

COURSES OF STUDIES

(Under CBCS)

For M.A. Programme in Economics
(Syllabus of Courses Effective from the Academic Year: 2020-21)



Syllabus of Courses to be Offered
(Core Courses, Discipline Specific Elective Courses & Open Elective Courses)

DEPARTMENT OF ECONOMICS

**SCHOOL OF SOCIAL SCIENCES
CENTRAL UNIVERSITY OF ODISHA
KORAPUT, ODISHA, INDIA**

COURSE STRUCTURE FROM 2020-21

PROGRAMME: M.A. IN ECONOMICS

SEMESTER-I

COURSE CODE	NATURE OF COURSE	COURSE TITLE	L-P-T-D	CREDIT
ECO-C-401	CORE	MICROECONOMICS-I	3-0-1-0	4
ECO-C-402	CORE	MACROECONOMICS-I	3-0-1-0	4
ECO-C-403	CORE	MATHEMATICS FOR ECONOMICS	3-0-1-0	4
ECO-C-404	CORE	INDIAN ECONOMY-I	3-0-1-0	4
ECO-C-405	CORE	PUBLIC ECONOMICS	3-0-1-0	4

SEMESTER-II

COURSE CODE	NATURE OF COURSE	COURSE TITLE	L-P-T-D	CREDIT
ECO-C-406	CORE	MICROECONOMICS -II	3-0-1-0	4
ECO-C-407	CORE	MACROECONOMICS-II	3-0-1-0	4
ECO-C-408	CORE	STATISTICS FOR ECONOMICS	3-0-1-0	4
ECO-C-409	CORE	INDIAN ECONOMY-II	3-0-1-0	4
ECO-C-410	CORE	INTERNATIONAL TRADE	3-0-1-0	4

SEMESTER-III

COURSE CODE	NATURE OF COURSE	COURSE TITLE	L-P-T-D	CREDIT
ECO-C-501	CORE	ECONOMICS OF GROWTH AND DEVELOPMENT	3-0-1-0	4
ECO-C-502	CORE	BASIC ECONOMETRICS	3-0-1-0	4
ECO-C-503	CORE	FUNDAMENTALS OF RESEARCH METHODOLOGY	3-0-1-0	4

DISCIPLINE SPECIFIC ELECTIVES-I & II

LIST OF DISCIPLINE SPECIFIC ELECTIVES FOR THIRD SEMESTER

ECO-E-504	ELECTIVE	ENVIRONMENTAL ECONOMICS	3-0-1-0	4
ECO-E-505	ELECTIVE	ENERGY ECONOMICS	3-0-1-0	4
ECO-E-506	ELECTIVE	MATHEMATICAL ECONOMICS	3-0-1-0	4
ECO-E-507	ELECTIVE	WELFARE ECONOMICS	3-0-1-0	4
ECO-E-508	ELECTIVE	FINANCIAL INSTITUTIONS AND MARKETS	3-0-1-0	4
ECO-E-509	ELECTIVE	MICRO FINANCE AND RURAL DEVELOPMENT	3-0-1-0	4
ECO-E-510	ELECTIVE	ECONOMICS OF INSURANCE	3-0-1-0	4
ECO-E-511	ELECTIVE	ECONOMICS OF INFORMATION AND TECHNOLOGY	3-0-1-0	4
ECO-E-512	ELECTIVE	ECONOMICS OF LAW	3-0-1-0	4
ECO-E-513	ELECTIVE	REGIONAL ECONOMICS	3-0-1-0	4
ECO-E-514	ELECTIVE	URBAN ECONOMICS	3-0-1-0	4
ECO-E-515	ELECTIVE	RURAL ECONOMICS	3-0-1-0	4
ECO-E-516	ELECTIVE	WORLD ECONOMY	3-0-1-0	4
ECO-E-517	ELECTIVE	ECONOMIC HISTORY OF ASIAN COUNTRIES: CHINA, SOUTH KOREA & JAPAN	3-0-1-0	4
ECO-E-518	ELECTIVE	ECONOMICS OF INFRASTRUCTURE	3-0-1-0	4
ECO-E-519	ELECTIVE	ECONOMICS OF SERVICE SECTOR	3-0-1-0	4
ECO-E-520	ELECTIVE	ECONOMICS OF HUMAN DEVELOPMENT	3-0-1-0	4
ECO-E-521	ELECTIVE	ECONOMICS OF DEMOGRAPHY	3-0-1-0	4
ECO-E-522	ELECTIVE	INSTITUTIONAL ECONOMICS	3-0-1-0	4

OPEN ELECTIVE-I

LIST OF OPEN ELECTIVES FOR OTHER DEPARTMENTS

ECO-E-504	ELECTIVE	ENVIRONMENTAL ECONOMICS	3-0-1-0	4
ECO-E-508	ELECTIVE	FINANCIAL INSTITUTIONS AND MARKETS	3-0-1-0	4
ECO-E-510	ELECTIVE	ECONOMICS OF INSURANCE	3-0-1-0	4
ECO-E-520	ELECTIVE	ECONOMICS OF HUMAN DEVELOPMENT	3-0-1-0	4
ECO-E-521	ELECTIVE	ECONOMICS OF DEMOGRAPHY	3-0-1-0	4

SEMESTER-IV

COURSE CODE	NATURE OF COURSE	COURSE TITLE	L-P-T-D	CREDIT
ECO-C-523	CORE	AGRICULTURAL ECONOMICS	3-0-1-0	4
ECO-C-524	CORE	INTERNATIONAL FINANCE	3-0-1-0	4
ECO-C-525	CORE	COMPUTER APPLICATION IN ECONOMICS	3-0-1-0	4
DISCIPLINE SPECIFIC ELECTIVES-III & IV				
LIST OF DISCIPLINE SPECIFIC ELECTIVES FOR FOURTH SEMESTER				
ECO-E-526	ELECTIVE	DISSERTATION/PROJECT	3-0-1-0	4
ECO-E-527	ELECTIVE	COST BENEFIT ANALYSIS	3-0-1-0	4
ECO-E-528	ELECTIVE	OPTIMIZATION TECHNIQUES	3-0-1-0	4
ECO-E-529	ELECTIVE	ADVANCE ECONOMETRICS	3-0-1-0	4
ECO-E-530	ELECTIVE	OPERATIONAL RESEARCH	3-0-1-0	4
ECO-E-531	ELECTIVE	FINANCIAL ECONOMETRICS	3-0-1-0	4
ECO-E-532	ELECTIVE	TIME SERIES ECONOMETRICS	3-0-1-0	4
ECO-E-533	ELECTIVE	GAME THEORY AND ITS APPLICATIONS IN ECONOMICS	3-0-1-0	4
ECO-E-534	ELECTIVE	INDUSTRIAL ECONOMICS	3-0-1-0	4
ECO-E-535	ELECTIVE	LABOUR ECONOMICS	3-0-1-0	4
ECO-E-536	ELECTIVE	INDIAN PUBLIC FINANCE	3-0-1-0	4
ECO-E-537	ELECTIVE	BUDGETARY THEORY AND PRACTICE	3-0-1-0	4
ECO-E-538	ELECTIVE	MONETARY ECONOMICS	3-0-1-0	4
ECO-E-539	ELECTIVE	FINANCIAL ECONOMICS	3-0-1-0	4
ECO-E-540	ELECTIVE	SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT	3-0-1-0	4
ECO-E-541	ELECTIVE	HISTORY OF ECONOMIC THOUGHT	3-0-1-0	4
ECO-E-542	ELECTIVE	ECONOMICS OF SOCIAL SECTOR	3-0-1-0	4
OPEN ELECTIVE-II				
LIST OF OPEN ELECTIVES FOR OTHER DEPARTMENTS				
ECO-E-534	ELECTIVE	INDUSTRIAL ECONOMICS	3-0-1-0	4
ECO-E-535	ELECTIVE	LABOUR ECONOMICS	3-0-1-0	4
ECO-E-536	ELECTIVE	INDIAN PUBLIC FINANCE	3-0-1-0	4
ECO-E-538	ELECTIVE	MONETARY ECONOMICS	3-0-1-0	4
ECO-E-542	ELECTIVE	ECONOMICS OF SOCIAL SECTOR	3-0-1-0	4

Note:

- ❖ Core-Compulsory, Elective-Optional, L-Lecture, P-Practical, T-Tutorial, & D-Dissertation.
- ❖ The word “Prerequisite” means, the candidate should have passed in the specified prerequisite course(s) to register in that particular course(s). For example, if a student wants to register in ECO-E-506 in 3rd semester, he/she must have passed ECO-C-403 in 1st semester.
- ❖ Elective courses to the students of Department of Economics and to the students of other departments will be offered subject to the availability of faculty members in the department.
- ❖ Elective courses will be offered subject to minimum intake of five students for a particular course.
- ❖ Students can opt courses form online platform like SWAYAM/ e-PG Pathasala / NPTEL, etc as credit / audit courses during the 2nd and 3rd Semesters of MA in Economics programme. Depending upon the availability and relevance of such courses for the programme, the Department will advise the students to register for such courses. The students should register for such courses in the beginning of the semester. In lines with the UGC regulations, the total credits of MOOCs course should not exceed 20 percent of the total credits prescribed for the concerned programme.

SEMESTER-I
COURSE NAME: MICROECONOMICS-I
COURSE CODE: ECO-C-401

Nature of Course: Core

Prerequisite: None

MODULE-I: THEORY OF CONSUMPTION

Theory of Consumer Behaviour: Cardinal and Ordinal Approach, Consumer's equilibrium & Optimizations; Price, income and substitution effects; Revealed Preference Theory of Demand. Consumer Surplus: Marshall's and Hick's approach. Elasticity of Demand. Consumer's Choice under Risk and Uncertainty.

MODULE-II: THEORY OF PRODUCTION, COST AND REVENUE

Production Function: Short-run and long-run. Producer's equilibrium, Optimizing Behaviour and derivation of input demand functions; Elasticity of substitution, Linear Homogenous Production Function, Cobb-Douglas and CES production functions. Traditional Cost Theories, Envelope curve; Modern theory of Costs, Revenue and Cost relationship.

MODULE-III: PERFECT COMPETITION AND MONOPOLY MARKET

Perfect Competition: Equilibrium of the Firm and Industry. Monopoly: Price and Output Determination; Comparison between Monopoly equilibrium and Perfect Competition. Discriminating Monopoly: Price, Output and Equilibrium determination. Regulation of Monopoly: Taxation, and Price Regulation; Bilateral Monopoly and Monopsony.

MODULE-IV: MONOPOLISTIC COMPETITION AND OLIGOPOLY MARKET

Monopolistic Competition: Characteristics, Price and Output Determination. Critique of Chamberlin's Theory of Monopolistic Competition. Excess Capacity under Monopolistic Competition. Non-collusive Oligopoly: Cournot's model, Bertrand's model, Chamberlin's model, Stackelberg's model and Kinked demand Model of oligopoly.

BASIC READING LIST

1. Koutsoyiannis, A. (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London.
2. Varian, H. (2000) Microeconomic Analysis, W.W. Norton.
3. Pyndyck, R.S. & D.L. Rubinfeld (1999), Microeconomics, (3rd Edition) Prentice Hall of India.

ADDITIONAL READING LIST

1. Layard, P.R.G. and A.W. Walters (1979), Microeconomic Theory, McGraw Hill.
2. James M. Henderson and Richard E. Quandt, Microeconomic Theory- A Mathematical Approach, McGraw Hill Book Co.
3. Baumol, W. J. (1982), Economic Theory and Operations Analysis, Prentice Hall of India, Delhi.

4. Roychowdhury, K.C. (1980), Microeconomics, Tata McGraw Hill, New Delhi.
5. Hugh Gravelle, Ray Rees, Microeconomics, Pearson Education Ltd.
6. Jehle and Reny, Advanced Microeconomic Theory, Pearson India.
7. Kreps, David M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton.
8. Stigler, G. (1996), Theory of Price, (4th Edition), Prentice Hall of India, New Delhi.

COURSE NAME: MACROECONOMICS-I

COURSE CODE: ECO-C- 402

Nature of Course: Core

Pre-requisite: None

MODULE-I: NATIONAL INCOME

Circular Flow of Income in two, three and four-sector economy; Methods of National Income-Product, Income and Expenditure method; National income and economic welfare. Theory of Income and Employment-Classical theory of Income and Employment; Keynes theory of employment.

MODULE-II: CONSUMPTION AND INVESTMENT FUNCTION

Consumption function-MPC and APC, Keynes' psychological law of consumption, Short-run and Long-run, Consumption function; Theories of Consumption-Absolute Income, Relative Income, Life Cycle and Permanent Income Hypotheses. Investment-Meaning and types, Marginal Efficiency of Capital (MEC) theory; Marginal Efficiency of Investment (MEI) theory; Multiplier and Accelerator Theory.

MODULE-III: DEMAND FOR MONEY

Classical approach to demand for money, Neo-classical theory of demand for money, Keynes's liquidity preference approach- transaction, precautionary and speculative demand for money, Post-Keynesian approaches to demand for money —Approaches of Baumol, Tobin, Patinkin and Friedman.

MODULE-IV: DETERMINATION OF NATIONAL INCOME

Determination of national income in two sector basic model-Expenditure approach and investment-saving approach; Determination of national income in three sector model-with government expenditure, lump sum and proportional tax and transfer payment; Determination of national income in four sector model.

BASIC READING LIST

1. Mankiw, N. G, Macroeconomics, Worth Publishers, 7th edition, 2010
2. Dornbusch, R. and Stanley, F (1997), Macroeconomics, McGraw Hill, Inc., New York

ADDITIONAL READING LIST

1. Ackley, G. (1978), Macroeconomics: Theory and Policy, Macmillan, New York.

2. Blackhouse, R. and Salansi, A. (Eds.) (2000), Macroeconomics and the Real World (2 Vols.), Oxford University Press, London.
3. Branson, W. A. (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.
4. Heijdra, B. J. and V.P. Fredericck (2001), Foundations of Modern Macroeconomics, OxfordUniversity Press, New Delhi.
5. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
6. Romer, D. L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd., New York.
7. Scarfe, B. L. (1977), Cycles, Growth and Inflation, McGraw Hill, New York.
8. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
9. Surrey, M. J .C. (Ed.) (1976), Macroeconomic Themes, Oxford University Press, Oxford.

COURSE NAME: MATHEMATICS FOR ECONOMICS

COURSE CODE: ECO-C-403

Nature of Course: Core

Prerequisite: None

MODULE-I: INTRODUCTION TO MATHEMATICS

Introduction and importance of mathematics for economics, Review of the number system, theory of sets, relations and functions, solution of linear and quadratic equations, Limit and continuity.

MODULE-II: DIFFERENTIAL CALCULUS

Principles of differentiation, rules of differentiation, differentiation of implicit functions, Partial and total differentiation, application of optimization-- maxima and minima with and without constraints, Economic application of differentiation and partial differentiation.

MODULE-III: INTEGRAL CALCULUS

Concepts of integration, Principles of integration, Indefinite and definite integrals, Application of integrals in economics- Consumer surplus and producer surplus, Introduction to difference and differential equation.

MODULE-IV: MATRIX ALGEBRA AND BASIC OF LPP

Basic of matrix, Elementary operations, Rank of matrix, Crammer's rule and inverse matrix, the evaluation and properties of determinants, Introduction and concept and solution of Linear Programming Problem (LPP).

BASIC READING LIST

1. Chiang, A. C. (2005), Fundamental Methods of Mathematical Economics, McGraw Hill, ND.
2. Carl P Simun and Lawrence B. (2006), Mathematics for Economists, Viva Book PL.

3. Hoy, Livernois, Mckenna, Rees and Stengos (2004), Mathematics for Economics, Prentice Hall, ND.
4. Yamane, Taro (1975), Mathematics for Economists, PHI, New Delhi.

ADDITIONAL READING LIST

1. Allen, R.G.D. (1967), Mathematical Analysis for Economists, Macmillan.
2. Budnick, F.S. (1993), Applied Mathematics for Business, Economics and Social Sciences, McGraw Hill.
3. Dorfman, Samuelson and Solow (1958), Linear Programming and Economic Analysis, McGraw Hill,
4. Henderson (2003), Microeconomic Theory- A Mathematical Approach (3e), McGraw Hill.
5. Baumol, W.J. (1977), Economic Theory and Operations Analysis, Prentice Hall, ND.
6. Handry, A.T. (1999), Operation Research, Prentice Hall, ND.
7. Nicholson, R. H. (1986), Mathematics for Business and Economics, McGraw Hill, NY.
8. Samuelson, P. A. (2005), Micro Economics (18e), McGraw Hill, International Edition.

