KOLHAN UNIVERSITY, CHAIBASA

WEST SINGHBHUM, JHARKHAND
DEPARTMENT OF ECONOMICS



UNDER CHOICE BASED CREDIT SEMESTER SYSTEM

SYLLABUS

FOR M.A. ECONOMICS w.e.f. Session (2017-19)

University Deptt.of Eco K.U.Chaibasa DEAN
Social Science
K.U.Chaibasa

REGISTRAR Kolhan University Chaibasa

University Deptt. of Economics Kolhan University, Chaibasa.

Board of Studies

1. Dr. Ramesh Sharan Vice - Chancellor, V.B.U. Hazaribagh (External Expert)

Member

2. Dr. G. N. Sahu. HOD, Deptt. Of Economics, K.U. Chaibasa.

Chairman While

3. Dr. V.K. Singh. Associate Prof. JSR. Co-operative College, JSR

Member Whing

4. Dr. R.K. Singh. HOD, Economics, Tata College, Chaibasa.

Member

5. Dr. Suhita Chatterjee Asstt. Prof, Deptt. Of Eco, GSCW, JSR

Member 15

6. Dr. D.K. Mishra Associate Prof and HOD Eco. K.S. College, Seraikela.

Special Invitee



Syllabus for M.A. Economics under C B C S System Kolhan University ,Chaibasa Economics Course (Under C B C S)

1st Semester

PAPER NO	CODE	TITLE	MARKS	CREDIT
Compulsory	FCEC0101	Computer Science	30+70=100	4
Paper- I (Core)	CCECO101	Micro Economic Analysis	30+70=100	5
Paper – II(Core)	CCECO102	Theories of Distribution and Welfare Economics	30+70=100	5
Paper-III(Core)	CCECO103	Macro Economic Analysis	30+70=100	5

2nd Semester

PAPER NO	CODE	TITLE	MARKS	CREDIT
Elective Course	ECECO201	Research Methodology	30+70=100	4
Paper- IV(Core)	ECECO201	Monetary Economic	30+70=100	5
Paper – V(Core)	ECECO202	Mathematical Economics	30+70=100	5
Paper-VI(Core)	ECECO203	International Trade Finance	30+70=100	5

3rd Semester

Students can opt one of the Two Elective (optional) Group (A or B)

Group A- Mathematical Economics and Econometrics

Group B- Agricultural Economics and Demography

PAPER NO	CODE	TITLE	MARKS	CREDIT
Paper -VII(Core)	CCECO301	Statistical Analysis	30+70=100	5
Paper- VIII(Core)	CCECO302	Public Economics	30+70=100	5
Paper – IX(Core)	CCECO303	Indian Economics	30+70=100	5
	ECECO304	Optional Paper - I	30+70=100	5

4th Semester

PAPER NO	CODE	TITLE	MARKS	CREDIT
Paper –X(Core)	CCECO401	Theories of Growth and Development	30+70=100	5
Paper- XI(Core)	CCECO402	Economics of Social Sector and	30+70=100	5
		Environment		
	ECECO403	Optional Paper - II	30+70=100	5
	ECECO404	Project Work	30+70=100	5

SEMESTER	1
PAPER NO	1
PAPER CODE	CCECO101
TITLE	Micro Economic Analysis

Unit 1: Consumer's Behaviour and Demand Analysis

Theories of demand: Utility Functions Indifference Curve Analysis (Income and Substitution Effects; Slutsky theorem) and their applications; Indirect utility demand function (Hicksian and Marshalian); Revealed Preference theory; Revision of demand theory by Hicks; Four Concepts of Hicksian Consumer's surplus; Inter temporal Consumption function; Recent developments in demand, Cobweb theorem, Lagged adjustment in inter related markets.

Unit 2: Theory of Production and cost.

Production functions, Short period and Long period, Law of variable proportions, Iso Product Curves, returns to scale, Rate of Technical Substitution; elasticity of input substitution. Least Cost combination of Inputs, Returns of factors; Cobb – Douglas Production Function, CES and VES Production function; Traditional and Modern Theory of Cost.

Unit 3: Theories of Markets

Oligopoly with fixed number of firms, traditional models of oligopoly (Cournot, Stackberg, Bertrand, Edgeworth, Chamberlian, Kinked demand curve) and collusive (Cartels, and Mergers, price leadership, and basic point price system) Product differentiation; Source of Externalities, solution to the externalities problems, attributes of public goods, pricing of public goods; Monopolistic Competition, general and Chamberlin approaches to equilibrium, equilibrium of the firm and the group with product differentiation and selling cost, excess capacity under monopolistic competition, criticism of Monopolistic Competition; Price and output determination under Monopsony and bilateral Monopoly, workable Competition Structure, Conduct and performance norms.

Unit 4: Alternative Theories of the firm

Critical Evaluation of Marginal Analysis, Baumol's Sales Revenue Maximization Model, Williamson's. Model of Managerial Discretion, Morris Model of Managerial Enterprise; Full Cost Pricing Rule; Brain's Limit Pricing theory and its recent developments including Sailos – Labini's Model; Behavioral Model of the firm.

- Koutsoyiannis A (1979), Modern Microeconomics (second edition). Macmillan Press, London.
- Sen, A (1999), Microeconomics, Theory and Applications Oxford University, Press, New Delhi.
- Baumol, W.J. (1982), Economics theory and operations Analysis, prentice Hall of India, New Delhi.
- Henderson, J.M. and R.E. Quandt (1980), MicroeconimicsTheory, A mathematical Approach, McGraw Hill, New Delhi.
- Microeconomics (Fifth edition) by Robert S Piudyck and Darriel L Rubinfeld, Prentice Hall.
- Microeconomics theory: Basic Principles and Extensions (Eight Edition) by Walter Nicholson, South western Thomson Learning, 2002.
- Stonier and Hague, A Text Book of Economic Theory.

