

Structure of financial system; Functions of financial sector; Financial system and economic development; Financial intermediation and financial intermediaries; Indicators of financial development; Regulatory financial institutions, RBI- Role and functions;

Indian banking system, Role of Commercial banks in economic development, Banking sector postindependence, Major recommendations of the Chakravarty committee and Narasimham committee, Banking sector reforms in India, NBFIs in India, Mutual Funds, Pension funds, VCF.

Unit- IV: Financial markets in India

Structure and functions of financial markets; Money market and its constituents-Call money market, Treasury bill market, Commercial bill market, Repo market, commercial paper market; Certificate of deposits market; Capital market-Government securities market; Corporate security market; Primary and secondary market for securities; Discount market; Unregulated credit markets-Types and functions.

Suggested References:

1. Bhole.M.L., and Mahakud.J. (2011) *.Financial institutions and markets* .New Delhi, India:Tata McGraw Hill.

2. Avadhani V.A. (2017). *Investment and Security Markets in India*.New Delhi, India: Himalaya Publishing House.

3. Avadhani V.A. (2014). *Financial Economics, Theory and Practice*. New Delhi, India: Himalaya Publishing House.

4. Melvin, Michael & Norrbin, S.C. (2012). *International Money and Finance*. Amesterdam, Netherlands : Elsevier Science.

7. Gurley and Shaw. (1960). Money in a Theory of Finance.Brookings Institution.

- 8. Sayers, R.S. (1967). Modern Banking. NY, USA: Oxford University Press
- 9. Stoneir and Shapiro. (1968). Money and Banking. Holt, Rinehart & Winston of Canada Ltd
- 10. Kock, D. (1975). Central Banking. Wiley Publication.

11. Sen, S.W.(1967). Central Banking and Undeveloped Money Market.

12. Basu, C.R.(1978). Central Banking in Planned Economy and Practice. US: McGraw-Hill.

13. R.B.I.Reports on Currency and Finance (various issues)

14. 1. Chandler, L.V. The Economics of Money and Banking, S. Chand & Company Ltd., New Delhi

15. Chandler, L.V., The Monetary and Financial System 3.M.K. Lewis (2000),

16. Monetary Economics, OUP

17. M.R. Baye, D.W. Jansen (1996), Money Banking and Financial Markets, AITBS, (Indian Edition)

18. Maurice Levi (1999), International Finance, Tata McGraw Hill

JAMMU AND KASHMIR ECONOMY

Credits: 04

Course Outcomes:

After completing this course, the students will be able to:

CO1: Achieve a basic understanding of the working dynamics of J&K economy.

CO2: Evaluate the overall economic and social development influencing policy decisions in contemporary settings in the state.

CO3: Develop the ability to describe your community's strengths and challenges in the context of economic development like agriculture, tourism and other allied sectors.

CO4: Focuses on the economics of regional change with equal emphasis on theoretical foundations and empirical applications in industry, tourism, financial services and financial inclusion.

Unit-I: Introduction

Main Features of Jammu & Kashmir Economy; Political Economy of development and governance; Naya Kashmir Manifesto-1944; Land Reforms (1950 and 1976); decentralized economy and panchayat raj system;

Unit-II: Jammu & Kashmir – Economic and Social Scenario

Macro Economic development in J&K: Per Capita GSDP/NSDP; Sectoral Comparison-Agriculture and Allied Sector, Industry Sector, Services Sector; Social Infrastructure Development- Education: Focused Area, Way Ahead, NEP-2020; Health: Indicators, achievements, Strengths; Poverty-Magnitude and Dimensions; Poverty Alleviation Programmes; Employment and Skill development.

Unit-III: Agriculture and Allied Sectors

Agriculture and its development since 1947; Diversification issues in Agriculture; Horticulture Sector in J&K- Development and Potential, High Density Plantation, market Linkages; Livestock: Dairy Development, Poultry Development, Feed And Fodder; Dairy Development In J&K, Forests in J&K – Problems, Prospects and Developmental Initiatives; Fisheries Sector- Major Initiatives.

Unit-IV: Industry and Services

Industrial Sector in the State– Scope, Issues and Policies; Tourism: Potential, In-flow, Revenue, and Developmental Initiatives; Financial Services; Financial Inclusion: Introduction, PMJDY, PMMY,

SUPI Self Help Groups; Cross LOC trade; Power Sector - Generation and Reforms, Indus water treaty;

Suggested References:

- 1. J. Singh, (2004); the Economy of Jammu and Kashmir, Radha Krishnan Anand & Co, Jammu.
- 2. DES, Digest of Economics and Statistics, Latest issue, Government of J&K, Srinagar.
- 3. DES, Indicators of Regional Development 2007-08, Government of J&K, Srinagar.
- 4. DES, Economic Survey 2022-23, Government of J&K, Srinagar.
- 5. G.M Bhat, (2013); Some Aspects of J & K Economy, Jay Kay, Srinagar.
- 6. G.M Bhat (Ed), (2007); J & K Economy, P. G. Department of Economics, Srinagar.
- God Bowley Committee Report on Economic Reforms for J&K.1998, Government of J&K, Srinagar
- 8. Economic Survey (2020-21), Directorate of Economics & Statistics, Government of Jammu & Kashmir.

Credits: 04

Max Marks: - 100 Internal=50 External =50

History of Economic Thought-II

Course Outcomes:

After completing this course, students are expected to:

C01: Have a clear knowledge distinction between the old and the new schools of Economic thought

C02: Aware about the major event and changes relating the Great Depression

C03: Be informed about the major policy interventions that took place in the modern times changing the fate of some major global economies

C04: be precisely aware about the latest expansions and developments within the discipline of Economics

Unit I:

The Turn Away from Laissez-Faire; Bolshevik Revolution; Socialistic Calculation Debates;

Austrian Business Cycle Theory; New Deal & Institutionalist Economics

Unit II:

The Great Depression; Keynes General Theory; The Second World War and Economic Theorization; Hayek's Economic School of Thought; Post-War British Socialism; Fabian Society and its Economic Outlook.

Unit III:

The Mount Peril Society and change in Economic thought; Renewed Insights into Adam Smith's Economics; Economic Changes in the Post-War German Economy; Concept of the Wonder Economy; Ordoliberalism

Unit IV:

Institutional Economics; Behavioural Economics; Peace Economics; Experimental Economics; Evolution of Econometrics; Interdisciplinary Advancements; Health Economics; Labour Economics.

Suggested Readings:

- The Clash of Economic Ideas; The Great Policy Debates and Experiments of the Last Hundred Years Lawrence H. White, Cambridge University Press
- An Introduction to the History of Economic Thought in Central Europe by Julius Horvath Edition: 1st Edition, 2020
- → History of Economic Thought : 18th Edition Paperback by T.N. Hajela
- > A History of Economic Thought; I I Rubin

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

Max Marks: - 100 Internal=50 External =50

Credits: 04

INDIAN ECONOMY-POLICY AND DEVELOPMENT-II

Course Outcome:

After the completion of this course, the students will be able to:

CO1: Develop an understanding of agricultural economy of India

CO2: Understand the importance of Industrial sector in economic development

CO3: Understand the problems and contributions of services and external sectorto the economy

CO4: Understand the importance of infrastructure development on Indian economy

Unit – I: Agricultural Sector

Policies and Performance in Agriculture Changing structure of Indian Agriculture, Growth and productivity of Agriculture, Sustainable agriculture- concept and constraints, Diversification of Agriculture, Capital formation, Role of technology; Green revolution; Institutions- land reforms, rural credit, agricultural marketing, price policy; Agricultural Pricing,Crop Insurance, Agricultural infrastructure, Food Security in Indi; WTO and Agriculture.

Unit – II: Industrial Sector

Policies and Performance in Industry Pattern of Industrialization, Industrial growth and productivity in the post reform period, Diversification of industries, Public Sector reforms, Disinvestment and Privatization, MSME Sector, Industrial Policy reforms, Foreign Investment in the Industrial sector. Industrial Policy and Development after 1991, Public Sector Under-Takings (PSUs), Privatization and Disinvestment,

Unit – III: Services and External Sector

Trends and Performance in Services Role of the service sector in the Indian Economy, Growth in and composition of the service sector; Composition and direction of foreign trade, Trend in merchandise trade and invisibles, Balance of payments position- Pre and Post Reform period, Trade Policy- Export Import Policy, Foreign Trade Policy; Current and Capital Account Convertibility; progress of trade reforms in India; Latest foreign trade policy; foreign exchange management -FERA AND FEMA; currency convertibility; foreign capital and MNCs in India.

Unit – IV: Infrastructure and development

State of infrastructure – reforms, restructuring, pricing and regulation; promoting investment in infrastructure – public and private partnership; sectoral issues – energy, transport, telecommunication and urban infrastructure; human development indicators – review of change since early fifties, wide regional variations; environmental protection –achievements in sustainable development goals.

- 1. SK Misra and Puri: Indian Economy, Himalaya Publishing House Ishwar C Dhigra : The Indian Economy: Environment and Policy, SC Chand & Sons, New Delhi.
- 2. Dutt and Sundaram : Indian Economy.
- Jalan, B. (1992). The Indian Economy Problems and Prospects, Viking, New Delhi.
 (1996), India's Policy preparing for the Twenty First Century, Viking, New Delhi.
- 4. Sandesara, J.C. (1992), Industrial Policy and Planning, 1947-1991: Tendencies, Interpretations and Issues, Sage Publications, New Delhi.
- 5. Ahluwalia, I.J. (1997), Industrial Policy and Planning, 1947-1991: Tendencies, Interpretations and Issues, Sage Publications, New Delhi.
Max Marks: - 100 Internal=50 External =50

INTERNATIONAL FINANCE

Course Outcomes:

On successful completion of the course students will be able to;

CO1: To provide an understanding of International financial systems.

CO2: To understand the degree of global financial system and an analysis of countries based on the financial indicators.

CO3: To learn about Balance of Payment and Forex Markets.

CO4: To understand the various International financial markets and instruments.

Unit- I: Balance of Payments

Balance of payments- Components- Equilibrium and disequilibrium in BOP- Methods of correcting BOP deficit; Adjustment Mechanisms-Automatic, price and income adjustments- Elasticity approach- Marshall-Lerner condition- Absorption Approach-Monetary approach- J curve effect-Currency convertibility- Current and capital account convertibility-The Indian experience-FEMA.

Unit- II: Exchange Rate and Theories of Exchange Rate

Exchange rate-Nominal, Real, Effective, NEER, REER- Exchange rate systems- Relative merits and demerits of fixed and flexible exchange rates- Hybrid exchange rates- Purchasing power parity theory-Monetary approach- Asset market (portfolio balance) model- Exchange rate overshooting - Exchange rate in India- Indian Rupee and its fluctuations in international currency market.

Unit- III: Foreign Exchange Market

Foreign exchange market-Functions-Participants- Stability of foreign exchange markets-Spot and forward market- Currency futures and options- Swap market- Foreign exchange risk- Hedging-Speculation- Stabilizing and destabilizing- Currency arbitrage- Internal and external International Finance 3 School of Distance Education balance-(Salvatore) Policy adjustments- Expenditure changing and expenditure switching policies- Assignment problem- Swan diagram- Mundell-Fleming model.

Unit- IV: International Capital Flows and Monetary System

Portfolio investment and direct investments- Motives for capital flows- Effects of international capital flows- Multinational corporations- Advantages and disadvantages of MNCs- Foreign

investment in India since 1991; International monetary system-The gold standard and its breakdown-Bretton Woods system and its breakdown- Present international monetary system.

Suggested References:

- 1. Apte P.G., Multinational Financial Management, Tata -McGraw Hill, New Delhi, 1998.
- 2. Baker J.C., International Finance: Management, Markets and Institutions, Prentice Hall, Englewood Cliffs, 1998
- 3. Eiteman, David K., Arthur Stonehill and Micheal H. Moffett, Multinational Business Finance, Addison-Wesley Publishing Company, Readings Mass., 1998.
- 4. Eun, Cheol and Bruce Resnick, International Financial Management, McGraw Hill, New York, 1998

Max Marks: - 100 Internal=50 External =50

Research Methodology

Course Outcomes: After completing this course, the student shall be able to

CO1: Define Research Problem, find research gap and develop research hypothesis while doing research

CO1: Frame research design as per the type of the research

CO1: Select appropriate method of sampling technique and data collection in the research work

CO1: Develop skills to write research report keeping in view the ethical considerations in research

UNIT–I: Introduction

Objectives and types of research: Research Process, Research methods vs Methodology. Types of research – Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical. Defining and formulating the research problem - Selecting the problem - Importance of literature review in defining a problem – sources of literature – reviews, treatise, monographs-patents – web as a source - Critical literature review – Identifying gap areas from literature review - Development of working hypothesis.