COURSE NAME: INDIAN ECONOMY-I COURSE CODE: ECO-C-404

Nature of Course: Core

Prerequisite: None

MODULE-I: DEVELOPMENT PHASES OF INDIAN ECONOMY

The colonial legacy, state of the economy at independence, policy of planned development, new economic policy, performance of the economy since 1991, major aspects of the Indian economy and recent developments. Understanding key sectors of Indian Economy: primary, secondary and tertiary sector – structural transformation since independence.

MODULE-II: AGRICULTURAL SECTOR OF INDIA

Review of agricultural growth, land reforms, agricultural productivity, green revolution, policy initiatives, diversification and exports, impact of liberalisation and WTO, issues in agricultural inputs, agrarian distress-agricultural subsidies. Need of second Green Revolution, Organic Farming, Agricultural price policy, Issues in food security and PDS, Sustainable agriculture.

MODULE-III: INDUSTRIAL SECTOR OF INDIA

Industrial growth and diversification, sources of Industrial finances, industrial price regulations, Indian industry since liberalisation, productivity growth and rise in competitiveness and exports, challenges of unorganized sector and MSME, rise of service industry and IT, policy regarding public enterprises, disinvestment and privatisation, impact of WTO and globalisation.

MODULE-IV: INFRASTRUCTURE AND SERVICE SECTORS OF INDIA

State of infrastructure: types, reforms, pricing and regulation; public-private partnerships and promoting foreign investment in infrastructure. Sectoral issues-energy, transport, telecom, urban infrastructure etc. The growth and dominance of service sector in India; role of the state and private sector; sub sectors growth and regional dimension.

BASIC READING LIST

1. Misra, S. K. and V. K. Puri, “Indian Economy — Its Development Experience”, Himalaya Publishing House, Mumbai.
2. Datt, R. and K. P. M. Sundharam , “Indian Economy”, S. Chand & Company Ltd., New Delhi.
3. Kapila U, “Indian economy since independence”, Academic foundation, New Delhi.

ADDITIONAL READING LIST

1. Ahluwalia, I. J. and I.M.D. Little (Eds.) (1999), India’s Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
2. Datt, R. (Ed.) (2001), Second Generation Economic Reforms in India, Deep and Deep Publications, New Delhi.
3. Government of India, Economic Survey (Annual), Economic Division, Ministry of Finance, New Delhi.
4. Reserve Bank of India Bulletin and Various Reports.
5. Basu, Kaushik India's Emerging Economy: Performance and Prospects in the 1990s and Beyond, The MIT Press, 2004.
6. Drèze, Jean and Sen, Amartya (2002), India: Development and Participation, Oxford University Press.
7. India Development Report, Oxford University Press, Various Issues.
8. Bhagwati and Desai: India Planning for Industrialization, Oxford University Press.
9. Bimal Jalan: India’s Economic Crisis – The Way Ahead, Oxford University Press.
10. Sukhomoy Chakraborty: Development Planning – The Indian Experience, Oxford University Press.
11. Raja J. Chelliah: Towards Sustainable Development – Essays in Fiscal and Financial Sector Reforms in India, Oxford University Press.

COURSE NAME: PUBLIC ECONOMICS

COURSE CODE: ECO-C-405

Nature of Course: Core

Prerequisite: None

MODULE-I: ROLE OF GOVERNMENT AND PUBLIC GOODS

Role and function of state, rationale for government intervention, government in a mixed economy, market vs. government, public goods and externalities, private goods, club goods, and merit goods; market failure and its causes, problems for allocating resources, principle of maximum social advantage, theory of public good, free rider problem.

MODULE-II: THEORY OF TAXATION

Direct and indirect taxes: types and reforms, Indian tax system, GST, efficiency and equity, dead weight loss, effect of taxation, Theories of taxation-ability and benefit principles of taxation, taxable capacity, tax incidence and shifting, characteristics of good tax system; non- tax revenue, tax evasion and the black economy, taxation and monopoly.

MODULE-III: PUBLIC DEBT AND PUBLIC EXPENDITURE

Sources of public borrowing, effects of public debt, tax vs. debt, burden of public debt, public borrowing and price level; methods of debt redemption, issues in public debt management, crowding out of private investment. Causes of rising public expenditure, theories of public expenditure; effects of public expenditure, need and impact of deficit financing.

MODULE-IV: BUDGETARY POLICY AND FISCAL FEDERALISM

Budget as an instrument of economic policy; types of budget; objectives of fiscal policy, interdependence of fiscal and monetary policies; budgetary deficits and its implications. Theory of fiscal federalism; equity and efficiency, issues related to subsidy, fiscal federalism in India; rationale for decentralization, centre-state financial relations.

BASIC READING LIST

1. Hindriks, Jean and Gareth D. Myles, Intermediate Public Economics, Prentice Hall of India.
2. Musgrave, R. A. and P. B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
3. Jha. R. (1998), Modern Public Economics, Routledge, London.

ADDITIONAL READING LIST

1. Musgrave, R.A. (1959), the Theory of Public Finance, McGraw Hill, Kogakusha, Tokyo.
2. T. N. Hajela (2009), Public Finance, ANE Books Pvt. Ltd, New Delhi.
3. Atkinson, A. B. and J. E. Siglitz (1980), Lectures on Public Economics, Tata McGrawHill, N.Y.
4. Auerbach, A. J. and M. Feldstern (Eds.) (1985), Handbook of Public Economics, Vol. I, North Holland, Amsterdam.

SEMESTER-II
COURSE NAME: MICROECONOMICS-II
COURSE CODE: ECO-C-406

Nature of Course: Core

Prerequisite: None

MODULE-I: OLIGOPOLY MARKET

Non-Collusive Oligopoly: Introduction to game theory in decision making. Collusive Oligopoly: Cartels-Price and Non-Price Competition; Price leadership: Low cost, Dominant firm and Barometric price Leaderships.

MODULE-II: ALTERNATIVE THEORIES OF THE FIRM

Critical evaluation of marginal Analysis: Baumol's sales Revenue maximization, Williamson's model of managerial discretion, Marris model of managerial enterprise.

MODULE-III: FACTOR PRICING AND INCOME DISTRIBUTION

Factor Pricing under Perfect and Imperfectly Competitive Markets; Elasticity of factor Substitution; Technological Progress and Income Distribution; Pricing of fixed factors: Rents and Quasi Rents; Adding up Problem and Product Exhaustion Theorem.

MODULE-IV: GENERAL EQUILIBRIUM AND WELFARE ECONOMICS

Partial and General Equilibrium: Interdependency, General Equilibrium of consumption, production and exchange; Existence, Uniqueness and Stability of an equilibrium and path to general equilibrium. Social welfare function; Pareto optimal conditions; Compensation principle; market failure, externalities, decreasing costs, uncertainty and non-existent and incomplete markets; Arrow's impossibility theorem, Theory of second best.

BASIC READING LIST

1. Jehle and Reny, Advanced Microeconomic Theory, Pearson India.
2. Pyndyck, R.S. & D.L. Rubinfeld (1999), Microeconomics, (3rd Edition) Pentice Hall of India.
3. Weintrub, E. R. (1974), General Equilibrium Theory, Macmillan, London.

ADDITIONAL READING LIST

1. Sen, A.K. (1970), Collective Choice and Social Welfare, Holden Day Inc. San Fransico.
2. Layard, P.R.G. and A.W. Walters (1979), Microeconomic Theory, McGraw Hill.
3. James M. Henderson and Richard E. Quandt, Microeconomic Theory- A Mathematical Approach, McGraw Hill Book Co.
4. Baumol, W. J. (1982), Economic Theory and Operations Analysis, Prentice Hall of India, Delhi.
5. Roychowdhury, K.C. (1980), Microeconomics, Tata McGraw Hill, New Delhi.
6. Hugh Gravelle, Ray Rees, Microeconomics, Pearson Education Ltd.
7. Kreps, David M. (1990), A Course in Microeconomic Theory, Princeton University

Press, Princeton.

8. Walter Nicholson, Christopher M. Snyder, Microeconomic Theory: Basic Principles and Extensions, Cengage Learning.
9. Varian, H. (2000) Microeconomic Analysis, W.W. Norton.
10. Koutsoyiannis, A. (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London.
11. Stigler, G. (1996), Theory of Price, (4th Edition), Prentice Hall of India, New Delhi.

COURSE NAME: MACROECONOMICS-II

COURSE CODE-ECO-C-407

Nature of Course: Core

Pre-requisite: None

MODULE-I: SUPPLY OF MONEY

Concept of money supply; mechanistic model of money supply; behavioral model of money supply determination, RBI approach to money supply; money supply determination in an open economy; control of money supply.

MODULE-II: NEO-CLASSICAL AND KEYNESIAN SYNTHESIS

Neo-classical and Keynesian views on interest; The IS-LM model; Extension of IS-LM model with government sector; IS-LM in open economy; Relative effectiveness of monetary and fiscal policies.

MODULE-III: MACROECONOMICS IN AN OPEN ECONOMY AND NEW CLASSICAL MACROECONOMICS

Mundell-Fleming model; Asset markets, expectations and exchange rates; monetary approach to balance of payments; The new classical critique of micro foundations, the new classical approach; Policy implications of new classical approach.

MODULE-IV: THEORY OF INFLATION AND BUSINESS CYCLES

Classical, Keynesian, Monetarist and Modern approaches to inflation; Structuralist theory of inflation; Philips curve analysis- Short run and Long run Philips curve; Policies to control inflation; Business cycle- meaning and features; Theories of Business cycle- Hawtrey, Keynes, Samuelson, Kaldor, Hicks, Goodwin's model.

BASIC READING LIST

1. Mankiw, N. G, Macroeconomics, Worth Publishers, 7th edition, 2010
2. Dornbusch, R. and F. Stanley (1997), Macroeconomics, McGraw Hill, Inc., New York
3. Levacic, R and Rebmann, A "Macro Economics- An introduction to Keynesian –neo-classical controversies", second edition, Macmillan, London.

ADDITIONAL READING LIST

1. Ackley, G (1978), Macroeconomics : Theory and Policy, Macmillan, New York

2. Branson, W.A. (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.
3. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W. Norton, New York
4. Heijdra, B.J. and V.P. Fredericck (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi
5. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi
6. Romer, D.L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd., New York. Scarfe, B.L. (1977), Cycles, Growth and Inflation, McGraw Hill, New York
7. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.

COURSE NAME: STATISTICS FOR ECONOMICS

COURSE CODE: ECO-C-408

Nature of Course: Core

Prerequisite: None

MODULE-I: CORRELATION AND REGRESSION

Descriptive Statistics- Basics concepts of correlation, Spearman's rank correlations coefficients and their properties, Concept of the regression and the lines of regression and solution.

MODULE-II: PROBABILITY THEORY AND RANDOM VARIABLE

Random Variable, Probability theory: Binomial, Poisson and Normal probability distributions and their properties, Deterministic and non-deterministic experiments; Laws of addition and multiplication; Theorem of probability- Conditional probability and concept of interdependence; Baye's theorem and its applications, mass and density functions; Expectations, movements and movement generating functions.

MODULE-III: INDEX NUMBER AND TIME SERIES

Introduction, Use, Methods, Consumer Price Index, other related index number and use in economics, Time Series: Component and Measurement, problem and solution, practical of time series and its application in economics.

MODULE-IV: SAMPLING AND ESTIMATION

Basic concept of sampling – random and non-random sampling, Simple random, Stratified random and concept of an estimator and its sampling distribution, Desirable properties of an estimator, Formulation of statistical hypothesis – Null and alternative hypothesis; Goodness of fit, Confidence intervals and level of significance, Hypothesis testing, Type 1 and Type 2 errors.

BASIC READING LIST

1. Gupta S C (1981), Fundamentals of Statistics, Himalaya Pub House.
2. Gupta S C and V K Kapur (1970), Mathematical Statistics Sultan Chand and Sons.
3. Gupta, S P (1978), Statistical Methods, Sultan Chand and Sons, Delhi.

4. Yamane, Taro (1975), Mathematics for Economists, PHI, New Delhi.

ADDITIONAL READING LIST

1. Fleming Michael C. and Joseph G. Nellis (1996), The Essence of Statistics for Business 2e Prentice Hall, Hemel Hempstead.
2. Neil Weiss (1993), Elementary Statistics 2e, Addison Wesley, Reading, MA.
3. Das N G (2008), Statistical Methods, Tata Mc-Graw Hill.
4. Gupta C B (1957), An Introduction to Statistical Methods, Vikas Publishing House, Delhi.
5. Monga G S (2010), Mathematics and Statistics for Economists.,Vikas Publication House Pvt Ltd.
6. Mood, A.M. and F.A. Graybill(1974) , Introduction to the Theory of Statistics Tata Mc-Graw Hill.
7. Murray R. Spiegel (1992). Theory and Problem of Statistics, Schaum's Outline Series, Metric edition.

COURSE NAME: INDIAN ECONOMY-II

COURSE CODE: ECO-C-409

Nature of Course: Core

Prerequisite: None

MODULE-I: EXTERNAL SECTOR OF INDIA

External sector, Fiscal and Monetary sectors: Balance of payments-trend and composition; currency convertibility and exchange rate movements; EXIM policy related issues; Structure and direction of foreign trade; recent foreign trade policy; Foreign exchange management: FERA and FEMA; Foreign capital and MNCs in India; WTO and its impact on Indian Economy.

MODULE-II: POPULATION AND DEVELOPMENT IN INDIA

Population and Development-population growth -Components of population growth and their inter dependence; Theory of demographic transition and its applicability in Indian context; Malthus, post Malthus theories, Measures of population-sources of population data, Census, Population policy in India, Culture and fertility; Education and fertility; Demographic Dividend; Demographic trends and issues; Rural-urban migration, education, health, and malnutrition.

MODULE-III: HUMAN AND SOCIAL DEVELOPMENT IN INDIA

Human development indicators: PQLI, HDI and Gender Development Indices. review of change since early fifties - wide regional variations – measurement of poverty and inequality- extent of reduction in poverty- health services, health policy; education policy; financing of health and education; – employment and unemployment trends; employment guarantee scheme – environmental protection, Sustainable Development Goals.

MODULE-IV: CONTEMPORARY DEVELOPMENT CHALLENGES

Need for pushing reforms in fiscal and monetary front, Tax reforms and measures; pension reforms, Trade liberalization and economic cooperation, Reviving agricultural and economic growth, public sector reforms, Sustainable development challenges, labour laws and labour markets, and infrastructure needs. Rationale for reforms and LPG policy; recent economic development: World and India.

BASIC READING LIST

4. Misra, S. K. and V. K. Puri, "Indian Economy — Its Development Experience", Himalaya Publishing House, Mumbai.
5. Datt, R. and K. P. M. Sundharam, "Indian Economy", S. Chand & Company Ltd., New Delhi.
6. Kapila U, "Indian economy since independence", Academic foundation, New Delhi.

ADDITIONAL READING LIST

12. Ahluwalia, I. J. and I.M.D. Little (Eds.) (1999), India's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
13. Datt, R. (Ed.) (2001), Second Generation Economic Reforms in India, Deep and Deep Publications, New Delhi.
14. Government of India, Economic Survey (Annual), Economic Division, Ministry of Finance, New Delhi.
15. Reserve Bank of India Bulletin and Various Reports.
16. Basu, Kaushik India's Emerging Economy: Performance and Prospects in the 1990s and Beyond, The MIT Press, 2004.
17. Drèze, Jean and Sen, Amartya (2002), India: Development and Participation, Oxford University Press.
18. India Development Report, Oxford University Press, Various Issues.
19. Bhagwati and Desai: India Planning for Industrialization, Oxford University Press.
20. Bimal Jalan: India's Economic Crisis – The Way Ahead, Oxford University Press.
21. Sukhomoy Chakraborty: Development Planning – The Indian Experience, Oxford University Press.
22. Raja J. Chelliah: Towards Sustainable Development – Essays in Fiscal and Financial Sector Reforms in India, Oxford University Press.

COURSE NAME: INTERNATIONAL TRADE

COURSE CODE: ECO-C-410

Nature of Course: Core

Prerequisite: None

MODULE-I: THE PURE THEORY OF INTERNATIONAL TRADE

Introduction to the international economics; Trade based on absolute advantage and comparative advantage; Trade based on opportunity costs: constant, increasing and

decreasing opportunity cost; Heckscher – Ohlin model; Theorem of factor price equalization; Leontief paradox; Standard trade model- Demand and Supply; Offer curves.

MODULE-II: NEW THEORIES OF INTERNATIONAL TRADE AND DYNAMIC FACTORS

New Theories: Economies of scale, Imperfect competition-trade based on product differentiation and intra-industry trade, dynamic technological differences-product cycle model. Economic growth and international trade: Growth of factors of production- Rybczynski theorem, Technical progress, Growth and trade-small country and large country; Immiserizing growth; Trade and changes in taste.

