Dr. S.R.K. Govt. Arts College, Yanam
DEPARTMENT OF ECONOMICS
M.A Branch- Economics

SEMESTER I			
Sl.No.	**Year**	**Subject Code**	**Subject Name**
1.	First	11(3)	Micro Economic Analysis -1
2.		12(3)	Macro Economic Analysis- 1
3.		13 (3)	Mathematical Economics
4.		14 (3)	Econometric Theory
5.		15(3)	Economics of Growth & Development

SEMESTER II			
Sl.No.	**Year**	**Subject Code**	**Subject Name**
1.	First	21(3)	Micro Economic Analysis -II
2.		22(3)	Macro Economic Analysis -II
3.		23(3)	Statistical Methods in Economics
4.		24(3)	Applied Econometrics
5.		25(3)	Public Economics

SEMESTER III			
S.No.	**Year**	**Subject Code**	**Subject Name**
1.	Second	31(3)	International Trade & Finance
2.		32(3)	Contributions By Noble Laureates - I
3.		33(3)	Computer Applications in Economic Analysis
4.		34(3)	Research Methodology
5.		35(3)	Indian Economy : Issues & Policies – I

SEMESTER IV			
S.No.	**Year**	**Subject Code**	**Subject Name**
1.	Second	41(3)	Indian Economy : Issues & Policies – II
2.		42(3)	Financial Economics
3.		43(3)	Contributions by Noble Laureates - II
4.			Project Work

MICROECONOMIC ANALYSIS-I

Module 1: Advances in Demand Theory

Modern utility analysis of Choices involving risk or uncertainty- Bernouli, Neumann Morgenstern, Friedman savage and Markowitz Hypotheses-Revealed Preference Theory andderivation of demand and indifference curve-Revision of Demand theory by Hicks-Logical Ordering-Recent developments in demand theory-Pragmatic Approach (The Constant Elasticity of Demand function, The Dynamic Demand function, The Empirical Demand Function) The Linear Expenditure systems, the Indirect utility function, the Expenditure function, Lancaster's Demand theory-Bandwagon effect-veblen efffect – Cobweb theorem, Lagged Adjustment in interrelated markets.

Module 2: Advances in Production Theory

Relation between returns to scale and returns to a factor- multi product firm- production function: Cobb Douglas, CES, VES and Translog production function- Production function Vs production process-Technical progress and production function

Module 3: Advances in Theory of Costs and Optimisation

Traditional and modern theories of Costs-Empirical evidence- Derivation of Long run total cost curve from production function-Economies of Scale and Long Run Average Cost Curves

Module 4: Price and Output Determination

Marginal analysis as an approach to price and output determination: Perfect competition- short run and long run equilibrium of the firm and industry-price and output determination short run and long run-supply curve of the industry under perfect competition – Joint Demand and joint Supply – Composite demand and composite supply, Monopoly –short run and long run equilibrium, price discrimination – Degree of monopoly power- welfare aspects- monopoly control and regulation; Resource allocation under monopoly-Monopsony and Bilateral monopoly; Monopolistic competition-General and chamberlain approaches to equilibrium, equilibrium of the firm and group with product differentiation and selling costs, excess capacity under monopolistic and imperfect competition; Oligopoly-non collusive (cournot, Bertrand, Edgeworth, chamberlin, Kinked demand curve and Stackelberg's solution)and collusive (cartels and mergers, price leadership and basic point price system) models; workable competition – Structure, conduct and performance norms.

