University of Lucknow Master of Arts in Economics

Under Choice Based Credit System (CBCS)



Programme Brochure

(Effective from Academic Year 2020-21)

BRIEF HISTORY OF DEPARTMENT

The Department of Economics started functioning with the formation of the Lucknow University in 1921. Two other departments, Anthropology and Sociology, were created during mid fifties respectively, which earlier used to be a part of Economics Department. Prof. Radha Kamal Mukherjee was the first Head of the Department. He remained Head until 1955. For a period of over two years during mid-fifties, he also remained The Vicechancellor of the Lucknow University. Subsequently, Department has had a good fortune of being shaped and developed under the Headship of academicians like Prof. D.P.Mukherjee (1955-57), Prof. Baljit singh (1957-74), Prof. S.D.Mishra (1974-75), Prof. Prakash Chandra (1975-76), Prof. V.B.Singh (1976-78), Prof. N.N.Srivastava (1978-92) and Prof. Paritosh Banerjee (1992-96). Besides these academic luminaries the Department consisted of many great teachers and scholars like Prof. B.B.Mukherjee (also conferred the title of Rai Bahadur by the British Government), Prof. D.N.Majumdar, Prof. M.D.Joshi, Prof. Naseer Ahmad Khan, Prof. P.L.Rawat, Prof. K.C. Seth, Prof. H.G.P.Srivastava, Prof. P.D.Srimali, Prof. Shailendra singh, Prof. S.P.Dixit, Prof. R.S.Mathur, Prof. A.K.Singh, Prof. V.P.Bharadwaj, Prof. T.S.Papola, Prof. B.P.S.Bhadauria, Prof. I. D. Gupta, Prof. A K Sengupta, Prof A.K. Bajpai, Prof. Harsh Mohan, Prof. Muzamil (Former Vice Chancellor of Bareilly and Agra University), Prof. Y. Taygi and Prof. Rakesh Kumar.

The Department supports undergraduate and postgraduate programmes (BA, BA (Hons.), M. A., and Ph. D.) in Economics, which draw a huge number of applicants from all over the country. These programmes have a strong theoretical and quantitative focus with an emphasis on empirical applications. Current Faculty members of the department are contributing in the areas of emerging areas of Economics in terms of teaching and research activities.

CHOICE BASED CREDIT SYSTEM

The Choice based credit system (CBCS) provides an opportunity for the students to choose courses from the prescribed courses comprising core, freeze elective, generic/open elective, value addition courses (SEC & AEC) and MOOCS. The courses can be evaluated following the grading system, which is considered to be better than the conventional marks system. Grading system provides uniformity in the evaluation and computation of the Cumulative Grade Point Average (CGPA) based on student's performance in examinations which enables the student to move across institutions of higher learning. The uniformity in the evaluation system also enables the potential employers to assess the performance of the candidates.

TERM DEFINITIONS

Academic Programme: It means the entire course of study comprising its structure, course details, evaluation schemes, etc.

Course: It means a segment of a subject that is part of an Academic Programme.

Programme Structure: Programme Structure means a list of courses (Core, Optional, Electives, value addition and MOOCS) that makes up an Academic Programme, specifying the syllabus, credits, hours of teaching, evaluation and examination schemes, minimum number of credits required for successful completion of the Programme, etc., prepared in conformity with Lucknow University rules.

Core Course: It means a course that a student admitted to the M. A. Economics programme must successfully complete to receive the degree and which cannot be substituted by any other course.

Freeze Elective Course: It means an optional course that is to be selected by a student out of a menu of such courses offered by the department for the specialization.

Generic/ Open Elective: It means an elective course that is available for students of all programmes except Department of Economics. Students of other departments may opt for these courses, subject to fulfilment of eligibility criteria as laid down by the Department of Economics.

Value Addition Courses: Skill Enhancement Course (SEC & AEC) and Ability Enhancement Course is the part of Value Addition Courses along with course of Computer Application in Economics.

Credit: It means the value assigned to a course indicating the level and quantity of instruction as measured by instructor-student interaction.

Semester Grade Point Average (SGPA): SGPA means Semester Grade Point Average calculated for individual semester.

Cumulative Grade Points Average (CGPA): 'CGPA' is the Cumulative Grade Points Average calculated for all courses completed by the students at any point of time. CGPA is calculated each year for both the semesters clubbed together.

Grand CGPA: It is calculated in the last year of the course by clubbing together the CGPA

of two years, i.e., four semesters. Grand CGPA is given in Transcript form. A formula for conversation of Grand CGPA into percentage marks is given in the Transcript.

PROGRAMME OUTCOMES/OBJECTIVES

Economics is long-established discipline whose relevance to the world of business, government, international relations and academia is widely acknowledged. The Master of Arts (M.A.) Programme in Economics reflects new developments in the Economics discipline. The curriculum has a strong theoretical and quantitative focus with all students being trained in the use of computers and statistical software that they find useful in their professional careers in academia, research institutions, government, and industry. The Programme is semester-based under CBCS and includes a large number of elective courses with specialization in different fields of choice. Entry into the Programme requires basic knowledge of analytical, mathematical, and quantitative skills. At the end of Master of Arts (M. A.) Programme in Economics, the student should be able to bring to bear these skills to the Modeling and analysis of a wide range of theoretical and applied problems in Economics and to the understanding and solution of real world economic and social problems.

PROGRAMME SPECIFIC OUTCOMES

It is expected that a student after successfully completing four semesters of Master of Art (M.A.) in Economics programme would be equipped to dwell deeper to generate knowledge as researcher, understand the advances in economics theories and application and the knowledge based decision making. This programme have a strong theoretical and quantitative focus with an emphasis on empirical applications.

STRUCTURE OF THE PROGRAMME

The M. A. Economics Programme is spread over two years. Each year is divided into two semesters. The Programme requires students to take a combination of Core courses, Freeze Electives, Value Addition courses (Skill Enhancement Course & Ability Enhancement Course) and the inter-disciplinary Generic Electives courses/Open Elective courses along with the MOOCS. A student is required to complete a minimum of 96 credits for the completion of the Programme and the award of the M. A. Economics degree from the university.



Department of Economics
University Of Lucknow
Syllabus for M.A. ECONOMICS Programme
(Proposed to be implemented from July 2020)

Course No.	Name of the Course	Credit	Remarks
	Semester I		
ECOCC-101	Microeconomics	04	Core Course
ECOCC-102	International Economics	04	Core Course
ECOCC-103	Statistical and Econometrics Methods	04	Core Course
ECOCC-104	Environmental Economics	04	Core Course
ECOCC-105	Mathematics for Economic Analysis	04	Core Course
ECOVC-101	Economics of Agriculture	04	VAC (Credited)
	Semester Total	24	
	Semester II		
ECOCC-201	Macroeconomics	04	Core Course
ECOCC-202	International Trade and Policy	04	Core Course
ECOCC-203	Econometrics Theory & Application	04	Core Course
ECOCC-204	Public Finance-I	04	Core Course
ECOCC-205	Economics of Development	04	Core Course
ECOCC-206	Resource Economics	04	Core Course
ECOVNC-201	Computer Application in Economics	00	VAC (Non Credited)
	Semester Total	24	
	Semester III		1
ECOCC-301	Advanced Macroeconomics	04	Core Course
ECOCC-302	Theories of Economic Growth	04	Core Course/ MOOC
ECOEL-301A	Advanced Indian Economy	04	Elective
ECOEL-301B	Industrial Economics		
ECOEL-301C	Advanced Econometrics Theory & Application-I		
ECOEL-302A	Population Theory and Demographic Analysis	04	Elective
ECOEL-302B	Quantitative Methods		
ECOEL-302C	Labour Economics		
ECOIN-301	Summer Internship	04	Summer Internship
ECOIER-301	Contemporary Issues in Indian Economy	04	Interdepartmental Course
	Semester Total	24	
	Semester IV		
ECOCC-401	Advanced Microeconomics	04	Core Course
ECOCC-402	Public Finance-II	04	Core Course
ECOEL-401A	Financial Institutions and Market	04	
ECOEL-401B	Advanced Econometrics Theory & Application-II		Elective
ECOEL-401C	Gender Economics		
ECOMT-401	Master Dissertation	08	Master Thesis
ECOIRA-401	Principles of Economics	04	Intradepartmental Course
	Semester Total	24	
GRAND TOTAL		96	

ECO – Economics (Subject); ECOCC – Core Course; ECOVC – Value added course (Credited); ECOVNC - Value added course (Non Credited); ECOEL – Elective; ECOIER – Interdepartmental Course; ECOIRA – Intradepartmental Course

M.A. Economics Semester - I MICROECONOMICS

Course Code: ECOCC-101 Credit: 4

Course Objective: it provides theoretical tools to analyse real/practical market situations.

Course Content

UNIT - I: Consumer Behaviour

Measurement of Utility, Cardinal vs. Ordinal Approaches, Indirect Utility Function, Roy's Identity, Shepherds Lemma, Theory of Revealed Preference and logic of Ordering; Strong and weak Ordering and theory of Demand; Hicks Revision of Demand theory and characteristics approach to Demand composite commodity theorem.

UNIT – II: Theory of Production

Production Function of a Single and Multi Product Firm, Technological Progress and Production Function, Choice of Optimal Input Combinations. Types of Production Function: Cobb-Douglas, CES and Translog Production Function.

UNIT – III: Cost Function

Meaning and Types of Cost, Traditional and Modern Theory of Cost, Shapes of Cost Curves, Analysis of Economies of Scale. Derivation of Cost Function from Production Function.