MODULE-III: THEORY OF INTERVENTIONS AND ECONOMIC INTEGRATION

Theory of intervention: Free trade and protection; Trade restriction-Tariffs (Partial and general equilibrium analysis), Stolper-Samuelson theorem; optimum tariff. Non-tariff barriers: Quotas, Voluntary export restraints, international cartels, dumping, export subsidies. Economic Integration: meaning and various forms; Custom Union-Trade Creation and Trade Diversion; Static and dynamic benefit from Custom unions.

MODULE-IV: TRADE POLICIES IN INDIA

Trade policies in India during the last five decades; Changes in the direction and composition of trade and their implication; Rationale and impact of trade reforms since 1991 on balance of payments, employment and growth; Instruments of export promotion; Recent Foreign Trade policies.

BASIC READING LIST

1. Salvatore D (1998), International Economics, Prentice Hall.
2. Sodersten, Bo (1991). International Economics, The Macmillan Press.
3. Paul, R. K & Obstfeld, M (1999), International Economics: Theory and Policy, Addison-Wesley.

ADDITIONAL READING LIST

1. Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge, University Press Massachusetts.
2. Chacholiades, M (1990), The Pure Theory of International Trade, McGraw Hill.
3. Cherunilam F, International Economics, Fifth Edition, the Tata McGraw-Hill Companies, 2011.
4. Dunn, R.M. and.Mutti, J.H (2000), International Economics, Routledge Publishers, London.
5. Kindleberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
6. King, P.G. (1995), International Economics and International Economic Policy: A Reader, McGraw Hill International, Singapore.

SEMESTER-III

COURSE NAME: ECONOMICS OF GROWTH AND DEVELOPMENT

COURSE CODE: ECO-C-501

Nature of Course: Core

Prerequisite: None

MODULE-I: THEORIES OF DEVELOPMENT

Classical theory of development-contributions of Adam Smith, Ricardo, Malthus and Karl Marx. Schumpeter's theory of development.

MODULE-II: DEVELOPMENT STRATEGIES AND RECENT ISSUE

Big-Push Strategy, Balanced Growth vs Unbalanced Growth; Low level Equilibrium trap and critical minimum effort theory, recent issue in development and growth economics and India, Dualism theory.

MODULE-III: THEORIES OF GROWTH-I

Growth models; Harrod-Domar model; Neo-classical growth models- Solow model; Joan Robinson's growth model, Kaldor and Pasinetti.

MODULE-IV: THEORIES OF GROWTH-II

The Golden Rule of Accumulation. Technological progress – Embodied and Disembodied, The New Endogenous Growth Theory, AK model, Ramsey mode, and recent issue in growth economics.

BASIC READING LIST

1. Meier, G. M. (1995), Leading Issues in Economics Development, (6th Edition), Oxford University Press, Delhi.
2. Todaro, M.P. (1996), (6th Edition), Economic Development, Longman, London.
3. Thirlwal, A.P. (1999), (6th Edition). Growth and Development, Macmillan, U.K.

ADDITIONAL READING LIST

1. Sen, A. K. (Ed.), (1990), Growth Economics, Penguin, Harmondsworth.
2. Myrdal, G. (1957), Economic Theory and Underdeveloped Regions, Duckworth, London.
3. Schumpeter, J. A. (1949), The Theory of Economic Development, Harvard University Press Cambridge.
4. Barro, R. J. & Sala – I – Martin, X, (2004), Economic Growth, PHI, New Delhi.
5. Vanden – Burg, H (2001) Economic Growth and Development, Mc Graw Hill, New York.
6. Ray Debraj (1998), Development Economics, Princeton University Press.
7. Jones, H. G. (1984), Economic Growth, V.N. Reinhold Company, Ltd. England.

COURSE NAME: BASIC ECONOMETRICS

COURSE CODE: ECO-C-502

Nature of Course: Core

Prerequisite: None

MODULE-I: ECONOMETRICS: INTRODUCTION, SIMPLE AND MULTIPLE REGRESSION MODEL

Econometrics: Meaning, Concepts, Functions, Parameter and Constant; Sample and Population regression line; Simple and two variable Linear Regression Model: CLRM and its assumptions, OLS method of estimation, properties of estimators and, Gauss Markov Theorem – BLUE. Estimation and Testing of hypothesis: t-statistics and F-statistics; Multiple Linear Regression Model; Coefficient of Determination and Goodness of fit: R-square and Adjusted R-square.

MODULE-II: RELAXING THE ASSUMPTIONS OF CLRM

Multicollinearity: Meaning, nature, causes, consequences and remedial measures; Heteroscedasticity: Meaning, nature, causes, consequences and remedial measures (Methods of weighted least square and generalised least square regression); Autocorrelation: Meaning, nature, causes, consequences and remedial measures; Econometric Modelling: Model Specification and Diagnostic Testing.

MODULE-III: EXTENSION OF REGRESSION MODELS AND DUMMY VARIABLE REGRESSION MODEL

Extension of regression models: regression through origin, Scaling and units of measurement, and functional forms in regression models: log-linear, and semi-log models; Dummy variable models: Dummy variable trap, Analysis of ANOVA and ANCOVA, Seasonal analysis, and checking for structural Breaks.

MODULE-IV: BASICS OF TIME SERIES AND DYNAMICS MODELS

Time series basic concepts: Stochastic Process (stationary and non-stationary process); Unit root process; Integrated Stochastic Process. Test of Stationarity: Graphical Analysis and Unit root tests (Dickey-Fuller (DF) test; Augmented Dickey-Fuller (ADF) test; Phillips-Perron (PP) tests; Difference stationary and trend stationary process; Seasonality analysis. Dynamic Econometrics Models: Autoregressive and Distributed lag models.

BASIC READING LIST

1. Gujarati, Damodar N. (2004), Basic Econometrics, 4th Edition, TATA McGraw Hill Publishing.
2. Wooldridge, Jeffrey M. (2007), Introductory Econometrics: A Modern Approach, Third edition, Thomson South-Western.

ADDITIONAL READING LIST

1. Johnstone, J., Econometrics Methods, 3rd Edition, McGraw Hill, New York, 1994.

2. Ramanathan, R, (2002) Introductory Econometrics with Applications, Harcourt Academic Press.
3. Koutsoyiannis, A. The Theory of Econometrics, 2nd Edition, ESLB.
4. Greene, W.H. (2000), Econometric Analysis, 4th edition, Prantice Hall.
5. Pindyck, R S. and Daniel L. R. (1976), Econometric Models and Economic Forecasts, International Student edition, McGraw-Hill.
6. Cheng, Hsian (1986) Analysis of Panel Data, Cambridge University Press.
7. Cryer JD and Chan KS (2008), Time Series Analysis with Applications in R, 2nd edition. Springer-Verlag, NY.
8. Brooks, C. (2014). Introductory econometrics for finance. Cambridge university press.
9. Baltagi, B. (2008). Econometric analysis of panel data. John Wiley & Sons.
10. Gujarati, D. (2014). Econometrics by example. Palgrave Macmillan.
11. Gujarati, D. N., & Porter, D. (2009). Basic Econometrics Mc Graw-Hill International Edition.
12. Nachane, D. M. (2006). Econometrics: theoretical foundations and empirical perspectives. OUP Catalogue.
13. Enders, W. (2008). Applied econometric time series. John Wiley & Sons.

COURSE NAME: FUNDAMENTALS OF RESEARCH METHODOLOGY
COURSE CODE: ECO-C-503

Nature of Course: Core

Prerequisite: None

MODULE-I: INTRODUCTION TO RESEARCH

Research-Meaning and objectives of research, types of research, need and significance of research; Research Methods versus Methodology, Research process, Criteria of good research, problems encountered by researchers in India; Formulating Research problem, Research design- meaning and need, features of a good design, different research designs. Review of literature- need and sources; Preparation of a research proposal.

MODULE-II: SAMPLING DESIGN, SCALING AND COLLECTION OF DATA

Sampling design-methods and sample size; types of sampling design; Measurement and Scaling- Quantitative and Qualitative data, Measurement scales, goodness of measurement scale; scaling techniques; Collection of data-Primary and secondary data, Methods of collection of Primary Data, Advantages and disadvantages of primary data; Secondary data-Sources, advantages and limitations of secondary data.

MODULE-III: DATA PREPARATION AND ANALYSIS AND TESTING

Preparation of Data-Editing, Coding, Classification, Tabulation, Graphical Representation; Data analysis-Descriptive statistics and Statistical inference; Testing of Hypothesis-importance and definition of Hypothesis, Formulation- Null and Alternative Hypothesis, Types of errors in testing of Hypothesis, Testing of Hypothesis and level of significance-z-test, f-test and t-test, chi-square test.

MODULE-IV: RESEARCH ETHICS AND REPORT WRITING

Ethics and Plagiarism in Research; Report Writing- Significance and Steps,Precautions for writing Research report; Foot note and end note; Bibliography and References-Style (APA, MLA, Chicago and Harvard);Steps for writing dissertation, an article for conference/seminar and publication in a journal.

BASIC READING LIST

1. Kothari, C. R. (2004), Research Methodology: Methods and Techniques, New Age International Private Limited Publishers, New Delhi
2. Guthrie, G. (2010), Basic Research Methods: An entry to social science research, Sage, UK

ADDITIONAL READING LIST

1. Cohen, M.R. and Nagal Introduction to Logic and Scientific methods Book-II.
2. Bernard, H. R. (2010), Analysis of Qualitative Data, Sage, UK.
3. Research Methodology in Social Sciences: A practical Guide, Abhijit Publications, Delhi.
4. Bryman, Alan (2004), Social Research Methods, Oxford University Press, Oxford, 2nd edition.
5. Somekh, B and C Lewin (2005), Research Methods in Soc. Sciences, Vistaar Publications, Delhi.
6. Fink, Arlene & J kosecoff (1998), How to Conduct Surveys A step by step Guide, Sage, UK.

COURSE NAME: ENVIRONMENTAL ECONOMICS

COURSE CODE: ECO-E-504

Nature of Course: Elective

Prerequisite: None

MODULE-I: ENVIRONMENT AND DEVELOPMENT

Historical Development of Environment Economics-Early Economic Paradigms and the environment, Post-war Economics and the rise of environmentalism; Interaction between Ecological and Economic Systems; Sustainable development- Concept, Definitions and indicators, Sustainable Accounting; Environment, Economic Development and Poverty Nexus; Environment Kuznets Curve.

MODULE-II: ENVIRONMENTAL VALUATION

Environmental valuation-Meaning and uses, willingness to pay and willingness to accept; Total economic value-Actual value, Option value, Existence value; Total economic value and decision making; Valuation methodologies- Hedonic price approach, Travel cost approach, Contingent valuation method.

MODULE-III: THE ECONOMICS OF POLLUTION-I

The optimal level of pollution- Pollution as externality, optimal externality, alternative definition of pollution; The market achievement and optimal pollution- Property rights,

Potential for market bargain in externality: Coase theorem; Taxation and Optimal Pollution- The optimal pigovian tax, Pollution charges and Property Rights, Pollution charges and Abatement costs.

MODULE-IV: THE ECONOMICS OF POLLUTION-II

Inefficiency of Standard Setting, Taxes Versus Standards, Pollution reduction subsidies; Marketable pollution permits- The theory of marketable permits, The advantages of marketable permits, types of permit system.

BASIC READING LIST

1. Pearce D.W. and R. Turner (1991) Economics of Natural Resource Use and Environment, John Hopkins University Press, Baltimore
2. Bhattacharya, R N (latest edition), Environmental Economics: An Indian Perspective (E), Oxford University Press, New Delhi,2011

ADDITIONAL READING LIST

1. Baumol, W.J. and W.E. Oates (1988) The Theory of Environmental Policy (2nd Edition) Cambridge University Press, Cambridge.
2. Kolstad, C.D. (1999) Environmental Economics, Oxford University Press, New Delhi.
3. Dasgupta, P (2001), Human well-being and natural environment, Oxford University Press
4. Fisher, A, C. (1981) Resource and Environmental Economics, Cambridge University Press.
5. Murty. M.N, Environment, Sustainable Development and Well-being, Oxford University Press, New Delhi.
6. Nick Hanley, Jason F. Shogren and Ben White, Environmental Economics- In Theory and Practice, MacMillan Press Ltd. Hampshire.
7. Tietenberg, T. (1994) Environmental Economics Policy and Harper Collins New York.

COURSE NAME: ENERGY ECONOMICS

COURSE CODE: ECO-E-505

Nature of Course: Elective

Prerequisite: None

MODULE-I: INTRODUCTION TO ENERGY ECONOMICS

Natural Resources - classification - importance - Role of Natural Resources in Economic Development - Energy Resources - Types and classification - Properties of Energy - Forms of Energy - Emergence of Energy Economics - Its nature and scope - Energy indicators - Energy Economics relation with other branches.

MODULE-II: ENERGY AND DEVELOPMENT

Role of Energy in Economic Development - Energy Intensity and Energy Elasticity - National and International comparison - Low, Middle and High Income Economies - Role of International Institutions - OPEC, OAPEC, IEA, and World Bank.

MODULE-III: ENERGY CONSERVATION AND ENVIRONMENT

Energy Planning and Energy Conservation: Energy Management - Recent Developments - Energy Auditing - Energy Accounting - Energy Pricing and Taxes - Role of Economists in Promoting Sustainable, Energy Management. Energy Crisis - causes, consequences - Remedial measures - Environmental Crisis - causes, consequences, remedial measures - Impact of Energy Consumption and Production on Environment with illustrations - Role of Energy and Environmental Economists in solving Energy and Environmental Crisis.

MODULE-IV: INDIA'S ENERGY PROFILE

Indian Energy Sector - Organizational Structure - Energy Supply (Coal, Lignite, Oil, Gas and Powers - Hydro, Nuclear, Thermal) - Energy Demand (Agriculture, Industry, Transport, Domestic, etc) - Renewable Energy Sources and Technology (Solar, Wind, Biogas, Biomass, Geothermal, OTEC, Tidal, Wave Hydrogen, Fuel Cell, Bio-diesel) - Renewable Energy Programs -Energy under Five Year Plans - Energy Issues and Policy Options for India.

READING LIST

1. Agarwal, M.C. and Monga, J.R. - Economic and Commercial Geography, (National Publishing House, New Delhi, 1992).
2. Common, M. - Environmental and Resource Economics (Longman, London, 1996)
3. Hemalatha Rao - Rural Energy Crises: A Diagnostic Analysis (Ashish Publishing House, New Delhi, 1990).
4. Kneese. A.V and Sweeny, J.L, Handbook of Natural Resource and Energy Economics (North Holland, 1993).
5. Muna singhe, M and Meier, P - Energy Policy and Modeling (Cambridge University Press, UK, 1993).
6. Paul Stevens (Ed) - The Economics of Energy, Vol. I and II (Edward Elgar 2000).
7. Raikhy, P. S. and Parminder Singh., Energy Consumption in India - pattern and Determinants (Deep and Deep, New Delhi, 1990).
8. Sankar U, Public Sector Pricing: Theory and Applications (IEA Trust for Research and Development, 1992).
9. TERI - Teri Energy Data Directory and Year Book 2005-06 (The Energy Research Institute, 2005).
10. William Burch (Ed.) - Readings in Ecology, Energy and Human Society: Contemporary Perspectives (Harper and Row, New York, 1997).

COURSE NAME: MATHEMATICAL ECONOMICS

COURSE CODE: ECO-E-506

Nature of Course: Elective

Prerequisite: ECO-C-403

MODULE-I DIFFERENTIAL CALCULUS

Consumer surplus and producer surplus, Duality in consumer and producer's Equilibrium, Slutsky Equation. Homogenous functions and Euler's theorem, Cobb-Douglas production function. CES production function.

MODULE-II: LINEAR PROGRAMMING

Concepts and Formulation of Linear Programming Problems. Graphical Solution and the Simplex Algorithm. Linear Programming with many solutions with graphical explanation, Duality in linear programming.

MODULE-III: INPUT-OUTPUT ANALYSIS

Static and dynamic Input-Output Analysis, Open and closed models, Hawkin and Simon Condition.

MODULE-IV: GAME THEORY

Game theory - Concept of Game, Types of Game, Two-persons-zero sum game, Nash Equilibrium, Prisoner's dilemma. Maxmin - minmax principle, Saddle point solution, Dominant Strategy, Mixed Strategies.