Module 5: Alternative methods of Pricing and Optimisation

Pricing principle – Average or full cost pricing- Mark up pricing- Limit pricing theory- Bains's version- silos – Labini model of limit pricing- Public Utility Pricing- Game theory and price determination- Input output analysis – Linear Programming

Readings:

1. Koutsoyiannis, A. (2000) Modern Microeconomics, (2nd Edition), Macmillan press,London
2. Layard, P.R.G. and Walters, A.W. (1978), Microeconomic Theory, McGraw Hill, London.
3. Sen A. (1999), Microeconomics: Theory and Application, Oxford University Press, NewDelhi
4. Stigler,G. (1996), Theory of Price, PHI, New Delhi
5. Varian, H.R. (2000), Microeconomic Analysis, W.W.Norton, NewYork
6. Mankiw, N.G. (2009), Economics: Principles and Applications, Cengage Learning, Indiaedition

MACROECONOMICS I

Module 1: Measuring Key Macroeconomic Variables

Various Concepts and Measurements of Aggregate Income – Income, Expenditure and the Circular Flow – Rules for Computing GDP – Real vs. Nominal GDP – Measuring the Cost of Living (consumer and whole sale price indices) – Measuring the Unemployment Rate – Unemployment, GDP and the Okun's Law.

Module 2: Theories of Consumption

The Classical Views on Consumption – The Psychological Law of Consumption – Kuznets's Consumption Puzzle – Fisher's Inter-temporal Choice Model – Permanent Income Hypothesis – Life Cycle Hypothesis – The Random Walk Hypothesis and consumption.

Module 3: Theories of Investment

The Neoclassical Theory of Investment – Capital Theory and Theory of the Firm – Finance and the Cost of Capital – The Accelerator Theory of Investment – The Stock Market and Tobin's Q Theory – Inflation and Investment – Policies affecting Investment.

Module 4: Theories of Money Demand

Inventory Theoretic Approach (William Baumol) – Liquidity Preference as Behavior Towards Risk (James Tobin) – A Restatement of Quantity Theory of Money (Milton Friedman) – The Buffer Stock Notion (David Laidler) – Partial Adjustment Mechanism – Empirical Issues in Money Demand Estimations.

Module 5: Theories of Money Supply

The Concept and Measurement of High Powered Money – Sources of Variation in High Powered Money – The Money Multiplier Model – Factors affecting Money Multiplier – Behavioural Model of Money Supply – The Portfolio Model of Money Supply.

Module 6: The IS – LM Model

The Neoclassical and Keynesian Macroeconomic Models – The Interaction of Real and Monetary Sector – The Neoclassical and Keynesian version of IS-LM Model – Fiscal and Monetary Policy Analysis in IS-LM Model – Fiscal Policy and Crowding out – Ricardian Equivalence – The Relative Efficacy of Fiscal and Monetary Policy – The Aggregate Supply in the Short and Long Run – Aggregate Demand and Price Determination – Pigou Effect and Real Balance Effect in the IS-LM Model – Aggregate Demand in the Open Economy – The Mundell-Flemming Model – The Fiscal and Monetary Policy Operation under Fixed and Floating Exchange Rate Regime – Trade Policy in IS-LM Models.

Readings:

1. Rosalind Levacic and Alexander Rebmann (1982), Macroeconomics: An Introduction to Keynesian – Neoclassical Controversies, Macmillan.
2. Errol D'Souza (2008), Macroeconomics, Pearson.
3. David Romer (1996), Advanced Macroeconomics, McGraw-Hill.
4. David, G Pierce and Peter J Tysome (1985), Monetary Economics: theories, evidence and policy, Butter worths.
5. Laidler, D.E.W. (1984), The Buffer Stock Notion in Monetary Economics, Economic Journal 94, 17-34.

MATHEMATICAL ECONOMICS

Module 1: Basic Calculus

Concept of function and types of functions – limit, continuity and derivative – Rules of differentiation – Rules of partial differentiation and interpretation of partial derivatives – Problems of maxima and minima in single and multivariable functions – Unconstrained and constrained optimization – Applications of differentiation in economics – Concept of integration – Simple rules of integration and its application to consumer's surplus and producer's surplus – Growth rates and simple properties of time path of continuous variables.