SEMESTER	1
PAPER NO	II
PAPER CODE	CCECO102
TITLE	Theories of Distribution and Welfare Economics

Unit 1: Distribution

Neo-Classical approach Marginal Productivity theory; Product exhaustion theory, Technical , progress and factor share; Theory of distribution in Imperfect Product and factor markets, determination of rent, wages, interest and profit; Macro theories of distribution- Ricardian Marxian, Kalecki and Kaldor.

Unit 2: General Equilibrium

Partial and General Equilibrium ,Walrasian excess demand and input output approaches to general; equilibrium, existence, stability and uniqueness of equilibrium; General equilibrium conditions and monopolies; production without consumption one sector Model; Homogenous function, income distribution; production without Consumption- two sector model, relationship between relative commodity and factor Prices (Stopler- Samuelson Theorem) relationship between factor output mix and relationship factor Prices, effect of changes in factor supply in closed economy (Rybezynski's Theorem) Production and consumption.

Unit 3: Welfare Economics

Pigovian welfare Economics, Pareto optimal condition, value judgment, social welfare function; Compensation Principle, inability to obtain optimum welfare – imperfections, market failure, decreasing costs, uncertainly and non existent and incomplete market; Theory of second Best-Arrow's Impossibility Theorem, Rawl's Theory of Justice Equity- Efficiency tradeoff.

- Henderson. J.M Microeconomic Theory.
- Bronfenbrenner. N Income Distribution theory.
- Koutsoyiannis. A- Modern Microeconomics.
- Stigler. G Theory of price.
- Varian H Microeconomic Analysis .
- Kreps. David. M A Course of Microeconomics.
- De costa. G. C Production Price and Distribution.
- Kreps, Devid M. (1990), A Course in Microeconomic Theory, Princeton University press Princeton.
- Varian, H. (2000), Microeconomic analysis, W.W. Norton, New York.
- Bronfenbrenner, N, (1979) Income Distribution Theory, Macmillan, London.
- Graff, J. De V. (1957), Theoretical Welfare Economics, Cambridge University Press, Cambridge.
- Da Costa, G. C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi.
- Quirk, J. and R. Saposnik (1968), Introduction to General Equilibrium Theory and welfare Economics, McGraw Hill New York.
- Weintrub, E.R. (1974) General Equilibrium Theory, Macmillan, London.

SEMESTER	1
Paper No	III
PAPER CODE	CCECO103
TITLE	Macro Economic Analysis

Unit 1: National Income and Accounts

Circular flow of Income in two, three and four-sector economy, Different forms of National Income Accounting-- Social Accounting, Input-Output accounting, flow of Funds Accounting and Balance of Payments Accounting.

Unit 2: Consumption Function

Keynes Psychological law of consumption, implications of the law, short run and long run consumption function, empirical evidence on consumption function, income-Consumption relationship- absolute income, relative income, life-cycle and permanent income hypothesis.

Unit 3: Investment Function

Marginal Efficiency of Investment and level of investment; Marginal Efficiency of Capital and Investment -long run and short run; The Accelerator and investment behavior – impact of inflation, Influence of policy measure on Investment- empirical evidence.

Unit 4: Macro Economics in an Open Economy

Mundell – Fleming Model, Asset market, Interest, Expectations and Exchange rate, Monetary Approach to balance of payments.

Unit 5: New Classical and Keynesian Synthesis

New Classical and Keynesian views on interest; the IS-LM Model; Extension of IS-LM Model Government Sector, Relative effectiveness of monetary and fiscal policies; Extension of IS-LM Model with labour market and flexible prices.

Unit 6: Trade Cycle Theories.

Accelerator – Multiplier interaction models, Theories of Schumpeter ,Kaldor , Samuelson and Hick's investment and savings. Control of business cycles – relative efficiency of monetary and fiscal policies.

- Ackley, G. (1978) Macroeconomics Theory and Policy, Macmillan, New York.
- Blackhouse, R. and A. Salansi(Eds) (2000) Macroeconomics and The Real World,
 (2 Volumes) Oxford University Press, London.
- Branson, W.A. (1989) Macroeconomics Thoery and Policy, (3rd edition), Harper And Row, New York.
- Dornbusch, R. and F. Stanley (1997) Macroeconomics, McGraw Hill Inc. New York.
- Hall, R. E. and J.B Taylor (1986) Macroeconomics, W.W. Norton, New York.
- Heijdra, B.J. and V.P. Fredrieck (2001), Foundation of Modern macroeconomics, Oxford University Press, New Delhi.
- Gupta, R.D- Keynes & Post Keynesian Economics, Kalyani Publication.
- Jha, R. (1991), Contemporary Macroeconomics Theory and policy, Wiley Eastern Limted, new Delhi
- Romer D.L. (1996), Advance Macroeconomics, McGraw Hill New York.
- Scarfe, B.L. (1977), Cycles, Growth and Inflation, McGraw Hill, New York.

SEMESTER	II
Paper No	IV
PAPER CODE	CCECO201
TITLE	Monetary Economics

Unit 1: Supply of Money

Financial intermediation- a mechanistic model of Bank deposit determination; a behavior model of money supply determination; a demand determined money supply process; RBI approach to money supply; high-powered money and money multiplier; budget deficits and money supply and open economy; Control of money supply.