BASIC READING LIST

1. Chiang, A.C. (2005), Fundamental Methods of Mathematical Economics, McGraw Hill, ND.
2. Carl P Simun and Lawrence Blume (2006), Mathematics for Economists, Viva Book PL.
3. Hoy, Livernois, McKenna, Rees and Stengos (2004), Mathematics for Economics, Prentice Hall, ND.

ADDITIONAL READING LIST

1. Allen, R.G.D. (1967), Mathematical Analysis for Economists, Macmillan.
2. Budnick, F.S. (1993), Applied Mathematics for Business, Economics and Social Sciences, McGraw Hill.
3. Dorfman, Samuelson and Solow (1958), Linear Programming and Economic Analysis, McGraw Hill.
4. Henderson (2003), Microeconomic Theory- A Mathematical Approach (3e), McGraw Hill.
5. Baumol, W.J. (1977), Economic Theory and Operations Analysis, Prentice Hall, ND.
6. Handry, A.T. (1999), Operation Research, Prentice Hall, ND.
7. Nicholson, R.H. (1986), Mathematics for Business and Economics, McGraw Hill, NY.
8. Samuelson, P.A. (2005), Micro Economics (18e), McGraw Hill, International Edition.

COURSE NAME: WELFARE ECONOMICS

COURSE CODE: ECO-E-507

Nature of Course: Elective

Prerequisite: None

MODULE-I: PRE-PARETIAN WELFARE ECONOMICS

Benthamite Approach to Aggregate Welfare; Optimum Resource Allocation and Welfare maximization, Assumption of Uniform Income-Utility Function of Individuals: Question of Income Distribution; issue of Interpersonal comparisons of Utility.

MODULE-II: PARETIAN WELFARE ECONOMICS-I

Marshallian Welfare Economics; Consumer's Surplus : Measurement of Consumer's Surplus-difficulties involved, Criticism; Principle of Compensating variation; Hicks's Four consumers surpluses; concept of Consumer's Surplus; Consumer's Surplus and Tax Bounty Analysis.

MODULE-III: PARETIAN WELFARE ECONOMICS-II

Pareto Optimality exchange conditions, the production optimum, the consumption optimum, Concept of Contract curve; Top level optimum; Infinite number of non-comparable optima Vs unique social optimum.

MODULE-IV: SOCIAL WELFARE FUNCTION

Compensation criteria-Contributions of Barone, Kaldor and Hicks. The Scitovsky double criterion, Concept of Commodity indifference map, Samuelson's utility possibility curve; value judgements and welfare economics-, Bergson's social welfare function Arrow's possibility theorem, Recent Developments in welfare Economics.

READING LIST

1. Arrow, K. J. (1951), Social Choice and Individual Values, Yale University Press, New Haven.
2. Baumol, W.J. (Ed) (2001) Welfare Economics, Edward Elgar Publishing Ltd., UK.
3. Broadway, R.W and N.Bruce (1984), Welfare Economics, Basil Blackwell, Oxford.
4. Duesenberry J.S. (1949), Income, Saving and the Theory of Consumer Behavior, Harvard University Press, Cambridge, Mass.
5. Feldman, A.M. (1980), Welfare Economics and Social Choice Theory, Martinus Nijhoff, Boston.
6. Little, I. M. D. (1939) A Critique of Welfare Economics (2nd Edition), Oxford University Press, Oxford.
7. Marshall, A. (1946), Principles of Economics, Macmillan, London.
8. Myint, H. (1948), Theories of Welfare Economics, Longmans, London Ng. Y. K. (1979), Welfare Economics, Macmillan, London.
9. Pigou A.C. (1962), The Economics of Welfare (4th Edition), Macmillan.
10. Quirk, J. and R. Saposnik (1968), Introduction to General Equilibrium Theory and Welfare Economics, McGraw Hill, New York.

COURSE NAME: FINANCIAL INSTITUTIONS AND MARKETS

COURSE CODE: ECO-E-508

Nature of Course: Elective

Prerequisite: None

MODULE-I: FINANCIAL SYSTEM

The structure of the financial systems-Functions of the financial sector. Financial System and Economic Development-Indicators of Financial Development. Risk and financial assets, return on assets, portfolio management, types of risk, risk-return trade off.

MODULE-II: BANKING INSTITUTIONS & NBFIS

Commercial Banks, Profitability and efficiency of Banks, Development Banks-Role and functions, Investment banking, Merchant banking, Types of NBFIs, Growth and impact of NBFIs, Mutual Funds, Insurance Companies, Provident Funds and Pension Funds. Co-operative Banks, Modern Banking in India.

MODULE-III: REGULATORY AND PROMOTIONAL INSTITUTIONS

Role, Functions and Monetary Policy of the RBI, Techniques of Monetary Control, Recent Policy Developments, The Securities and Exchange Board of India; objectives, functions, and performance, IRDA and its role in financial markets, Financial Sector reforms in India.

MODULE-IV: MONEY AND CAPITAL MARKETS

Role and structure of money market and capital market – features of a developed money market, call money market. Treasury bill market, commercial bill market, Government securities market. Various types of bonds market. International financial market and foreign exchange market. Equity market, IPO, Understanding Stock markets.

BASIC READING LIST

1. Bhole, L. M. (1999), Financial Institutions and Markets; Tata McGraw Hill Company Ltd., New Delhi.
2. Gorden & Natrajan (2015), Financial Market and Institutions, Himalaya Publishing House.
3. Khan, M.Y. (1996), Indian Financial system, Tata McGraw Hill, New Delhi.

ADDITIONAL READING LIST

1. Bhol, L.M. (2000), Indian financial Systems, Chugh Publications, Allahabad.
2. Edminister, R. O. (1986), Financial Institutions, Markets and Managements, McGraw Hill, New York.
3. Chandra, P. (2017), Financial Management: Theory and Practice, (9th Edition), Tata Mcgraw Hill, New Delhi.
4. Goldmith, R.W. (1969), Financial Structure and Development, Yale, London.
5. Hanson, J.A. and S.Kathuria (Eds) (1999), India: A financial Sector for the Twenty-First Century, Oxford University Press, New Delhi.
6. Harker, P.T. and A. Tenias (2000) (Ed) Performance of Financial institutions, Cambridge University, Press, Cambridge.
7. Johnson, H.S. (1993), financial institutions and Markets, Mc Grow Hill, New Delhi.
8. Machi Raju, M.R, (1999), Indian Financial Systems, Vikas Publishing, New Delhi.
9. Prasad, K.N. (2001), Development & India's Financial Systems, Sarup & Sons., New Delhi.

COURSE NAME: MICRO FINANCE AND RURAL DEVELOPMENT

COURSE CODE: ECO-E-509

Nature of Course: Elective

Prerequisite: None

MODULE- I: DEVELOPMENT OF MICROFINANCE PRODUCTS

Concept of Micro Finance – Genesis and History of Micro Finance – Contributions of Md. Yunus Growth of Micro Finance in India – Micro Finance for poverty reduction in India – Micro Finance and the Millennium Development Goals – Pros and cons of Micro Credit Programme – Micro Finance Models in India – Impact of Micro Finance on Poverty eradication.

MODULE-II: MICROFINANCE AN INSTRUMENT FOR WOMEN EMPOWERMENT

Concept of empowerment of women– Components of women empowerment – Constraints faced by women for empowerment – Role of Micro Finance in economic development of women –Empowerment of women and Micro - business.

MODULE-III: SELF HELP GROUP AND RURAL DEVELOPMENT APPROACH

The Concept, Why Self Help Groups? – Objectives – Functions of SHGs Promotion– Formation of SHG - Constraints of Women SHGs - What are the Important Steps for Sustainable Development of SHGs? What are the Skills needed for Managing Successful SHGs? - Linking of Self Help Group to Bank, Stepwise process of Operating of SHG – SHG Federation.

MODULE-IV: PROGRESS UNDER THE SHG BANK –LINKAGE PROGRAM

SHG - Banking programme an introduction - NABARD as implementing agency in India and the strategy adopted – The demand side of Micro – finance – the supply side of micro finance – the MFI or the Non-Government Micro finance sector (NGMS) – Achievements in SHGs through SHG –banking- Impact of the formal banking set – up – Why could SHG – banking achieve such good results – Risk in SHG – Banking as implemented by the formal banking system.

READING LIST

1. Daniel Lazar (2008), Micro Finance and poverty eradication, New Century Publications, ND.
2. Desai Vasant. (2005) Rural Development in India, Himalaya Publishing House.
3. Rais Ahmad (2009) Micro Finance and Women Empowerment, Mittal Publication New Delhi.
4. Vijaya kumar. A, (2009) Banking, Micro Finance and Self Help Group in India, New Century Publications, New Delhi.
5. Praveen Sharma, Indian Economic Association, Anil Kumar Thakur (2009), Micro-Credit and Rural Development.
6. Cernea, Michael M. (1988), NGOs and Local Development, The World Bank, Washington, Discussion Paper.

COURSE NAME: ECONOMICS OF INSURANCE

COURSE CODE: ECO-E-510

Nature of Course: Elective

Prerequisite: None

MODULE-I: INTRODUCTION

Economic Security; Human quest for economic security through time, exposure to losses; Role of insurance; Definition of insurance. Risk pooling and risk transfer; Economic and legal perspectives; Social Vs Private insurance; Life Vs Non-life insurance; Classification of life, Health and General Insurance policies.

MODULE-II: RISK AND RISK MANAGEMENT

Fundamentals of uncertainty and risk; Pure risk and speculative risk; Expected utility and decision making under uncertainty; Expected utility and the demand for insurance; Moral hazards and insurance demand; Concept of risk management; Essentials of risk management; Elements of risk management, Risk assessment; Risk control and risk financing.

MODULE-III: INSURANCE AND ECONOMIC DEVELOPMENT

Risk management and insurance in economic development, Insurance institutions as financial intermediaries, Insurance institutions as investment institutions, insurance institutions in Indian capital market. World Wide risk sharing - Concept of reinsurance, Fundamentals of reinsurance, Types of reinsurance; Reinsurance distribution systems; Reinsurance markets in Developing countries.

MODULE-IV: TYPES OF INSURANCE AND INSURANCE REGULATION

Fundamentals of Life; Health and General Insurance; Functions and importance of Life, Health and General Insurance; Mathematical basis of life insurance; Plans and legal aspects of life insurance; Provisions of policies, Selection and classification of risks; Types of evaluation. Theories of regulation, insurance regulation in India, IRDAI.

READING LIST

1. Bailey R (Ed) (1999), Underwriting in Life and Insurance, LOMA, Atlanta, Ga.
2. Bhole, L.M. (1990) The Indian Financial System, Tata McGraw Hill, New Delhi.
3. Bickelhaupt, D.L. (1992), General Insurance, Irwin. Inc. Burr Ridge.
4. Black K. Jr. and H.D. Skipper Jr(2000), Life and Health Insurance, Prentice Hall, Upper Saddle River, New Jersey.
5. Finsinger, J, and MV. Pauly (Eds). (1986), The Economic of Insurance Regulation: A Cross National Study, Macmillan, London.
6. Graver E.E and L. N. Hayes (Eds). (1994) Mc. Grill's Life insurance. The American College, Blyn Mawr Pa.
7. Hedad, G.L. and S. Horn II (1991), Essentials of Risk Management, Vol.1 Insurance Institute of America, Malvern, Pa.
8. Skipper, Jr. H.D. (Ed) (1988). International Risk and Insurance: An Environmental Managerial Approach, Irwin Mc.Graw Hill, Boston.

9. Tacchino, K.B. and D.A. Little (1993), Planning for Retirement Needs, The American College, Bryn Mawr, PA.

**COURSE NAME: ECONOMICS OF INFORMATION
AND TECHNOLOGY**

COURSE CODE: ECO-E-511

Nature of Course: Elective

Prerequisite: None

MODULE-I

Definition of information-industry Value Chain Knowledge Economy-information of Economy-information Economy. Nature and Scope of information Technology-Variety Sources of information.

MODULE-II

The Role of Mass Media, The Tele Communications industry-Origins, The Computer industry – Origins of hardware and software. The Broadcast industry, Cable and Satellite Television. Theory of public good, information as a public good, Role of Government in information and the Media-Broadcast and Cable Television, Telecommunications.

MODULE-III

Information Technology-Labour and Employment-Globalization; Effect on Productivity-Contingent labour-part time employment – impact on Older persons, Gender Issues-Human Resource Development.

MODULE-IV

Information Technology and the Media in the Global Economy-Global information infrastructure – Relationship between Trade and infrastructure-The General agreement on Trade and Services – WTO basic Telecommunication agreement – WTO information Technology agreement-Trade related intellectual property rights. Issues in Media and information Economics – Gap between developed and developing Nations-Piracy-The legal and regulatory environment –The role of the government-information.

READING LIST

1. Linda Low, Economics of Information Technology and the Media, World Scientific Singapore University Press, National University of Singapore, Singapore, 2000.
2. Hal R. Varian, Joseph Farrell, & Carl Shapiro: The Economics of Information Technology: An Introduction, Cambridge University Press.
3. David Ulph and Nir Vulkan. Electronic commerce and competitive first-degree price discrimination. Technical report, University College, London, 2000.
4. Thomas N. Hubbard. The demand for monitoring technologies. Quarterly Journal of Economics, pages 533–560, May 2000.

COURSE NAME: ECONOMICS OF LAW

COURSE COD: ECO-E-512

Nature of Course: Elective

Prerequisite: None

MODULE -I: LAW RELATING TO CONSUMER ACTIVITIES

Bargaining Theory; Economic Theory of contract, Remedies as incentives, Duress; Tort Law, Tort Liability and economic models; economics of accidents; fault, victim and strict liability; consumer protection and consumer Courts.

MODULE-II: LAW OF BUSINESS ORGANISATIONS

Structure of firm-Kinds, Corporation, Corporate vest, Capital, shares, debentures, insiders' trading; Anti Trust; RBI, IRDAI, MRTP, SEBI, Economics of mergers, Amalgamations and takeovers.

MODULE-III: ECONOMIC THEORY OF CRIME AND PUNISHMENT

The traditional theory of Criminal law: Economic Theory of Crime and punishment; Reforms of Criminal Procedure and Futility Theses; Law relating to economic offences-Corruption and Human rights.

MODULE-IV: MACRO ECONOMICS, INTERNATIONAL ASPECTS AND LAW

Property rights, Distribution of income and Law; Economic and Social costs of poverty; Economics of Social Sector; Wealth Distribution by liability Rules, Progressive Taxation and Efficiency; National and Global Environmental problems. W.T.O-TRIPS and TRIMS, export-import Policy, MNCS and Foreign Direct investment; FEMA.

READING LIST

1. Bouckaert, B and G.DeGeest (Ed). (1999) Encyclopaedia of Law and Economics (Volume I to V) Edward Elagr Publishing Ltd., UK.
2. Cooter, R.D. and T.S. Ulen (Ed) (2000). Law and Economics (3rd Edition), Addisiion Wesley, New York.
3. Dan Schmidt, K.G. And T.S. Ulen (2000), Law and Economics, (3rd Edition) AddisioWesley, New York.
4. Newman, P. (Ed) (1998), The New palgrave dictionary of Economic and Law, Stockton Pre York.
5. Oliver J.M. (1979), Law and Economics, George Allen and Unwin, London.
6. Posner, R.A. (1998), Economic Analysis of Law (5th edition), Little Brown, Boston.
7. Posner, R.A. and F. Parist (Eds). (1997), Law and Economics, Edward.
8. Elgar Publishing Ltd., UK. Masseyu, L.P. (1995), Administrative Law, Estern Book Company.
9. Lucknow Indian Law institute, Annual Survey of Indian Law, Indian Laqw institute, New Delhi.

COURSE NAME: REGIONAL ECONOMICS

COURSE CODE: ECO-E-513

Nature of Course: Elective

Prerequisite: None

MODULE-I: REGIONAL ECONOMIC PROBLEMS

Objectives and scope of regional economic analysis; Inter-disciplinary aspects of regional economics; Concept of a region, its definition, types and description; economic behaviour related to space; Composition and structure of regional activities; The regional economic problems – Causes.

MODULE-II: THEORIES OF REGIONAL ECONOMIC DEVELOPMENT

Theories of regional economic development: Cumulative causation (Perroux, Myrdal, Hirschman) – Export base theory - Central place theory (Christaller), Sector theory (Colin-Kuznets) - Stage theory (Rostow).

MODULE-III: THEORY OF LOCATION AND REGIONAL DISPARITIES

Theory of location – Weber's theory of location – Spatial dispersion of progress – Dispersion of innovation and technical progress – Sectoral growth centres –Trends in regional income disparities – Inter-state variations of poverty and unemployment – Comparative analysis of industrial development in different states – Agricultural development in different stages.