Module 2: Linear Algebra

Determinants and their basic properties – Solution of simultaneous equations through Cramer's rule – Concept of matrix – their types, simple operations on matrices, matrix inversion and rank of a matrix – Concept of vector – its properties – Matrices and vectors – Concept of quadratic forms – Eigen roots and Eigen vectors – Introduction to input-output analysis.

Module 3: Differential equations

Exponential growth – Separable equations – linear differential equations and integrating factors – Second-order differential equations – Coupled equations, including the use of matrix diagonalisation – Economic applications of differential equations.

Module 3: Difference equations

Solving first-order difference equations – Application of first-order difference equations to financial problems – The cobweb model – Second-order difference equations – Coupled first – order difference equations, including the use of matrix diagonalisation – Economic applications of second – order difference equations – Applications in trade cycle models – Growth models and lagged market equilibrium models.

Module 5: Linear programming

Basic concept, formulation of a linear programming problem Its structure and variables – Nature of feasible, basic and optimal solution – Solution of linear programming through graphical and simplex method – Statement of basic theorems of linear programming – Formulation of the dual of a programme and its interpretation – Shadow prices and their uses – Concept of duality and statement of duality theorems – Concept of a game – Strategies – simple and mixed – Value of a game – Saddle point solution – Simple applications.

Readings:

1 Sydsaeter, Knut and Peter Hammond (2006), Essential Mathematics for Economic Analysis, 2nd Ed. Financial Times, Prentice Hall: Harlow, England.
2 Yamane, Taro (1975), Mathematics for Economists, PHI, New Delhi.
3 Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press, New Delhi.
4 Gupta, S.C. (1993), Fundamentals of Applied Statistics., S.Chand, NewDelhi.
5 Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
6 Handry, A.T. (1999), Operations Research, PHI, New Delhi.

ECONOMETRIC THEORY

Module 1: Regression Analysis

Nature and Scope of Econometrics-The basic two Variable Regression model: Estimation, Statistical Inference and Prediction. Extensions of two variable regression model – regression through origin, Scaling and units of measurement, Functional forms of regression model-Multiple Regression: The problem of Estimation- Notation and assumptions, meaning of partial regression coefficients the multiple coefficient of determination R^2 and the multiple coefficient of correlation R, R^2 and adjusted R^2, partial correlation coefficients, Interpretation of Multiple Regression Equation. Properties of MLE and Estimation.

Module 2: The Problem of Inference

The normality assumption, Hypothesis testing about Individual Partial Regression coefficients, testing the overall significance of the sample regression, testing the equality of two regression coefficients, restricted least squares, testing for structural stability of regression models, testing the functional form of regression.

Module 3: Relaxing the assumptions of the Classical Linear Regression Model

Multicollinearity, Heteroscedasticity and Autocorrelation- Nature, Consequences, Detection and Remedial Measures. Model selection criteria, types of specification errors, tests of specification errors, Errors of measurement.

Module 4: Regression on Dummy Variables

The nature of Dummy variables, regression on one quantitative variable and one qualitative variable, regression on one quantitative variable and one qualitative variable with more than two classes, regression on one quantitative variable and two qualitative variables, testing for structural stability regression models, Interaction effects, piece wise linear regression, the use of dummy variables- Binary choice model – LPM, problems in LPM, Probit and Logit Model

Module 5: Dynamic Econometric Models:

Autoregressive and Distributed Lag models: role of lag in economics, estimation of distributed lag models-Koyck, Rationalisation of the Koyck Model and Almon approach to distributed lag models. Nature and Preliminary analysis of economic time series, Integration, Tests of Stationarity, unit root test, Non-stationarity and the problem of spurious regression.

Readings:

1. Gujarathi, D (2003) Basic Econometrics, 4th Edition, New York: McGraw Hill
2. Greene, W. (2003), 'Econometric Analysis', 5th edition, Prentice Hall
3. Johnston, J. (1984) Econometric methods, 3rd edition, New York: McGraw Hill.
4. Maddala, G (1992) Introduction to Econometrics, 2nd ed., New York: MacMillan.