Unit 2: Demand for Money

Classical Approach to Demand for Money - Quantity Theory Approach, Fisher's Equation, Cambridge Quantity Theory, Keynes Liquidity Preference Approach, Transaction, Precautionary and Speculative demand for Money-aggregate demand for money, Derivation of LM Curve.

Unit 3: Post Keynesian Demand for Money

Post Keynesian Approach to demand for money- Patinkin and The Real Balance Effect, approaches to Baumol and Tobin, Friedman and the Modern Quantity Theory, Crisis in Keynesian Economics and the revival of Monetarism.

Unit 4: Theory of Inflation

Cassical Keynesian and Monetarist Approaches to Inflation Structuralist theory of inflation; Philip's Curve analysis – short run and long run Philips Curve; Samuelson and Solow the natural rate of unemployment hypotheses; Tobin's modified Philips curve Adaptive Expectation and Rational Expectations; Policies to control Inflation.

Unit 5: Financial markets

Role and Structure of money market and capital market-call money market, treasury-bill market, Commercial bill market including Commercial certificate of deposit; discount market; government securities market – Primary and secondary market for securities; SEBI – Objectives, function and its performance in the working of capital market in India.

Basic Reading List

- Ackley, G. (1978) Macroeconomics Theory and Policy, Macmillan, New York.
- Blackhouse, R. and A. Salansi (Eds.) (2000) Macroeconomics and The Real World (2 Volumes) Oxford University Press, London..
- Branson, W.A. (1989) Macroeconomics Theory and policy, (3rd edition) Harper And Row, New York.
- Dornbusch, R. and F. Stanley (1997) Macroeconomics, McGraw Hill Inc. New York.
- Hall, R. E. and J.B. Taylor (1986), Macroeconomics, W.W. Norton, New York.

Additional Reading List

- Chakarvarty, S.C. (1985), Report of the Committee to Review the Working of the Monetary System, Reserve Bank of India, Bombay.
- Gupta, S.B. (1995), Monetary Planning in India, Oxford University Press, New Delhi.
- Gurley, J. and E.S. Shaw (1960), money in a Theory of Finance, Brookings Institutes, Washington.
- Reddy, Y.V. (200), A Review of Monetary and Finance Sector Reforms in India- A Central Banker's Perspective, UBSPD, New Delhi.
- Friedman, M. (1965), Studies in the Quantity Theory of Money, The University of Chicago. press, Chicago,
- Keynes, J.M. (1936), The General Theory of Employment, Interest and Money, Macmillan, London.

SEMESTER	II
PAPER NO	V
PAPER CODE	CCECO202
TITLE	Mathematical Analysis

Unit 1: Review of Concepts.

The Concepts of sets, Real Number System; Use of Graphs; Identities, Equations and Inequalities; Power of Number; Logarithms and their Properties, Binominal Theorem.

Unit 2: Differential Calculas

Limits of functions, Continuity at a point over and Interval; Rules of Differentiation including product, Quotient and Chain Rule; Derivatives of Implicit Functions, Partial Derivatives; Maxima and Minima; Economics Applications of Differentiation, Constrained optimization.

Unit 3: Integration

Techniques of Integration; Definite Integrals; The relation between Average and Marginal Concepts; Capital values under continuous Interest; Consumer's and Producer's Surplus.

Unit 4: Matrix and Determinants

Determinants; Elementary operations of Addition, Multiplication of Matrices etc; Transpose and Inverse of Matrices; Rank of Matrix; Solution of Simultaneous Equation using Matrices.

Unit 5: Differential Equations and Difference Equation

First order differential equations: Variable separable case, homogenous case; Standard Linear differential equations; Economic Applications; First order and Second order difference equation and its Economic application.

Unit 6: Input-Output Analysis

Input-Output analysis; the simple closed and open model; Concepts and measurements.

Unit 7: Linear Programming

Basic Concepts of Linear Programming setting up of problem, various definitions. Solutions by Graphical Method; Primal and Dual.

- Chiang, A.C. and wainwright (2005, 4th Edition) Fundamental Methods of Mathematical Economics, McGraw-Hill, New York.
- Allen, R.G.D. (2001), Mathematical Analysis for Economists. A.I.T.B.S. Publishers, India.
- Madnani, G.M.K and Mehta, B.C., Mathematical for Economics, Sultan and Sons Publication, New Delhi.

SEMESTER	II
PAPER	VI
PAPER CODE	CCECO203
TITLE	International Trade & Finance

Unit 1: Theory of International Trade.

The Pure Theory of international trade — Theories of absolute advantage, comparative advantage and opportunity costs, Modern Theory of international trade, Theorem of factor price equalization, Empirical testing of Theory of absolute cost and comparative cost; Heckscher — Ohlin Theory of trade, Prebisch and Singer Theory of trade.

Unit 2: Gains from International Trade

Nature of Gains :Sources of Gains and actual Gains- Factors determining Gains- Potential Gain's and actual Gains – Criteria of Measuring Gains from International Trade, Size of country and Gains from International Trade; Terms of Trade: Concepts- Theory of Reciprocal Demand by J.S.Mill , Marshall- Edgeworth Theory of offer curves; Terms of Trade and Economic development; Technical Progress and Terms of Trade.

Unit 3: Balance of Payments

Meaning and components of Balance of payments, equilibrium and disequilibrium in the Balance of payments; the process of adjustment under systems of gold Standard ,fixed exchange rates and flexible exchange rates, expenditure reducing and expenditure switching policies and direct controls for adjustment; A critical review of the monetary approach of the Theory of Balance of Payments adjustment, foreign trade multiplier with and without foreign repercussions and determination of National Income and Output , relative merits and demerits of fixed and flexible exchange rates in the context of growth and development in Development countries.