UNIT–II: Research Design

Research design and methods: Research design – Basic Principles- Need of research design – Features of good design – Important concepts relating to research design – Observation and Facts, Laws and Theories, Prediction and explanation, Induction, Deduction, Development of Models. Developing a research plan - Exploration, Description, Diagnosis, Experimentation. Determining experimental design,

UNIT-III: Data Collection and Processing

Sample design-Determining sample size and sampling methods, Data Collection and analysis: Methods of qualitative and quantitative data collection: primary, and secondary; observation, indepth Interview, focus group discussion, Interviewing and moderation skills in qualitative Data Collection. Selecting Method of Data Collection- Data editing, processing & categorization.

UNIT-IV: Presentation of Information and Writing of a Research Report

Report Writing and Ethics: Application of software tools, use of library databases, review of articles, exploring various data sources, understanding bibliography, structuring of a thesis/report, use of different referencing styles e.g. APA, Report Writing, presentations, and Research Proposal. Ethical considerations in research- Copy right – royalty - Intellectual property rights and patent law-Reproduction of published material – Plagiarism - Citation and acknowledgement - Reproducibility and accountability.

Suggested References

1. Goode J.Willium & Hatt K. Paul, Methods of social Research, , New York, McGraw - Hill.

2. Gopal, M.H (1970) An Introduction to Research Procedures in Social Sciences, Bombay, Asia Publishing House.

3. Gosh B.N.– Scientific Method and Social Research – Sterling Publishers (P) Ltd.

4. Gupta S.C. and V.K. Kapoor (1993) Fundamentals of Applied Statistics, S.Chand and Sons

5. Kothari- C.R.(1988)Research Methodology, Methods and Techniques – Willey Eastern Ltd.,

6. Kothari, C.R (2004) Research Methodology: An Introduction, Delhi, New Age

7. Lundberg, George A. : Social Research, Long mans, Green and Co., New Delhi

8. Nachmias David &NachmiasChava, (1981), Research Methods in the Social Sciences, New York,

9. Rajaram V. (1996), Fundamentals of computers, Prentice Hall of India, New Delhi

10. Ranjeet Kumar (2008) : Research Methodology: A Step by Step Guide for Researchers. 11.

Sadhu A,.N. &Amarjit Singh: Research Methodology in Social Sciences, by Himalaya Publishing House.

12. Thanulingom , N. (2000), "Research Methodology" Himalaya Publishing House.

13. Kumar Ranjit, Research Methodology, Sage Publication, New Delhi

Max Marks: - 100 Internal=50 External =50 Credits: 04

COMPUTER APPLICATIONS

Course Outcomes:

After the completion of the course, the students shall be able to

CO1: Know the use of computers

CO2: Work smoothly with Microsoft Word and Microsoft PowerPoint

CO3: Work smoothly with Microsoft excel

CO4: Use and Handle the pivot tables

UNIT-I: Introduction to Computers

Introduction to Computers, Classification of Digital Computer Systems, Generations of Computers, Anatomy of a Digital Computer, CPU, Memory Units, Input Devices, Output Devices, Auxiliary Storage Devices. Computer Hardware and Software, Programming Languages: Machine Languages, Assembly level languages and high-level languages. Operating Systems. Microsoft Office Suite. Browsers & types of browsers

UNIT-II: Introduction to MS Word & MS Power Point

IntroductiontoMSword,CreatingaWordDocument,SavingaWordDocument,Formattingthedocume nts,Working with Headings,BulletsandNumbering,Indentation, working withheaderandfooters, Foot notes, Tables, Layout Design, Adding Graphics. Report writing. Indexing, Entering Table of Contents, Referencing; Manual Referencing, Cross reference, Mendeley Referencing. Track Change (on, acceptance & off) Mail Merge. MS PowerPoint:

Power Point basics, Creating a Power-Point Document, Selecting a theme, Editing the Primary Slide, Inserting/Deleting slides, Creating a Section Working in outlines view,UsingDesignTemplates,AddingGraphicsandAnimation,AddingorganizationCharts,AddingS pecialEffects,CreatingTransitions, Slide Show.

UNIT-III: Introduction to MS Excel

Introduction to Excel, Spreadsheets & its uses, Anatomy of a Spreadsheet, Creating & Formatting aSpreadsheet. Worksheet Navigation, Importance of a Cell, Cell Reference (Relative, Absolute, Mixed), Creating tables in Excel. Plotting Graphin Excel:Column, Line, Pie &Bar

Unit-IV: Data Processing Using Excel

TabulationofData;WorkingwithFunctionslike:Sum,Average,StandardDeviation,Count.UsingExcel Filters, Data Plotting using Excel. Graphical Presentation of the Tabulated Data. Copying Tables &Graphs to Word & PowerPoint. Arithmetic Mean. Median. Mode. Geometric & Harmonic Mean. Variance&StandardDeviation.Correlation.ScatterDiagram.CorrelationCoefficient.BasicLinearRegressio nusingExcel.

Suggested Readings:

- 1. AnitaGoel,—Computerfundamentals PearsonIndia
- 2. MedhiJ.,-StatisticalMethodsasIntroductoryTextl
- 3. KennethNBerk&PatrickCarey,—DataAnalysiswithMicrosoftExcell

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

| Max Marks: - 100 |
|------------------|
| Internal=50 |
| External =50 |

Credits: 04

GAME THEORY

Course Outcomes:

After completing this course, the students will be able to:

CO1: Define key concepts and terminology of game theory, including types of games.

CO2: Apply the concepts of static games in solving the classic problems in game theory, including prisoner's dilemma, among others.

CO3: Demonstrate the ability to find Nash equilibriums in sequential games.

CO4: Solve the practical problems facing Business and Economics, using game theoretic approach.

Unit-1: Introduction to Game Theory

Definition of Game Theory; Nature and Scope of Game Theory; History and Importance of Game Theory; Types of Games: Cooperative vs. Non-cooperative, Zero-sum vs. Non-zero-zum, Symmetric vs. Asymmetric; Basic Components of Games: Player, Strategies, Payoffs; Payoff Matrix; Representation of Games; Normal Form and Extensive Form

Unit-2: Static Games

Dominant and Dominated Strategies; Equilibrium in Dominant Strategies; Nash Equilibrium: Concept and Examples. Maximin and Minimax Strategies; Prisoner's Dilemma; Pure vs. Mixed Strategies; Battle of Sexes; Matching Pennies; Other Classical Game Examples

Unit-3: Dynamic Games

Extensive Form Representation of Games; Strategies in Dynamic Games; Advantage of Moving First; Perfect information and Imperfect information; Backward Induction and its Applications; Subgame Perfect Nash Equilibrium; Repeated Games and strategies; Tit-for-tat Strategy;

Unit-4: Applications in Business Economics

Applications of Static Games in Economics; Application of Dynamic Games in Business Strategy. Nash Equilibrium in Competitive Markets; Strategic Interactions in Oligopolies: Cournot and Bertrand Competition Models; Price Wars and Collusion in the Airline or Telecommunications Industry;

Suggested Readings:

Pindyck, R.S. & Rubinfeld, D.L. (2013). Microeconomics. Eight Edition. Pearson: London.

Osborne, M. (2004). An Introduction to game theory. OUP New Delhi.

Gibbons, R. (1992). Game theory for applied economists. Harvester Wheatsheaf, New York.

Gudenberg, D. and J. Tirole (1991).Game theory.MIT Press.

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

Max Marks: - 100 Internal=50 External =50

Credits: 04

ECONOMETRICS-II

Course Outcomes

After completing this course, the students shall be able to:

CO1: Leverage balanced and unbalanced panel data for estimation of causal linkages.

CO2: Estimate analyze dynamic relationships between economic variables using various dynamic models.

CO3: Perform the forecasting of macroeconomic variables using ARIMA and VAR techniques with better levels of accuracy.

CO4: Analyze time series datasets for forecasting and gauging of behavioral patterns of macroeconomic variables.

Unit-III: Basics of Time Series Econometrics

Stochastic process; stationary and non-stationary stochastic processes; white noise process; Random Walk Model (with and without drift); Unit Root stochastic process; Trend stationary and Difference Stationary processes; Integrated Stochastic process; The Phenomenon of Spurious regression; Test of Stationarity; The Unit Root Test: Dickey-Fuller Test; The concept of co-integration; Testing for co-integration: Engle-Granger, Error correction mechanism.

Unit-II: Time Series Econometrics: Forecasting

Auto-regressive (AR) Process; Moving Average (MA) Process; Auto-regressive and Moving Average (ARMA) Process; Forecasting with Auto Regressive Integrated Moving Average (ARIMA) modeling: Box Jenkins methodology: identification, estimation, diagnostic checking and forecasting; Vector Auto-regression (VAR). Introduction to statistical software (STATA or SPSS) and basic commands for estimation of cross section, panel, and time series data models.

Unit-II: Dynamic Econometric Modelling

Reasons for time lags; Role of time lags in regression analysis; Autoregressive and distributed lag models; Estimation of Distributed-lag models: Ad hoc estimation and its limitations; Koyck approach and Almon approach to distributed-lag models; Partial adjustment model, adaptive expectations model;

Unit-IV: Panel Data Modelling

Panel data: nature and benefits of panel data; Balanced and Unbalanced panel; Pooled panel data; Estimation of Panel data model: Fixed effects model and Random effects model; Choice between Fixed effects vs Random effects model (Hausman test).

Suggested References

- 1. Gujarati, D.N (2005). Basic Econometrics, Tata Mcgraw Hill, New Delhi.
- 2. Baltagi, B.H. (2011). Econometrics.Berlin: Springer.
- 3. P. Kennedy, (1998) 4thed; A Guide to Econometrics, MIT Press, New York.
- 4. G.S Maddala (ed.), (1993), Econometric Methods and Application (2 Volumes).
- 5. Greene, W.H. (2003). Econometric Analysis. Upper Saddle River, N.J: Prentice Hall
- 6. W. Enders, (2003) 2nded; Applied Econometric Time Series.
- 7. A.S. Goldberger, (1998), Introductive Econometrics, Harvard University Press, Cambridge, Mass.
- 8. STATA Manual, STATA Press.

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

Max Marks: - 100 Internal=50 External =50

Credits: 04

WELFARE ECONOMICS

Course Outcomes:

CO1: By the end of the Unit I, the students will be aware about the basics and foundation of welfare economics.

CO2: The classical axioms of Welfare Economics are examined and re-examined in light of empirics and latest data.

CO3: In continuation to the learnings and unlearning conducted till this point, the latest and current developments in the Welfare Economics are discussed and put forward for debate.

CO4: Fourth Unit of the course will enhance the capability of the students towards the practical goaloriented policy formulation aspect of welfare economics

UNIT-I: Foundation of the Subject

Introduction to Welfare Economics; The welfare assumptions behind GDP and NNP and its limitations; Individual and Social Welfare Conditions and Amartya Sen's critique; Happiness economics; The Pareto Criterion, Pareto Optimality and Compensation; Consumer surplus, WTP, consumer welfare and latest measures; Producer surplus, producer welfare and the variation measure; Market Failure and the Theory of Second Best; Externalities; Public Goods and the Free Rider Problem.

UNIT-II: The two Fundamental Theorems examined & re-examined

The Arrow-Debreu (AD) Economy; Two Theorems of Welfare Economics; The axiomatic structure; Consumers, producers and government: objectives and constraints; The Walrasian equilibrium; The informative structure viz. Stiglitz's critique; Critical analysis of the Second Theorem; The government rediscovered in second-best economies.

UNIT-III: Latest Developments in Welfare Economics

Social Welfare Functions, Fairness Theory and Justice; Altruism, Egoism, and Genetic Fitness in Welfare Economics; Behavioral Welfare Economics; The Welfare Effects of Market Structure; The Welfare Effects of Information.