UNIT—IV: Markets Form and Pricing of Product

Types of Market Situations, Relationship between Perfect and Monopoly Situation, Duopoly Market Situation, Cournot's, Stackelberg, Edgeworth and Bertrand Models, Monopolistic Competition: Characteristics, Price and Non-Price Competition.

<u>UNIT – V:</u> Welfare Economics

Old Welfare Economics: Marshall and Pigou, Pareto and Welfare Economics: Criteria and Optimality, Compensation Principle: Hicks, Kaldor and Scitovsky, Social Welfare Function: Bergson and Samuelson, Arrow on Social Choice and Individual Values.

- o Gould and Ferguson: Micro Economic Theory
- o A. Koutsoyiannis: Modern Micro economics
- o David Krepps: A course in Micro Economics Theory
- o Andrew. Mas-Colel, Michael Dennis Whinston, Jerry R. Green: Micro Economics
- o Handerson and Quandt: Micro Economic Theory: A mathematical approach
- Pynddick and Rubenfeld: Micro Economics

M.A. Economics Semester - I INTERNATIONAL ECONOMICS

Course Code: ECOCC-102 Credits: 04

Course Objective: This course has become even more relevant with rising globalization and liberalization both in the North and in the South. This course aims to provide a deep understanding of the broad principles and theories, which tend to govern the free flow of international trade and movement of capital and labour is a major determinant of development and change at the global level.

Unit 1: Theories of International Trade: Classical Theories of trade, Opportunity costs and trade theories, Empirical testing of theory of comparative cost. Heckscher-Ohlin theory, Theorem of factor price equalization, Leontieff's paradox, Rybczynski theorem, Stopler Samuelson theorem, Kravis and Linder theory, Imitation gap theory, Product cycle theory.

Unit 2: Measurement and gains from trade: International trade and growth, Measurement of gains from trade and their distribution, Offer Curves and Theory of Reciprocal demand ,Terms of tradeconcept, uses and limitations, Hypothesis of secular deterioration of terms of trade, Immiserising growth, Mill Bastable Test, Technical Progress and international trade.

Unit 3: Balance of Payment: The Current Account Capital Account; Balance of Payment equilibrium and disequilibrium, Adjustment Mechanism in the Balance of Payments – Direct and Indirect mechanisms; Mundell- Fleming model, Marshall- Lerner condition, Depreciation and Devaluation, J curve, Announcement effect.

Unit 4: Foreign exchange markets and exchange rates: Flexible and fixed exchange rates, spot, forward rates, Pegged and Hybrid exchange rates, foreign exchange risks and hedging and market, interest arbitrage and efficiency of foreign exchange markets; exchange rate determination: purchasing power parity. Foreign trade multiplier, Crisis and exchange rate, Currency convertibility

Unit 5: Contemporary issues in International Trade: East Asian crisis, Global Meltdown, BREXIT, Trade war

- Bhagwati, J., International Trade, Selected Readings, Cambridge University Press
- Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition
- Kindleberger, C.P., International Economics, R.D. Irwin, Homewood. King
- Paul Krugman, Maurice Obstfeld and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley(Pearson Education India Edition)
- Soderston, Bo., International Economics, Macmillan Press Ltd

Statistical and Econometric Methods

Course Code: ECOCC-103 Course Credit: 4

Objective: To learn the statistical and basic econometric techniques and concepts that aid economic analysis.

Course Learning Outcomes: By the end of the course, successful students are expected to understand basic statistical techniques and be in preparation for learning Econometrics.

COURSE CONTENT

UNIT-I: Index Number

Index numbers; uses and types, tests for consistency, Base shifting, splicing and deflating of index numbers. Time series analysis; introduction and components, method of simple averages, moving averages and ratio to moving averages

Unit-II: Probability and Distribution

Basic concepts and definitions of probability; Laws of addition and multiplication; Conditional probability; Bay's theorem (statement); Binomial, Poisson and Normal distribution; Basic concepts of sampling- random and non-random sampling; concept of an estimator and its sampling distribution.

Unit-III: Simple Regression Analysis

Meaning and assumptions of simple regression analysis; Single linear equation regression model (by OLS Method); Concept of an estimator and its desirable properties; Significance of estimators in the linear relationships

Unit-IV: Testing of Hypothesis

Formulation of statistical hypothesis-Null and alternative, Type I and II errors, Testing of Hypothesis: Standard Error Test, t-test, Goodness of fit: R-square, F- test, Confidence intervals and level of significance.

Unit-V: Application of Simple Linear Model

Application of simple linear models: Production function; Estimation of Cobb-Douglas, CES, Translog and other form of Production Function, Linear and Log-Linear Demand Function, Price and Income Elasticity of Demand, Engel Law, Nerlovian, Taylor & Houthaker Demand Function, Linear Expenditure System

- o Gujarati D. Basic Econometric, McGraw-Hill
- $\circ\quad$ Speigal, M. R. Theory and Prodblems of Statistics, McGraw Hill Book, London
- o Croxton, F. E., D. . Cowden and S. Kliein, Applied General Statistics, Prentice Hall, New Delhi.
- o Gupta S.C. and V.K. Kapoor, Fundamentals of Applied Statistics, S. Chand and Sons New Delhi.
- o Yates, Frank, Sampling Methods for Census and Surveys, Charles, Griffin Co., London.
- o Cocharm, W. G., Sampling Techniques, John Willey, New York.
- o Hansen, hurditz and meadow, Sample Survey Methods and Theory, John Willey New York.
- o Gupta S. C. Fundamentals of statistics, Himalaya Publishing house, New Dehlhi.
- o Kamenta J. Elements of Econometrics, Machmillan Publishing Co., Inc. New York.
- Johnston J. Econometric Methods, New York: McGraw Hill, 1971

M.A. Economics

Semester - I

Environmental Economics

Course Code: ECOCC-104

Credit: 4

Course Objective: Students will come to know about the relevance of environmental economics and how market allocate goods & how sometimes market fail to allocate environmental resources optimally and they will come to know how sustainable development of the economy can be attained.

Course Content

$\underline{Unit - I}$

Introduction, Nature Scope and Methodological Issues in Environmental Economics, Institutions and Environmental Governance, Relation between development and environmental stress; Environmental Kuznet's Curve, Impact of Human Activity on Environment.

Unit - II

Environmental Kuznet's Curve, Ecology, Environment and Eco-system, Ecology and Economics, Economy-Ecology-Environment Interaction; Conflicting Paradigms, The Material Balance Principle: Ecological Concern in the evolution of Economic thought. Entropy Law

Unit-III

Economics of Exhaustible Resources: Hotelling's rule; Solow-Harwick's Rule; Market structure and optimal extraction policy; Uncertainty and the rate of resources extraction; Resource scarcity. Economics of Renewable Resources; Economic Models of forestry and fisheries; Extinction of species; Economics of Biodiversity.

<u>Unit – IV</u>

Concept of Sustainable Development, Sustainable Economic Growth and Development: An Economists perspective. Rules of Sustainable Development, Indicators of Sustainable Development, Measuring Sustainable Development, Sustainable Accounting, Political Economy and Sustainable Development, Participatory Institutions and Environmental Governance. Environmental Accounting

$\underline{Unit - V}$

Energy & Environment, Infrastructure and Environment, Trade and Environment, Agriculture and Environment, Industry and Environment, Services Sector and Environment, Economics of Pollution (air, Water, Solid Waste, Noise, Land degradation), Stationary and Mobile Sources of Pollution, Pollution Management, Waste Management Causes and effects of Environmental Degradation; Urban and Rural Environmental problems.

- o C.D. Kolstad: Environmental Economics
- o R.N. Bhattacharya: Environmental Economics
- o U. Sankar: Environmental Economics
- o N. Hanley, Shogren, B. White: Introduction to Environmental Economics
- o Haab and White head: Environmental and Natural resource economics
- o Haab and Huang: Preference data for Environmental valuation
- o Tom Tietenberg and Lynne Lewis: Environmental and Natural Resource Economics
- o David.A.Anderson: Environmental Economics and Natural Resource
- o Down to Earth, Science and Environment Fortnightly
- o Economic and Political Weekly

MATHEMATICS FOR ECONOMIC ANALYSIS

Course Code: ECOCC-105 Course Credit: 4

Objective: To learn the mathematical tools and concepts that aid in analysing economic optimisation. This course is designed for students who plan to do further graduate level work in economic theory, especially those with a keen interest in creating, as opposed to consuming, pure theory.

Course Learning Outcomes: By the end of the course, successful students are expected to understand how mathematical concepts aid in understanding optimisation in economics. The course aims for students to learn the following: (1) a rigorous exposure to a selection of basic mathematical tools that are used by economic theorists, and (2) applications of these methods to some areas of economic theory.

Course Content

Unit-I: Matrix and Determinants

Determinants, Properties of determinant, Minors and Cofactors, Jacobian and Hessian determinants and their use. Matrices: Definitions, Addition, Subtraction and Multiplication of matrices; Inverse matrices; Rank of matrix; Solving matrix equations with inverse; Eigen values and Eigen vectors.

Unit-II: Elementary Trigonometry and Coordinate Geometry

Elements of Trigonometry and Coordinate Geometry; Trigonometric functions and identities. Two – dimensional coordinates; Plotting of curves; Straight line; Parabola and Hyperbola.

Unit-III: Simple Variable Differentiation

Differential Calculus: First order derivative and its application in Economics; Slope and elasticity of demand, Determination of Marginal revenue, marginal cost and marginal product; Second order derivative and its application in Economics; Point of inflexion, concavity and convexity of curve, problem of maximization and minimization of certain economic variables.