Unit 4: Theory of Regional Blocks

Forms of economic cooperation for the emergence of trading blocks at the global level; static and dynamic effects of a customs union and free trade areas, retainale and economic progress of SAARC/SAPTA and ASEAN regions. Problems and prospects of forming customs union in the Asian region regionalism (EU, NAFTA) Multilateralism and WTO; reforms of the international monetary system, Indian and developing Countries, international trade and financial institutions functions of GATT/WTO (TRIPS, TRIMS) UNCATAD, IMF, World Bank and Asian Development bank-their Achievement and failure, WTO and World bank from the Point of View of Indian.

- Bhagwati, J.N (Ed. (1981). International Trade Selected Readings, Cambridge University Press, Cambridge, Mass.
- Carbough, R.j (1999), International Economics, International Thomson Publishing; New York.
- Chacholiades , M. (1990), International Trade theory and policy McGraw Hill, Kogakusha. Tokyo, Japan.
- Dana, M. S. (2000) International Economics: Study, Guide and Workbook. (5th edition).
- Kenen, P.B. (1994), International Economy; Cambridge University Press, London.
- Kindleberger, C.P. (1973), International Economics. R.D. Irwin Homewood.
- King, P.G. (1995), International Economis and international Economic Policy: A Reader, McGraw Hill International Singapore.
- Krugman. P.R and M. Obstfeld (1994), International Economics Theory and policy, Glenview, Foresman.

SEMESTER	III
PAPER NO	VII
PAPER CODE	CCECO301
TITLE	Statistical Analysis

Unit 1: Descriptive Statistics

Collection, Organization and Presentation of Data. Measures of Central Tendency and Dispersion-Mean, Median, Mode, Standard Deviation, Variance, Covariance and Correlation Coefficients. Moments, Measures of Skewness and Kurtosis.

Unit 2: Sampling and Sampling Methods

Sample and Population, Parameters and Statistics. Variables and Attributes; Sampling and Non-Sampling Errors; Types of Sampling, Sample distribution.

Unit 3: Theory of Probability and Distribution

Probability, Events, Spaces, Random variable: Expectation and Distribution. Addition and Multiplication Theorems, Bayes Theorem; Probability Distribution: Binominal, Poisson, Normal.

Unit 4: Statistical Estimation and Testing of Hypothesis

Theory of Estimation and Properties of a good estimator for small and large sample; Point and Interval Estimation; Null and Alternate Hypothesis-Type I and II errors, power of the test; Level of Confidence, Confidence Limits and Critical Region; Tests of Significance for large and small samples (normal, t-test, F-test and Z-test)

Unit 5: Correlation

Types of Correlation, Karl Pearson Co-efficient of Correlation, Simple, Partial and Multiple Correlation Co-efficient.

Unit 6: Regression

Estimation of Regression Line. Method of Least Squares. Simple and Multiple Regression Line.

- Gupta, S.C. and Kapoor, V.K. (2014): Fundamental Method of Mathematical Statistics, Sultan and Sons
- Das, N.G. (2008), Statistical Methods (Combined Vol –I & II) Tata McGraw-Hill Publishing House Limited.
- Goon, A.M., Gupta, M.K., Das Gupta B. (2013): Fundamentals of Statistics, Vol I, World Press Ltd, Calcutta.
- Damodar N. Gujrati (2004, 4th Edition), Basic Econometrics, Tata McGraw Hill Publishing House Ltd.
- Koutsoyiannis, A. (2004) (Second Edition), Theory of Econometrics, Palgrave.
- Cochran, W.G. (2007), Sampling Techniques, Wiley.

SEMESTER	III
PAGE NO	VIII
PAPER CODE	CCECO302
TITLE	PUBLIC ECONOMICS

Unit 1: Introduction

Market Failure and Rationale for Government Intervention; The Role of the Government in a Changing Perspective; Provision of Private Goods, Public Goods, Social Goods, Merit Goods and Mixed Goods; Public Goods: Pure and Impure Public Goods.

Unit 2: Principles of Taxation

Principle of fiscal Neutrality, Excess Burden, Doctrine Principle of Equity, Benefit Principle Bowen and Lindhal Models, Ability to pay Principle, Administrative Efficiency; Application of Taxation principles in Developing Countries; Meaning, Types and Measurement of Taxable Capacity.

Unit 3: Impact and Incidence of Taxes

Concept of Impact and Incidence, Theories of Shifting and Incidence, Shifting under Different Market Conditions.

Unit 4: Public Expenditure

Wagner's Law, Wiseman- Peacock Hypothesis. Pure Theory of Public Expenditure, Social Cost-Benefit Analysis

Unit 5: Public Debt.

Classical, Keynesian and Post- Keynesian Approaches of Public Debt; Burden of Public Debt; Public Debt Management.

Unit 6: Fiscal Federalism

Resource transfer from Union to states – Criteria for transfer of resources; Centre-state financial relations in India; Problems of States' resources and indebtedness; Transfer of resources from Union and states to local bodies.

Unit 7: Indian Public Finances

Indian tax system; Revenue of the Union, States and local bodies; Major taxes in India: base of taxes, direct and indirect taxes, taxation of agriculture, expenditure tax, reforms in direct and indirect taxes, taxes on services; Non-Tax revenue of central, State and Local Bodies; Analysis of Central and State government budgets; lack of flexibility in Central and State budgets, shrinking size of development finance through budgets; Trends in public expenditure and finance public debt; Fiscal crisis and Fiscal Sector reforms in India; Reports of finance commissions in India.