UNIT-IV: Applied Welfare Economics & Public Policy

Policy Design: From an Old to a New Orientation; Policy Problems and Policy Design: Linking Problems and Targets; Policy Designers - Agency and Actors; Reconsidering Foundational and New Policy Tools: Nudge & Nodality Tools, Authority Tools, Treasure Tools, Digital Tools; Gauging Effectiveness in Policy Designs

Suggested Readings:

- An introduction to modern welfare economics; Per-Olov Johansson Cambridge University Press, 1991
- > Welfare Economics Robin Boadway and Neil Bruce. Oxford. Blackwell 1984.
- The Welfare Economics of Public Policy: A Practical Approach to Project and Policy Evaluation-Richard Just, Darrell Hueth and Andrew Schmitz.Edward Elgar 2004.
- > Welfare Economics in Theory and Practice; Catherine M. Price1977, Springer Books Ltd.
- Applied Welfare Economics (Cost-Benefit Analysis of Projects and Policies) by Massimo Florio, Chiara Pancotti- 2023; Routledge
- > Welfare Economics: An Interpretive History Roger A. McCain Routledge,
- > Routledge Handbook of Policy Design, Edited By Michael Howlett, Ishani Mukherjee2018
- The Welfare Economics of Public Policy: A Practical Approach to Project and Policy Evaluation 2005. Andrew Schmitz, Darrell L. Hueth, Just, Richard E

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

Max Marks: - 100 Internal=50 External =50

Credits: 04

ENVIRONMENT AND DEVELOPMENT

Unit-I: Environmental Economics

Environmental Economics- Meaning and Definition; Components of Environment; Distinction between Environmental Economics and Natural Resources; Market Failure & Externality– Theories of Environmental Economics.

Unit-II: Environment and Economics

Environment and Economics- Inter linkage; Environment as a public good – Environment vs. Economic growth; Population and Environment linkage –Environmental use as an allocate problem; Valuation of Environmental damages: land, water, air and forest.

Unit-III: Environment and Development

Sustainable Development- Meaning and concept; Measurement of Sustainable Development; Sustainable Development Goals; Deforestation and Environmental problems; Agricultural Development and Environmental problems.

Unit-IV: Environmental Issues and Economic policy

Global Warming; Green House Effect; ACID rain; Biodiversity Preservation; Chipko Movement; Environmental planning and Environmental accounting; Global Climate Change; International Climate Policy

Suggested Readings:

- 1. Kolstad, C. (2001), "Environmental Economics", Oxford University Press (2nd edition).
- 2. Baumol, W.J, and W.E. Oates (2012), "The Theory of Environmental Policy", Cambridge University Press (2nd edition).
- Freeman, A.M. (2014), "The Measurement of Environmental and Resource Values", Resources for the Future (3rd edition).
- Hanley, N., J.F. Shogren, and B. White (2006), "Environmental Economics: In Theory and Practice", Macmillan India Ltd. (2ndedition).
- Shyam Divan and Armin Rosencranz (2002), "Environmental Law and Policy in India", OxfordUniversity Press(2ndEdition).

DISSERTATION

The following guidelines shall be adhered in case of the students opting and eligible for research in fourth year:

- **1. Credit Allocation**: Students eligible for and undertaking research in their 4th year shall have all credits (12) allocated to research in 8th semester.
- 2. Allocation of Dissertations: Each student shall be assigned an individual dissertation topic.
- **3. Proposal Submission**: Within one month of dissertation allocation, students must submit a comprehensive proposal for their dissertation, in consultation with their supervisor.
- **4. Dissertation Duration**: Students will be granted a period of four months to complete their dissertation following proposal approval.
- 5. Pre-Submission Seminar: Upon completion of the dissertation, students are required to deliver a pre-submission seminar before the Seminar Committee of the Department for evaluation. Evaluation will be based on a scale of 100 (4 credits), with feedback provided for further refinement.
- **6. Incorporation of Feedback**: Following the pre-submission seminar, students must incorporate the suggestions provided by the seminar committee within one month.
- **7. External Evaluation:** Completed dissertations will be forwarded to external experts for evaluation, with assessments conducted out of 300 marks (equivalent to 12 credits).
- 8. Viva Voce Examination: Upon completion of the external evaluation, students will have to appear for a viva voce examination based on their dissertation. Performance in the viva voce will be evaluated out of 100 marks (4 credits).

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

| Max Marks: - 100 |
|------------------|
| Internal=50 |
| External =50 |

BANKING AND FINANCE

Credits: 04

Course Outcomes: Students will be able to:

CO1: Analyze the role of commercial banks and central bank in an economy.

CO2: Understand the processes and functioning of banking system.

CO3: Examine the recent technological advancement in the Indian banking system.

CO4: Learn credit creation process of the banks and suggest appropriate instruments to control credit.

Unit-1: Commercial Banking-1

Banking: Meaning and types of banks; Functions of commercial banks; Core banking; Commercial banking in India: Structure, nationalization and reforms; Modernization of Indian banking system; Merger of banks; NPAs of Indian commercial banks.

Unit-11: Commercial Banking-II

Balance sheet: Liabilities and assets of banks; Process of credit creation: Purpose and limitations; Role of commercial banks in a developing economy; Microfinance: Concept and progress in India; Jan Dhan Yojana.

Unit-Ill: Central Ranking

Reserve Bank of India: Evolution, organization and management; Functions of Reserve Bank of India: Central banking, promotional and supervisory functions; Comparison between commercial banking and central banking.

Unit-IV: Monetary Policy

Monetary policy: Objectives; Quantitative and qualitative instruments of monetary policy; Current monetary policy of India; Non-banking financial intermediaries: Meaning and role in economic development.

Suggested References:

- 1. Baye, M.R. J ansenD.W. Money, Banking and Financial Markets, AITBS (Indian ed.).
- 2. Chandler, L.V. and Goldfield S. The Economies of Money and Banking,
- Harper and Row, New York. Monetary Policy, Financial Stability & Central Banking, Macmillan.

Max Marks: - 100 Internal=50 External =50

BASICS OF FINANCIAL ECONOMETRICS

Course Outcomes: After the completion of the course, student will be able to:

CO1: Design and conduct the event studies on their own.

CO2: Learn different approaches to assessing predictive ability of models and **CO3:** how to apply them to answer the question of whether the financial returns are predictable or not.

CO4: Test asset pricing models on the data.

Unit I:

Classical time series analysis – utility of time series analysis – components of time series data – measurement of trend, seasonality and cycles – moving averages and smoothing techniques to time series analysis - classical time Series decomposition models – additive and multiplicative models – forecasting using smoothing techniques and time series decomposition methods – applications in finance .

Unit II:

Tools of modern time series analysis – stochastic and stationary process – tests of stationary – trend vs difference stationery process – Dickey-Fuller and augmented Dickey-Fuller tests – spurious regression and co-integration of time series – Engle-Granger test – CRDW test – error correction mechanism.

Unit III:

Univariate time series analysis and forecasting – linear time series analysis – autocorrelation function and partial auto-correlation function – auto-regressive (AR) models, moving average (MA) models, Box-Jenkins (BJ) ARMA and ARIMA models – identification – estimation and forecasting with ARIMA models – economic applications. Multivariate time series analysis and forecasting – vector autoregressive (VAR) models – advantages and problems – estimation and forecasting with VAR – impulse response function – Johansen Co-integration test on VAR – Granger causality test – applications in finance.

Unit IV:

Modeling volatility and auto-correlation in time series – motivation and test for nonlinearity – historical and implied volatility – auto-regressive conditional hetroscdasticity (ARCH) model – generalised ARCH model – applications in finance.

Books for Reference:

1. D.N.Gujarati and Sangeetha: Basic Econometrics, Tata McGraw-Hill.

2. Chris Brooks: Introductory Econometrics for Finance, Cambridge University Press.
3. T.M.J.A. Cooray: Applied Time Series – Analysis and Forecasting, Narosa Publication

Max Marks: - 100 Internal=50 External =50

BASICS OF FINANCIAL MATHEMATICS

Unit I:

Basic Financial Calculations Introduction: financial securities- zero coupon bond, fixed interest, index linked securities etc.; the time value of money; nominal Vs. real interest, deflationary conditions; accumulating factors, force of interest, compound interest functions. Annuities and Equation of Value Discounting and Accumulation: discrete and continuous cash flows; level annuities, deferred and increasing/decreasing annuities, equation of value and yield on transaction, probability of cash flows, higher discount, loan schedules; consumer credit: flat rate and APRs.

Unit II:

Capital Budgeting Techniques and Compound Interest Problems Introduction to financial statement, assessing financial performance, net present value, internal rate of return, payback period; projects with different lives; money and time weighed rate of return; fixed interest securities, uncertain income securities, equities, valuing a loan with allowance for capital gains and indexation.

Unit III:

Arbitrage, Forward Contracts, and Term Structure of Interest Rationale for no arbitrage assumption; forward contracts, calculating the forward price for a security with known dividend yield; hedging, fixed cash income; Discrete time and continuous time rates; continuous time spot rates and forward rates; instantaneous forward rates; theories of time; term structure of interest rates; yield curve; yields to maturity; convexity and immunization; interest rate risk..

Unit IV:

Stochastic Interest Models and Investments Simple stochastic interest rate models, fixed and varying interest model, log normal distribution; fixed interest government borrowings, government bonds, tax, security, marketability and return; government bills: corporate debt, debentures, unsecured loan stocks, eurobonds, certificates of deposit, convertibles, property, derivatives, future, range of futures, clearing house, margin, bond futures, short interest futures, stock index futures etc.,

Suggested Readings:

1. Ross, S.M., (1999): An Introduction to Mathematical Finance, Cambridge University Press, Norton, London.

2. Martin, P.G. and Michael B., (1991): Applied Financial Mathematics, Prentice Hall. Books for

3. Baxter, M. and A. L. Rennie, (1996): Financial Calculus, Cambridge University Press.

4. Karatzas, L. and Shreve S.E., (1998): Methods of Mathematical Finance, Springer.

5. Watsham, T.J .and Perramore. K . ,(1997): Quantitative Methods in Finance,

International Thomson Business Press.

Max Marks: - 100 Internal=50 External =50

RESEARCH METHODOLOGY

Course Outcomes: After completing this course, the student shall be able to

CO1: Define Research Problem, find research gap and develop research hypothesis while doing research

CO2: Frame research design as per the type of the research

CO3: Select appropriate method of sampling technique and data collection in the research work

CO4: Develop skills to write research report keeping in view the ethical considerations in

research

UNIT–I: Introduction

Objectives and types of research: Research Process, Research methods vs Methodology. Types of research – Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical. Defining and formulating the research problem - Selecting the problem - Importance of literature review in defining a problem – sources of literature – reviews, treatise, monographs-patents – web as a source - Critical literature review – Identifying gap areas from literature review - Development of working hypothesis.

UNIT–II: Research Design

Research design and methods: Research design – Basic Principles- Need of research design — Features of good design – Important concepts relating to research design – Observation and Facts, Laws and Theories, Prediction and explanation, Induction, Deduction, Development of Models. Developing a research plan - Exploration, Description, Diagnosis, Experimentation. Determining experimental design,

UNIT–III: Data Collection and Processing

Sample design-Determining sample size and sampling methods, Data Collection and analysis: Methods of qualitative and quantitative data collection: primary, and secondary; observation, indepth Interview, focus group discussion, Interviewing and moderation skills in qualitative Data Collection. Selecting Method of Data Collection- Data editing, processing & categorization.

UNIT-IV: Presentation of Information and Writing of a Research Report

Report Writing and Ethics: Application of software tools, use of library databases, review of articles, exploring various data sources, understanding bibliography, structuring of a

thesis/report, use of different referencing styles e.g. APA, Report Writing, presentations, and Research Proposal.

Ethical considerations in research- Copy right – royalty - Intellectual property rights and patent law-Reproduction of published material – Plagiarism - Citation and acknowledgement - Reproducibility and accountability.

Suggested References:

1. Goode J.Willium&Hatt K. Paul, Methods of social Research, , New York, McGraw - Hill.

2. Gopal, M.H (1970) An Introduction to Research Procedures in Social Sciences, Bombay, Asia Publishing House.

3. Gosh B.N.- Scientific Method and Social Research – Sterling Publishers (P) Ltd.

4. Gupta S.C. and V.K. Kapoor (1993) Fundamentals of Applied Statistics, S.Chand and Sons

5. Kothari- C.R.(1988)Research Methodology, Methods and Techniques - Willey Eastern Ltd.,

6. Kothari, C.R (2004) Research Methodology: An Introduction, Delhi, New Age

7. Lundberg, George A. : Social Research, Long mans, Green and Co., New Delhi

8. Nachmias David & Nachmias Chava, (1981), Research Methods in the Social Sciences, New York,

9. Rajaram V. (1996), Fundamentals of computers, Prentice Hall of India, New Delhi

10. Ranjeet Kumar (2008) : Research Methodology: A Step by Step Guide for Researchers. 11. Sadhu A, N. & Amarjit Singh: Research Methodology in Social Sciences, by Himalaya Publishing House.