MODULE-IV: REGIONAL IMBALANCES IN INDIA

Regional imbalances – Regional economic advantages and regional optimization and financial institution in India – Inter-state disparity and fiscal devaluation in India – Problems of developing the backward area – Regional planning in India during the plan period – Area approach - Integrated overall development – Regional planning in rural India under various plan period.

READING LIST

1. Beckman, M.J (1968), Location theory, Randem House, New York.
2. Brahmananda, P.R. and Panchmukhi, (2001), Development Experience in the Indian Economy, Bookwell, New Delhi.
3. Dean, R.D et. al. (eds.) (1970), Special Economic Theory, Free Press, New York.
4. Losch (1970), The Economics of Location, Yale University Press, New Haven.
5. Misra, R.P (1974), Regional Development Planning in India, Vikas, New Delhi.
6. Myrdal, G (1968), Economic theory and Underdeveloped Regions, Vora, New Delhi.
7. Richardson (1960), Elements of Regional Economics, Penguin Books, London.
8. Shrivastave, Q.S (1992), Regional Economics, Anmol Publications, New Delhi.
9. Tinbergen, J. (1969). The Elements of Space in Development Planning, North Holland , Amesterdan.
10. Walter, I (1968), Methods of Regional Analysis, MIT Press, Cambridge.

COURSE NAME: URBAN ECONOMICS

COURSE CODE: ECO-E-514

Nature of Course: Elective

Prerequisite: None

MODULE-I

Nature and scope of urban Economics, structure and growth of Urban economy, urban Public Services; Growth of Urban Economy.

MODULE-II

Urban Growth; Central Place Theory and its application to the study of Urban Growth-the Urban economic base and urban growth; the communication theory of Urban growth; City size and urban growth; urban spatial structure; Concentric Zone Hypothesis-The Radial Sector theory. The Multiple Nuclei Hypothesis.

MODULE-III

Urban Housing, Labour Market and Poverty; Housing market Imperfection-trends in slum Housing-tearing down the slums. Urban Labour Market: Determination of Labour incomes-wage differentials-the culture of urban poverty –Measures of Urban poverty-The nature and causes of urban poverty; Public Policies for reducing urban poverty-macro economic policies income-Maintenance Policies-negative income taxes.

MODULE-IV

Urban Development Problems in India, Land Prices and land Speculation-Urban Land celling; Congestion and Urban transport pricing Policy; Cost and supply of alternative urban transport system. Urban Growth Strategies-An approach to Metropolitan Planning in Developing Countries; nationalurbanization policy with reference of India.

READING LIST

1. G. F. Bussars; Repid Problmes of Urbanisation in India.
2. Asok Owtra john: An Approach to urban Studies in India.
3. John D. Herbert and Alfrad P.Van: Urban Planning in the Developing. Countries.
4. Ashish Bose; Studies in India's Urbanization.
5. R.K. Bharadwaj ; Urban Development in India.
6. NCAER; Market Towns and Spatial Development.
7. Richard F. Moth: Urban Economic Problems.
8. Harry, S. Perl off; Issues in Urban economics.
9. Harry, W. Richardson; Urban Economics.

COURSE NAME: RURAL ECONOMICS

COURSE CODE: ECO-E-515

Nature of Course: Elective

Prerequisite: None

MODULE-I: RURAL ECONOMY OF INDIA

Features of rural economy; Place of agriculture in rural economy; Diversification of rural economic activities- Livestock, Fishery, Poultry, Forestry, horticulture and floriculture; Public utilities in rural economy-irrigation facilities, transport and communication and rural electrification.

MODUL-II: RURAL CREDIT SYSTEM

Role of rural credit; Characteristics and sources of rural credit-Institutional and non-institutional; Re-organisation of rural credit-Cooperatives, commercial banks, Regional rural banks; Role of NABARD, Rural indebtedness and farmer suicide.

MODULE-III: RURAL LABOUR MARKET AND UNEMPLOYEMENT

Rural labor supply; Mobility of labor and segmentation in labor markets; marginalization of rural labor; Nature, extent and trends in rural unemployment; Agricultural wages in India- Minimum Wages Act; Male-female wage differences; Non-agricultural rural employment — Trends and determinants.

MODULE-IV: ISSUES IN RURAL ECONOMY

Problems of marginal and small farmers, rural industrialization-importance, Issues and problems, development of agro-based industries; rural poverty-extent and causes; strategies for rural development.

READING LIST

1. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
2. Desai V, Study of rural economics, Himalaya Publishing Company.
3. Drummond, H. E and Goodwin, J. W (2004), Agricultural Economics, Pearson, Delhi.
4. Gulati, A. and Kelly, T (1999), Trade Liberalization and Indian Agriculture, Oxford University Press, New Delhi.
5. Jain S P, Indian Rural Economics, Vikas Publishing, New Delhi.
6. Kahlon, A.S. and Tyagi D.S. (1983), Agriculture Price Policy in India, Allied Publishers, New Delhi.
7. Lekhi R.K. and Singh, J (latest edition), Agricultural Economics: An Indian Perspective, Kalyani Publisher.
8. Rudra, A. (1982), Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.
9. Soni, R.N (latest edition), Leading Issues in Agricultural Economics, Vishal Publishing.
10. Tyagi B.P (latest edition), Agricultural and rural development, Jai prakashan Nath & Co, Meerut.

COURSE NAME: WORLD ECONOMY

COURSE CODE: ECO-E-516

Nature of Course: Elective

Prerequisite: None

MODULE-I: INTRODUCTION TO WORLD ECONOMY

An overview of the world economy; Major economies of the world, Income and Income Growth of World Economy during the last two decades. Linkages in the Major Economies-Trade, Investment and Capital Flows, Major Economic Groups.

MODULE-II: WORLD ECONOMY: THE DEMOGRAPHIC DIMENSION

Recent Trends in world population, Birth Rate, Death Rate, Infant Mortality Rate, Child Mortality Rate, Total Fertility Rate, Life Expectancy at birth in US, UK, Germany, France, Japan, China, India, Sri Lanka, Australia and Bangladesh.

MODULE-III: AGRICULTURE AND INDUSTRY IN THE WORLD ECONOMY

Main food producers of the world; Trends in the production of main food crops; World food Security. Main Industrial Economies of the World; Role of industrial development in the growth of major world economies.

MODULE-IV: WORLD TRADING SYSTEM

Trends in the international trade; Main trading nations of the world. Role of international trade in the growth and development of Major World Economies. Emergence of WTO. Role of WTO in World Economy. International Monetary Fund, World Bank Global Financial Crisis and its impact on World Economy.

READING LIST

1. World Bank, World Development Report, Oxford. Various Issues.
2. Human Development Report, UNDP, Various issues.
3. Trade and Development Report, UNCTAD, Various issues.
4. Rosser J. B. and Rosser M.V. (2005): Comparative Economics in a Transforming World Economy, Prentice Hall.
5. Daniels J. P and David D. V (2011): Global Economic Issues and Policies, Routledge, New York.
6. Yarbrough B.V and Yarbrough R.M (2007): The World Economy, Trade and Finance, Cenage Learning.
7. Thirlwall, A.P(1999): Growth and Development, Macmillan, London,
8. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle, NJJ. New York.

**COURSE NAME: ECONOMIC HISTORY OF ASIAN COUNTRIES:
CHINA, SOUTH KOREA & JAPAN
COURSE CODE: ECO-E-517**

Nature of Course: Elective

Prerequisite: None

MODULE-I

Problems of Economic History of ASEAN: China, Japan and South Korea, Different Approaches of Study and Their Limitations, Sources for the study of Modern Economic History of ASIAN: China, Japan and South Korea.

MODULE-II

China, Japan and South Korea during the first half of the 20th century: Industrial Development and effects of industrial development, Labour Organization and Labour Problems. The population problems, Financial Imperialism, Foreign Trade, Agrarian Settlements and Land Revenue, Changes in the Agrarian Life, Indigenous Trade, Development of credit and Banking System.

MODULE-III

Economy of ASEAN during the Second half of the 20th century: Economic and Educational Reforms, The Land Reforms and changes in Agrarian Life, Industrialization and Socialization. Foreign Trade, Development of Roads and Railways, competition and Collaboration with Global Economy, Internal Aspects of the Economic problem.

MODULE-IV

Economic Reforms and Their impact on: Agriculture Industry and Service Sector in ASEAN, China, South Korea and Japan. Trade Development Strategies: Export Promotion Versus Import Substitution in ASEAN, China, South Korea and Japan; Lessons for India. Trade Reforms and Their impact on Balance of Payment; Employment and National Income; Foreign Direct Investment, Exchange Rate Developments; and Issues related with East Asian Financial Crises.

READING LIST

1. 'Reshaping the Asia Pacific Economic Order', by Hadi Soesastro, Christopher Charles Findley, 2006.
2. "Institutional Balancing in the Asia Pacific: economic" by Kaithe 2009, P. 209.
3. "China and World Economy" by Zhougno she hui ke Xue Yawn shi jie juia ji, 2002.
4. "A New look at the US-China-Japan Triangle" Toward Building a Stable Framework" Asian Perspectives, Vol. 27, No3, 2003, PP 177-219 by Yoshihide Soeya, Jianweiwang and David A Weleh.
5. "The Economic History of Korea" by Myung soo Cha, Yeungnam University. EH. Net Encyclopedia.
6. "Economic Growth and Democratization in North East Asia, Part I & II.

7. "The Rise of China and its effects on Taiwan, Japan and South Korea" US Policy choices, Jan. 2006 Dick K Nanto.
8. "Look East: India's Economic ties with Japan, South Korea, China, 3 Dec. 2009.
9. "China, Japan and South Korea to consider Free trade Pact" Oct. 11, 2009 MYT.

COURSE NAME: ECONOMICS OF INFRASTRUCTURE

COURSE CODE: ECO-E-518

Nature of Course: Elective

Prerequisite: None

MODULE-I

Introduction: Infrastructure and economic development-infrastructure as a public good; social and physical infrastructure; special characteristics of public utilities; The peak load, off load problem; Dual principal controversy; marginal cost pricing Vs other methods of pricing of public utilities; cross subsidization-free prices, quality and efficiency.

MODULE-II

The structure of transport costs and location of economic activities, Demand for transport; Model of freight and passenger demand; model choice; cost functions in the transport sector; principle of pricing; special problems of individual modes of transport and inter-model coordination in the Indian context. Rate making in telephone utilities; principle of decreasing costs in telephone industry; criteria for fixation of postal rate; Measurement of standards of service in telephone and postal utilities; Reforms in the telecom sector.

MODULE-III

Energy Economics: Primacy of energy in the process of economic development; factors determining demand for energy; effects of energy shortages; energy conservation; renewable and non-conventional sources of energy, energy modelling; optimal energy policy.

MODULE-IV

Electricity, Gas and Water Supply: Bulk supply and pricing of electricity; the relative economics of Thermal, Hydel and Nuclear power; The case for a national power grid; Financing of water utilities; urban and rural water supply; uses of natural gas; the exploitation of natural gas, pricing problem. Social infrastructure: Social infrastructure-Concept of Social infrastructure –Organization and financing of supply of social services, private Vs Public sector financing; pricing of social services.

READING LIST

1. Crew M.A. and P.R. Kleindortter (1979), Public Utility Economics, Macmillan, London.
2. Indian Council of Social Sciences Research (ICSSR) (1976), Economics of infrastructure. Vol. VI, New Delhi.
3. National Council of Applied Economic Research (NCAER) (1996), India infrastructure Report: Policy implications for Growth and Welfare, NCAER, New Delhi.
4. Parikh, K.S. (Ed) (1997), India Development report 1997, Oxford, New Delhi.

5. Parikh, K.S. (Ed). (1999), India Development Report – 1999-2000, Oxford, New Delhi.
Turvey R. (Ed). (1968), Public Enterprises, Penguin, Harmond Sworth.

COURSE NAME: ECONOMICS OF SERVICE ECTOR

COURSE CODE: ECO-E-519

Nature of Course: Elective

Prerequisite: None

MODULE- I

Concept of service- Attributes of service, Main types of services and their classification, service-goods relationship, economic services; Rural-Urban Services-dualism. Services Economy-Concept and its role in development. Knowledge Economy- Concept and Characteristics, Innovation and R&D.

MODULE-II

Services and information Technology-The Interconnection-Promotion of Services through IT in India. Financial Services-Security Markets and their Management in India- Management and Marketing of financial services in India.

MODULE-III

Travel, Transport, Communication, Insurance and Tourism: interrelationship – Growth of Transport-Transport Planning –Development of infrastructure-Role of the State and Private Sector. Hospitality and Entertainment Service-Hotel industry-Feasibility and Planning of Hospitality - Hotel Regulations-Tariff clarification-Food and Catering Services.

MODULE-IV

Dynamics of services sector growth in India, Three-sector hypothesis and India, Role of service sector in Indian Economy, Decomposition of Services sector growth in India and its implications. Employment in Services Sector- a gender perspective. Business Services, Telecommunications, Tourism, Hotel, Real estate, IT and insurance sector in India. Public Private Partnerships in Services.

READING LIST

1. Alister Matheson & Geoffrey Walt- Tourism: economic Physical and Social Aspects.
2. A.K. Bhatia – International tourism: Fundamentals and Practices.
3. U.A. Avadani, ‘Investment and Security Markets in India’, Himalaya Publishing House, Bombay.
4. R.K.Sen and B.Chatterjee, ‘Indian Economy Agenda for the 21st Century, Deep and Deep Publications, New Delhi.
5. Baumol, W.J., Blackman, S.A. Batey and Wolff, E.N. (1985). Unbalanced Growth Revisited: Asymptotic Stagnancy and New Evidence. American Economic Review 75:806-17.
6. Glasmeier, A. and Howland, M. (1994). Service-led Rural Development: Definitions, Theories and Empirical Evidence, International Regional Science Review, 16, 197-229.

7. Hindley, B. and Smith, A. (1984). Comparative Advantage and Trade in Services, World-Economy, December, 7(4), 369-89.
8. Melvin, J. R. (1989). Trade in Producer Services: A Heckscher-Ohlin Approach, Journal of Political Economy, 97(5), 1180-1196.
9. Seth, V. K. (2007). Economics of Services, Ane Books India, 2007.

COURSE NAME: ECONOMICS OF HUMAN DEVELOPMENT
COURSE CODE: ECO-E-520

Nature of Course: Elective

Prerequisite: None

MODULE-I: CONCEPTS OF HUMAN DEVELOPMENT

Development Human Development and Economic Development: Physical Quality of life index, Human Resource Development; Usefulness of Concept-Theories of Human Development-Gender Empowerment Measure.

MODULE -II: HUMAN DEVELOPMENT INDEX

Limitations of Human Development measure-Political Freedom index Human Development index and Poverty index-Human Poverty index.

MODULE-III: STATUS OF HUMAN DEVELOPMENT IN INDIA AND IN INDIAN STATES

Human Development and Human Rights. The State and Progress of Human Development- Human Development and Dalits.

MODULE-IV: IMPACT OF HUMAN DEVELOPMENT ON ECONOMIC DEVELOPMENT

Expenditure in India and States (Public spending) Social Capital –Economic Attainments and Well-being. Development Expenditure in India and States (Public spending) Social Capital – Economic Attainments and Well-being.

READING LIST

1. Abusslesh Sharifi, India Human Development Report, Oxford.
2. Chalam, K.S., Human development in South India, Anmol Pub.
3. Human development in South Asia, 2001, published for the Mahbubul Haq Human development Center, Oxford.
4. Human Development Report for various years, UNDP.
5. Human development Report, UNDP, 1990.
6. National Human development Report; Government of India, 2002.

COURSE NAME: ECONOMICS OF DEMOGRAPHY

COURSE CODE: ECO-E-521

Nature of Course: Elective

Prerequisite: None

MODULE-I: POPULATION AND DEVELOPMENT

Meaning and scope of demography; Components of population growth and their interdependence; Measures of population change; Structure, distribution and sources of population data; Theories of population — Malthus, Optimum theory of population; Theory of demographic transition-Views of Medows, Enke and Simon; Population and development.

MODULE-II: STRUCTURE OF POPULATION

Population trends in the twentieth century; Population explosion — Threatened or real, distant or imminent; International aspects of population growth and distribution; Pattern of age and sex structure in more developed and less developed countries; Determinants of age and sex structure; Demographic effects of sex and age structure, economic and social implications; Age pyramids and projections — Individual aging and population aging.

MODULE -III: POPULATION AND DEVELOPMENT WITH REFERENCE TO INDIA

Population, economy and environment linkages — Population, health, nutrition, productivity nexus; Population and human development issues; Culture and fertility; Education and fertility, Demography and household economic behaviour.

MODULE -IV: POPULATION POLICY IN INDIA

Evolution of population policy in India — The 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; Social impact of new reproductive technologies and their regulation; The new population policy; Tasks before the National Population Commission.