- Richard A. Musgrave (1989), Public Finance in Theory and Practice McGraw Hill Book Company, New York.
- Buchanan J.M. (1970), The Public Finances' Richard D. Irwin, Homewood.
- Jha H. (1998) Modern Public Economics, Rutledge, London.
- Singh S.K. (1986) Public Finance in Developed and Developing Countries, S. Chand and Company Ltd, New Delhi.
- Srivastava, D.K. (Ed.) Fiscal Federalism in India: Contemporary Challenges and issues Before Eleventh Finance Commission, 2001.
- Reserve Bank of India, Hand Book of Statistics on Indian Economy (Various Issues).
- Reserve Bank of India, State Finances (Various Issues).
- Dr. Joshi P.L. Zero Base Budgeting Technology in Government, Dhruv and Deep Books, Bombay.
- Dr .Tyagi. B.P. Public finance, jai PrakashNath Pub. Meerat (UP).
- Mithani D.M. Principles of Public finance and fiscal Policy Himalaya Publishing House, New Delhi.
- AshutoshRaravikar, Fiscal Deficit and Inflation in India, macmillan India Ltd. New Delhi.

SEMESTER	III
PAPER NO	IX
PAPER CODE	CCECO303
TITLE	Indian Economics

Unit 1: Economics Development and its determinants

Approaches to Economic development and its Measurement, Sustainable Development.Role of State, Market and other institutions. Indicators of development – PQLI, Human Development India (HDI), gender development indices.

Unit 2: Planning in India

Objectives and strategy of planning. Failures and achievement of plans. Developing grass root organizations for development—Panchayats, NGO's and Pressure Groups.

Unit 3: Demographic Features, Poverty and Inequality.

Broad demographic features of Indian Population; Rural-Urban Migration, Urbanization and civic amenities; Poverty and inequality.

Unit 4: Resource Base and Infrastructure

Energy, Social infrastructure – Education and health; Environment; Regional Imbalances; Issue and Policies in financing infrastructure development.

Unit 5: The Agricultural Sector

Institutional Structure – Land reforms in India; Technology change in agriculture, Pricing of agricultural input and output .Terms of Trade between agricultural and industry.Agricultural finance Policy, Agricultural marketing and warehousing; Issues in food security – Policies for sustainable agriculture.

Unit 6: The Industrial Sector.

Industrial Policy, Public Sector enterprise and Performance, Problem of sick units in India, Privatization and disinvestment debate, Growth and pattern of industrialization; small scale sector; Productivity in industrial sector; Exit policy issues in labour market reforms; Approaches for employment generation.

Unit 7: Money, Banking and Prices

Analysis of Price behaviour in India, Financial Sector Reforms; Interest Rate Policy, Review of Monetary Policy of RBI, Money and Capital Markets; Working of SEBI in India.

Unit 8: External Sector

Structure and Direction of Foreign Trade; Balance of Payment; Issues in Export Import Policy and FEMA; Exchange Rate Policy; Foreign Capital and MNC's in India; the progress of Trade reforms in India.

Unit 9: Economic reforms

Rationale of External and Internal Reforms; Globalization of Indian Economy; WTO and its impact on different Sectors of the Economy; Need for and issues in good Governance; issues in Competition and Safety nets in Indian Economy.

- Ahluwalia, L.L. and L.M.D. Little (Eds) (1999), India's Economic Reforms and development (Essays in honor of Manmohan Singh), Oxford University Press, New Delhi.
- Bardhan, P.K. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press New Delhi.
- Chhakravary, S. (1987) Development Planning; The Indian Experience, Oxford University, Press.
- Jain, A.K. (1986), Economic Planning in India Ashish Publishing House, new Delhi.
- Jalan, B. (1996) India's Economic Policy Preparation for the Twenty first Century, Viking, new Delhi.
- Sandesara, J.C. (1992), Industrial Policy and Planning, 1947- 91, Tendencies, Interpretations and issue, SAGE Publications, New Delhi.
- Chatopadhyaya, M.O. Matiti and M. Rakshit (Eds) (1996), Planning, and Economic Policy in India Evaluation and Lessons for the future, SAGE Publications, New Delhi.
- Kabra, K.N (1997), Development Planning in India SAGE Publications new Delhi.
- Chelliah, Raj J. and R. Sudarshan (1999), Income Poverty and Beyond: Human Development in India, social Sciences Press, new Delhi.
- Bardhan, P.K. (9th Edition) (1999), The Political Economy of development in India, oxford University press, New Delhi.
- Bawa, R.S and P.S. Raikhy (Eds) (1997), Structural Changes in the Indian Economy, Guru NayakDev University press, Amritsar.
- Brahmanad, P.R. and V.R .Panchmukhi (EDs)(2001), Development Experience in the Indian economy Inter state perspectives, Bookwell, Delhi.
- Dantwala, M.L. (1996), Dilemmas of Growth: The Indian Experience, sage Publications, New Delhi.
- Datt, R. (Ed) (2001), Second generation Economic Reforms in India, Deep & Deep Publications, New Delhi.
- Government of India, Economic Survey, (Annual), Ministry of Finance, New Delhi.
- Joshi, V. and L.M.D. Little (1999), India Macro Economics and Political Economy, 1964, 1991, oxford University Press, New Delhi.
- Reserve bank of India, Report on Currency and Finance Annual).
- Jalan.B. (1992), The Indian Economy Problems and Prospects, Viking, New Delhi.