12. Thanulingom , N. (2000), "Research Methodology" Himalaya Publishing House.

13. Kumar Ranjit, Research Methodology, Sage Publication, New Delhi

Max Marks: - 100 Credits: 04 Internal=50 External =50 FINANCIAL INSTITUTIONS AND MARKETS MANAGMENTS

Course Outcomes:

After completing this course, the student shall be able to

CO1: Evaluate the role of financial system and regulatory authorities

CO2: Analyse the Indian banking system and suggest policies for growth and development

CO3: Examine the working of Indian Non-Banking financial Institutions.

CO4: Explore the working of Indian financial markets and use the knowledge for investment and policy making.

Unit-I:

Introduction to financial system and Regulatory Authorities in India Structure of financial system; Functions of financial sector; Financial system and economic development; Financial intermediation and financial intermediaries; Indicators of financial development; Regulatory financial institutions, RBI- Role and functions; SEBI-Objectives, functions, Insurance Regulatory and Development Authority (IRDA)-objectives and functions.

Unit- II:

Banking Sector in India Indian banking system, Role of Commercial banks in economic development, Banking sector postin dependence, Major recommendations of the Chakravarty committee and Narasimham committee, Banking sector reforms in India. Global financial crises (2008), Problem of NPAs in Indian banks.

Unit III:

NBFIs in India NBFIs-Definition, types, growth and their impact on India's economic development; Small savings Growth and composition; Provident funds, Pension funds; Hire-purchase finance; Lease financing; Merchant banking, Venture capital funds.UTI and Mutual funds- Organization and schemes; Insurance companies-Types and structure; Credit rating agencies in India-Objectives and functions.

Unit- IV:

Financial markets in India Structure and functions of financial markets; Money market and its constituents-Call money market, Treasury bill market, Commercial bill market, Repo market, commercial paper market; Certificate of deposits market; Capital market-Government securities market; Corporate security market; Primary and secondary market for securities; Discount market; Unregulated credit markets-Types and functions.

Suggested References:

1. Bhole.M.L., and Mahakud.J. (2011) .Financial institutions and markets .New Delhi, India:Tata McGraw Hill.

2. Avadhani V.A. (2017). Investment and Security Markets in India.New Delhi, India: Himalaya Publishing House.

3. Avadhani V.A. (2014).Financial Economics, Theory and Practice.New Delhi, India: Himalaya Publishing House.

4. Melvin, Michael & Norrbin, S.C. (2012).International Money and Finance.Amesterdam, Netherlands :Elsevier Science.

5. Chandeller, L.V. and Goldfeld, S. H. (1977). The Economics of Money and Banking. New York, USA: Joanna Cotler Books

6. G. Crowther. (2007). An Outline of Money.

7. Gurley and Shaw. (1960). Money in a Theory of Finance.Brookings Institution.

8. Sayers, R.S. (1967). Modern Banking. NY, USA: Oxford University Press

9. Stoneir and Shapiro. (1968). Money and Banking. Holt, Rinehart& Winston of Canada Ltd

10. Kock, D. (1975). Central Banking.Wiley Publication.

11. Sen, S.W.(1967).Central Banking and Undeveloped Money Market.

12. Basu, C.R.(1978). Central Banking in Planned Economy and Practice. US: McGraw-Hill. 13. R.B.I.Reports on Currency and Finance (various issues)

Max Marks: - 100

Credits: 04

Internal=50

External =50

FINANCIAL REGULATIONS AND BANKING SUPERVISION

Unit I:

Financial Regulation Asymmetric information and the rationale for regulation of financial institutions and market, financial market fragility, Evolution of regulatory policies; Cross country Experiences.

Unit II:

Indian Capital Markets Structure of primary and secondary markets, dematerialization, depositories, credit rating of financial instruments, financial institutions: development financial institutions, non-banking financial intermediaries, LIC of India and UTI, mutual funds, venture capital, bank-assurance.

Unit III:

Financial Sector Reforms Banking sector reforms-phase -phase out of statutory precyton interest rate deregulation etc.- Indian capital market integration, foreign institutional investors, impact of exchange rate variability in a liberalized regime, Issues of GDRs, ADRs

Unit IV:

Banking Regulation and BIS Banking regulation act 1949, financial stability, banking regulation; Basel norms- Capital Adequacy, Income recognition; provisioning; statuary reserve requirement, CAMELS; liquidity risk and contagion market discipline: issues and evidence market discipline in emerging economies: beyond bank fundamentals; conduct of monetary policy; 5 Risk Management Various Types of Risks in banking and trading banks; Management of Credit Risks; Market Risks, Liquidity Risks, and Operational Risks-General Principles of Bank Management- Solvency, liquidity and profitability considerations.

Suggested Readings:

Houthakker, H.S. and Williamson, P.J. The Economics of Financial Markets, Oxford• University Press, 1996. Krugman, P. and Obstfeld, M. International Economics, Theory and Policy, sixth edition,•

Addison - Wesley, 2003. Herring, R. and Litan, R.E. Financial Regulation in the Global Economy, Brookings• Institution Press, 1995.

Howells, P. and Bain, K. Financial Markets and Institutions, Fifth Edition, Pearson• Education, 2007

Max Marks: - 100 Internal=50

External =50

QUANTITATIVE TECHNIQUES IN FINANCE

Credits: 04

Unit I:

Basic Financial Calculations Introduction: financial securities- zero coupon bond, fixed interest, index linked securities etc.; the time value of money; nominal Vs. real interest, deflationary conditions; accumulating factors, force of interest, compound interest functions. Annuities and Equation of Value Discounting and Accumulation: discrete and continuous cash flows; level annuities, deferred and increasing/decreasing annuities, equation of value and yield on transaction, probability of cash flows, higher discount, loan schedules; consumer credit: flat rate and APRs.

Unit II:

Capital Budgeting Techniques and Compound Interest Problems Introduction to financial statement, assessing financial performance, net present value, internal rate of return, payback period; projects with different lives; money and time weighed rate of return; fixed interest securities, uncertain income securities, equities, valuing a loan with allowance for capital gains and indexation.

Unit III:

Classical time series analysis – utility of time series analysis – components of time series data – measurement of trend, seasonality and cycles – moving averages and smoothing techniques to time series analysis - classical time Series decomposition models – additive and multiplicative models – forecasting using smoothing techniques and time series decomposition methods – applications in finance .

Unit IV:

Tools of modern time series analysis – stochastic and stationary process – tests of stationary – trend vs difference stationery process – Dickey-Fuller and augmented Dickey-Fuller tests – spurious regression and co-integration of time series – Engle-Granger test – CRDW test – error correction mechanism.

Suggested Readings:

1. Apte P.G., Multinational Financial Management, Tata -McGraw Hill, New Delhi, 1998.

2. Baker J.C., International Finance: Management, Markets and Institutions, Prentice Hall, Englewood Cliffs, 1998

3. D.N.Gujarati and Sangeetha: Basic Econometrics, Tata McGraw-Hill.

4. Chris Brooks: Introductory Econometrics for Finance, Cambridge University Press.

5. T.M.J.A. Cooray: Applied Time Series – Analysis and Forecasting, Narosa Publication.

Max Marks: - 100 Internal=50 External =50

RESEARCH METHODOLOGY

Course Outcomes:

After completing this course, the student shall be able to

CO1: Define Research Problem, find research gap and develop research hypothesis while doing research.

CO2: Frame research design as per the type of the research

CO3: Select appropriate method of sampling technique and data collection in the research work

CO4: Develop skills to write research report keeping in view the ethical considerations in research

UNIT–I: Introduction

Objectives and types of research: Research Process, Research methods vs Methodology. Types of research – Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical. Defining and formulating the research problem - Selecting the problem - Importance of literature review in defining a problem – sources of literature – reviews, treatise, monographs-patents – web as a source - Critical literature review – Identifying gap areas from literature review - Development of working hypothesis.

UNIT–II: Research Design

Research design and methods: Research design – Basic Principles- Need of research design — Features of good design – Important concepts relating to research design – Observation and Facts, Laws and Theories, Prediction and explanation, Induction, Deduction, Development of Models. Developing a research plan - Exploration, Description, Diagnosis, Experimentation. Determining experimental design,

UNIT-III: Data Collection and Processing

Sample design-Determining sample size and sampling methods, Data Collection and analysis: Methods of qualitative and quantitative data collection: primary, and secondary; observation, indepth Interview, focus group discussion, Interviewing and moderation skills in qualitative Data Collection. Selecting Method of Data Collection- Data editing, processing & categorization.

UNIT-IV: Presentation of Information and Writing of a Research Report

Report Writing and Ethics: Application of software tools, use of library databases, review of articles, exploring various data sources, understanding bibliography, structuring of a thesis/report, use of different referencing styles e.g. APA, Report Writing, presentations, and Research Proposal.

Ethical considerations in research- Copy right – royalty - Intellectual property rights and patent law-Reproduction of published material – Plagiarism - Citation and acknowledgement - Reproducibility and accountability.

Suggested References

1. Goode J.Willium&Hatt K. Paul, Methods of social Research, , New York, McGraw – Hill.

2. Gopal, M.H (1970) An Introduction to Research Procedures in Social Sciences, Bombay, Asia Publishing House.

3. Gosh B.N.- Scientific Method and Social Research - Sterling Publishers (P) Ltd.

4. Gupta S.C. and V.K. Kapoor (1993) Fundamentals of Applied Statistics, S.Chand and Sons

5. Kothari- C.R.(1988)Research Methodology, Methods and Techniques – Willey Eastern Ltd.,

6. Kothari, C.R (2004) Research Methodology: An Introduction, Delhi, New Age

7. Lundberg, George A. : Social Research, Long mans, Green and Co., New Delhi

8. Nachmias David &NachmiasChava, (1981), Research Methods in the Social Sciences, New York,

9. Rajaram V. (1996), Fundamentals of computers, Prentice Hall of India, New Delhi

10. Ranjeet Kumar (2008) : Research Methodology: A Step by Step Guide for Researchers. 11.

Sadhu A,.N. &Amarjit Singh: Research Methodology in Social Sciences, by Himalaya Publishing House.

12. Thanulingom , N. (2000), "Research Methodology" Himalaya Publishing House.

13. Kumar Ranjit, Research Methodology, Sage Publication, New Delhi

Max Marks: - 100 Internal=50 External =50

INTERNATIONAL FINANCE

Course Outcomes

After completing this course, the student shall be able to

CO1: Develop skills in matters related to international financial and investment decisions of an MNC.

CO2: Analyse the Budgeting of MNCs

CO3: Evaluate the management of cross –border financial assets

CO4: Apply tools of risk management of MNCs

UNIT I:

Introduction to international Finance Introduction: Complexities and issues in financial decisions of a multinational firm: Foreign investment decisions: Exchange rate movement and decision to invest: Foreign direct investment theories and strategies: Green field investment vs. acquisitions and mergers.

UNIT II:

Budgeting and MNCs International Capital Budgeting: Multinational considerations and calculation of cash flows; Adjusted present value approach: Cost capital: Assessment and management of political risks. International Working Capital Management: Cash management; Receivables and inventory management. Dividend Policy for Multinational Corporations.

UNIT III:

Portfolio Management: International Portfolio Management: Decision to invest in portfolio: International CAPM; Identification of optimum portfolio. International Project Financing: Concepts, types techniques and key elements; Capital structure decision.

UNIT IV:

Risk Management Currency and Interest Rate Risk Management: Exposure and risk; Transaction, translation and real operating exposure; Exposure management contractual and natural hedging; interest rate risk assessment and management. International Taxation: Key elements and issues; International tax environment; Bilateral treaties and tax heavens.

Suggested References:

1. Apte P.G., Multinational Financial Management, Tata -McGraw Hill, New Delhi, 1998.

2. Baker J.C., International Finance: Management, Markets and Institutions, Prentice Hall, Englewood Cliffs, 1998

3. Eiteman, David K., Arthur Stonehill and Micheal H. Moffett, Multinational Business Finance, Addison-Wesley Publishing Company, Readings Mass., 1998.

4. Eun, Cheol and Bruce Resnick, International Financial Management, McGraw Hill, New York, 1998

Max Marks: - 100

Credits: 04

Internal=50

External =50

FINANCIAL REGULATIONS AND BANKING SUPERVISION

Unit I:

Financial Regulation Asymmetric information and the rationale for regulation of financial institutions and market, financial market fragility, Evolution of regulatory policies; Cross country Experiences.

Unit II:

Indian Capital Markets Structure of primary and secondary markets, dematerialization, depositories, credit rating of financial instruments, financial institutions: development financial institutions, non-banking financial intermediaries, LIC of India and UTI, mutual funds, venture capital, bank-assurance.