Unit-IV: Partial and Total Differentiation

Determination of Partial Derivates of first and higher order, Young's Theorem, Application of Partial Differentiation in Economics, Constrained Optimization, Determination of Total Derivatives and its Application in Economics

Unit-V: Integration and its Economic Application

Integral Calculus; Indefinite and definite integration; Rules of integration; Integration by Substitution; Integration by parts. Economic Applications: Investment, Cost Function, Area under curve, Consumer surplus, producer surplus and present value.

- Allen,R.G.D (2006): <u>Mathematical Analysis For Economists</u>, Macmillan And Company Limited
- C. Chiang and K. Wainwright (2005): Fundamental Methods of Mathematical Economics, McGraw Hill International Edition.
- o T. Yamane (2012): Mathematics for Economists, Prentice-Hall of India
- K. Sydsaeter and P. J. Hammond (2002): Mathematics for Economic Analysis, Pearson Educational Asia
- o Mehta and Madnani: *Mathematics for Economists*, New Delhi: Sultan Chand Company

AGRICULTURAL ECONOMICS

Course Code: ECOVC-101 Credit: 04

Course Objective: To provide detailed understanding regarding the issues in agricultural economics to those intending to specialize in this area. To familiarize students with policy issues that is relevant to agricultural economics and enables them to analyse these issues.

Unit 1: Agriculture and Economic Development: Inter-relationship between Agriculture and Industry, Approaches to Agriculture Development- Schultz, Mellor, Boserup, Lewis and Ranis –Fei, Inter-Regional Disparities in growth of output and productivity in Indian agriculture.

Unit 2: Marketing Structure: Agricultural Marketing, E-NAM, Price Spread, Behaviour of agricultural Prices, Marketed and marketable Surplus, Terms of Trade between agriculture and Industry - their impact on agriculture and change since Independence, Price trends, Role of Subsidies, Agricultural Price Policy in India, Cobweb theorem.

Unit 3: Strategy of Agricultural growth and Technological Progress: Capital formation in Indian Agriculture, Public and Private investment, Type and Measurement of technical changes, Nature and Pattern of technical change, Agricultural production function, farm size, Measures of Farm Efficiency.

Unit 4: Conventional farming to Sustainable farming, Approaches to Sustainable Agriculture, Growth and composition of output in agricultural and allied activities in India: Trends in overall agricultural growth as well as of Pulses, Food and Non-food item. Demand and supply of agricultural commodities including plantation and Horticultural Produce. Demand availability and Future prospects of live stock-, Poultry and Fishery in India.

Unit 5: Current issues in Indian Agriculture, Pattern of change in Exports and imports of agricultural commodities, Composition of Exports and imports of agricultural commodities and recent trends, WTO, Agreement on Agriculture – Tarrification, AMS, Export subsidies, Market Access Clause, Safeguard Provisions, Sanitary and Phytosanitary Measures.

- Alag Y.K. Globaliosation and Agriculture Crisis in India, Deep and Deep Publications
- Bilgrami S. A.R. An Introduction to Agricultural Economics, Himalaya Publishing House
- Kumar. Sanjeev. Crop Diversification and Food Security in India, Mittal Publications
- Lekhi R.K., & Joginder Singh, Agricultural Economics, Kalyani Publishers
- Meier Gerald M. Leading Issues in Economic Development, Oxford University Press
- Mellor, John, Agricultural Development and Economic Transformation, Palgrave Macmillan
- Misra Roli. Agricultural Growth and Terms of Trade in India Since 1951 by Kunal Books
- S.R.Mehta: Sociology of Rural Development; Sage. Publications
- Sadhu A.N and Singh Amarjit, Fundamentals of Agricultural Economics, Himalaya Publication House
- Sreenivas M. N.: Social Change in Modern India; Orient Black Swan.
- Todaro and Smith, Economic Development, Pearson

MA ECONOMICS SEMESTER-II MACROECONOMICS

Course Code: ECOCC-201 Course Credit: 4

Course Objective: The objective of this course is to familiarise the students of Master degree with the basic concepts, theories and approaches to understand the behaviour of macroeconomic aggregates and policies.

UNIT I: Macro Economics

Meaning and significance, Macroeconomic Development: An Overview, Inflation, Unemployment, output and growth, measures of national income and related concepts, methods of measuring national income. Macroeconomic fluctuations detrending of GDP, characteristics of macroeconomic fluctuations: Persistence and Coherence. Macroeconomic framework: interdependence among different sectors and circular flow of income.

UNIT -II: Theories of Employment

Classical theory of employment as a Barter and Monetary Framework, Neo Classical theory of employment, relevance of classical theory and Keynes criticism. Keynes theory of employment, policies to curtail unemployment in Keynes theory.

UNIT III: Demand for Money

Classical approach to demand for money- Quantity theory approach, fisher's equation, Cambridge quantity theory, Keynes liquidity preference approach, Transaction, Precautionary & Speculative demand for money-Aggregate demand for money. Post Keynesian approaches to demand for money- Patinkin and the Real Balance Effect, Approaches of Baumol and Tobin; Friedman and the modern quantity theory; crisis in Keynesian economics and revival of monetarism.

UNIT IV: Supply of Money

A behavioural model of money supply determination, A demand determined money supply process, High Powered money and money multiplier. RBI approach to money supply, Control of money supply with special reference to India. Impact of foreign capital inflows on money supply and cross sterilization.

UNIT V: Neo-classical and Keynesian Approaches to Macro-Economics

One sector Neo-Classical Model, Simple Keynesian model, Economic implication of these models & essential differences between the two. Two sector IS-LM model: Both Neo-classical & Keynesian versions, Role and relative effectiveness of fiscal and monetary policy, IS-LM model in an open economy, case of small and large economies. Effects of change in monetary and fiscal policy on income and exchange rate. A Comparison of IS-LM model in closed and open economies.

References

- 1. Abel and Bernanke: Macroeconomics, Pearson Education.
- 2. Blanchard and Johnson, Macroeconomics, Pearson.
- 3. David King, An Introduction to National Income Accounting, Edward Arnold.
- 4. Dornbusch, Fischer, Startz, Macroeconomics, McGraw-Hill.
- 5. G. Ackley, Macroeconomics: Theory and Policy, MacMillan.
- 6. N. Gregory Mankiw- Macroeconomics, Macmillan Worth Publishers.
- 7. Richard T.Froyen, Macroeconomics, Pearson.
- 8. Ruggles and Ruggles, National Accounting and Economic Policy, Edward Elgar.
- 9. Soumen Sikdar, Principles of Macroeconomics, OUP.

MA ECONOMICS SEMESTER-II INTERNATIONAL TRADE AND POLICY

Course Code: ECOCC-202 Credits: 04

Aim: This course aims to acquaint the students with the trade policies so as to enable them to analyse the impact of the relevant policies on the economy.

Unit 1: International Trade Policies Trade Restrictions: Free trade and protection, Trade policy in developed and developing countries, Export promotion and Import substitution, Trade as an engine of growth, Tariffs - Partial Equilibrium Analysis of a Tariff - The Theory of Tariff Structure - General Equilibrium Analysis of Tariff - The Optimum Tariff. Non-Tariff Trade Barriers and the New Protectionism: Import Quotas - Voluntary Export Restraints - Technical, Administrative and other Regulations - International Cartels - Dumping

Unit 2: Economic Integration Customs Unions and Free Trade: Forms of Economic integration, Customs Union and Free trade, Customs union and Free Trade Area, Trade deflextion in FTA, Trade Diverting Customs Union, Dynamic Benefits from Customs Union, History of Economic Integration - The European Economic Community - The European Free Trade Association - NAFTA - Attempts of Developing Countries towards Economic Integration - SAARC, UNCTAD, South-South Cooperation, North-South Co-operation and NIEO.

Unit 3: International Organisations: IMF, World Trade Organization General Agreements on Tariffs and Trade (GATT), World Trade Organization (WTO), Trade Related Intellectual Properties (TRIPs), Trade Related Investment Measures (TRIMs), General Agreements on Trade in Services (GATS), NAMA, BRICS, World Bank, IDB, ASEAN.

Unit 4: International Capital: International Capital Flows, FDI, Capital Controls, Working and Regulation of MNCs, Problem of international debt, Recent Import and Export Policies

Unit 5: Contemporary Issues in International Trade and Policy: Recent Policy issues at national and international level

Selected Readings:

- Bhagwati, J., International Trade, Selected Readings, Cambridge University Press
- Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition
- Kindleberger, C.P., International Economics, R.D. Irwin, Homewood. King
- Paul Krugman, Maurice Obstfeld and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley(Pearson Education India Edition)
- Soderston, Bo., International Economics, Macmillan Press Ltd

Econometric Theory and Application

Course Code: ECOCC-203 Course Credit: 4

Objective: This course provides the theoretical underpinnings for conducting applied econometric studies. It provides the conceptual framework on which such analyses are based, supplemented by illustrative empirical applications.

Course Learning Outcomes: The ability to conduct empirical analyses and data analytics are increasingly valued in the job market. This course will enable students to understand why and how questions are to be framed and answered. It will also equip them to learn more advanced topics on their own.

Course Content

Unit-I: Multiple Regression Model

Multiple Regressions with two explanatory variables, Partial and Multiple Correlation coefficients, Estimation of the Regression Coefficients, Testing of Significance of Regression, Coefficients and Regression Model, R-square, Adjusted R-square, Akaike Information Criteria and Schwarz Criterion.