SEMESTER	III (Group – A)
PAPER NO	Optional Paper – I
PAPER CODE	ECECO304
TITLE	Mathematical Economics

Unit 1: Theory of Consumer's Behaviour

Cardinal and Ordinal utility maximization, Slutsky equation; Income, Substitution and Price effects Concepts of elasticities; Consumer's surplus; Compensated and normal demand function; Revealed preference theory.

Unit 2: Theory of Production

Homogeneous production function; Properties of Cobb-Douglas Production function, CES, Simple Derivation of Short run and Long run Cost function; Modern Approach to the Theory of Cost; Cost function; Producer's equilibrium – Laws of Returns and Returns to Scale; Constrained optimization of a producer; Adding- up Theorem; Technical Progress through Production Function, Production Possibility Curve.

Unit 3: Price Determination in Various Markets

Price Determination in Perfect Competition, Monopoly, Discriminating Monopoly, Monopolistic competition, Duopoly, Oligopoly and Monopsony, Pricing of Factors of Production: Bilateral Monopoly.

Unit 4: Market Equilibrium

Single Market Equilibrium- Marshallian and Walrasian Equilibrium Conditions; Lagged Market Equilibrium, General Equilibrium Systems of Walras and Debreu. Conditions of Stability of Equilibrium.

Unit 5: Determination of Income and Fluctuations in Income

Classical and Keynes Macro System; Static and Dynamic Multiplier, Determinants of Investment, Accelerator, Trade Cycle, Model of Samuelson and Hicks, Goodwin, Kalecki and Philips: Stabilization Policy, Rational Expectations and Economic Policy; Lucas's Model.

Unit 6: Growth Models

Harrod Problem; Neo – Classical Model of Growth, Solow and Meade Growth models with Technical Progress; Optimal Growth; Golden Rule of Accumulation; Turnpike Theorem; Endogenous Growth.

Unit 7: Game Theory, Linear Programming and Input-Output Analysis

Concept of Game - Two person Zero Sum Game, Pay-off Matrix, Pure and Mixed strategies, Maxmin in and Minimax Solutions, Saddle Point Solution; Non constant Sum Game' Prisoner's dilemma' Linear Programming- Primal and Dual Problem, Simplex Method; Input-Output Analysis, Open and closed systems, Simon Hawkins condition; Leontief's Dynamic System.

- Arrow, K.J. and M. Intrilligator, (Eds) (1992), Hand Book of Mathematical Economics, Vol. 1, 2 and 3, North Holland, Amsterdam.
- Henderson, J.M and R.E. Quandt (1980), Micro Economic Theory A Mathematical Approach, McGraw Hill, New Delhi.
- Allen, R.G.D., Mathematical Analysis for Economics ,Macmillan London.
- Chiang, A.C. Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
- Chung J.W. (1993), Utility and Production; Theory and Applications. Basil Blackwell, London

SEMESTER	III (Group - B)
PAPER NO	Optional Paper-I
PAPER CODE	ECECO304
TITLE	Agricultural Economics

Unit 1: Agriculture and Economic Development

Nature and scope of Agricultural and Rural Economic, Traditional Agriculture and its Modernization, Role of Agriculture in Economic development, Interdependence between Agriculture and Industry some empirical evidence, Models of interaction between Agro and the rest of the economy: agricultural development, Poverty and Environment.

Unit 2: Diversification of Rural Economic Activities

Livestock Economics-Livestock Resources and their Productivity; Problems of Marketing; White Revolution; Fishery and Poultry Development; Forestry, Horticulture and Floriculture, Issues and Problems in Rural Industrialization and Development of Agro-based Industries.

Unit 3: Economics of Rural Infrastructure

Use of Land, Water and Energy, Rural Transport, Communication, Banking, Extension Services. Role, Modes and Problems of Rural Electrification, Rural Social Infrastructure- Education and Health and Information dissemination.

Unit 4: Agricultural Production and Productivity

Agricultural Production, Resource Use and Efficiency. Production Function Analysis in Agriculture, Factor Combination and Resource Substitution; Cost and Supply Curves, Size of Farm and Laws of Returns, Theoretical findings Farm budgeting and Cost concepts; Supply Response of Individual Crops and Aggregate Supply labour Absorption and Gender Issues in Agricultural services.

Unit 5: Land reforms and Land Policy

Principles of Land Utilization, Land Distribution- Structure and Trends; Land Values and Rent: Land Tenures and, Farming Systems: Peasant, Capitalist, Collective and State Farming, Tenancy and Crop Sharing Forms, Incidence and Effects; Land reform, Measures and performance, Women and Land Reforms, Problems of Marginal and small farmers.

Unit 6: Rural Finance

Role of capital and Rural Credit, Organized and Unorganized Capital Market; Rural Savings and Capital Formational and Non institutional: Reorganization of Rural Credit- Co-operatives, Commercial Banks Regional Rural Banks, Role of NABARD.

Unit 7: Agricultural prices

Marketing and State Policy, Agricultural Market and Marketing Efficiency, Marketing Function and Costs, Market Structure and Imperfections: Regulated Markets, Marketed and Marketable Surplus, Behaviour of Agricultural Price, Cobweb Model, Price and Income, Stability, State Policy with respect to Agricultural Marketing, Warehousing: Prices, Taxation and Crop Insurance, Terms of trade between Agricultural and Non-agricultural Prices, Need of State intervention: Objectives of Agricultural Price Policy, Instruments and Evaluation, Food Security in India and Public Distribution System.