Unit III:

Financial Sector Reforms Banking sector reforms-phase -phase out of statutory precyton interest rate deregulation etc.- Indian capital market integration, foreign institutional investors, impact of exchange rate variability in a liberalized regime, Issues of GDRs, ADRs

Unit IV:

Banking Regulation and BIS Banking regulation act 1949, financial stability, banking regulation; Basel norms- Capital Adequacy, Income recognition; provisioning; statuary reserve requirement, CAMELS; liquidity risk and contagion market discipline: issues and evidence market discipline in emerging economies: beyond bank fundamentals; conduct of monetary policy; 5 Risk Management Various Types of Risks in banking and trading banks; Management of Credit Risks; Market Risks, Liquidity Risks, and Operational Risks-General Principles of Bank Management- Solvency, liquidity and profitability considerations.

Suggested Readings:

Houthakker, H.S. and Williamson, P.J. The Economics of Financial Markets, Oxford• University Press, 1996.

Krugman, P. and Obstfeld, M. International Economics, Theory and Policy, sixth edition,•

Addison - Wesley, 2003. Herring, R. and Litan, R.E. Financial Regulation in the Global Economy, Brookings• Institution Press, 1995.

Howells, P. and Bain, K. Financial Markets and Institutions, Fifth Edition, Pearson• Education, 2007

Max Marks: - 100 Internal=50 External =50

FIXED INCOME SECURITIES

Unit I:

Introduction to Fixed Income Securities Time value of money, discount factors, the law of one price, arbitrage, bond prices, spot prices, STRIPS, coupon bonds, definition and interpretation of yield-to-maturity, coupon effect, yieldtomaturity and spot rates and forward rates

Unit II:

Fixed Income Market in India An introduction to the Indian debt market, the government securities market, bond, T-bills, the corporate bonds, commercial papers, repos, the trading mechanism in the NSE-WDM, regulations in the bond market

Unit III:

Measure of Price Sensitivity and Hedging One-factor measure of price sensitivity, modified and Macaulay duration and convexity, par bonds and perpetuities, measure of price sensitivity based on parallel yield shift, bond immunization, hedging strategies, volatility weighted hedging and regression based hedging

Unit IV:

Term Structure Models The science of term structure models, normally distributed rates and zero drift models, time dependent drift - Ho-Lee model, the mean reversion model: Vasicek model, the volatility models: the Cox- Ingersoll-Ross model. Multi-Factor Term Structure Models Motivation for principal component models, the two factor models, properties of the two factor models, multi-factor models, trading with term structure models and case studies, hedging to the model versus hedging to the market

Suggested Readings:

1. Fabozzi, F. Bond Markets, Analysis and Strategies, Prentice Hall, 2004

2. Hull, J, options: Futures and other Derivatives, Prentice Hall, New Delhi.

3. Marshall, John and V.K. BANSAL: Financial Engineering- A compete Guide to financial innovation, Prentice Hall Inc, New Delhi,

4. Copeland, T. E. and J. F. Weston, Financial Theory and Corporate Policy, Addison Wesley, 1992. 2. Brealey, R. and S. Myers, Principles of Corporate Finance, fifth edition, New York, McGraw Hill, 1997

5. Tuckman, B. Fixed Income Securities, Willey Finance, 2002

Max Marks: - 100

Credits: 04

Internal=50

External =50

FINANCIAL MARKETS AND ASSET MANAGEMENT

Unit I:

Introduction to Financial Markets Capital markets, consumption and investments with and without capital markets, market places and transaction costs and the breakdown of separation; Fisher separation theorem; the agency problem; maximization of shareholder's wealth, capital budgeting techniques

Unit II:

Choice under Uncertainty Axioms of choice under uncertainty; utility functions; expected utility theorem; certainty equivalence, measures of risk-absolute and relative risk aversions; stochastic dominance-first order, second order and third order; measures of investment risk-variance of return, semi-variance of return, shortfall probabilities

Unit III:

Mean-Variance Portfolio Theory Measuring portfolio return and risks, effect of diversification, minimum variance portfolio, perfectly correlated assets, minimum variance opportunity set, static portfolio choice; mean variance frontier of risky and risk-free asset. Introduction to Asset Pricing Capital asset pricing model; empirical methods to test models of asset pricing; Factor models and cross section of stock returns; arbitrage pricing theory and models

Unit IV:

Efficient Market Hypothesis Defining capital market efficiency, relationship between the value of information and efficient capital markets, rational expectations and market efficiency, market efficiency with costly information, efficient capital market theory and empirical models.
Suggested References:

- Copeland, T. E. and J. F. Weston, Financial Theory and Corporate Policy, Addison Wesley, 1992
- Elton, E.J and M.J. Gruber, Modern Portfolio Theory & Investment Analysis, (fourth edition) John Wiley & Sons 1991.
- Houthakker, H.S. and P.J. Williamson, Economics of Financial Markets, Oxford University Press, 1996
- 4. John Y. Campbell and Luis M. Viceira, Strategic Asset Allocation: Portfolio Choice for LongTerm Investors, Oxford University Press, 2002
- 5. Christian Gollier, The Economics of Risk and Time, MIT Press, 2001

Credits: 04

Max Marks: - 100 Internal=50 External =50

APPLIED ECONOMETRICS-I

Course Outcomes:

After completing this course, the students shall be able to:

CO1: Formulate regression models to estimate relationship between economic variables.

CO2: Identify econometric issues with data and resolve them using various econometric techniques.

CO3: Use dummy variable models and binary response variable models to analyze qualitative variables.

CO4: Estimate complex linkages using simultaneous equations and perform two stage least square analyses for endogenous variables.

Unit-I: Basic Econometrics

Nature, meaning and scope of econometrics; Methodology of Econometrics; Types of Data for Econometrics; Concepts of Population and Sample Regression Functions; Simple and general linear regression model – Assumptions, Estimation, The Ordinary Least Square (OLS) Method; Properties of OLS estimators: GaussMarkov Theorem.

Unit-II: Multiple Regression Models and Econometric Issues

Multiple Regression Model: Assumptions and Estimation; Coefficient of Determination (R-square) and Adjusted R-square; Multi-collinearity: meaning, consequences, detection, and remedial measures; Heterocedasticity: meaning, causes, detection, and remedial measures; Autocorrelation: meaning, causes, detection (Durbin-Watson Test), and remedial measures.

Unit-III: Dummy Variable and Qualitative Response Models

Dummy Variable: meaning: Uses of Dummy Variable Technique: Testing of structural stability of regression models; Interaction Effects, Seasonal analysis, Piecewise linear regression; Regression with Qualitative Response Variables: Linear Probability Model, Logit, Probit and Tobit Models.

Unit-IV: Simultaneous Equation Models

Simultaneous Equation Models: Introduction and Examples; the simultaneous equation bias and

inconsistency of OLS estimators; The Identification Problem: under-identification and overidentification; Rules of identification – order and rank conditions; Methods of estimating simultaneous equation system: the Method of Two Stage Least Squares (2SLS).

Suggested References

- 1. Gujarati, D.N (2005). Basic Econometrics, Tata Mcgraw Hill, New Delhi.
- 2. Baltagi, B.H. (2011). Econometrics.Berlin: Springer.
- 3. P. Kennedy, (1998) 4thed; A Guide to Econometrics, MIT Press, New York.
- 4. G.S Maddala (ed.), (1993), Econometric Methods and Application (2 Volumes).
- 5. Greene, W.H. (2003). Econometric Analysis. Upper Saddle River, N.J: Prentice Hall

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

Max Marks: - 100

Credits: 04

Internal=50

External =50

ADVANCED DIFFERENTIAL CALCULUS FOR ECONOMIC MODELING

Unit-I: Calculus of Variation

Concepts of a functional, first variation and second variation - Necessary conditions for optimality; Functions of one-variable, domain of a function Some elementary functions: Linear, power, exponential, logarithmic functions Graphs of Functions, Increasing-decreasing functions Inverse Functions Applications to Economics: Rate of change, Supply and demand curves, finding Equilibrium Hilbert's Independence condition - Discrete versions of Euler equation - Stochastic version - Applications in growth theory and finance

Unit-II: Differential Calculus

Derivatives Derivatives of inverse functions Derivatives of combinations of functions: Product Rule, Quotient Rule, Chain Rule Exponents and Logarithms, number *e*Geometric Series, Applications to Economics: Present value, Annuity, Logarithmic derivative Applications of Derivatives: Percent rate of change, Marginal cost-revenue-profit, elasticity using the first derivative for graphing Higher order derivatives, second derivative and convexity, implicit differentiation

Unit-III: Multivariate calculus and optimization

Open sets, closed sets, compact sets Calculus (gradients, total derivatives, directional derivatives) Implicit function theorem Quadratic forms Unconstrained optimization Constrained optimization Value functions Envelope theorems Comparative statics; Single Variable Optimization- Tests for extreme points Single variable optimization continued, applications to economics; Partial derivatives, Gradient of a function and directional derivatives, Applications to Economics: Indifference Curves .Generalization: Stationary points for functions of more than one variable

Unit-IV: Linear algebra

Linear Algebra: Characteristic Equation, Eigen values, Positive and negative definite matrices, Optimisation of scalar valued functions Maxima, Minima, convex and concave functions Constrained Optimisation Lagrange's method, Applications; Vector spaces Linear transformations The determinant function Parametric expressions Inner product and norm Convexity; Introduction to Matrices and Vectors; Functions of several variables,

Reference:

- 1. Simon and Blume: Mathematics for Economists, W. W. Norton 1994.
- 2. Pemberton and Rau: Mathematics for Economists, Manchester University Press 2012.
- 3. Chiang A.C, Dynamic Optimisation, Wave Books, 1993.
- 4. De La Fuente Mathematical Methods and Models for Economists, Cambridge University Press, 2000

Credits: 04

Max Marks: - 100 Internal=50 External =50

DATABASES

Course Outcomes:

After going through this course, the students will be able to:

CO1: Develop skills in data collection, management, and preprocessing techniques necessary for effective utilization of economic databases.

CO2: Acquire advanced data analysis skills, including time series analysis and regression analysis, specifically applied to the Annual Survey of Industries (ASI) dataset.

CO3: Gain proficiency in accessing, cleaning, and analyzing household-level National Sample Surveys (NSS) data, with a focus on understanding socio-economic dynamics and assessing the impact of social programs.

CO4: Evaluate cross-country development indicators, progress towards Millennium Development Goals (MDGs), and Sustainable Development Goals (SDGs) using the World Development Indicators (WDI) dataset, informing international development policies and strategies.

Unit-1: Introduction to Economic Databases

Overview of Economic Databases; Definition and importance of economic databases; Types of economic databases: industry surveys, household surveys, international datasets; Role of economic databases in research and policy analysis; Methods of data collection: surveys, administrative records, censuses; Institutional frameworks and agencies responsible for data collection; Sources for accessing economic databases: government agencies, international organizations, research institutes

Unit 2: Annual Survey of Industries (ASI)

Overview of ASI; Background and purpose of the Annual Survey of Industries; Scope and coverage of industries included in ASI; Institutional framework and agencies responsible for conducting ASI; structure and Content of ASI Data; Key variables and indicators in ASI dataset; Time series data; availability and formats; Challenges and limitations of ASI data;

Hands-on exercise: accessing and exploring ASI data; Examining relationships between variables; Case studies: analyzing ASI data to assess industrial performance;

Unit 3: Household-level National Sample Surveys

Introduction to NSS; Overview of household-level National Sample Surveys; Purpose and scope of NSS, with a focus on periodic labor force surveys ;Institutional framework and agencies responsible for conducting NSS; Structure and Content of NSS Data; Key variables and indicators in NSS datasets; Sampling design and survey methodologies; Challenges and limitations of NSS data

Hands-on exercise: accessing and exploring NSS data; Labor market analysis: employment, unemployment, and informal sector; Case studies: examining household-level NSS data to understand socio-economic dynamics;

Unit 4: World Development Indicators

Overview of WDI; Introduction to World Development Indicators dataset; Coverage and sources of WDI data; Content and Structure of WDI Data; Key indicators in WDI dataset; Cross-country comparability and data quality issues; Challenges and limitations of WDI data; Hands-on exercise: accessing and exploring WDI data; Analyzing WDI Data; Cross-country comparisons using WDI; Case studies: using WDI to assess global development trends

Suggested References:

Gujarati, D. N. (2009). Basic Econometrics (5th ed.). McGraw-Hill Education. Central Statistics Office, Government of India. (n.d.). Annual Survey of Industries (ASI) Reports.

National Sample Survey Office, Ministry of Statistics and Programme Implementation, Government of India. (n.d.). Reports and Publications.

The World Bank. (2020). World Development Indicators: DataBank. Retrieved from https://databank.worldbank.org/source/world-development-indicators

STATA (2013). STATA Base Reference Manual Release 13: STATA Press.