Unite-II: General Linear Regression Model (GLM)

General Linear Regression Model- Estimation of Parameters, Mean and Variance of the Estimate, Illustration of OLS Estimates as Best, Linear and Unbiased

Unit-III: Problems of Regression Analysis

Nature, Tests, Consequences and remedies of Problem of Multicollinearity, Problems of specification error, Errors of Measurement.

Unit-IV: Problems in Regression Analysis having Time Series and Cross Section Data

Auto correlation, Nature of the problem, Consequences of using OLS in the presence of Auto correlation, Detecting Auto-correlation-Graphical Method, Durbin-Watson 'd-statistic', Remedial measures. Heteroscadasticity- meaning, graphical presentation of the presence of Heteroscadasticity. Consequences of Heteroscadasticity, Detection and remedial measures of the problem.

Unit-V: Application of Econometric Methods

Estimation of Consumption & Investment functions, Theories of Consumption; Permanent Income Hypothesis, Absolute Income Hypothesis, Life Cycle Hypothesis Relative Income Hypothesis, Classical and Keynesian Income Functions

Text & References

- O Gujarati, D.N. (1995), Basic Econometrics (2nd Edition), McGraw Hill, New Delhi.
- O Koutsoyiannis, A. (1997), Theory 0/ Econometrics (2nd Edition), the Macmillan Press Ltd., London.
- O Johnston, J. (1991), Econometric Methods, McGraw Hill Book Company, London.
- o Maddala, G.S. (1993), Econometrics Methods and Applications, (2 Vol.), Alder shot, U.K.
- O Krishna K.L. (1997), Econometrics Application in India, Oxford University Press, New Delhi.
- O Kmenta, J. (1997), Elements o/Econometrics, University of Michigan Press, New York.
- o Madnani, G.M.K. (1999), Introduction o/Econometrics.

PUBLIC FINANCE-I

Course Code: ECOCC-204

Course Credit: 4

Course Objective: The objective of the course is to provide the students with a thorough knowledge and understanding of the economic functions of government in an economy.

UNIT -I: Introduction to Public Finance

Meaning, Nature & Scope, Importance, Role of Government in Changing Perspective; Government as an agent of economic growth and development; Fiscal Functions of the Government; Classification of Goods: Private, Public, Social, Merit and Mixed Goods.

UNIT - II: Public Expenditure

Meaning and Classification, Theories of Public Expenditure – Maximum Social Advantage, Normative and Positive Theories, Growth in Public Expenditure, Canons of Public Expenditure, Effects of Public Expenditure on Production, Distribution and economic growth, Criteria for public investment – social cost-benefit analysis – project evaluation.

UNIT - III: Public Revenue

Sources of Revenue, Taxation – characteristics of a good taxation system, Canons of taxation, direct vs. indirect taxes, principles of taxation, effects of taxation, taxable capacity, impact and incidence of taxation; Tax structure in India and Recent Reforms.

UNIT -IV: Public Debt

Sources of Public Debt, Burden of public debt – theories, effects of public debt, methods of debt redemption, Public Debt Management in India. Public Budget - Concept of public budget, types of public budget, theories of public budgeting.

UNIT -V: Federal Finance

Principles and problems of Federal finance centre-state financial relations, Different Finance Commissions; Fiscal Policy: meaning and objective, fiscal multipliers, compensatory fiscal policy, functional finance approach, fiscal policy for inflation, full employment and economic growth.

- o Backhaus, J. G. & Wagner, R. E. (2004): Handbook of Public Finance, Springer, US.
- o Bhatia, A. K. (2013): Public Economics, Wisdom Press, India.
- o Choudhary, R. K. (2014): Public Finance and Fiscal Policy, Kalyani Publishers, New Delhi
- o Dalton, H. (1922): Principles of Public Finance, Allied Publishers, Reprinted by Routledge (2009).
- o Garg, R. & Garg, S. (2017): Handbook of GST in India, Bloomsbury India Professional.
- Gupta, J. R. (2011): Public Economics in India: Theory and Practice, Atlantic Publishers.
- o Jha, Raghbendra (2010): Modern Theory of Public Finance, New Age International Pvt. Ltd. India
- o Musgrave, R. A. (1959): The Theory of Public Finance, MG-Hill Publication, New York (Available in National Digital Library for Free Download)

DEVELOPMENT ECONOMICS

Course Code: ECOCC-205 Course Credit: 4

Objectives of the Paper: This course aims to introduce the students to know and understand the theoretical concepts of economic development, different indices of the measurement of development, issues related to poverty & inequality and, introduced the measures of fiscal and monetary policies.

Course Learning Outcomes: Students will have the tools to understand current policy debates and contribute to policy making in an informed way. They will also learn how to conduct independent research in these areas. Knowledge about development issues, both from a theoretical as well as empirical perspective.

COURSE CONTENT

UNIT-I: Economic Development: Concept & Measurement

Meaning of undeveloped, underdevelopment and development, Measuring Development: Income Measures, Basic Needs Approach, PQLI, HDI, HPI, GDI and Capabilities Approach of Amartya Sen, Common characteristics of developing nations, obstacles to economic development, structural changes underdevelopment development gap, international comparisons of developments.

UNIT-II: Poverty, Inequality, and Development

Development gap—concept and measurement. Absolute and relative poverty; Measurement of inequality and poverty—Lorenz curve, poverty gap, Foster-Greer Thorbecke index, Human poverty index, Chennery-Ahluwalia development index.

UNIT-III: Theories and Approaches of Development

Classical Theory of Development – Adam Smith, J.S. Mill, Neo Classical – Leibenstein's critical Minimum Effort Thesis, low income equilibrium trap – Ranis and Fei model – Dualism – Social – Financial and Technical Dualism and Kremer's O-ring theory of economic development.

UNIT-IV: Development Policies and Perspectives

Role of economic and non-economic factors, Sectoral Priorities and Development policies, role of the informal sector, environmental issues in development, food security, education, health and nutrition, Choice of techniques and appropriate technology, Role of macroeconomic policies in developing countries

UNIT-V: Trade and Economic Development

International Trade, Aid, Finance in Development, Technology, Transfer and Multinational Corporations. Dual Gap Model, WTO and developing countries, Regional Cooperation; External resources – FDI,FII, Aid vs. trade, technology inflow; International trade as engine of growth; Static and dynamic gains from trade.

- Barro, R. J. and Sala-i-Martin, X. 2007. Economic Growth (2nd Edition). Prentice-Hall of India, New Delhi.
- o Grabowski, R. and Shields, M. P. 1996. Development. Blackwell Publishers, Cambridge.
- Herrick, B. and Kindleberger, C. P. 1984. Economic Development. (4th Edition). McGraw Hill Book Company
- Hayami, Y. 2001. Development Economics. (2nd Edition). Oxford University Press
- o Hamberg, D. Models of Economic Growth. Harper and Row Publishers. New York
- Meir, G. M. and Rauch, J. E. 2000. Leading Issues in Economic Development. (7th Edition). Oxford University Press. New York.
- o Todaro, M. P. 1996. Economic Development (6th Edition). Longman, London.
- Thirwal, A. P. 1999. Growth and Development. (6th Edition). Macmillan. U.K.
- o Ray Debrai, 2007. Development Economics (12th Edition), Oxford University Press, London

M.A. Economics Semester – II

Resource Economics

Course Code: ECOCC-206

Credit: 4

Course Objective: Students will come to know about market failure, students will learn to design regulation which corrects market failure and they will learn how to regulate pollutants that travel across country boundaries and how environmental regulations affect trade flows.

Course Content

Unit - I

The theory of Externality and Public Goods: Concepts, Market failure, Pigouvian Solution, Buchanan's Theory, Coase's theorem and its critique, Pigouvian vs. Coasian solution; Detrimental externality and non-convexities in the production set.

Unit-II

Property rights; Collective action. Measurement of Environmental Values: Use values; Option value and non-use values. Techniques of Valuation: Market and Non- Market Valuation: Physical linkage methods; Abatement Cost Methods; Behavior Linkage Method-Revealed and stated preference; Social Cost benefit Analysis.

Unit - III

Environmental impact assessment, Hedonic property values and house hold production models (Travel cost method and household health production function). Methods based response to hypothetical Markets, Contingent Valuation Methods.

Unit – IV

Environmental and Natural resource policy and strategies, Evolution of Environmental Policy, Economics of Environmental Policy. Protection, Conservation. Policy Instruments; Pigouvian Tax and Subsidies, Tradable permits and fees, Price vs. Quantity instruments, Mixed instruments, Monitoring and Enforcement Issues, India's Environmental Policy and Performance, International Environmental Policy, Environmental Planning and Management, Macroeconomic Policies and Environment, People's Participation.

Unit - V

Population and Environment, Poverty and Environment, Trade and environment in the WTO regime, Ecolabeling, Economics of climate change, Causes and Consequences of Ozone depletion and climate change. Rio and other then Rio Conference, Protocols and Treaties relating to climate change and Environmental degradation, Ozone depletion and Bio diversity.

- 1. C.D. Kolstad: Environmental Economics
- 2. R.N. Bhattacharya: Environmental Economics
- 3. U. Sankar: Environmental Economics
- 4. N. Hanley, Shogren, B. White: Introduction to Environmental Economics
- 5. Haab and White head: Environmental and Natural resource economics
- 6. Haab and Huang: Preference data for Environmental valuation
- 7. Tom Tietenberg and Lynne Lewis: Environmental and Natural Resource Economics
- 8. David.A. Anderson: Environmental Economics and Natural Resource
- 9. Down to Earth, Science and Environment Fortnightly
- 10. Economic and Political Weekly

COMPUTER APPLICATIONS IN ECONOMICS

Course Code: ECOVNC-201 Course Credit: 4

Objectives: This course will develop an interest among students regarding use of computer in Economics. The usage of statistical tools, software and preparation of data files will make the student industry ready.