- Bhaduri, A. (1984), The Economic Structure of Back ward Agriculture, Macmillan, Delhi.
- Bilgrami, S. A. R. (1996) Agricultural Economics, Himalaya Publishing House, Delhi.
- Dantwala, M.L. et. Al (1991) Indian Agricultural Development Since Independence, Oxford and IBH, New Delhi.
- Government of India (1976), Report of the National Commission on Agriculture, New Delhi.

SEMESTER	IV
PAPER NO	X
PAPER CODE	CCECO401
TITLE	Theories of Growth and Development

Unit 1: Economic Growth – 1

Economic Growth and Development, Factors affecting economic growth: capital, labour and technology. Growth models- Harrod and Domar, instability of equilibrium, Neo - Classical Growth Models-Solow and Meade, Mrs. Joan Robinson's Growth Models. Cambridge Criticism of Neo-classical analysis of Growth, the capital controversy.

Unit 2: Economic Growth - 2

Technological Progress – embodied and disembodied technology Progress. Hicks &Harrod; Learning by doing. Production function approach to the economic growth total factor productivity and growth — accounting. Growth models of Kaldor and Pasinetti, Golden rule of accumulation. Stability of equilibrium; money in economic growth. Endogenous Growth, Intellectual Capital, role of learning, education and research, A.K.

Model- Explanation of cross country differential & economic growth.

Unit 3: Theories of development

Classical theory of Development – Contribution of Adam Smith, Ricardo ,Malthus and James Mill. Karl Marx and development of capitalistic economy – Theory of Social change, Surplus value and profit. Immutable laws of capitalist development crisis in capitalism – Schumpeter and capitalistic development. Innovation – role of credit. Profit and degeneration of capitalism; structural analysis of development, Imperfect Market Paradigm.

Unit 4: Approaches to Development

Partial Theories of Growth and Development, Vicious Circle of Poverty, Circular causation. Critical Minimum Efforts Thesis, Low- income equilibrium trap. Dualism- technical, behavioral and social. Ranis and Fei Model Dependency Theory of Development Structural view of Development.

Unit 5: Allocation of Resources

Need for investment criteria in Developing Countries – Present VS Future. Alternative Investment criteria; Cost Benefit Analysis; Shadow prices, Project evaluation and UNIDO guidelines.

Basic Reading List

- Adelmnan, I.(1961) Theories of Economic Growth and Development, Stanford University Press.
- Behrman s. and T.N. Srinivasan (1995) Hand Book of Development Economics Vol 3 Elsevier, Amsterdam.
- Das Gupta, P. (1993) an Enquiry into well being and destitution, Clarendon Press, Oxford.
- Ghatak B. (1986) an Introduction to Development Economics, George Allen and Unwia London.
- Higgins B. (1959) Economic development W.W. Norton, New york.
- Todaro . M.P.(1966) Economic Development Langman, London.
- Thirwall, A.P (1999) Growth and Development Macmillan Press. U.K.
- Kindlenerge, C.P. (1977) Economic Development McGraw Hill, New York.
- Sen A.K. (1990), Growth Economics; Penguin Harmonds Worth.
- Solow, R. M. (2000), Growth Theory; An exposition, oxford university Press, Oxford.
- Todaro, M.P. (1971) Development Planning modals and methods, oxford University Press, oxford.

Gimmell, N. (1987), Surveys in development Economics, Blackwell, Oxford.

SEMESTER	IV
PAPER NO	XI
PAPER CODE	CCECO402
TITLE	Economics of Social Sector & Environment

Unit 1: Measurement of Environmental Values

Use values, Option Values and non – use Values. Valuation methods – methods based on observed market behavior. Hedonic Property values and household Production models (Travel Cost method & House hold health production function). Methods based on response to hypothetical markets, contingent valuation methods.

Unit 2: Economics of Natural Resource Management and Sustainable Development.

Theories of optimal use of exhaustible and renewable resources. Environmental and development trade – off and the concept of sustainable development. Integrated environmental and economic accounting and the measurement of environmentally corrected GDP. Macroeconomic Policies and Environment.

Unit 3: Environment and natural Resource Problem in India

Mechanism for environment regulation in India. Environment laws and their implementation. Policy instruments for controlling water and air pollution and forestry policy. People's participation in management of common and forest lands. The Institutions of Joint forest management and the joint projected area management; Social, Forestry — rational and benefits.

- Baumal, W.J. and Oates (1988) The theory of Environmental Policy (2nd edition), Cambridge University Press Cambridge.
- Hussen, A.M. (1999), Principles of Environmental Economics, rout ledge, London.
- Kolstad, C.D. (1999), Environment Economics, Oxford University press, New Delhi.
- Pearce, D.W. and R. Turner (1991), Economics of natural Resource use and Environment, John Hopkins University Press, Baltimore.
- Chopra, k, G.K Kadekodi and M.N. Murthy (1990), Participatory Development: An approach to the Management of Common Property Resources SAGE, and New Delhi.
- Mehta, S.S. Mundle and U. Shankar (1995), controlling pollution: Incentives and Regulation, SAGE, New Delhi.

SEMESTER	IV (Group A
PAPER NO	Optional Paper – II
PAPER CODE	ECECO403
TITLE	Econometrics Analysis

Unit 1: Basic Econometrics

Nature, Meaning and Scope of Econometrics; Simple and General Linear Regression Model – Assumptions, Estimation (through OLS approach) and Properties of Estimators, gauss-Markov Theorem, Concepts and Derivation of R² and adjusted R².

Unit 2: Problems in Regression Analysis

Nature, Test, Consequences and remedial steps of problems of Hetroscedaticity; Multicollinearity and Auto-correlation, First order auto regressive scheme, Mean variance and co-variance of auto co-releted u's, Durbin Watson test.