Credits: 04

Max Marks: - 100 Internal=50 External =50

BASICS OF DATA ANALYSIS

Course Outcomes:

After going through this course, the students will be able to:

CO1: Gain an understanding of the significance of data analysis in economics and its role in research and policymaking.

CO2: Acquire skills in data cleaning techniques to handle missing values, outliers, and inconsistencies in economic datasets.

CO3: Develop proficiency in conducting hypothesis tests and understanding their significance in drawing conclusions from economic data.

CO4: Gain expertise in estimating and interpreting regression models to analyze relationships between economic variables.

Unit 1: Introduction to Data Analysis

Overview of Data Analysis; Definition and importance of data analysis in economics; Types of data: cross-sectional, time series, and panel data; Role of data analysis in economic research and policymaking; Data Sources and Collection; Methods of data collection: surveys, census, administrative records, experiments; Data sources in economics: government agencies, international organizations, research institutes

Unit-2: Data Management and Pre-processing

Data cleaning techniques: handling missing values, outliers, and inconsistencies; Data preparation: variable coding, recoding, and transformation; Formation of Panel data; Exploratory Data Analysis (EDA): Descriptive statistics: mean, median, mode, standard deviation; Data visualization techniques: histograms, scatter plots, box plots; Interpreting and summarizing data using EDA

Unit 3: Hypothesis Testing and Inferential Statistics

Introduction to Hypothesis Testing; Concept of null and alternative hypotheses; Types of errors: Type I and Type II errors; Statistical significance and p-values; Parametric Hypothesis Tests; Student's t-test for means comparison; Chi-square test for categorical data; One-way ANOVA for comparing means of multiple groups; Nonparametric Hypothesis Tests: Mann-Whitney U test and Wilcoxon signed-rank test;

Unit-4: Regression Analysis

Estimation of Simple and Multiple regression Models; Interpretation of Coefficients; Interpretation of R-square and Adjusted R-square; Interpretation of p-values; Interpretation of coefficients in qualitative response models; Testing for autocorrelation, multi-collinearity, and heteroscedasticity.

Suggested References

Gujarati, D. N. (2009). Basic Econometrics (5th ed.). McGraw-Hill Education.

STATA (2013). STATA Base Reference Manual Release 13: STATA Press.

Wooldridge, J. M. (2019). Introductory Econometrics: A Modern Approach (7th ed.). Cengage Learning.

Kothari, C.R. (2014). Research Methodology. 2nd revised edition: KB Center, New Delhi. STATA (2013). STATA Base Reference Manual Release 13: STATA Press.

Credits: 04

Max Marks: - 100 Internal=50 External =50

RESEARCH METHODOLOGY

Course Outcomes:

After completing this course, the student shall be able to

CO1: Define Research Problem, find research gap and develop research hypothesis while doing research

CO2: Frame research design as per the type of the research

CO3: Select appropriate method of sampling technique and data collection in the research work

CO4: Develop skills to write research report keeping in view the ethical considerations in research

UNIT–I: Introduction

Objectives and types of research: Research Process, Research methods vs Methodology. Types of research – Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical. Defining and formulating the research problem - Selecting the problem - Importance of literature review in defining a problem – sources of literature – reviews, treatise, monographs-patents – web as a source - Critical literature review – Identifying gap areas from literature review - Development of working hypothesis.

UNIT-II: Research Design

Research design and methods: Research design – Basic Principles- Need of research design — Features of good design – Important concepts relating to research design – Observation and Facts, Laws and Theories, Prediction and explanation, Induction, Deduction, Development of Models. Developing a research plan - Exploration, Description, Diagnosis, Experimentation. Determining experimental design,

UNIT-III: Data Collection and Processing

Sample design-Determining sample size and sampling methods, Data Collection and analysis: Methods of qualitative and quantitative data collection: primary, and secondary; observation, indepth Interview, focus group discussion, Interviewing and moderation skills in qualitative Data Collection. Selecting Method of Data Collection- Data editing, processing & categorization.

UNIT-IV: Presentation of Information and Writing of a Research Report

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

Report Writing and Ethics: Application of software tools, use of library databases, review of articles, exploring various data sources, understanding bibliography, structuring of a thesis/report, use of different referencing styles e.g. APA, Report Writing, presentations, and Research Proposal.

Ethical considerations in research- Copy right – royalty - Intellectual property rights and patent law-Reproduction of published material – Plagiarism - Citation and acknowledgement - Reproducibility and accountability.

Suggested References

1. Goode J.Willium&Hatt K. Paul, Methods of social Research, , New York, McGraw - Hill.

2. Gopal, M.H (1970) An Introduction to Research Procedures in Social Sciences, Bombay, Asia Publishing House.

3. Gosh B.N.- Scientific Method and Social Research – Sterling Publishers (P) Ltd.

4. Gupta S.C. and V.K. Kapoor (1993) Fundamentals of Applied Statistics, S.Chand and Sons

5. Kothari- C.R.(1988)Research Methodology, Methods and Techniques – Willey Eastern Ltd.,

6. Kothari, C.R (2004) Research Methodology: An Introduction, Delhi, New Age

7. Lundberg, George A. : Social Research, Long mans, Green and Co., New Delhi

8. Nachmias David &NachmiasChava, (1981), Research Methods in the Social Sciences, New York,

9. Rajaram V. (1996), Fundamentals of computers, Prentice Hall of India, New Delhi

10. Ranjeet Kumar (2008) : Research Methodology: A Step by Step Guide for Researchers. 11.

Sadhu A,.N. &Amarjit Singh: Research Methodology in Social Sciences, by Himalaya Publishing House.

12. Thanulingom , N. (2000), "Research Methodology" Himalaya Publishing House.

13. Kumar Ranjit, Research Methodology, Sage Publication, New Delhi

Credits: 04

Max Marks: - 100 Internal=50 External =50

INTERMEDIATE ECONOMETRICS

Course Outcomes:

After completing this course, the students shall be able to:

CO1: Formulate regression models to estimate relationship between economic variables.

CO2: Identify econometric issues with data and resolve them using various econometric techniques.

CO3: Use dummy variable models and binary response variable models to analyze qualitative variables.

CO4: Estimate complex linkages using simultaneous equations and perform two stage least square analyses for endogenous variables.

Unit-I: Basic Econometrics

Nature, meaning and scope of econometrics; Methodology of Econometrics; Types of Data for Econometrics; Concepts of Population and Sample Regression Functions; Simple and general linear regression model – Assumptions, Estimation, The Ordinary Least Square (OLS) Method; Properties of OLS estimators: GaussMarkov Theorem.

Unit-II: Multiple Regression Models and Econometric Issues

Multiple Regression Model: Assumptions and Estimation; Coefficient of Determination (R-square) and Adjusted R-square; Multi-collinearity: meaning, consequences, detection, and remedial measures; Heterocedasticity: meaning, causes, detection, and remedial measures; Autocorrelation: meaning, causes, detection (Durbin-Watson Test), and remedial measures.

Unit-III: Dummy Variable and Qualitative Response Models

Dummy Variable: meaning: Uses of Dummy Variable Technique: Testing of structural stability of regression models; Interaction Effects, Seasonal analysis, Piecewise linear regression; Regression with Qualitative Response Variables: Linear Probability Model, Logit, Probit and Tobit Models.

Unit-IV: Simultaneous Equation Models

Simultaneous Equation Models: Introduction and Examples; the simultaneous equation bias and inconsistency of OLS estimators; The Identification Problem: under-identification and over-identification; Rules of identification – order and rank conditions; Methods of estimating simultaneous equation system: the Method of Two Stage Least Squares (2SLS).

Suggested References

- 1. Gujarati, D.N (2005). Basic Econometrics, Tata Mcgraw Hill, New Delhi.
- 2. Baltagi, B.H. (2011). Econometrics.Berlin: Springer.
- 3. P. Kennedy, (1998) 4thed; A Guide to Econometrics, MIT Press, New York.
- 4. G.S Maddala (ed.), (1993), Econometric Methods and Application (2 Volumes).
- 5. Greene, W.H. (2003). Econometric Analysis. Upper Saddle River, N.J: Prentice Hall

Max Marks: - 100

Credits: 04

Internal=50 External =50

ADVANCED MATHEMATICAL ECONOMICS

Unit-I: Theory of Consumer

Theory of Consumer Demand Utility maximization derivation of demand functions – Elasticitymeasurement –Slutsky equation - Direct and cross effects - Homogeneous and homothetic utility functions – Indirect utility function - Roy's identity - Linear expenditure systems -Constant elasticity models; Theory of Markets Mathematical treatment of market equilibrium- Single goal firm and multiple goal firms Mathematical treatment of equilibrium under different market situations.

Unit-II: Theory of Production

Theory of Production; Production Function – Producer's equilibrium – derivation of input demand functions – Cobb Douglas production function - CES production function - VES production function- Translog production. Cost function: Derivation of cost as a function of output-Duality - Shepherd's lemma derivation of supply function- generalized Leontief cost function – Technological progress and production function.

Unit-III: Linear Programming and Game Theory

Linear Programming and Input-Output Analysis; Linear programming: Primal and dual problem-General linear programme – Complementary slackness theorem - Simplex Solution-Input Output Analysis: Open and closed, static and dynamic Leontief system -Technological viability -Hawkins-Simon's conditions for viability.

Unit-IV: Decision theory

Decision theory framework-Payoff Tables-Regret Tables-Decision under uncertainty-uncertainty and risk-Methods of incorporating risk-Value of perfect information-Decision tree and its uses; Theory of Games: Two-person zero-sum game - Pure and mixed strategy - Saddle point theorem.

Suggested References:

- 1. Simon C and L. Blume , Mathematics for Economists, Viva books, 2009
- Dorfman, samuelson and Solow, Linear programming and Economic Analysis, Dover, 1958
- 3. DimitriBertsekas, Non-Linear Programming, Atlanta Scientific, 2000
- 4. Chaing A.C, Elements of Dynamic Optimisation, Waveland Press, 1992
- 5. Chiang A.C, Dynamic Optimisation, Wave Books, 1993.
- 6. De La Fuente Mathematical Methods and Models for Economists, Cambridge University Press, 2000

Max Marks: - 100 Internal=50 External =50

Credits: 04

GAME THEORY

Course Outcomes:

After completing this course, the students will be able to:

CO1: Define key concepts and terminology of game theory, including types of games.

CO2: Apply the concepts of static games in solving the classic problems in game theory, including prisoner's dilemma, among others.

CO3: Demonstrate the ability to find Nash equilibriums in sequential games.

CO4: Solve the practical problems facing Business and Economics, using game theoretic approach.

Unit-1: Introduction to Game Theory

Definition of Game Theory; Nature and Scope of Game Theory; History and Importance of Game Theory; Types of Games: Cooperative vs. Non-cooperative, Zero-sum vs. Non-zero-zum, Symmetric vs. Asymmetric; Basic Components of Games: Player, Strategies, Payoffs; Payoff Matrix; Representation of Games; Normal Form and Extensive Form

Unit-2: Static Games

Dominant and Dominated Strategies; Equilibrium in Dominant Strategies; Nash Equilibrium: Concept and Examples. Maximin and Minimax Strategies; Prisoner's Dilemma; Pure vs. Mixed Strategies; Battle of Sexes; Matching Pennies; Other Classical Game Examples

Unit-3: Dynamic Games

Extensive Form Representation of Games; Strategies in Dynamic Games; Advantage of Moving First; Perfect information and Imperfect information; Backward Induction and its Applications; Subgame Perfect Nash Equilibrium; Repeated Games and strategies; Tit-for-tat Strategy;

Unit-4: Applications in Business Economics

Applications of Static Games in Economics; Application of Dynamic Games in Business Strategy. Nash Equilibrium in Competitive Markets; Strategic Interactions in Oligopolies: Cournot and Bertrand Competition Models; Price Wars and Collusion in the Airline or Telecommunications Industry;

Suggested References

Pindyck, R.S. & Rubinfeld, D.L. (2013). Microeconomics. Eight Edition. Pearson: London.

Osborne, M. (2004). An Introduction to game theory. OUP New Delhi.

Gibbons, R. (1992). Game theory for applied economists. Harvester Wheatsheaf, New York.

Gudenberg, D. and J. Tirole (1991).Game theory.MIT Press.

Max Marks: - 100 Internal=50 External =50 Credits: 04

DEVELOPMENT ECONOMICS: THEORY & PRACTICE

Course Description:

Course Outcomes:

CO1: To sensitize the students with the modern-day developmental problems

CO2: To bring forth the most pressing developmental issues of the contemporary times

CO3: Validate the need and necessity of human capital formation

CO4: To train the students in the utilization of data and empirics towards a better understanding of the developmental economic problems.