READING LIST

1. Agarwala S.N. (1972), India's Population Problem, Tata McGraw-Hill Co., Bombay.
2. Bogue, D.J. (1971), Principles of Demography, John Wiley, New York.
3. Bose, A. (1996), India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.
4. Choubey, P.K (2000), Population Policy in India, Kaniska Publications.
5. Jhingan, M.L, Bhatt B.K and Desai J.N, Demography, Vrinda Publications.
6. Raj H, Population Studies, Surajeet publication, New Delhi.
7. Raj, H, Fundamentals of Demography, Surajeet Publications, New Delhi.
8. Sharma, R.K (latest edition), Demography and Population Problems, Atlantic Publishers.
9. Sing, V.C and Zacharia, E, Elements of Demography, Allied Publishes.
10. Srinivasan, K. (1998), Basic Demographic Techniques and Applications, Sage, New Delhi.

COURSE NAME: INSTITUTIONAL ECONOMICS

COURSE CODE: ECO-E-522

Nature of Course: Elective

Prerequisite: None

MODULE-I: BASIC INTRODUCTION TO INSTITUTIONAL ECONOMICS

Institutional Economics as a departure from Neo-Classical and Marxian Economics, Historic development of Institutional Economics, Old and New Institutional Economics, Core issues in New Institutional Economics.

MODULE-II: PROBLEMS OF INFORMATION ASYMMETRY

Prisoner's dilemma and Nash equilibrium, Assurance problem, Principal-Agent Problem, Problem of Adverse Selection, Problem of Moral Hazard, Market for Lemons, Market Signalling.

MODULE-III: PROPERTY RIGHTS ISSUES

Concepts of Property and defining Property Rights, Problems of Ill-defined Property rights, Externalities-Market failure and property rights, Issues relating to ill-defined property rights, Social vis-à-vis Individual Choices, Neo-classical Maximisation vis-à-vis Methodological Individualism, Prisoner's Dilemma, Hardin's Tragedy of Commons, Collective Action, and Assurance Problem.

MODULE-IV: TRANSACTION COSTS AND BOUNDED RATIONALITY

Issues relating to transaction costs, Social cost vis-à-vis individual costs, Identification and measurements of transaction costs, Coase Theorem, Bounded Rationality, Public Policy, Insurance Sector, Social issues, Ecological and Environmental Issues.

READING LIST

1. Furburton & Richter, 'Institutions and Economic Theory', Dryden Press.
2. Pindyck, Robert S., Rubinfeld, Daniell L., & Mehta, Prem L., "Microeconomics", 7th Edition, (2009), Pearson.
3. Frank, Robert H., "Micro Economics and Behaviour", McGraw Hill International Editions, (1991).
4. Eggertson, Thrainn, "Economic Behaviour and Institutions", Cambridge University Press, (1999).
5. North, Douglas C., "Institutional Change and Economic Performance", Cambridge University Press, (2004).
6. Olson Mancur (1965), the Logic of Collective Action, Harvard University Press, Cambridge.
7. Shaw, M E. (1971). Group Dynamics: The Psychology of Small Group Behaviour, McGraw Hill, New York.
8. Ahuja H. L., "Advanced Economic Theory – Microeconomic Analysis", 17th Revised Edition, (2008), S. Chand & Company Ltd.

SEMESTER-IV

COURSE NAME: AGRICULTURAL ECONOMICS

COURSE CODE: ECO-C-523

Nature of Course: Core

Prerequisite: None

MODULE-I: AGRICULTURE AND ECONOMIC DEVELOPMENT AND PRODUCTION

Nature and Scope of Agriculture; Role of agriculture in economic development; Interdependence between agriculture and industry; Approaches of Schultz and Mellor; Agricultural production — Principles of resource allocation; measures of farm efficiency; Supply response in agriculture; Size of farm and productivity debate; Instability of agriculture.

MODULE-II: AGRICULTURAL MARKETING AND PRICES

Agricultural markets- Need for efficient agricultural market; Types of agricultural market; Criteria for agricultural marketing efficiency; Efficiency of agricultural marketing system in India and measures to improve efficiency; Marketable Surplus in India; Agricultural price policy, Instruments and evaluation of agricultural price policy in India; Terms of trade between agricultural and industry; Risk and uncertainty in agriculture.

MODULE-III: INSTITUTIONAL ASPECT AND INVESTMENT IN AGRICULTURE

Farming systems/organisation— Types and suitable farm organisation for Indian agriculture; Tenancy system and Land reform measures; Performance of Land reform in India; Problems of small farmers in India; Capital formation in Indian agriculture- Public and private investment; Trends in public and private investment and their relationship in Indian agriculture; Agricultural finance and Rural indebtedness.

MODULE-IV: AGRICULTURE AND EXTERNAL SECTOR

Agriculture diversification-objectives and problems in India; New economic policy and Indian agriculture- Structural adjustment, Globalisation, MNCs; World Trade Organization and Indian agriculture-export and import; WTO provisions; impact on Indian agriculture; Foreign trade policy and Agricultural development.

BASIC READING LIST:

1. Soni, R.N (latest edition), Leading Issues in Agricultural Economics, Vishal Publishing.
2. Lekhi, R.K. and Singh, J (latest edition), Agricultural Economics: An Indian Perspective, Kalyani Publisher.

READING LIST:

1. Bhaduri, A. (1984), the Economic Structure of Backward Agriculture, Macmillan, Delhi
2. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
3. Drummond, H. E and Goodwin, J W (2004), Agricultural Economics, Pearson Delhi
4. Rudra, A. (1982), Indian Agricultural Economics: Myths and Reality, Allied Publishers, Delhi.

COURSE NAME: INTERNATIONAL FINANCE

COURSE CODE: ECO-C-524

Nature of Course: Core

Prerequisite: None

MODULE-I: BALANCE OF PAYMENTS

Meaning and Components of balance of payments; Measurement of Balance of Payments, Surpluses and Deficits; the types and causes for disequilibrium; The process of adjustment under Gold Standard, Fixed exchange rates and flexible exchange rates, devaluation; Expenditure-reducing and Expenditure-switching policies and direct control for adjustment.

MODULE-II: FOREIGN EXCHANGE MARKET

Theories of exchange rate determination; Purchasing Power Parity theory, Monetary and Portfolio balance approaches; Equilibrium exchange rates; Stability in the exchange market and market intervention policy. Exchange rates volatility; reasons and consequences.

MODULE-III: INTERNATIONAL CAPITAL MOVEMENTS

International Capital movements, The Euro currency market-International Development Agencies; East Asian crisis and lessons for developing countries. FDI and FII's roles in international capital mobility. Currency crises, Foreign exchange reserve in India.

MODULE-IV: INTERNATIONAL MONETARY SYSTEM

Rise and fall of gold standard and Bretton-Woods system; Need, adequacy and determinants of International reserves; Role of International Finance agencies (IMF, World and ADB) in solving International liquidity problem; Reforms in International Monetary System.

BASIC READING LIST

1. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N.J. New York.
2. Cherunilam, F. (2012), International Economics (5th Edition), Tata McGraw Hill, New Delhi.
3. Soderston, B. N.O (1991), International Economics, The Macmillan Press Ltd. London.

ADDITIONAL READING LIST

1. Bhagwati. J. (Ed.) (1981), International Trade, Selected Readings, Cambridge, University Press, Massachusetts.
2. Carbough, R.J. (1999), International Economics, International Thompson Publishing, New York.
3. Chacholiadas, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogkusha, Japan.
4. Dana, M.S. (2000), International Economics: Study Guide and Work Book (5th Edition) Toutledge Publishers, London.
5. Kenen, P.B. (1994), The International economy, Cambridge University Press, London.
6. Kindleberger, C.P. (1973), International economics, R.D.Irwin, Homewoor.

7. Kind, P.G. (1995), International Economics and International Economic Policy: A Reader, McGraw Hill International, Singapore.
8. Krugman, P.R and M.Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foresman.
9. Tirole, Jean (2002), Financial Crises, Liquidity and the International Monetary System, New Jersey: Princeton University Press.

COURSE NAME: COMPUTER APPLICATION IN ECONOMICS

COURSE CODE: ECO-C-525

Nature of Course: Core

Prerequisite: ECO-C-502

MODULE-I: INTRODUCTION TO COMPUTER AND OPERATING SYSTEMS AND USE OF COMPUTER FOR OFFICE AUTOMATION

Computer Organisation; CPU; Types of Memory; Input and Output devices; Classification of computers; Programming languages; Operating System- DOS and Windows; Data Representation and the Number systems. MS word and its features and uses. Spread sheet - Concept and use of spread sheet, Structure of a spread sheet, Spread in-built functions, Chart feature of a spread sheet, Operation and Use of MS-Excel and Lotus Smart-suite.

MODULE-II: BASIC OF DATABASE AND SLIDE FORMATION AND PRESENTATION

Introduction to Economic and Business Data Processing; The concepts of relational database; Simple programming techniques (in MS-Access); Using Queries, Forms and Report Wizard; Working from Command Window; Economic Application of MS-Access; Handling and command descriptions of MS-Power Point; Slide creation and presentation through MS-Power point.

MODULE-III: STATISTICAL DATA PROCESSING TECHNIQUES

Statistical Package handling and command description Statistical Package for Social Science (SPSS); Basic statistical and econometric functions and their analysis - Analysis of Regression, Analysis of correlation, Analysis of Variance (ANOVA), Analysis of Covariance (ANCOVA).

MODULE-IV: TIME-SERIES ANALYSIS AND METHODS OF USING EVIEWS & STATA

Package handling and command descriptions of EVIEWS and STATA; Simple time series Analysis–Trend analysis; Estimation of demand function, production function and investment function using time series data, Basics of internet; Search Engines.

READING LIST

1. Balguruswamy, E. (1997), Programming in Basic, Tata McGraw Hill, New Delhi.
2. Byron S. Gottfried (1997); Programming with Basic, Schaum’s Cutline Series, McGraw Hill, New York.

3. Jaggi, V.P. and Jain, Sushma (1994), Computers for Beginners. Academic Press, New Delhi.
4. Jaggi, V.P. and Jain, Sushma (1994), Basic for Beginners, Academic Press, New Delhi.
5. Kerns (1993), Essentials of Microsoft Windows, Word and Excel, Prentice Hall of India, New Delhi.
6. Martin S. Matthew (1997), Excel for Windows 95, Tata McGraw Hill, New Delhi.
7. Ram, B. (1997), Computer Fundamentals, Second Edition, New Age International, New Delhi.
8. Tom Sheldon (1997), Windows 95 Made Easy, Tata McGraw Hill, New Delhi.

COURSE NAME: DISSERTATION

COURSE CODE: ECO-E-526

Nature of Course: Core

Prerequisite: None

OBJECTIVES

Students who complete their post-graduation in Economics are mentally equipped to pursue research in the same discipline. It is generally accepted that research is nothing but extension and application of knowledge in a certain specialized field. Therefore regular students who do their post-graduation will be given an opportunity to get exposed to a few elements of social research and also they are expected to complete a research project/dissertation under the expert guidance and supervision, Elementary knowledge of research methodology shall consolidate and deepen their understanding of various branches of Economics. Preparing a dissertation is intended to train them in scientific thinking and art of systematic presentation. It is essentially a job-oriented exercise to enable them to take up the exciting field of social and economic research.

DISSERTATION: STRUCTURE AND EVALUATION

- a) Students shall submit a dissertation of maximum 25,000 words in three copies to the Head of the Department on or before 15th April of the concerned academic year (4th Semester).
- b) The dissertation shall be prepared under the guidance of an internal post graduate recognized faculty, and the supervisors/guides will be allotted to students by the Head of the Department with a proper procedure.
- c) The supervisors shall be allotted to the students in the month of November of the third semester.
- d) The dissertation (writing part) shall carry 70 marks out of which the internal and external examiners shall carry equal weightages. Assessment of each dissertation (writing part) is based on the methodology, analysis, contents, report writing and quality of the research work.
- e) A presentation and viva voce of each candidate shall be held where he/she will have to make a presentation of the dissertation and defend his/her research work. The viva voce shall carry 30 marks out of which the internal and external examiners shall carry equal weightages.

COURSE NAME: COST BENEFIT ANALYSIS

COURSE CODE: ECO-E-527

Nature of Course: Elective

Prerequisite: None

MODULE-I

Concepts of Benefits and Costs – Direct and Indirect: Tangible and Intangible- Problems in the evaluation of Benefits and Costs .Accounting prices - Meaning of Accounting prices-Accounting prices and Pareto Optimality-Marginal Cost and Willingness to pay-Limitations of Market Prices-The "Second Best" problem - Accounting prices in the Absence of markets. Nature of Cost Benefit Analysis. Welfare functions of Cost Benefit Analysis (a) Surplus Analysis (b) Social Welfare Function Approach.

MODULE-II

Externalities - Pecuniary and Technological- externalities the source or external effects-externalities, alternative technologies and cost benefit analysis-Collective goods. The Social Rate of Discount-Social Time Preference Rate-The opportunity Cost rate of Discount Equilibrium, Social Time preference Rate and Social Opportunity Cost.

MODULE-III

Decision formulae for project choice - Net present value and input constraints - Optimal time phasing-Internal Rate of Return-Present value versus Internal rate of return - other criteria.Risk and Uncertainty -Relevance of risk and Uncertainty - Uncertainty and Decision Criteria-Some rules of Thumb.

MODULE-IV

Plans, Projects, choice and Project design, The selection of projects and the investment programme, Project design and decentralized evaluation. Private sector projects-The need for public evaluation of private projects-The method of evaluation of private projects. Some applications - Demodar valley flood control scheme-Socio economic survey of Nagarjuna Sagar Project.

READING LIST

1. A.K.Dasgupta and, D.W.Pearce; Coast Benefit Analysis, Theory and Practice. D.W.Pearce: Cost Benefit Analysis.
2. I.M.D, Little and J.A.Mirrlen Project Appraisal and Planning for Developing countries. E.J.Mishra: Cost Benefit Analysis.
3. I.M.D.Little and J.Mirlees: Manual of Industrial Project Analysis, Vol, Social Cost Benefit Analysis.
4. B.Sarveswara Rao: Report on Bogie-Economic;Survey of Nagarjuna Sagar project.

COURSE NAME: OPTIMIZATION TECHNIQUES

COURSE CODE: ECO-E-528

Nature of Course: Elective

Prerequisite: ECO-C-403

MODULE-I: UNCONSTRAINED OPTIMISATION

Unconstrained optimization: Single Variable and Multi Variable optimisation; Economic Application; necessary and sufficient conditions for optimization; finding the extreme Value(s); convex and concavity of the function, envelope theorem.

MODULE-II: CONSTRAINED OPTIMIZATION

Optimization with equality constraints: Single Variable and Multi Variable optimisation; Lagrangean multiplier and its interpretation, Quasiconcavity and Quasiconvexity Comparative statics and envelope theorem.

MODULE-III: DYNAMIC OPTIMISATION-I

Optimization – Quadratic forms-two and more variables; Usage of Hessian and bordered hessian- Economic applications; Test for sign definiteness; Characteristic-root test.

MODULE-IV: DYNAMIC OPTIMISATION-II

Application of Optimisation (Constraints and Unconstraints) in Economics- Consumer Behaviour, Linear Programming, Game theory - Primal and Dual Problem.

BASIC READING LIST

1. Dixit (1976): Optimization in Economic Theory, OUP.

ADDITIONAL READING LIST

1. Beavis & Dobbs (1990): Optimization and Stability Theory for Economic Analysis, CUP.
2. Intrilligator (1971); Mathematical Optimization and Economic Theory, Prentice Hall.
3. Hadley (1960): Linear Algebra, Addison-Wesley, Massachusetts.
4. Chiang (1992): Dynamic Optimization, McGraw Hill Inc.
5. Kamien & Schwartz (1981): Dynamic Optimization, North Holland.

COURSE NAME: ADVANCE ECONOMETRICS

COURSE CODE: ECO-E-529

Nature of Course: Elective

Prerequisite: ECO-C-502

MODULE-I: TIME SERIES ECONOMETRICS: MODELLING AND FORECASTING

Univariate Time series modelling: autoregressive and moving average models; Box-Jenkin Methodology; Multi-variate Time series modelling: OLS, Spurious Regression, Co-integration, Causality analysis (Granger and Sim); Granger representation theorem; Vector

Auto-regression (VAR) and Vector Error Correction Models (VECM); Measuring Financial Volatility: ARCH and GARCH models.