Learning Outcomes: On satisfying the requirements of this course, students will be able to critically evaluate economic problems of developing countries.

Course Content

Unit-I: Computer Fundamentals

Introduction to Computers; Classification of Digital Computer, Meaning and Concept; Hardware, Software and Types of Software; Operating System Meaning and Functions; Memory – RAM and ROM; Input-Output Devices; MS Office: MS-Word and MS PowerPoint

Unit-II: Data Processing Techniques using MS Excel

Concept of Data – Record and File – Types of Data – Data Entry – File handling and Operations like opening, appending and cascading – closing and attribute controls – Data Storage and Retrieval, Graphical Representation of Data.

Unit-III: Application of MS-Excel

Summarizing and analysis of data; Descriptive Statistics (Mean, median, mode, standard deviation, CV, skewness); Comparison of means; Correlation and Regression analysis; Estimation of Growth Rates; Trends of Forecasting; Testing the significance of parameters.

Unit-IV: Internet and E-Commerce

E-Commerce: Meaning, E-Commerce, E-Business and E- Transaction; Ecommerce vs. Traditional Commerce; Security, Digital Signature, Digital Certificate; Encryption; Electronic Payment System - Debit Cards, Credit Cards, Smart Cards, Electronic Funds Transfer, ATM

Unit-V: Introduction to Statistical Software and Estimation

Basics of Data Analysis – Data Entry in SPSS – Computing with SPSS – Preparation of Graphs with SPSS – Distribution Functions and Density Functions – Statistical Package handling and command description for SPSS – Reports, Descriptive – Statistics, Compare Means, Time Series Analysis, Correlation and Regression Models.

- Fundamentals of Computers by Rajaraman V, Prentice Hall India Learning Private Limited; 5 edition (2010)
- David Whiteley, E-Commerce: Strategy, Technologies and Applications, Tata McGraw Hill, NewDelhi.
- Goel, Sushil, Computer Application to Business & E-Commerce, Natraj Publishing House, Karnal.
- Lipschultz, M.M. and S. Lipschultz, Theory and Problems of Data Processing, Schum's OutlineSeries, McGraw Hill, New York.
- O Madan, Sushila, Information Technology, Taxman Allied Services, New Delhi.
- O P.T. Joseph, S.J., E-Commerce: An Indian Perspective, PHI Learning, New Delhi.
- o Parames waranm R. Computer Applications in Business, S. Chand and Company, New Delhi.

MA ECONOMICS SEMESTER-III ADVANCED MACROECONOMICS

Course Code: ECOCC-301 Course Credit: 4

Course Objective: The objective of this course is to familiarise the students of Master degree with the advance concepts, theories and approaches to understand the behaviour of macroeconomic aggregates and policies.

UNIT I: Consumption and investment Function

Consumption Function: Short run and long run, consumption functions, alternative theories of consumption function: Absolute, Relative, Permanent and Life cycle Hypotheses.

Investment Function: Investment- interest rate relationship, classical theory of investment and criterion of NPV investment demand function and criterion of MEC and MEI. Investment-Income Relationship, accelerator and investment behaviour, multiplier-accelerator model.

UNIT-II: Three sector models

Three sector macro model and determination of price level, concept of aggregate demand, deriving AD curve, introduction of labor curve, derivation of aggregate supply curve in the Neo-Classical and Keynesian cases, determination of equilibrium price in Neo classical and Keynesian cases, factors affecting aggregate demand and macroeconomic equilibrium adjustment process in the Neo classical and Keynesian cases. Introduction to Walrus general equilibrium model, concept of excess demand equation, introduction of QTM in Walrus model and Classical dichotomy, Patinkin's system or Neo classical synthesis.

UNIT-III: Unemployment and Inflation

Relationship between unemployment and inflation rate: early Phillips curve, concept of stagflation, short-run and long-run Phillips curve, concept of natural rate of unemployment, role of expectations and Phillips curve, Friedman- Phelps hypothesis, monetary policy and importance of Phillips curve in inflation management, Okun's Law

UNIT- IV: Macroeconomics in a Dynamic Setting

Dynamic Aggregate Supply Curve and its Derivation, Dynamic Aggregate Demand Curve, Macroeconomic Equilibrium, Adjustment in the long-run under ADEX Approach, a New Classical Macroeconomics and RATX Approach, Role of anticipated and unanticipated changes in monetary policy.

UNIT-V:New Keynesian and Recent Development in Economics

GDP and Random Walk Model, Nelson- Plosser Viewpoint, New Keynesian Macroeconomics, Efficiency Wage Hypothesis, Menu-Cost model and Policy Implications of New- Keynesian Macroeconomics, Real business Cycle theory, Intertemporal substitution of Labor and Propagation mechanism, Dynamics Stochastic General Equilibrium models.

- 1. Abel and Bernanke: Macroeconomics, Pearson Education.
- 2. Blanchard and Johnson, Macroeconomics, Pearson.
- 3. David King, An Introduction to National Income Accounting, Edward Arnold.
- 4. Dornbusch, Fischer, Startz, Macroeconomics, McGraw-Hill.
- 5. G. Ackley, Macroeconomics: Theory and Policy, MacMillan.
- 6. N. Gregory Mankiw- Macroeconomics, Macmillan Worth Publishers.
- 7. Richard T.Froyen, Macroeconomics, Pearson.
- 8. Ruggles and Ruggles, National Accounting and Economic Policy, Edward Elgar.
- 9. Soumen Sikdar, Principles of Macroeconomics, OUP.
- 10. Thomas F. Dernburg, Macro-economics: Concepts, Theories& Policies. McGraw-Hill.
- 11. Uma Dutta Roy Choudhary, National Income Accounting, Macmillan Education Ltd.

MA ECONOMICS SEMESTER-III THEORIES OF ECONOMIC GROWTH

Course Code: ECOCC-302 Course Credit: 4

Objective: To introduce students to the theories and empirics of economic growth.

Course Learning Outcomes: Upon completion of this course students should be able to discuss the important models, theories and implications of the alternative approaches to growth.

COURSE CONTENT

UNIT-I: Economic Growth Theories

Economic growth- Meaning, Characteristics, Measurement and Factors of Economic Growth, Balanced and Unbalanced Economic Growth, Marx's Stages of Growth, Rostow's Stages of Economic Growth Factors affecting Economic Growth: capital, labour and technology; Historical Perspective of Economic Growth and its relevance; Structural Diversity and common characteristics of developing nations.

UNIT-II: Modern Theories of Economic Growth

Conceptual framework and methodology of modern growth theories; Harrod-Domar Growth model contemporary growth theories of neo-classical, Solow, Meade, and Swan-Uzawa.

UNIT-III: Cambridge theories of growth

Cambridge theories of growth; Joan Robinson, Kaldor, Pasinetti, the capital controversy, money and economic growth-Tobin and Johnson's models.

UNIT-IV: Technological Progress and Economic Growth

Technological Progress embodied and disembodied; Neutral and Non-Neutral (Hicks and Harrod); Arrow's learning by doing approach to economic growth, total factor productivity and growth accounting.

UNIT-IV: Optimal and Endogenous Growth Theory

Optimal growth theory: Ramsay, Von Neumann, Golden Rule of Accumulation; Endogenous growth models—AK model and Romer model; Explanations of cross country differentials in economic growth.

- O Ghatak, S. (1986), An Introduction to Development Economics, Allen and Unwin, London.
- O Gillis, M., D.H. Perkins, M. Romer and D.R. Snodgrass (1992), Economics of Development, (3rd Edition), W.W. Norton, New York.
- o Kindleberger, C.P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York.
- Meier, G.M. and J.E.Rauch (2005), Leading Issues in Economic Development, (8th Edition), Oxford University Press, New Delhi.
- O Sen, A.K. (Ed.) (1990), Growth Economics, Penguin, Harmondsworth.
- O Todaro, M.P. and S.C. Smith (2003), (8th Edition), Economic Development, Pearson Education, Delhi.
- O Thirlwal, A.P. (1999), (6th Edition), Growth and Development, Macmillan, U.K.

ADVANCED INDIAN ECONOMY

Course Code: ECOEL-301A Credits: 04

Aim: To provide the students with a critical understanding of the Indian economy so that they may be able to engage meaningfully with the issues regarding the country's economy. Moreover, student should be able to comprehend the issues at the macro level while using their theoretical understanding of the macroeconomics and development in the context of the Indian economy.

Unit 1: Growth and Structure of the Economy: Brief History of Indian Economy; Changing Structure of Indian Economy; Sectoral Behavior and Relationship; Growth Pattern at Sub-National Level; Pattern of Consumption, Saving, Investment, Capital Structure.