Unit I:

Theoretical Framework for Economic Development. Comparative Perspective on Developing Economies. Population Growth and the Constraint of Natural Resources. Breaking the Resource Constraint. Capital Accumulation and Economic Development. Patterns and Sources of Technological Progress. Developmental Divide between Men & Women.

Unit II:

Theory of the household. Institutions and resource allocation. Income distribution and growth.Trade and development. Economic policy and the state. Dualism in the history of economic thought. The modern analytics of closed dualism. Dualism in the open economy. Economic Organization, Information, and Development. Structural Transformation. Patterns of Structural Change.

Unit III:

Economic Planning & Resource Allocation. Multisectoral Models. Income Distribution and Development. Taxation for Developing Countries. Project Evaluation in Theory and Practice. Trade and Development. Alternative Perspectives on Trade and Development. Foreign Public Capital Flows. Foreign Private Capital Flows. Transnational Corporations and Direct Foreign Investment.

Unit IV:

Data & Empirics: Different Continent's Developmental Trajectory.Primary Exporting Countries. Industrial Countries. Poverty evaluation of different countries. Human Development Index Report. Sustainable Development Report. Gender Development Report. Global Nutrition Report. Global Inequality Crisis Report. Global Environment Outlook. State of World Population Report. Industrial Development Report.

Books

- 1. Development Economics: From the Poverty to the Wealth of Nations. Yujiro Hayami.
- Handbook of Development Economics. Behrman, S. And T.N. Srinivasan (1995), Vol.1 3. Elsevier, Amsterdam.
- 3. Development Economics. Ray, Debraj (2011). Oxford University Press, Delhi
- 4. Reports as per the latest publications.

Max Marks: - 100 Internal=50 External =50

Credits: 04

REGIONAL DEVELOPMENT: ASIA & INDIA

Course Outcomes:

After completing this course, students are expected to:

C01: Have a clear understanding of the regional development and its importance for the overall economic development of the world.

CO2: Understand the nature and essence of human geography.

CO3: Be aware about the contemporary developmental context of the Asia in general.

CO4: In a position to better understand the developmental outcomes of India vis-a-viz its neighbouring countries.

Unit I: Concepts

Regional Development Definition & Understanding. Concepts, strategies of regional development. Regional imbalances and levels of development in Asia &India. Inclusive exclusions and exclusive inclusions. Globalization. Natural resources. Changing spatial division of labour.

Unit II: Human Geography

Population distributed and growth. Human settlements. Urbanization. Migration.Rural and Agricultural Geography. Spatial Structure and temporal trends of economic activity. Social groups and communities. Tourism and regional Geography. Economic Geography. New Economic Geography.

Unit III: Asian Development

Late Industrialisation. Asian Tigers. China's Economic Miracle. South & North Korea. Brief case of Japan. Economic polices of Bangladesh, Pakistan, Nepal & Bhutan; lessons.

CPEC.ASEAN, BRICS, Association of South East Asia. SAARC.

Unit IV: Indian Development

Review of Planned Economic Development Process in India. Economic development under different Policy/Govt. Regimes. LPG & its decadal outcomes. Youth Bulge & Human Capital

formation policies in India. Planning Commission. NITI Aayog. MoSPI. Major developmental Ministries in India.

Books

- 2. Human and Economic Geography: Human Activities Paperback. M. Frank Philemon 2016.
- 3. Regional development and Planning.2021. Jiwan J
- 4. Regional Minorities and Development in Asia. 2010. Edited By Huhua Cao, Elizabeth Morrell
- 5. Comparative Development and Policy in Asia. Routledge Series

Max Marks: - 100 Internal=50 External =50

Credits: 04

POLITICAL ECONOMY OF DEVELOPMENT

Unit I: Classical Political Economy and its Critics

Development of Classical Political Economy – Mercantilists and Physiocrats, Classical Political Economy and its Contributors – Adam Smith, David Ricardo, Thomas Malthus, John Stuart Mill. Neo -Classical Political Economy. Marxian Political Economy and its critiques. Neo-Marxist Political Economy

Unit II: State and Development

State Intervention in Development: John Meynard Keynes F. A. Hayek -Amartya Sen Developmental State, East Asian Model. Democratic Developmental State, the Indian Model

Unit III: Instrumentalities of Development

Democracy and Economic Development; Social Capital and Development; Foreign Aid and Development ;Market Socialism and Development.

Unit IV: Development in the Neoliberal Era

Neoliberalism and Development; State and Market Debate; Transnational Corporations and Development; International Financial Institutions and Development; Capitalism and Global Financial Crisis. India pre and post reforms. Political economy of development. The rise of neoliralism. India and global institutions

Suggested Reading

- Fukuyama, Francis (2002), "Social Capital and Development: The Coming Agenda", SAIS Review, Vol. XXII, No. 1, Winter-Spring, pp. 23-37.
- 2. Harriss, John (2000), Depoliticising Development: The World Bank and Social Capital, New Delhi: Left Word.
- 3. Kohli, Atul (1993), "Democracy amid economic orthodoxy: trends in developing countries", *Third World Quarterly*, Vol. 14, No.4, pp.671-689.
- 4. Kohli, Atul (2004), "Democracy and Development: Trends and Prospects", in Atul Kohli, Chung-in-Moon, and George Sorensen (eds.), *State, Markets, and Just*

Growth: Development in the Twentieth Century, Tokyo: United Nations University Press, pp. 39-63.

- 5. McNeill, Desmond (2004), "Social Capital, and the World Bank", in Morten Boas and Desmond McNeill (eds.), *Global Institutions and Development: Framing the World*, London and New York: Routledge, pp. 108-123.
- 6. Atul, Chung-in-Moon, and George Sorensen (eds.), (2003), *State, Markets, and Just Growth: Development in the Twentieth Century*, Tokyo: United Nations University Press.
- 7. Bagchi, Amiya Kumar (2004), *The Developmental State in History and in the Twentieth Century*, New Delhi: Regency Publications.
- Kaviraj, Sudipta (1995), "Democracy and Development in India" in Amiya Kumar Bagchi (ed.), Democracy and Development, London: Macmillan Press Limited, pp. 92-137.
- 9. Kaviraj, Sudipta (1996), "Dilemmas of Democratic Development in India", in Adrian Leftwich (ed.),
- 10. *Democracy and Development: Theory and Practice*, Cambridge: Polity Press, pp. 114-137.
- 11. Kaviraj, Sudipta (1997), "The Modern State in India", in Martin Dorrnbos and Sudipta Kaviraj (eds.),
- Leftwich, Adrian (1996), "Two Cheers for Democracy? : Democracy and the Developmental State", in Adrian Lefwich (ed.), *Democracy and Development: Theory and Practice*, Cambridge: Polity Press, pp. 279-295.
- Nayyar, Deepak (1998), "Economic Development and Political Democracy: Interaction of Economics and Politics in Independent India", *Economic and Political Weekly*, Vol. 33, No. 49, December 5, pp. 3121-3131.
- 14. Robinson, Mark and Gordon White (eds.), (1998), *The Democratic Developmental State: Politics and Institutional Design*, Oxford: Oxford University Press.
- 15. Sen, Amartya Kumar (2000), *Development as Freedom*, New Delhi: Oxford University Press.

Max Marks: - 100 Credits: 04 Internal=50 External =50

DEVELOPMENT ECONOMICS: THEORY & PRACTICE

Course Outcome:

CO1: To sensitize the students with the modern-day developmental problems

CO2: To bring forth the most pressing developmental issues of the contemporary times

CO3: Validate the need and necessity of human capital formation

CO4: To train the students in the utilization of data and empirics towards a better understanding of the developmental economic problems.

Unit I:

Theoretical Framework for Economic Development. Comparative Perspective on Developing Economies. Population Growth and the Constraint of Natural Resources. Breaking the Resource Constraint. Capital Accumulation and Economic Development. Patterns and Sources of Technological Progress. Developmental Divide between Men & Women.

Unit II:

Theory of the household. Institutions and resource allocation. Income distribution and growth.Trade and development. Economic policy and the state. Dualism in the history of economic thought. The modern analytics of closed dualism. Dualism in the open economy. Economic Organization, Information, and Development. Structural Transformation. Patterns of Structural Change.

Unit III:

Economic Planning & Resource Allocation. Multisectoral Models. Income Distribution and Development. Taxation for Developing Countries. Project Evaluation in Theory and Practice. Trade and Development. Alternative Perspectives on Trade and Development. Foreign Public Capital Flows. Foreign Private Capital Flows. Transnational Corporations and Direct Foreign Investment.

Unit IV:

Data & Empirics: Different Continent's Developmental Trajectory.Primary Exporting Countries. Industrial Countries. Poverty evaluation of different countries. Human Development Index Report. Sustainable Development Report. Gender Development Report. Global Nutrition Report. Global Inequality Crisis Report. Global Environment Outlook. State of World Population Report. Industrial Development Report.

Books

- 6. Development Economics: From the Poverty to the Wealth of Nations. Yujiro Hayami.
- Handbook of Development Economics. Behrman, S. And T.N. Srinivasan (1995), Vol.1 3. Elsevier, Amsterdam.
- 8. Development Economics. Ray, Debraj (2011). Oxford University Press, Delhi
- 9. Reports as per the latest publications.

Max Marks: - 100 Credits: 04 Internal=50 External =50 RESEARCH METHODOLOGY FOR DEVELOPMENT ECONOMICS

Course Outcomes:

After completing this course, students are expected to:

CO1: Understand the basis of conducting developmental economics research.

CO2: Know the fundamentals of empirical Economic Research in the specific field of development economics.

CO3: be well versed with the modern-day empirical research and books backed by data and tools of developmental Economic Research.

C04: be able to utilize the tools and techniques of economic development research to further her/his own understanding of developmental economics.

Unit I: Overview

Meaning, Aim, Objectives, and Scope of Research in development studies. Types of Research-Exploratory, applied, fundamental, Conceptual, Empirical, Descriptive and Analytical, Importance of Review of Literature in Research. Defining research problem, Identification of Research problems, Theoretical frame, Statement of the problem, Review of research. Formation of Objectives and Hypothesis, Defining the concepts in research design.

Unit II: Empirical Research

The logic underlying development economics research. Rasing research questions in Development Economics. Focal areas of empirical research in Dev. Econ. Descriptive Statistical Analysis in Dev. Econ. Inferential Statistical Analysis. Ethnographic analysis of Developmental Problems. Case studies. Data analysis.

Unit III: Applied Research Analysis using Research Papers & Empirical Case Studies

Assessments in Dev. Econ. Evaluations. Ex-post facto studies. Replication and secondary analysis and Meta Analysis. Experimental Studies. Quasi-experimental and factional designs. Single subject experimental research. Qualitative Research in Dev. Econ. Content Analysis. case study. ethnographic studies. Analytical and Correlational analysis. Analysis of variance and Covariance. Partial and Multiple Correlation Analysis. Regression Analysis. Factor Analysis. Discriminant Analysis.

Unit IV: Hands-On

Microsoft Excel. Descriptive analysis using Excel. Graphical Plotting using Excel. Big-Data Sets. Utilizing the big-data sets for developmental research. STATA. Descriptive analysis using STATA. Graphical Plotting using STATA. Inferential Analysis using Stata. Eviews. Qualitative analysis using SPSS.

Suggested Readings

- 1. Singleton, R. A., Jr., and Bruce C. Straits. Approaches to Social Research. 3rd ed. New York: Oxford University Press.
- Research Methodology in Applied Economics: Organizing, Planning, and Conducting Economic Research. 2004. Don E. Ethridge.
- Microeconometrics Using Stata: Revised Edition. 2010. A. Colin Cameron, Pravin K. Trivedi.

Credits: 04

Max Marks: - 100 Internal=50 External =50

INSTITUTIONS AND DEVELOPMENT

Course Outcome:

Unit I: Theory of Contracts

The definition of a contract; Legal and economic approach to contracts; Freedom of contract; Bounded rationality and contractual incompleteness; Asymmetric information and opportunistic behaviour; Adverse selection and the closing of markets; Signalling, screening and selfselection; The role of trust; Economic approach to trust. Explaining the internal structure of formal organizations: transaction costs approach.