MODULE – II: NON-LINEAR REGRESSION MODEL AND QUALITATIVE RESPONSE MODEL

Estimation of Non-linear regression model: The trial and error method; Nature of qualitative response Models; Linear Probability Model and its applications; Bivariate and Multinomial Logit and Probit Models: Assumptions, Estimation (grouped and un-grouped models), interpretations and applications; Tobit model: Assumptions, Estimation, interpretations and applications.

MODULE – III: PANEL DATA MODELLING

Estimation of panel data regression models: Static Linear Model (Fixed and Random effect); Dynamic Linear Models (Fixed and Random effect); Panel Data Unit Root and Cointegration Tests; Limited dependent variable models with Logit, Probit and Tobit Models.

MODULE – IV: SIMULTANEOUS EQUATION MODELS

Structural and Reduced form of Equations; Problem of Identification: Rank and Order conditions; Methods of estimation: Recursive Model, Indirect Least Squares (ILS) Method, Two-stage Least Square (2SLS) Method.

BASIC READING LIST

1. Gujarati, Damodar N. (2004), Basic Econometrics, 4th Edition, TATA McGraw Hill Publishing.
2. Enders, W. (2008). Applied econometric time series. John Wiley & Sons.
3. Wooldridge, J. M. (2010). Econometric analysis of cross section and panel data. MIT press.

ADDITIONAL READING LIST

1. Wooldridge, J. (2009). Instrumental variables estimation and two stage least squares. Introductory Econometrics: A Modern Approach. Nashville, TN: SouthWestern.
2. Wooldridge, J. (2009). Advanced panel data methods. Introductory econometrics: a modern approach. Mason: South-Western Cengage Learning, 489.
3. Madala, G. S. (1968). Limited Dependent and Qualitative Variables in Econometrics. Cambridge: Cambridge University Press
4. Hsiao, C. (2014). Analysis of panel data (No. 54). Cambridge university press.
5. Brooks, C. (2014). Introductory econometrics for finance. Cambridge university press.
6. Gujarati, D. (2014). Econometrics by example. Palgrave Macmillan.
7. Cameron, A. C., & Trivedi, P. K. (2010). Microeconometrics using stata (Vol. 2). College Station, TX: Stata press.
8. Long, J. S., & Freese, J. (2006). Regression models for categorical dependent variables using Stata. Stata press.
9. Hall, R., Lilien, D., Sueyoshi, G., Engle, R., Johnston, J., & Ellsworth, S. (1999). EViews manual. Quantitative Micro Software Inc, 312.
10. Kawakatsu, H. (1998). A computer handbook using EViews: to accompany Econometric models and economic forecasts, Pindyck and Rubinfeld. McGraw-Hill College.

COURSE NAME: OPERATIONAL RESEARCH

COURSE CODE: ECO-E-530

Nature of Course: Elective

Prerequisite: ECO-C-403

MODULE-I: INTRODUCTION

Introduction to Operations Research- General description of Operations Research, Review of mathematics and statistics and basic probability.

MODULE-II: LINEAR PROGRAMMING

Formulation of Linear Programming Problems. Graphical Solution and the Simplex Algorithm. Duality and sensitivity analysis.

MODULE-III: INTEGER PROGRAMMING

Transportation and Assignment Problems. Integer and Goal Programming. a. Formulation of Integer Programming Problems. b. Branch and Bound Technique.

MODULE-IV: NON-LINEAR PROGRAMMING AND MARKOV CHAINS

Stochastic processes - States, Markov Chains - Transition matrices - Types of chains - Steady-state probabilities, Kuhn-Tucker conditions, the constraint Qualification, Duality in nonlinear programming – Integer programming – Algorithms for integer programming.

READING LIST

1. Chiang, Alpha C. (2005) Fundamental Methods of Mathematical Economics, 4th edition, McGraw-Hill.
2. Allen, R. G. D. (1959) Mathematical Economics, Second edition, Macmillan.
3. Allen, R.G.D. (1967) Macro-Economic Theory A Mathematical Treatment.
4. Chiang, Alpha C. (1999) Elements of Dynamic Optimization. Long Grove, IL Waveland Press.
5. Yamane, Taro (1985) Mathematics for Economists, Second edition, Prentice Hall.
6. Simon C and L. Blume, Mathematics for Economists, Viva books, 2009.
7. Dorfman, Samuelson and Solow, Linear programming and Economic Analysis, Dover, 1958.
8. Dimitri Bertsekas, Non-Linear Programming, Atlanta Scientific, 2000.
9. Ravindran, A., D.T. Phillips and J.J. Solberg, Operations Research Principles and Practice. 1987, 2/e, John Wiley and Sons.
10. Taha, H.A., Operations Research: An Introduction, 1976. 4/e, Macmillan Pub. Co.

COURSE NAME: FINANCIAL ECONOMETRICS

COURSE CODE: ECO-E-531

Nature of Course: Elective

Prerequisite: ECO-C-502

MODULE-I: PREDICTING FINANCIAL RETURN

Financial time series, asset returns, distributional properties of financial returns, Market efficiency, Principle component analysis, factor analysis.

MODULE-II: MODELS OF VOLATILITY

Modelling volatility, ARCH, GARCH and various versions of GARCH. Long-memory and stochastic volatility models, Recent developments in volatility estimation using high frequency data.

MODULE-III: RISK AND RETURN MODELS FOR MULTIPLE ASSETS

Multivariate time series analysis, Weak stationarity and cross correlations, Vector autoregressive models- VAR, Vector moving average models-VMA, ARMA and Model evaluation Vector models for mean, Time varying variance-covariance matrix and the dynamic conditional correlation models.

MODULE-IV: RANDOM WALKS, COINTEGRATION AND VALUE AT RISK (VAR) MODELS

Pitfalls-Spurious regression, Co-integration and error correction models, Threshold co-integration and arbitrage models. Value at risk-VAR, An econometric approach to VAR calculations, Quantile estimation, Extreme value theory, An extreme value approach to VAR.

READING LIST

1. Pattersan Kerry (2000), An Introduction to Applied Econometrics: A Time Series Approach, Palgrave Macmillan.
2. Tsay, Ruey S (2001), Analysis of Financial Time Series, John Wiley and Sons, Macmillan Press.
3. Cochrane, John (2005), Asset Pricing, Princeton University Press, Princeton.
4. Greene, W. H. (2007), Econometric Analysis, 6 edn, Prentice Hall.
5. Grimmett, G. & Stirzaker, D. (2001), Probability and Random Processes, Oxford University Press.
6. Hamilton, J. D. (1994), Time series analysis, Princeton University Press, Princeton, N.J.

COURSE NAME: TIME SERIES ECONOMETRICS

COURSE CODE: ECO-E-532

Nature of Course: Elective

Prerequisite: ECO-C-502

MODULE-I: LINEAR REGRESSION MODELS USING TIME SERIES DATA

Regression models with strictly exogenous regressors, Regression models with predetermined regressors, Regression models with endogenous regressors.

MODULE-II: TIME SERIES MODELS FOR STATIONARY PROCESSES

Difference equations, Univariate ARMA models, Estimation of ARMA models, Vector autoregressions (VARs), Autoregressive Conditional Heteroskedasticity (ARCH) models.

MODULE-III: NON-STATIONARITY, UNIT- ROOTS AND COINTEGRATION

Non-stationarity in univariate models, unit- roots in vector models, Spurious regressions, Co-integration and error correction models.

MODULE-IV: OTHER ECONOMETRIC MODELS

Forecasting with regression models, ARIMA models, Vector autoregressive models, Vector error correction models, Granger causality, Nonlinear models, Discrete-valued time series models. Practice of econometric models through SPSS/E-VIEWS/STATA package.

READING LIST

1. Required: Hamilton, J.D. (1994): Time Series Analysis, Princeton University Press.
2. C.W.J., Newbold, P. (1986): Forecasting Economic Time Series, Academic Press (2nd edition).
3. White, H. (2000): Asymptotic Theory for Econometricians, Academic Press.
4. Enders, W. (2003): Applied Econometric Time Series.
5. Baltagi (2005), Econometric Applications of Panel Data, John Wiley and Sons, England.

COURSE NAME: GAME THEORY AND ITS APPLICATIONS IN ECONOMICS

COURSE CODE: ECO-E-533

Nature of Course: Elective

Prerequisite: ECO-C-403

MODULE-I: INTRODUCTION AND REVIEW

Introduction: concept and definition of game theory, Theory of rational choice, interacting decision makers.

MODULE-II: STRATEGIC GAMES AND NASH EQUILIBRIUM

Strategic games: examples Nash equilibrium: concept and examples, Best response functions, Dominated Actions, Symmetric games and symmetric equilibrium.

MODULE-III: ILLUSTRATIONS OF NASH EQUILIBRIUM AND MIXED STRATEGY NASH EQUILIBRIUM

Cournot's model of duopoly market, Bertrand's model of duopoly market, Electoral Competition, War of Attrition, Auctions, Accident Laws. Strategic games with randomization, Mixed strategy Nash equilibrium: concept and examples, Dominated Actions, Formation of Players' beliefs.

MODULE-IV: EXTENSIVE GAMES AND NASH EQUILIBRIUM

Introduction to extensive games, Strategies and outcomes, Nash equilibrium, Subgame perfect Nash equilibrium, Backward induction, Stackelberg model of duopoly markets Ultimatum game.

READING LIST

1. Osborne, M.J. An Introduction to Game Theory, Oxford University Press, 2004.
2. Mas-Colell, A. M.D. Whinston and J.R. Green Microeconomic Theory, Oxford University Press, 1995.
3. Gibbons, R. A Primer in Game Theory, Pearson Education, 1992.
4. Bierman and Fernandez, Game Theory with Economic Applications, Second Edition, Addison Wesley (1998).
5. Binmore, Fun and Games, Heath (1992).
6. Dixit and Nalebuff, Thinking Strategically, W.W. Norton (1991).
7. Fudenberg and Tirole, Game Theory, MIT Press (1991).
8. Gibbons, Game Theory for Applied Economists, Princeton University Press (1992).
9. Krishna, Auction Theory, Academic Press (2002). Auction theory.
10. Osborne and Rubinstein, A Course in Game Theory, MIT Press (1994).

COURSE NAME: INDUSTRIAL ECONOMICS

COURSE CODE: ECO-E-534

Nature of Course: Elective

Prerequisite: None

MODULE-I: ORGANIZATIONAL FORM AND STRUCTURE AND PRODUCTIVITY

Organisational forms-Types and choice of form of organization; Business motives- Alternatives types of motives/goals, Evaluation of goals.

Market structure: Seller's Concentration; Product Differentiation; Profitability; Innovation Industrial Productivity- Measurement; Partial and total trends.

MODULE-II: MARKET CONDUCT AND EFFICIENCY

Market conduct- Theories of Product pricing; Investment expenditure-methods of investment expenditure; Theories and empirical evidence on Merger and Acquisition (M&As) and Diversification.

Economic efficiency- factors determining efficiency and firm size; limits and obstacles to the size of firm-a synthesis on the size of firm, efficiency and decision making process.

MODULE -III: THEORIES OF INDUSTRIAL LOCATION AND PATTERN

General determinants of industrial location; Approaches to industrial location analysis:- Alfred Weber's theory; Sergeant Florence's theory of industrial location, Market area theory, Central place theory of Losch; Industrial imbalances-causes and remedies; Need for balanced regional development of industries; Government policy and approach for the development of backward regions in India.

MODULE-IV: INDIAN INDUSTRIAL GROWTH, LABOUR AND FINANCE

Industrial policy in India- Role of Public and private sectors; recent trends in Indian industrial growth; policies and programmes.

Industrial labour- Problems, policies and reforms in India; Industrial legislation and social security measures in India.

Sources of finance- choice of funding-external versus internal sources, Institutional finance; Financial Statement-Balance Sheet; Profit and loss account; Assessment of financial soundness.

BASIC READING LIST:

1. Barthwal, R. R (1985), Industrial Economics, Wiley Eastern limited, New Delhi.

READING LIST

2. Desai, B (1999), Industrial economy of India, Himalaya Publishing House, Mumbai.
3. Cherunilam, F. (1994), Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
4. Hay, D A and Morris D J (1979), Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.
5. Divine, P.J. and R.M. Jones et. al. (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd., London.
6. Government of India, Economic Survey (Annual).
7. Sivaya, K V and Das, V B M (latest edition), Indian industrial economy, Sultan Chand.
8. Mishra and Puri (latest edition), Indian economy, Himalaya publisher.
9. Seth R, Industrial Economics, Ane BooksPvt Ltd.
10. Singh, A and A.N. Sandhu (1988), Industrial Economics, Himalaya Publishing House, Mumbai.

COURSE NAME: LABOUR ECONOMICS

COURSE CODE: ECO-E-535

Nature of Course: Elective

Prerequisite: None

MODULE-I: INTRODUCTION TO LABOUR ECONOMICS

Definition, Significance and Peculiarities of Labour, Nature, Scope and Importance of Labour Economics, Characteristics of Indian Labour Market, Labour Market policies, Mobility of labour

MODULE -II: WAGE DETERMINATION

Marginal Productivity Theory, Theory of Collective Bargaining, Modern Theory of Wages. Minimum Wage and Fair Wage, Wage Determination in – Organised- Unorganised Sector, Evolution and Features of Wage Policy in India

MODULE-III: INDUSTRIAL RELATIONS

Labour Unions in India- Growth, Pattern, Structure and Achievements of Labour Union in India, Causes of Industrial Disputes and their settlement and preventive mechanism, Current trends in Collective Bargaining , Social Security Measure

MODULE-IV: MIGRATION AND LABOUR MARKET REFORMS

Approaches to Labour Migration trends and effects of Migration, Child Labour Policy in India, Problems and Policy of Female Workers in India, Labour Relations in India, ILO:- Establishment of ILO, Aims and objectives of ILO,

READING LIST

1. Datt, G. (1996), Bargaining Power Wages and Employment: An Analysis of Agricultural Labour Markets in India, Sage Publications, New Delhi.
2. Hajela, P.D. (1998), Labour Restructuring in India: A Critique of the New Economic Policies, Common Wealth Publishers, New Delhi.
3. Lester, R.A. (1964), Economics of Labour 92nd Edition), Macmikllan, New York.
4. McConnell, C. R. and S. L. Brue (1986), Contemporary Labour Economics, McGraw hill, New York.
5. Papola, T.S., P. P. Ghosh and A. N. Sharma (Eds) (1993), Labour Employment and Industrial Relations in India, B.R Publishing Corporation., New Delhi.
6. H.B.and T.N.srinivasan (Eds), The Handbook of Development Economics, North Holland, New York.
7. Venkata Ratnam C.S. (2001), Globalisation and Labour Management Relations, Dynamics of Change, Sage Publications, Response Books, New Delhi.

COURSE NAME: INDIAN PUBLIC FINANCE

COURSE CODE: ECO-E-536

Nature of Course: Elective

Prerequisite: None

MODULE-I: THE INDIAN TAX SYSTEM

Constitutional Assignment of Expenditures-Union, States and Concurrent: 73rd and 74th Amendments, Role of Local Governments; Assignment of Taxes to Various levels of Governments; The Indian Tax System: Centre-Personal Income and Corporate Profit Taxes, Wealth Tax, CENVAT, Import Duties (Customs), Service Tax; States: Sales Tax, State Excise, Motor Vehicle Tax, Stamps and Registration, Land Revenue, Agricultural Income Tax. GST.

MODULE-II: GOVERNMENT EXPENDITURE, DEFICIT AND PUBLIC DEBT

Growth of Expenditure: Changing Composition, functional, Capital and Revenue heads; Evaluation of Structure of Government Expenditure: Centre and States. Deficit: Fiscal Deficit, Primary Deficit, Revenue Deficit-States and Centre and Combined States and Centre; Public Enterprises and the Budget; Public Debt: Internal and External Debts, Debt Dynamics in India.

MODULE-III: INTER-GOVERNMENTAL TRANSFERS

Aspects of Fiscal Federalism, Theory, Vertical Fiscal Gap, Theory of Grant, Matching and Non-Matching, Conditional and Unconditional grants; Finance and Planning Commissions, Pattern of Transfers, Equity and Efficiency Aspects, Possible lines of Reforms.

MODULE-IV: TAX REFORMS

Reforms in Personal Income Tax, Corporate Profit Tax, CENVAT, Sales Tax, Stamps and Registration Fees; Tax Reform-Assessment of Progress, fiscal crisis and fiscal sector reforms in India. Good and Service Tax (GST): Good or Bad.