Unit 2: Agriculture: Pattern and Growth of Farm Sector Development, Agricultural Price Policy, Food Security, Modernisation and Diversification of the Farm Sector, Other Activities of the Primary Sector, Challenges of Farm sector

Unit 3: Industry: Pattern and Growth of Industrial Growth and Policy Shifts; Industrial Policy, Capital goods industries, MSMEs

Unit 4 Services: Growth and Structure of Services Sector: Banking, Finance, Tourism, Science and Technology

Unit 5: U.P. Economy: Recent Trends and Emerging Issues in the Economy of U.P. Five year Plans of U.P., Agriculture, Industry and Social Sector Development

- Agarwal A. N and M.K. Indian Economy, New Age Publicatins
- Agarwal M.K. Uttar Pradesh Mein Arthik Vikas, New Royal
- Banerjee Abhijit, What the Economy Needs Now, Juggernaut Publication
- Dreze Jean, Social Policy (EPW), Orient Blackswan
- Economic Survey, Ministry of Finance, Government of India
- Human Development Reports, UNDP
- Kapila Uma, Indian Economy: Performance and Policies, Academic Foundation
- Kumar Sanjeev, Crop Diversification and Food Security in India, Mittal Publications
- Piketty Thomas, Economics of Inequality, Harvard University Press
- Stiglitz Joseph, Globalization and its Discontents, Penguin
- Relevant Government Publications

MA ECONOMICS SEMESTER-III INDUSTRIAL ECONOMICS

Course Code: ECOEL-301B Course Credit: 4

Course Objectives: This course provides a foundation for the study of theoretical models of industrial organisation.

Unit I: Framework of Industrial Economics

Industrialization – Patterns and stage, advantages and problems of Industrialization, concept and organization of a firm- ownership control and objectives of a firm passive and active behavior of firm, size, growth, profitability, productivity and capacity utilization- concept and measurement.

Unit II: Industrial location and Regional Development

Determinants of Industrial location – Technical, economic, infrastructural and other factors, theories of Industrial location – Weber, August, Losch, surgant Florence, Development of Backward Regions, Govt. Policy and approach for the development of backward regions.

Unit III: Industrial Structure and Labour

Alternative patterns of Industrilization – Hoffman's hypothesis of capitalistic Economics, Siman Kuznet's interpretation, Industrilization and planned Economics- Cheney's patterns of industrial changes, structure of Industrial relations Labour, industrial, Exit Policy, Mergers, Amalgamation and tapeovers.

Unit IV: Project Appraisal and Industrial Finance

Project Appraisal Techniques – CBA, NPV and IRR, Sources of Industrial Finance- owned, external and components of funds, Nature, volume and types, - IDBI, IFCI, SFG, SIDBI, Commercial Banks etc.

Unit V: Industrialization and contemporary issues in India

Industrial Policy, changing Trends in public and private sector, Industrial growth and pattern in India, Recent Trends Industrial Growth, Role of MSMES in Indian context, industrial proliferation and Environmental Protection, other Emerging Issues in India Industries.

- Ahluwalia, I.J: Industrial Growth in India (Oxford University Press, New Delhi, 1985)
- o Barthwal, R.R: Industrial Economics (Wiley Eastern Ltd, New Delhi, 1985)
- Cherunilam F: Industrial Economics: Indian Perspective (3rd Edition) (Himalaya Publishing House, Mumbai, 1994)
- o Desai B: Industrial Economy in India (3rd Edition) (Himalaya Publishing House, Mumbai, 1999)
- Divine P.J & R.M Jones et. Al: An Introduction to Industrial Economics (George Allen and Unwin Ltd, London, 1976)
- Hay D and D J Morris: Industrial Economics: Theory and Evidence (Oxford University Press, New Delhi, 1979)
- Kuchhal S.C.: Industrial Economy of India (5th Edition) (Chaitanya Publishing House, Allahabad, 1980)
- o Singh. A and A.N Sadhu: Industrial Economics (Himalaya Publishing House, Bombay, 1988).

ADVANCED ECONOMETRIC THEORY & APPLICATION - I

Course Code: ECOEL-301C Course Credit: 4

Course Objective: The objective of the course is to familiarize the students with advanced econometric analysis using time series and panel data.

UNIT-I Methodology of Econometrics:

Sources of Hypotheses, Econometric and economic models, General Linear Model (GLM): Assumptions; OLS and Maximum Likelihood (ML); Inference, Likelihood Ratio, Wald and LM Tests, GLS Model and estimation.

UNIT-II Introduction to Dummy Variable:

Meaning, Use of Dummy in Regression Model, Dummy Variable Trap, Estimation of Regression Model with Dummy Variable, Inferences and Significance.

UNIT III Qualitative Response Regression Models:

Nature of qualitative response models, Linear Probability Models, Estimation and Inference, Logit Model, its estimation and inference, Tobit Model.

UNIT IV Simultaneous Equation Models:

The nature and structure of simultaneous equation models; Inconsistency of OLS Estimators; Simultaneous equation bias, solution to simultaneous equation models: reduced forms or Indirect Least Squares (ILS) Method, Recursive Models and its estimation.

UNIT-V Identification:

The identification problem, formal rules of identification, the order condition, the rank conditions, reduced form and identification; Method of instrumental variables and two-stage least square methods of simultaneous equation solutions.

- Econometric Methods- J. Johnston & J. DiNardo (1997) McGraw Hill Higher Education IV Edition.
- Basic Econometrics D.N Gujrati, D.C Porter, S Gunasekar (2012) McGraw Hill Higher Education V Edition.
- Theory of Econometrics A. Koutsoyiannis(1973) Palgrave Macmillan Second Edition

MA ECONOMICS SEMESTER-III POPULATION THEORY AND DEMOGRAPHIC ANALYSIS

Course Code: ECOEL-302A Credits: 04

Aim: The main objective of this paper is to make the students aware of the importance of population in economic development and the various theories that explain the growth of population in a country. The paper also enlightens the students on the quantitative and the qualitative aspects and characteristics of the population through various demographic techniques.

Unit 1: Concept of Population and Demography: Biological Theories; Theories of Population: Malthusian, Post-Malthusian, Neo-Malthusian; Optimum theory; Modern theories and Recent Developments; Theory of Demographic Transition, Demographic Dividend, Migration

Unit 2: Measures of Demographic Analysis: Fertility, Mortality, Nuptiality; Morbidity, population Pyramid, Population Ageing.

Unit 3: Population and Economic Development: Models of Population and Economic Development; Demand for Children in Poor Countries; Population Projection.

Unit 4: Indian Population and Demographic Changes: Inter-State Variations; Population Policy; Sources of Data-Census, SRS, NFHS, RCH etc.

Unit 5: Contemporary Issues: World Population: structure and Growth, Emerging challenges in population and Demography

- Agarwala S.N. India's Population Problem, Tata McGraw-Hill Co., Bombay.
- Bhende, Asha A. and Tara Kanitkar, Principles of Population Studies, Himalaya Publishing House, Mumbai
- Bose, A., India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi Bogue, D.J., Principles of Demography, John Wiley, New York
- Chaubey, P.K., Population Policy in India, Kanishka Publications, New Delhi.
- Different publications based on Census of India, published by Census Commissioner and Registrar General of India, New Delhi
- Family Welfare Programme in India, Year Book 2012, Government of India, New Delhi
- National Family Health Survey-(reports for India and different States of India) Government of India and International Institute for Population Sciences, Mumbai
- National Population Policy 2000, Government of India, New Delhi

QUANTITATIVE METHODS FOR ECONOMICS

Course Code: ECOEL-302B Course Credit: 4

Objective: The aim of the course is to equip the student with the fundamental understanding of quantitative methods and their usage in economics.

Course Learning Outcomes: Students would acquire theoretical and practical knowledge of mathematical techniques used in the empirical analysis of economic relationships.

COURSE CONTENT

Unit- I: Capital Budgeting

Capital and Investment Decisions: Valuation of capital assets, Discounting and Present Value, Discount Rate and Opportunity Cost, Payout Period, Marginal Efficiency of Investment, Concept of Yield and Yield to Maturity on Financial Assets

Unit- II: Differential Equations

Differential Equations; Definitions and Concepts; First-order Linear Differential Equations; Exact Differential Equations; Integrating Factors; Separations of variables; Second-order Differential Equations. Economic Application.

Unit- III: Difference Equation

Difference Equations: Definitions and Concepts; First-order and Second-order, Linear Difference Equations; Stability conditions. Economic Applications.

Unit- IV: Input- Output Analysis and Game Theory

Input-Output Analysis: Leonief's static open input-output model, Game theory- the zero-sum two-person game, pay-off matrices, Maximum and Minimax Strategies, Saddle point, Strategies.

Unit- V: Linear Programming

Linear Programming: Graphic Approach; Simplex method; The Dual. Other approaches to optimization.

- Allen,R.G.D (2006): Mathematical Analysis For Economists, Macmillan And Company Limited
- C. Chiang and K. Wainwright (2005): Fundamental Methods of Mathematical Economics, McGraw Hill International Edition.
- o T. Yamane (2012): Mathematics for Economists, Prentice-Hall of India
- K. Sydsaeter and P. J. Hammond (2002): Mathematics for Economic Analysis, Pearson Educational Asia
- o Mehta and Madnani: *Mathematics for Economists*, New Delhi: Sultan Chand Company

M.A. Economics Semester – III

LABOUR ECONOMICS

Course Code: ECOEL302-C Course Credit: 4

Objective: To develop students' abilities in acquiring a better understanding of the

functioning of labour markets.

Course Learning Outcomes: The course will be taught using lectures, discussions,

seminars and assignments.

Unit I

Labour: key issues in Developing Economy, Characteristics of Indian Labour, Structure of Labour Market, Employment exchange in India, Rural labour in India Employment Programmes in India, Labour Productivity and wage Determination theories, Minimum wages Act, share of wages in National Income of India, wages Differentials Standardization, National wages Policy.

Unit II

Trade Union: Theories & Function, Trade Union Movement in India and Abroad, National Trade Unions, Impact of.

Unit III

Industrial Relations: Recruitment of workers, Disputes & Establishment of peace, Settlement of Disputes, Collective Bargaining, Conciliation Arbitration and adjudication, Participation in management.