Unit II: The New Institutional Theory of the Firm

Neoclassical theory of the firm; Explanations of the firm in the new institutional theory (F. Knight, R. Coase, A. Alchian and H. Demsetz, O. Williamson, O. Hart); Ownership structure of the firm. A theory of the owner-monitor (Alchian and Demsetz, 1972); Separation of ownership and control in the open corporation; Opportunistic behaviour of the managers and corporate control. Outsider and insider corporate governance;

Unit III: The Theory of Institutional Change

Stability of institutions and institutional change; The concept of institutional equilibrium; The main sources of institutional change; Centralized and spontaneous institutional change; The role of the state in the process of institutional change; The problem of compensation of the disadvantaged groups; Theories of selection of efficient institutions in the process of competition (Alchian, Friedman);

Unit IV: The New Institutional Theory of the State

Social mechanisms for constraining open access; Contractual theories of the state (Locke, Rousseau), Hobbes predatory theory of the state; North's model of the state; Philosophy of jurisprudence before utilitarianism; Utilitarian basis of justice and jurisprudence; Analytic jurisprudence; Legal positivism; normative theories; Feminist jurisprudence; Law and the economy; Posner's Moral relativism. Corruption and its economics: the principal-agent framework; incentive structures; the threat system and the authority; collusion, pre-emptive

Detailed syllabus of Four Year Undergraduate Programme In Economics (FYUGP-(Economics)-2024

collusion and ex-post collusion; Rent-seeking behaviour and free-riding; Rent-seeking in teams; Rent-seeking in hierarchical systems; Basil model of corruption and its analysis; Classification of Corruption models; Game-theoretical approaches towards 52 corruption study; Corruption in hierarchical structures; Dynamic corruption models; Welfare implications of corruption.

Suggested Reading:

- Brousseau Eric and Jean-Michel Glachant EDS.),(2008), New Institutional Economics: A Guidebook, Cambridge University Press Claude
- Menard & Mary M. Shirley(eds.)(2005), Handbook of New Institutional Economics, Springer-Verlag US
- Douglass C. North,(1990), Institutions, Institutional Change and Economic Performance, University of Chicago Press.
- Geoffrey M. Hodgson (2004), The Evolution of Institutional Economics (Economics as Social Theory) 1st Edition, Routledge,
- 5. Wolfgang Kasper, Manfred E. Streit, and Peter J. Boettke, (2012), Institutional Economics: Property, Competition, Policies, Second Edition, Edward Elgar, US

Max Marks: - 100 Credits: 04 Internal=50 External =50 RESEARCH METHODOLOGY FOR DEVELOPMENT ECONOMICS

Course Outcomes:

After completing this course, students are expected to:

CO1: Understand the basis of conducting developmental economics research

CO2: Know the fundamentals of empirical Economic Research in the specific field of development economics.

CO3: be well versed with the modern-day empirical research and books backed by data and tools of developmental Economic Research.

CO4: be able to utilize the tools and techniques of economic development research to further her/his own understanding of developmental economics

Unit I: Overview

Meaning, Aim, Objectives, and Scope of Research in development studies. Types of Research-Exploratory, applied, fundamental, Conceptual, Empirical, Descriptive and Analytical, Importance of Review of Literature in Research. Defining research problem, Identification of Research problems, Theoretical frame, Statement of the problem, Review of research. Formation of Objectives and Hypothesis, Definingthe concepts in research design.

Unit II: Empirical Research

The logic underlying development economics research. Rasing research questions in Development Economics. Focal areas of empirical research in Dev. Econ. Descriptive Statistical Analysis in Dev. Econ. Inferential Statistical Analysis. Ethnographic analysis of Developmental Problems. Case studies. Data analysis.

Unit III: Applied Research Analysis using Research Papers & Empirical Case Studies

Assessments in Dev. Econ. Evaluations. Ex-post facto studies. Replication and secondary analysis and Meta Analysis. Experimental Studies. Quasi-experimental and factional designs. Single subject experimental research. Qualitative Research in Dev. Econ. Content Analysis. case study. ethnographic studies. Analytical and Correlational analysis. Analysis of variance and Covariance. Partial and Multiple Correlation Analysis. Regression Analysis. Factor Analysis. Discriminant Analysis.

Unit IV: Hands-On

Microsoft Excel. Descriptive analysis using Excel. Graphical Plotting using Excel. Big-Data Sets. Utilizing the big-data sets for developmental research. STATA. Descriptive analysis using STATA. Graphical Plotting using STATA. Inferential Analysis using Stata. Eviews. Qualitative analysis using SPSS.

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- Research Methodology in Applied Economics: Organizing, Planning, and Conducting Economic Research. 2004. Don E. Ethridge.
- Microeconometrics Using Stata: Revised Edition. 2010. A. Colin Cameron, Pravin K. Trivedi

Max Marks: - 100 Internal=50 External =50

Credits: 04

SECTORIAL ECONOMICS

Unit 1. Sectorial Economics

Introduction to various sectors of Economy; Transition:- Rostows stages of growth. world experience: Importance of various sectors in development. Case of Developed and Developing countries. Balanced growth and sectorial development. Interdependence among various sectors of Economy.

Unit 11 Agriculture sector

Role of agriculture in economic development; Interdependence between agriculture and industry; Features of pre capitalist and capitalist agriculture; Traditional agriculture and its modernization Theories of agricultural development, Approaches of Schultz, Mellor and Boserup, Lewis, Fei-Ranis, Dale Jorgenson. Importance of agriculture in developing socities. Agriculture in india; Agriculture and employment; GDP and Trade.

Unit-III: Industry sector

Firm and Industry: Rise of industrilisation: Industrialization and its importance; cross country comparisons. Industry and employment. Role of industry in economic development. Industrilisation and environmental quality. Major industries in India, Industrial sickness in India, industrial reforms and policies.

Unit-III: Service Sector

Service Sector; Different headings under service sector; Service sector cross country comparison Service sector and employment; Service sector and Economic development. Service sector in India Growth and contribution of service sector share of service sector in employment, information and communication, foreign trade in services.

Suggested Readings

- Subba Reddy, Raghuram, Neelakanta Sastry and Bhavani Devi(1998), Agricultural Economics, Oxford & IBH, New Delhi.
- Sadhu and Singh (2001), Fundamentals of Agricultural Economics, Himalaya Publishing House, Mumbai.
- Singh, I.J.,(2002), Elements of Farm Management Economics, East-West Press Pvt. Ltd, New Delhi.
- Acharya and Agarwal(2012), Agricultural Marketing in India, Oxford & IBH, New Delhi.
- Gail L. Cramer, Clarence W Jensen, Douglas D .Southgate(2001), Agricultural Economics Wiley.
- 6. Darren Hudson(2006), Agricultural Markets and Prices, Blackwell Publishing George W.
- Norton, Jeffrey Alwang, William A Masters(2006), The Economics of Agricultural Development, Routledge, an imprint of Taylor & Francis books Ltd.
- 8. Donald A Hay and D J Morris(1978), Industrial Economics theory and evidence.
- K V Sivaya and V B M Da(2009), Indian industrial economy, sultan chand. I J Ahluwalia(1985), Industrial growth in India, oxford university press.
- Singh, A and A.N. Sandhu (1988), Industrial Economics, Himalaya Publishing House,
 Bombay. Martin, Stephen,(2001), Advanced Industrial Economics, Blackwell Publishing
- Bains, J. S. (1996). Industrial Organization, Cheltenham, U.K. An Elgar Critical Writings Reader.
- Barthwal, R. R. (2010). Industrial Economics: An Introductory Textbook. New Delhi: New Age International Publishers.
- Hay, D. A and Morris, D. J. (1991). Industrial Economic: Theory and Evidence. Oxford University Press.

Credits: 04

Max Marks: - 100 Internal=50 External =50

MIGRATION AND DEVELOPMENT

Course Outcomes:

After completing this course, students are expected to:

C01: Have a clear understanding of the migration context within developmental studies.

C02: Understand different schools of thought concerning the understanding of migration issues.

C03: Have a broader perspective of understanding the migration through the prism of diaspora.

C04: Be well aware about the contemporary trends in migration and development validated by data and empirical evidence.

Unit I: Overview

Migration; Definitions & Concepts. Immigration. Types of Migration. Patterns of Migration. Historic Pull & Push factors of Migration. Political and Economic explanations of Migration. Migration & host regions/countries. Male & Female Migration. Remittances. Refugees.

Unit II: Theories of Migration

Ravenstein's Laws of Migration. Gravity Model. Stouffer's Theory of Mobility. Lee's Theory. neo-classical migration theory. dual labour-market theory. new economics of labour migration. cumulative causation theory of migration. Network Theory of Migration. Institutional Theory of Migration. Migration Systems Theory.

Unit III: Diaspora

Diaspora; Definition and Concept. Types of Diaspora. Patterns of Diaspora. Major Diaspora Communities. Popular Terms in Diaspora. Theory of Social, Cultural, Political & Economic Diaspora. Geopolitics of Diaspora. Economic implications of Diaspora.

Unit IV: Empirical Understanding

World Migration Report (latest). Migration Data Portal. Latest trends and nature of Migration in World. Nature and Characteristics of Migration in India. Implications of Migration in India. Migration & Urbanization Trends in India. Migration & Environmental Consequences/ Outcomes in India

Suggested Readings:

- 4. Castles Stephen & Miller Mark J., The Age of Migration, New York, London: Guilford Press, 2003
- Anthony Messina and Gallya Lahav (eds.). 2006. TheMigration Reader: Exploring Politics and Policies. Boulder:LynneRienner Publishers, ch. 2.1 and 2.2, pp. 9-23
- 11. Global diasporas, 1997
- 12. World Migration Report (latest)

Papers

- Theories of international migration: A review and appraisal; DS Massey, J Arango, G
 Hugo, A Kouaouci, A Pellegrino, JE Taylor, Population and development review, 1993
- Migration Transitions Revisited: Their Continued Relevance for The Development of Migration Theory Ronald Skeldon; 2011. <u>https://doi.org/10.1002/psp.667</u>
- 15. ATheory of Migration Everett S. Lee Demography, Vol. 3, No. 1. (1966)
- 16. A theory of migration: the aspirations-capabilities framework. Hein de Haas;Comparative Migration Studies volume 9, Article number: 8 (2021)
- 17. BRUBAKER Rogers, "The 'diaspora' diaspora", Ethnic and Racial Studies 28(1), 2005
- 18. CLIFFORD James, "Diasporas", Cultural Anthropology 9(3), 1994
- SAFRAN William, "Diasporas in Modern Society: Myths of Homeland and Return", Diaspora 1(1), 1991.

Max Marks: - 100 Credits: 04 Internal=50 External =50 HUMAN CAPITAL FORMATION AND ECONOMIC DEVELOPMENT

Unit 1: Introduction

Development; Determinants and Measurement. Solow convergence: Human capital: Theoretical insights; Contribution of education to growth—Denison's approach, Production function approach, Technology creation through R&D; Determinants of R&D spending; Modeling relationship between technology creation and growth; Endogenous Growth Models— AK Model, Romer Model, Two Sector Model of Ujawa.

UNIT II: Economics of Education

Economics of education; Nature, definition and scope; Educational production function; Education, productivity and income; Educational indicators; Education and economic development; Educational costs and benefits-Educational cost functions, cost-benefit model; Theories of public expenditure on education, models and methodologies.Returns to education; Educational planning and manpower.

UNIT III: Economics of Health

Economics of Health-Concept, dimensions and indicators; Determinants of health status; Economic appraisal in health care-Cost-benefit and cost effectiveness approaches; Health planning and management; Primary health care and health for all; Community health care; Environment and health; International health organizations-WHO and other United Nations agencies.

UNIT IV: Human Development in India

India's educational system- Problems and suggestions; Human capital in India; National policy on education and health; Health programmes and infrastructure; Financing of education and health programmes in India; Expenditure on health and education during post reform period; Health care system in India; Health, poverty and economic growth in India; NGOs and Human Resource Development.

Suggested References:
1. Mark Blaug, Economics of Education: Selected, Readings, vol. I & II, Penguin Books, London

- 2. Schultz, T.W, Investment in Human Capital, Free Press, London
- 3. Ritzen, J.M.M, Education, Economic Growth and Income Distribution, Holland, Amsterdam.

4. Folland, Goodman, and Stano, The Economics of Health and Health Care, Prentice Hall, New Jersey.

- 5. Thomas E. Getzen, Health Economics.
- 6. MahbubulHaq, Quality of Life.
- 7. Martha Nussbaum & AmartyaSen, Quality of Life.
- 8. Park and Park, Textbook of Preventive and Social Medicine, BanarsidasBhanot, Jabalpur.
- 9. Human Development Report.
- 10. National Human Development Report.

11. Berman PA and ME Khan, Paying for India's Health Care, Sage Publications, New Delhi, 1995. 15.

12. Mills A (1993), Economics of Health in Developing Countries, Oxford University Press, Oxford.