READING LIST

1. Chelliah, R.J. (1989) - Towards Sustainable Growth: Essays in Fiscal and Financial Sector Reforms in India, Oxford University Press.
2. Chelliah, R.J.(1990) et al - Primer on Value Added Tax, NIPFP.
3. Government of India, Reports of the Tax Reforms Committee.
4. Government of India, Budget Documents (Various years).
5. Govinda Rao M. and Sen Tapas K(1994). - Fiscal Federalism in India: Theory and Practice.
6. Ministry of Finance, Indian Public Finance Statistics (Various Issues).
7. Mundle, Sudipto (ed.) (2000) - Public Finance-Policy Issues for India, Oxford Uni. Press.
8. Srivastava, D. K. (Ed.) (2000) - Fiscal Federalism in India: Contemporary Challenges and Issues before Eleventh Finance Commission.

COURSE NAME: BUDGETARY THEORY AND PRACTICE

COURSE CODE: ECO-E-537

Nature of Course: Elective

Prerequisite: None

MODULE-I: GOVERNMENT AND THE MARKET

Government in a Market System: Government and the Market, Production, Provision and Privatization, Efficiency and inefficiency in the Public Sector; The Structure of the Governments: Organizing Public service Delivery, Designing a Federal Structure, The State-Local Relationship, and Evolution of Fiscal Federalism in India; Federal Government Revenue and Spending, State and Local Revenue and Expenditures, How big should Government Be? What makes Government Grow?; Constraining the Growth of Government.

MODULE-II: GOVERNMENT SPENDING

Budgeting in the Public Sector: Budgeting Process, Revenue Forecasting, Off-Budget and On-Budget Funds; Budgeting Expenditures; Zero-based Budgeting; Budgeting and Public Choice: Balanced budgets, Deficits and Debts; Cost-Benefit Analysis- The Decision Rule, Kinds of Cost-Benefit Analysis, Present Value and Cost-Benefit Analysis, Choosing a discount rate, Capital Spending and Public Sector Borrowing; Efficiency Issues: Why Public Capital?; Equity Issues: Financing Infrastructure, Transportation Infrastructure.

MODULE-III: FUNDING GOVERNMENT: TAXES, FEES AND GRANTS

Principles of Taxation: Efficiency issues in Tax Design, Equity Issues in Tax Design; Practical Problems in Tax Design: Criteria for Tax/Revenue System Design Tax Expenditures, Interstate Tax Issues, Taxation in Global Economy; Fees and Charges as a Revenue Source: Fees or Taxes?, Types of Fees and Charges, Equity issues in Fees and Charges, Fees and Charges as Growth management tools.

MODULE-IV: INTERGOVERNMENTAL GRANTS IN THEORY AND PRACTICE

Growth and Decline of Federal Grants: Purposes of Grants, Correcting Spatial Externalities, Redirecting Priorities; Types of Grants: General Purpose or Categorical. Formula or Project. Lump sum or Matching?; Open ended or Closed Ended?, Matching Grants; Efficiency and Equity Effects of Grants: Indifference Analysis of Grants, Lump sum Grants, Fungibility and Maintenance of Effort Flypaper Effect.

READING LIST

1. Buiter, W.H. (1990): Principles of Budget and Fiscal Policy, MIT Press.
2. David N. Hyman (2007): Public Finance: A Contemporary Application of Theory to Policy, Thomson Asia Pvt. Ltd., Singapore.
3. Davie, B.F. and Duncombe, B.F. (1970): Public Finance, Holt. Rineha and Winstreet, NY.
4. Hyman, David N. (1983): Public Finance: A Contemporary Application of Theory to Policy, The Dryden Press, NY.
5. Jha, Raghendra (1987): Modern Theory of Public Finance, Wiley Eastern, Delhi.
6. Mishra, B. (2006): Economics of Taxation: Theory and Application, Akansha Publishing House, ND.
7. Musgrave, R.A. (1959): The Theory of Public Finance, Tata McGraw Hill, ND. Additional Reading List.
8. Bhargava, P.K. (1982): Centre State Resource Transfers in India, Academic Press, Gurgaon.
9. Borkar, V.V. (1971): Income Tax Reform in India, Popular Prakashan, Bombay.
10. Chelliah, R.J. (ed.) (1997): Towards Sustainable Growth, OUP, ND.

COURSE NAME: MONETARY ECONOMICS

COURSE CODE: ECO-E-538

Nature of Course: Elective

Prerequisite: None

MODULE- I: DEMAND FOR AND SUPPLY OF MONEY

Demand for Money: Quantity theory of money – Keynesian analysis – Monetarist approach – Empirical evidences. Supply of Money: Central bank and money supply – Creation of money and role of commercial Banks.

MODULE-II: MONEY AND INTEREST RATES

Understanding interest rates behaviour and term structure of interest rate. Factors influencing changes in equilibrium interest rate and liquidity preference framework – Role of money and interest rates on real economic activity and inflation. Applications: Changes in income, money and prices on equilibrium interest rates.

MODULE-III: BANKING INSTITUTIONS AND NBFI's

Development banks-role and functions; investment banking and merchant banking; financial sector in India - Proliferation of commercial banking and non-banking financial intermediaries. Regional Rural Banks and other banking institutions'. Recent reforms in banking systems. NBFI's- Role and functions.

UNIT IV: RBI AND MONETARY POLICY IN INDIA

Monetary policy in developed; and developing countries-Instruments of monetary policy- Effectiveness of monetary policy. Reserve Bank of India and its monetary policy: Overall monetary policy framework – instruments, targets and objectives – transmission mechanism – operating procedure, liquidity management and OMOs – challenges in the conduct of monetary policy. Recent reforms in monetary policies.

READING LIST

1. Bhole, L.M. (2000), Indian Financial Systems, Chugh Publications, Allahabad.
2. Goldsmith, R.W. (19 (39), Financial Structure and Development, Yale, London.
3. Hanson, J.A. and S.Kathuria (Eds) (1999), India: A financial Sector for the Twenty-First Century, Oxford University, Press, New Delhi.
4. Harker, P.T. and A.Tenias (2000) (Ed) Performance of Financial Institutions, Cambridge University Press, Cambridge.
5. Johnson, H.S. (1993), Financial Institutions and Markets, Tata McGraw Hill, New Delhi.
6. Khan, M.Y. (1996), Indian financial System, Tata McGraw Hill, New Delhi.
7. Machi Raju, M.R. (1999), Indian Financial Systems, Vikas Publishing, New Delhi.
8. Prasad, K.N. (2001), Development & India's Financial Systems, sarup & Sons, New Delhi. Avadhani, Study in Indian Financial System.
9. Mishkin, Frederic (2008): The Economics of Money, Banking, and Financial Markets, 7th edition, Pearson Addition Wesley, New York.

10. Rangarajan, C. and B. H. Dholakia (1979): Principles of Macroeconomics, Tata-McGraw Hill Publishing Company Limited, New Delhi.
11. Reddy, Y.V. (2000): Monetary and Financial Sector Reforms in India: A Central Banker's Perspective, UBSPD, New Delhi.

COURSE NAME: FINANCIAL ECONOMICS

COURSE CODE: ECO-E-539

Nature of Course: Elective

Prerequisite: None

MODULE-I: EXPECTED UTILITY THEORY AND CHOICE UNDER UNCERTAINTY.

The Economic properties of utility functions – concept & measures to model attitudes towards risk – Expected utility maximization – Risk aversion – Motivation – First order stochastic dominance – Second order stochastic dominance - stochastic dominance Vs dominance.

MODULE-II: RISK, ASSET PRICING MODELS AND TERM STRUCTURE OF INTEREST RATE

Trade- off between risk and return (the Markowitz model) – Efficient frontier of risky assets Value at risk of a portfolio – computing VAR – Definition of VAR - Security market line – standard and Zero Beta CAPM – Empirical evidence on CAPM – Deriving APT- Measuring performance using APT - Drawing the term structure – Methods of computing the yield to maturity – Market Expectations theory of the term structure – yield curve analysis – Liquidity preference theory of the term structure – Market segmentations theory of the term structure.

MODULE-III-: MODELS OF SECURITIES PRICES IN FINANCIAL MARKETS

Single period models – Asset dynamics – Portfolio and Wealth process – Multi-period models – General model specifications – Cox-Ross Rubinstein Binomial model – Continuous time models – Simple facts about the Merton Black-Scholes model – Brownian Motion process – Diffusion process– Stochastic Integrals – it's rule.

MODULE-IV: EFFICIENCY & VOLATILITY IN FINANCIAL MARKETS AND OPTION-FEATURES & PRICE BOUNDS

Three forms of EMH and their implications for financial markets – Random walk – Martingales - Causes of Volatility – volatility testing.

Basic taxonomy of option analysis – Payoff structure of an option – Price Bounds for Options Risk Neutral pricing – basic notions of Binomial – Multinomial – Black-Scholes Pricing – What the hedge ratio ('Delta') – Gamma – Vega Theta – Rho means.

READING LIST

1. David A. Dufresne and Thomas W. Miller (2003), Derivatives: Valuation and Risk Management, OUP.

2. J. Cvitanic and Zapatero F (2004), Introduction to Economics and Mathematics of Financial Markets, MIT Press, Cambridge, London.
3. E. J. Elton and M.J. Gruber (1995), Modern Portfolio Theory and Investment Analysis, Wiley, London.
4. Z. Bodie, A. Kane and A.J. Marcus (2004), Investments, Irwin McGraw – Hill, London.
5. Prasanna Chandra, Financial Management, Theory and Practice, Tata McGraw Hill, New Delhi.
6. Harker P. T. and S. A. Zenios (2000) (Eds) Performance of Financial Institutions, Cambridge University Press, Cambridge.
7. Johnson , H. J. (1993) Financial Institutions and Markets, McGraw Hill, New York.
8. Khan M. Y. (1996) Indian Financial System Tata McGraw Hill, New Delhi.
9. Prasad, K. N. (2001), Development of India's Financial System, Sarup & Sons, New Delhi.
10. Harker, P.T. and S.A. Zenias (2000) (Ed.), Performance of Financial Institutions, Cambridge University Press, Cambridge.

COURSE NAME: SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

COURSE CODE: ECO-E-540

Nature of Course: Elective

Prerequisite: None

MODULE-I

Investment - Alternatives, and attributes - Investment speculation – Security of investment- Investment process, Sources of investment information Securities market-Primary & Secondary-Structure and Functions.

MODULE-II

Return and Risk - Concepts and measurement of returns; Sources of Risk – systematic Risk vs unsystematic risk. Measurement of Risk.

MODULE-III

Approaches to valuation-Fundamental Analysis-Technical Analysis-Efficient Market Hypothesis -Forms of market efficiency -Empirical evidence on market efficiency. Valuation of marketable Securities - Intrinsic value of bonds and preference shares: equity valuation - Growth models, Earnings multiplier approach.

MODULE-IV

Portfolio construction; selection and evaluation - Markowitz Model Efficient Frontier and selection of optimal portfolio, - Single Index Model – Capital Asset, Pricing Model, risk and adjusted measures for portfolio Performance evaluations.

READING LIST

1. Prasanna Chandra: investment Analysis & Portfolio Management Tata McGraw hill Publications Ltd.

2. Punit Havathy Panda : Security Analysis & Portfolio Management –Vikas Publication Pvt. Ltd.
3. Bodie, Kane and Marcus; Investments – Tata McGraw Hill.
4. Fisher & Jordan: Security Analysis & Portfolio management J. C. Francis; Investments; Analysis and Management.
5. Bhol, L.M. (2000), Indian Financial Systems, Chugh Publications, Allahabad.

COURSE NAME: HISTORY OF ECONOMIC THOUGHT

COURSE CODE: ECO-E-541

Nature of Course: Elective

Prerequisite: None

MODULE I: PRE-CLASSICAL THOUGHT

Nature and Importance of Economic Thought, Mercantilism: Views on Trade, Money and Prices. Physiocracy: Natural Order, Net product and Circulation of Wealth.

MODULE II: CLASSICAL THOUGHT

Adam Smith: Theories of Value and Distribution, Ricardian Economics: Value Analysis, Theories of Trade and Distribution. J S Mill: Theory of Value, Views On Production and Distribution. Classical Stationary State with special reference to Mill's views.

Unit-III: NEOCLASSICAL AND KARL MARX

Marxian Economics: Historical Materialism, Theory of Value, Theory of Capital Accumulation, Theories of Crisis. Walras's Theory of General Equilibrium. A General Overview of Marshall's Contribution, Features of Neo-classical economics. J.M. Keynes and his contribution.

UNIT-IV: INDIAN ECONOMIC THOUGHT

Main themes of Kautilya's Arthasashtra, Economic Ideas, Dada Bhai Naoroji, Ranade, Gokhale, M.K. Gandhi, R C Dutt, and Bhimrao Ambedkar. Comparison of Indian economic thought with western economic thought.

READING LIST

1. Blackhouse, R. (1985), A History of Modern Economic Analysis, Basil Blackwell, Oxford.
2. Ganguli, B.N. (1977), Indian Economic Thought: A 19th Century Perspective, Tata McGraw Hill, New Delhi.
3. Grey, A. and A.E. Thomson (1980), The Development of Economic Doctrine, (2nd Edition), Longman Group, London.
4. Kautilya (1992), The Arthashastra, Edited, Rearranged, Translated and Introduced by L.N. Rangaranjan, Penguin Books, New Delhi.
5. Schumpeter, J.A. (1954), History of Economic Analysis, Oxford University Press, New York.
6. Seshadri, G.B. (1997), Economic Doctrines, B.R. Publishing Corporation, Delhi.

7. Blaug, M. (1997), *Economic Theory in Retrospect: A History of Economic Thought from Adam Smith to J.M. Keynes*, (5th Edition), Cambridge University Press, Cambridge.
8. Adam Smith to J.M. Keynes, (5th Edition), Cambridge University Press, Cambridge.
9. Dasgupta, A.K. (1985), *Epochs of Economic Theory*, Oxford University Press, New Delhi.
10. Hunt E.K. and Mark, Lautzenheier (2011): *History of Economic Thought*, PHI Learning.

COURSE NAME: ECONOMICS OF SOCIAL SECTOR

COURSE CODE: ECO-C-542

Nature of Course: Core

Prerequisite: None

MODULE-I: INTRODUCTION TO ECONOMICS OF EDUCATION

Definition and scope of economics of education, classical economists and education; Human Capital: uses, sources, values, investment in human capital, education and economic growth: dimensions, sources, contributions.

MODULE-II: COST AND FINANCING OF EDUCATION

Cost of Education: direct and indirect; Benefits of Education: types and measurement. Private resources in education and their limitations, Rationale of government funding and regulation of education- Alternative method of financing education, Structure of education system in India, Resource allocation to primary, secondary and higher education in India. Problems of education system in India: efficiency, equity and distributional aspects, educated unemployment.

MODULE-III: INTRODUCTION TO ECONOMICS OF HEALTH

Definition and scope of economics of health- the concept of health and health care- the role of health in economic development, health as human capital determinants of health, Economic dimensions of health care or Health care market- Demand for health care, supply of health care, production and cost of health care, health insurance and health care financing, equity in health care, Welfarist and non-welfarist foundation of economic evaluation, principles of economics evaluation in health care, Monetary valuation of health care benefits.

MODULE-IV: OVERVIEW OF INDIA'S HEALTH CARE SECTOR

Health Care System in India: history, structure, and programs, MDGs and SDGs for Health in Indian context, Health care financing in India- Expenditure of public health sector, Private health sector, Out-of-pocket expenditure, Private benefits and private costs of providing health services, Poverty and nutrition status in India, Critical Evaluation of Health Sector Reform in India and respective States.

BASIC READING LIST

1. Cohn, Elchanan (1972), *The Economics of Education*, Lexington Books, D. C. Heath and Company, Lexington.
2. Blaug, M. (1970), *An Introduction to the Economics of Education*, Allen Lane The Penguin Press, London.

3. Zweifel, P., Breyer, F. and Kifmann, M. (2009), Health Economics, Springer-Verlag Berlin Heidelberg.
4. Klarman H.E. (1965), The Economics of Health, Columbia University Press, Columbia.
5. Morris S., Davlin N., and Parkin D. (2007), Economic Analysis in Health Care, Wiley India Pvt. Ltd.
6. Henderson, J.W. (2002), Health Economics and Policy, South-western Thomson Learning

ADDITIONAL READING LIST

1. Pearce, D. and Dasgupta, p. (1982), Social Benefit Cost Analysis, Macmilan, London.
2. Weisbroad, B. A., (1961), Economics of Public Health, University of Pennsylvania Press, Pennsylvania.
3. Jimenz E., (1987), Pricing Policy in the Social Sectors, the Johns Hopkins University Press, New York.
4. Mark Blaug, (2000), Economics of Education.
5. Sudha V. Rao (2003), Education and Rural Development.
6. Theodore W. Schultz (1999), Investment in Human Capital.
7. Nalla Gounden A.M. (1998), Education and Economic Development.