Unit IV

Labour Welfare: Labour Welfare Measures in India, legislations in India, Child and women, Labour, Social security – Social Security in India and Abroad, International labour organization.

Unit V

Cotemporary Issues: Labour markets failure, working poverty surplus labour, lack of labour reforms, and other contemporary issues.

- 1. Labour Economics: theory, institutional & pub policy, by Ray Marshall
- 2. Labour Economics: by Dr. Sinha, Sinha
- 3. Labour Economics and social welfare, by- Dr. B.P Tyagi & Dr. H.P Singh
- 4. Labour Economics & Labour Problems by M.V. Joshi

M.A. Economics Semester – III

SUMMER INTERNSHIP

Course Code: ECOIN-301 Course Credit: 4

Course Overview: The objective of this course is to develop the human and soft skills of the students of Master's Degree. The internship track is designed for students who want to engage in real economic analysis outside of the classroom. The 04 credit internship is designed to expose students to a variety of contexts in which economists work within the development sector, in higher education, in public policy and with government agencies.

General Outlines:

- 1. The course should make the students learn how to prepare project report on the basis of Internship and the student must provide the certificate of successful completion of internship from the respective company/ institute.
- 2. The preparation of project report on a given topic should be made referring to Internship experiences.
- 3. The project report based on internship and its presentation should be evaluated by a duly constituted Department level committee.
- 4. The Internship/project work will evaluate for 50 Marks and there will be viva for 50 Marks.

M.A. Economics Semester – III CONTEMPORARY ISSUES IN INDIAN ECONOMY

Course Code: ECOIER-301 (Interdepartmental Course) Credits: 04

Aim: The objective of this paper is to sharpen the knowledge of the student about the policy issues related to Indian Economy and contemporary issues of the economy.

Unit 1: Economic Infrastructure: Pattern and Growth of Infrastructure: Energy, Transport, Communication etc

Unit 2: Social Infrastructure: Social Sector Development, Human Development, Poverty, Unemployment, Measures of Economic Inequality, Demographic Transformations

Unit 3: **Foreign Sector:** Globalisation, Foreign Direct Investment, Foreign capital and MNCs in India, WTO and India, International Experiences of growth

Unit 4: **Reforms in Indian Economy:** Reforms in Fiscal Policy, Monetary Policy, Trade Policy, Important recent developments in Indian Economy.

Unit 5: **Contemporary Issues**: Emerging challenges in Indian Economy, New Bottlenecks and new opportunities in the Indian Economy; Social capital, Artificial intelligence, Environment

- Agarwal A.N and M.K. Indian Economy, New Age Publication
- Banerjee Abhijit, What the Economy Needs Now, Juggernaut Publication
- Census of India, Census Commissioner and Registrar General of India, New Delhi
- Dreze Jean, Social Policy (EPW), Orient Blackswan
- Human Development Reports, UNDP
- Kapila Uma, Indian Economy: Performance and Policies, Academic Foundation, Latest edition.
- India Infrastructure Report, IDFC
- NSS Reports, Ministry of Statistics and program Implementation, Government of India
- Piketty Thomas, Economics of Inequality, Harvard University Press
- Stiglitz Joseph, Globalization and its Discontents, Penguin
- Relevant Government Publications

M.A. Economics Semester – III

CONTEMPORARY ISSUES IN INDIAN ECONOMY

Course Code: ECOIER-301 (Interdepartmental Course) Credits: 04

Aim: The objective of this paper is to sharpen the knowledge of the student about the policy issues related to Indian Economy and contemporary issues of the economy.

Unit 1: Economic Infrastructure: Pattern and Growth of Infrastructure: Energy, Transport, Communication etc

Unit 2: Social Infrastructure: Social Sector Development, Human Development, Poverty, Unemployment, Measures of Economic Inequality, Demographic Transformations

Unit 3: **Foreign Sector:** Globalisation, Foreign Direct Investment, Foreign capital and MNCs in India, WTO and India, International Experiences of growth

Unit 4: **Reforms in Indian Economy:** Reforms in Fiscal Policy, Monetary Policy, Trade Policy, Important recent developments in Indian Economy.

Unit 5: **Contemporary Issues:** Emerging challenges in Indian Economy, New Bottlenecks and new opportunities in the Indian Economy; Social capital, Artificial intelligence, Environment

- Agarwal A.N and M.K. Indian Economy, New Age Publication
- Banerjee Abhijit, What the Economy Needs Now, Juggernaut Publication
- Census of India, Census Commissioner and Registrar General of India, New Delhi
- Dreze Jean, Social Policy (EPW), Orient Blackswan
- Human Development Reports, UNDP
- Kapila Uma, Indian Economy: Performance and Policies, Academic Foundation, Latest edition.
- India Infrastructure Report, IDFC
- NSS Reports, Ministry of Statistics and program Implementation, Government of India
- Piketty Thomas, Economics of Inequality, Harvard University Press
- Stiglitz Joseph, Globalization and its Discontents, Penguin
- Relevant Government Publications

M.A. Economics Semester – IV

Advance Microeconomics

Course Code: ECOCC-401 Credit: 4

Course Objective: It provides theoretical tools to analyse real/ practical market situations.

Course Content

UNIT-I

Market Failure and Asymmetric Information: Quality Uncertainty, Market Signaling, Moral Hazard and Principal – Agent Problem. Measurement of Utility: Neuman- Morgenstern Utility Index.

UNIT-II

Market and Price Determination: Oligopoly; Non-Collusive and Collusive Oligopoly, Kinked Demand Analysis, Role of Cartel and Price Leadership Models. Merger and Acquisition, Types of Mergers and Economic Theories Regarding Mergers.

UNIT --III

Full Cost Pricing Principle, Mark Up Approach and other Product Pricing Principles in practice. Limit-Price Theorem: Role of Natural and Strategic Barriers in the Determination of Limit Price.

UNIT-IV

Game Theory: Zero-Sum Game, Pure and Mixed Strategies under Zero-Sum Games; Variable Sum Game; Concept of Dominant and Dominated Strategies, Mixed Strategies under Variable Sum Game. Alternative Methods of Determination of Optimal Pay-Offs and Nash Equilibrium. Prisoners' Dilemma and Folk Theorem, Refinements in Nash Equilibrium.

UNIT - V

Theories of Distribution: Theories of Rent, Interest, Profit and Wages. General Equilibrium and Economic Efficiency, Efficiency and Attainment of General Equilibrium.

- Gould and Ferguson: Micro Economic Theory
- A. Koutsoyiannis: Modern Micro economics
- David Krepps: A course in Micro Economics Theory
- Andrew. Mas-Colel, Michael Dennis Whinston, Jerry R. Green: Micro Economics
- Handerson and Quandt: Micro Economic Theory: A mathematical approach
- Pynddick and Rubenfeld: Micro Economics

PUBLIC FINANCE-II

Course Code: ECOCC-402 Course Credit: 4

Course Objective: The objective of the course is to provide the students with a thorough knowledge and understanding of the economic functions of government in an economy.

<u>UNIT – I</u>

Modern Public Choice Theory and the Fiscal Decision process. Simple and Complex model of Majority Voting. Redistribution via the Fiscal Process, Stable growth as a Fiscal Objective, redefine Role of Government, fiscal Decision Making Process.

UNIT - II

The Budget Cycle and the Budgetary Process. Classification of Budgets and Budgeting Practices, Integration with National Accounts, Implementation, Authorization, Accountability and Audit, expenditure Structure and Policy Principle, Methods and Techniques of Expenditure Evaluation.

UNIT - III

Fiscal Policy, Meaning, Objectives, Short and Long Perspectives, Different Budget Adjustment with Investment, Fixed and Variable and in Closed and Open. Economic Growth and Fiscal Policy, recent and Contemporary Theoretical Foundations and Analytics.

<u>UNIT - IV</u>

Fiscal Decentralization, Finances of Local Governments, Financial Administration of Local Governments : Budget, Accounts and Audit.

UNIT - V

Planning Programming Budgeting System, Zero-Base Budgeting System, Applicability to Less Developed Countries, Deficits and Deficit Financing, Recent Issues.

- o Backhaus, J. G. & Wagner, R. E. (2004): Handbook of Public Finance, Springer, US.
- o Bhatia, A. K. (2013): Public Economics, Wisdom Press, India.
- o Choudhary, R. K. (2014): Public Finance and Fiscal Policy, Kalyani Publishers, New Delhi
- o Dalton, H. (1922): Principles of Public Finance, Allied Publishers, Reprinted by Routledge (2009).
- o Garg, R. & Garg, S. (2017): Handbook of GST in India, Bloomsbury India Professional.
- \circ $\;$ Gupta, J. R. (2011): Public Economics in India: Theory and Practice, Atlantic Publishers.
- o Jha, Raghbendra (2010): Modern Theory of Public Finance, New Age International Pvt. Ltd. India
- Musgrave, R. A. (1959): The Theory of Public Finance, MG-Hill Publication, New York (Available in National Digital Library for Free Download)

FINANCIAL INSTITUTIONS AND MARKET

Course Code: ECCEL-401A Course Credit: 4

Course Objective: The objective of the course is to familiarize the students with Financial Institutions and Market.

Unit -I

Introduction Financial and non financial Assets Financial intermediation and role of financial intermediaties. The structure and function of financial system. Indicators of financial development Financial development and economic development Globalization of financial system.