Unit 3: Regression with Qualitative Independent Variables

Dummy Variable Technique – Testing Structural Stability of Regression Models comparing to Regression, Use of Dummy Variables, Regression with Dummy Dependent Variables; The LPM, Logit, Probit and Tobit Models-Applications.

Unit 4: Dynamic Econometric Model

Autoregressive and Distributed Lag Models; Almon Approach to Distributed Lag Models, Generalised least square (GLS) Estimation of parameters of non linear parabolic model.

Unit 5: Simultaneous Equation Model-1

The Simultaneous Equation bias and Inconsistency of OLS estimators, Structural and Recursive form Models, the Identification Problem – Rules of Identification, Order and Rank conditions.

Unit 6: Simultaneous Equation Models-2

Methods of Estimating Simultaneous Equation System; Indirect Least squares (ILS); 2 SLS; General linear model (GLM)

Unit 7: Time Series Analysis

Meaning importance and components of time series, stationary, Unit roots, Forecasting with ARIMA, Vector autoregressive model (VAR).

Unit 8: Multivariate analysis

Multivariate Probability Distribution, Marginal and Conditional Probability Distribution, Multivariate Normal Distribution and its Properties, Discriminant analysis.

- Amemiya, T. (1985) Advanced Econometrics, Harvard University Press, Cambridge, Mass.
- Gujarati, D.N. (1995), Basic Econometrics (2nd Edition), McGraw Hill, New Delhi.
- Donghery, C. (1998), Introduction to Econometrics, Oxford University Press, New York.
- Goldberger, A.S. (1998), Introductory to Econometrics, Harvard University Press, Cambridge, Mass.
- Koutsoyiannis A. (1977), Theory of Econometrics, (2nd Edition) The Nacmillan Press Ltd.
- Baltagei, B.H. (1988) Econometric's, Springer, New York,
- Dongherty, C, (1992) introduction to Econometrics, Oxford University Press, New York.
- Hill, R.C, E.G. William And G.C. Judge (1997), undergraduate Econometrics, Wiley, New York.
- Kennedy, P. (1998), A Guide to Econometrics (4th Edition), MIT Press New York.
- Kmenta, J, (1997), Elements of Econometric (Reprint Edition), University of Michigan Press, New York.
- Krishna K.L. (Ed) (1997) Econometrics Applications in India,Oxford University Press, New Delhi.
- Maddala, G.S. (Ed.) (1993), Econometrics Methods and Applications (2 Vols) Aldershot, U.K.
- Franses, P.H. (1998), Time series models for business and Economic Forecasting, Cambridge Unit Press, Cambridge.

SEMESTER	IV (Group – B)
PAPER NO	Optional Paper II
PAPER CODE	ECECO403
TITLE	Demography

Unit 1: Population and Development

Meaning and Scope of Demography; Components of Population, Growth and their Interdependence, Measure of Population Change; Structure, Distribution and Sources of Population Data, Population and Development.

Unit 2: Structure of Population

International Aspects of Population Growth and Distribution Pattern of Age and Sex Structure in more Developed and less Developed Countries; Economic and Social Implications; Age Pyramids and Projection, Individual ageing and Population Ageing.

Unit 3: Fertility, Nuptiality and Mortality

Importance Study of Fertility- Total Fertility Rate; Gross Reproduction Rate and Net Reproduction Rate; Levels and trends of fertility in more and less developed countries; Factors Affecting Fertility- Socio-economic factors, Economic Status, Health, Education, Nutrition, Caste, Religion, Race, Region, Rural-urban Status of Husband and Wife; Nuptiality Concept and Analysis of Marital Status, Synthetic Cohort Methods, Trends in Age at Marriage; Mortality-death Rates, Crude and Age Specific, Mortality at Birth and Infant mortality rate; factors for decline in mortality in recent past; life table construction and uses; Concepts of Stable Population; Methods of Population Projection.

Unit 4: Migration and Urbanization

Internal and International Migration- its effect on Population Growth and Pattern; Factors Effecting Migration; Urbanization- Growth and Distribution of Rural, Urban Population in Developed and Developing Countries.

Unit 5: Demographic Database in India

Study of Census in India – Methodology and Characteristics of Census; Nature of Information Collected in 2001 and 2011 in India, National Family Health Survey 1 & 2. Age Structure of Population, Foetal, Infant and Child Mortality Rates, Maternal mortality Rates; Life Expectancy.

Unit 6: Population and Development with Reference to India

Population, Economy and Environment Linkages- Population, Health, Nutrition, Productivity Nexus, Population and Human Development Issue, Culture and Fertility, Education and Fertility; Demography and Household Economic Behaviour.

Unit 7: Population Policy in India

Evolution of population policy in India – Shift in Policy from Population Control to Family Welfare, to Women Empowerment; Family Planning Strategies and their Outcomes, Reproductive Health, Maternal nutrition and Child Health Policies Population and strategies for Human Development of Different Social Groups, The New Population Policy.

- Agarwala, S.N. (1972), India's Population Problem, Tata McGraw Hill Co. Bombay.
- Boss, A. (1996), India's Basic Demographic, Statistics, B.R. Publishing Corporation, New Delhi.
- Bogue, DJ. (1971), Principles of Demography, John Wiley New York.
- Chenry, H. and T.N. Srinivasm (Eds) (1989), Handbook of Development Economic, Vol. 1& 2, Elsevier, Amsterdam.

SEMESTER	IV
PAPER NO	
PAPER CODE	ECECO404
TITLE	PROJECT WORK