Unit -II

Central Bank and Commercial Banks: Functions of Central Bank Aims and effectiveness of monetary policy. Transmission and effectiveness of monetary policy. Monetary policy reforms. Commercial Banks. Profitability Vs liquidity credit creation. Term structure of interest rates resolution of NPAS: One time settlement policies, hiving off etc BASEL norms, Banking sector reforms. Cooperative Banks

Unit –III

NBFIS, SEBI, IRDA, NBFIs definition and types. Role and challenges. Their growth and impact on economic development in India. Systemically important NBFIS. Need and effectiveness of regulation of NBFIs, SEBI, Small savings, provident and pension Funds, Insurance companies IRDA.

Unit -IV

International Financial Institutions, International liquidity. International Financial Flows form and volume. IMF, IBRD and IDA. European investment Bank (EIB), ADB, IFC, BIS (Bank for international settlement) BRICs bank.

Unit -V

Money and Security Market; Foreign exchange market: Nature organization and participants, Exchange rate determination. REER and NEER, Devaluation and depreciation, Fixed and floating exchange rate system, Working of Floating exchange rate system since 1973 currency convertibility the Indian experience. Risk hedging and futures in exchange rates.

- Avadhani, V.A. (2012): Financial Services and Markets, Himalaya Publishing House, India
- ❖ Bhole, L. M. (2015): Indian Financial System, Chugh Publications, Allahabad, India
- Bhole, L. M. (2016): Financial Institutions and Markets, Tata McGraw Hill Company Ltd., New Delhi, India
- Gordon and Natarajan (2012): Financial markets and services, Himalaya Publishing House, India
- Gupta, Shashi K. & Agrawal, Nisha (2013): Financial services, Kalyani Publishers, India
- Houthakker, H. S. & Williamson, P. J. (1996): Economics of Financial Markets, Oxford University Press.
- * Khan, M. Y. (2016): Indian Financial System, Tata McGraw Hill, New York
- Avadhani, V.A. (2012): Financial Services and Markets, Himalaya Publishing House, India
- Houthakker, H. S. & Williamson, P. J. (1996): Economics of Financial Markets, Oxford University Press.

MA ECONOMICS SEMESTER-IV ADVANCED ECONOMETRIC THEORY & APPLICATION – II

Course Code: ECOEL-401B Course Credit: 4

Course Objective: The objective of the course is to familiarize the students with advanced econometric analysis using time series and panel data.

UNIT I - INTRODUCTION TO ASYMPTOTICS

Concept of auto-regression, problems in estimation, introduction to asymptotics, Mann -Wald conditions, concept of stationarity & correlogram. Unit root and non- stationarity.

UNIT II- UNIVARIATE TIME SERIES MODELLING

Concepts of Autoregressive and Moving averages processes, Lag operator, ARMA Modelling, properties of AR, MA & ARMA processes, testing for stationarity: Unit Root Test (Dickey-Fuller test), Augmented Dickey-Fuller test, Mackinnon critical values, Trend Stationary vs Difference Stationary Time Series, Identification, estimation, testing of ARIMA models & forecasting.

UNIT III- DYNAMIC ECONOMETRIC MODELS

Introduction to Autoregressive Distributed Lag Relationship, Rationale for lags, estimation of distributed lag models, Koyck's Approach, Instrumental Variable Method, Almon approach to Distributed Lag Models.

UNIT IV- BIVARIATE & MULTIVARIATE TIME SERIES ANALYSIS

Cointegration and VAR Model: Basic concepts, Meaning of Cointegration, Cointegrating regression, estimation of parameters, Error Correction Model, Long run estimates of Cointegrating Regression & Inference. Meaning of Vector Autoregression, estimation of VAR model, Impulse Response Function & Forecasting through VAR Models.

UNIT V - FINANCIAL TIME SERIES AND PANEL DATA

Measuring volatility in financial time series, ARCH Models, GARCH Model and it's types, ARCH processes and estimation. Panel data: Meaning, sources & types of Panel data, Pooled OLS Regression or constant coefficient Model, Fixed Effect Model & it's estimation, Random Effect Model.

- o Econometric Methods- J. Johnston & J. DiNardo (1997) McGraw Hill Higher Education IV Edition.
- Basic Econometrics D.N Gujrati, D.C Porter, S Gunasekar (2012) McGraw Hill Higher Education V
- o Theory of Econometrics A. Koutsoyiannis(1973) Palgrave Macmillan Second Edition

GENDER ECONOMICS

Course Code: ECOEL- 401C Credit: 04

Aim: To introduce students to the discipline of Gender Studies and its specific purposes and perspectives and to understand the basic concepts of Gender Studies

Unit 1: Defining Gender: Difference between Gender and Sex, Types of Gender, Patriarchy, Gender Stereotypes, From Women's Studies to Gender Studies: A Paradigm Shift, Waves of Feminism, GDI, GEM, GNI, Gendered Social Movements, International Initiatives for Women Development

Unit 2: Approaches to Gender: Pre and Post- Colonial Feminism, Capability approach, Approaches to Women and development (WIN, WAD, GAD), Intersectionality

Unit 3: Women and Health: Reproductive Health, Family planning, New Reproductive Technology, Maternal Health, Violence against women and Mental health

Unit 4: Women and Work: Women in primary, secondary and tertiary sectors, Gender Gap in access to Resources and Control over Economic Resources, Gender Discrimination, Impact of gender equality on economic development, Marginalisation and Glass Ceiling, Gender issues at the work place.

Unit 5: **Contemporary Issues:** Women and Planning, Gender Budgeting, Gender Mainstreaming, Migration and Displacement of women, Women in Discourse

Selected Readings:

- Agarwal Bina, Gender Challenges, Oxford University Press
- Ahlawat Neeria, Gender Discrimination and Development Paradox, Rawat Publications, Jaipur
- Boserup Ester, Women's Role in Economic Development, George Allen and Unwin, Routledge
- Chattopadhyay S.K., Gender Socialization and the Making of Gender in the Indian Context, Sage
- Chowdhry Prem, Understanding Women's Land Rights: Gender Discrimination in Ownership, Sage
- Dreze J & Sen A, India: Development and Participation, Oxford University Press.
- John Mary E., Women Studies in India: A Reader, Penguin, India
- Judith Butler, Gender Trouble, Routledge
- Menon Nivedita, Seeing like a Feminist, Penguin
- Misra. Roli, Migration and Gender Construction: Women in Transition (ed) by Sage Stree
- Misra. Roli, Rethinking Gender (ed) by Rawat Publications, Jaipur
- Moser Caroline, Gender Planning and Development, Routledge

MA ECONOMICS SEMESTER-IV DISSERTATION

Course Code: ECOMT-401 Course Credit: 8

Course Objective: The objective of the course is to make the students learn the skills of formulation of research problem, objectives, hypotheses and also the skills of data collection, analysis and interpretation. This course is directly related to Ability Enhancement of students.

General Outlines:

- 1. Each student should be assigned a project supervisor from the faculty members of the concerned centre.
- 2. The topic of project report should be decided by the supervisor taking into account the area of interest of the student. As far as possible the topic should address the current issues / developments in the field of Economics.
- 3. Standard norms for the preparation of a research project report may be followed introduction, brief background, relevance of the topic, literature review, problem statement, objectives, hypotheses, sample design, data nature and sources, tools and techniques of data collection, data presentation, analysis, and interpretation, findings and conclusion.
- 4. The Dissertation outcomes may be reported in the following form: Chapter-1: Introduction & Review of Literature; Chapter-2: Research Methodology; Chapter-3: Conceptual & Theoretical Description; Chapter-4: Analysis and Interpretations; Chapter-5: Conclusion, Suggestions & Scope for further research; References, Annexure, etc.
- 5. The Dissertation outcomes should be evaluated both in the form of reports and vivavoce examination by a duly constituted committee by the appropriate authority.
- 6. This is to be evaluated as 'Satisfactory (S)' or 'Unsatisfactory (US)'.

PRINCIPLES OF ECONOMICS

Course Code: ECOIRA-401 (Intradepartmental Course)

Course Credit: 4

Course Objectives: The purpose of this course is to give students a introduction to modern micro and macro economic theory.

Unit I

Basic Concepts Definition and scope of Economics Determinants of demand and supply. Equilibrium, elasticity of demand and its measurement. Utility, Gossen's laws, Consumer's equilibrium.

Unit II

production function: short and long term. Cost carves: short run and long run. Revenue curves. Equilibrium, of firm. Types of Markets: perfect competition, Monopoly, Monopolistic competition and oligopoly.

Unit III

Macroeconomic perspective, G.D.P. and its measurement. Economic growth and welfare. Capitalist, socialist and mixed Economy Public goods, Public expenditure, Taxation and Public Debt. Fiscal Policy.

Unit IV

Unemployment: Classical Vs. Keynesian Views. Aggregate supply – aggregate demand model. Money, Banking and monetary policy Business Cycles, inflation and stagflation International Trade and capital flows. Free trade Vs. Protectionism. Exchange rate.

Unit V

Slowdown in Indian Economy, Predatory Pricing in telecom sector and risk of rise monopoly, Deteriorating trade relations in world economy and other contemporary issues.

- 1. Paul A Samuelson, William D. Nordhaus: Economics Mcgraw-Hill India
- 2. Michael Parkin- Economics, Global edition, pearson.
- 3. Hal R. Varian Microeconomics Analysis: W.W. Norton, New York.
- 4. Devid Begg, Stanley Fischer and R Dornbusch: Economics: Tata- Mcgraw- Hill.
- 5. A. Koutsoyianis: Modern Microeconomics, Mac Millan Press Ltd. London.
- 6. Uma Dutta Roy Choudhary, National Income Accounting, Mcmillan Education Ltd.