ECONOMICS OF GROWTH AND DEVELOPMENT

Module 1:

Modern economic growth –basic features, trends and patterns- relevance of historical experience to contemporary UD countries- limited relevance- factors for – differing initial conditions- role of international migration and international trade.

Module 2:

Growth and development- conceptual issues. Issues in measurement- national income and per capita income – International comparison of per capita incomes – measurement of purchasing power parity. GNP- a biased index of development and welfare- construction of poverty weighted index of social welfare. Alternative measures of development – human development index- gender based development index, gender empowerment measure- international poverty index, global hunger index- social sector and development- Education and health.

Module 3:

Approach to the study of economic development – linear stage theory, structural change models, Neo Marxian dependency approach, false paradigm model, dualistic approach, neo-liberal free market approach, endogenous growth theory.

Module 4:

Growth models; Harrod Domar-knife edge equilibrium problem, Cambridge models- Joan Robinson, Kaldor, Neoclassical growth models- Solow swan Meade – criticism of neoclassical theory-emergence of endogenous growth models. Technological progress-embodied and disembodied – Hicks and Harrod version, production function approach to growth, total factor productivity and growth accounting.

Module 5:

Development and environment: Market based approach to environmental analysis, Harvesting of renewable nonrenewable resources, Measuring environmental values, economic growth and environment – sustainable development- policy measures. Ill effects- rain forest destruction, green house gases, global warming, climate change- policy- policy options in developing and underdeveloped countries.

Readings:

1. Debraj Ray, (1998), Development Economics Oxford University Press.
2. Simon Kuznets, (1966), Economic Growth, Rate structure and Spread, Yale University Press.
3. Michael P. Tadaro,(1998), Economic Development Longman,
4. Adam Szirmai, (2005), Dynamics of socio-economic development-An introduction, Cambridge University Press.
5. Amartya Kumar Sen, Growth Economics, Penguin Harmondsworth
6. Gerald Meir, (2003), Leading Issues in Economic Development, Oxford University Press.
7. A.P. Thirwall, (1994), Growth and Development ELBS.

MICROECONOMIC ANALYSIS: II

Module 1: Alternative Theories of the firm
Critical evaluation of marginal analysis; Baumol's sales revenue maximization model; Williamson's model of managerial discretion; Marris model of managerial enterprise; Behavioral model of Cyert and March

Module 2: Advances in Distribution Theory
Macro theories of distribution-Ricardian, Marxian, Kalecki and Kaldor's -Staffa model-Neo-classical approach- Marginal productivity theory; Product exhaustion theorem; Elasticity of technical substitution, technical progress and factor shares; Theory of distribution in imperfect product and factor markets; Determination of rent, wages, interest and profit;

Module 3: Welfare Economics
Pigovian welfare economics; Pareto optimal conditions; value judgement; social welfare Function; Compensation principle; Inability to obtain optimum welfare – Imperfections, market failure, decreasing costs, uncertainty and non-existent and incomplete markets; Theory of Second Best- Arrow's impossibility theorem; Rawl's theory of justice, equity-efficiency trade off

Module 4: General Equilibrium Theories
Partial and general equilibrium; Walrasian excess demand and input-output approaches to general equilibrium existence- stability and uniqueness of equilibrium – general equilibrium, coalitions and monopolies; production without consumption- One sector model, homogeneous functions, income distribution; production without consumption-Two sector model, relationship between relative commodity and factor prices (Stopler Samuelson theorem), relationship between output mix and real factor prices, effect of changes in factor supply in closed economy (Rybczynski theorem), production and consumption.

Module5: Economics of Uncertainty
Individual behaviour towards risk, expected utility and certainty equivalence approaches, risk and risk aversion- sensitivity analysis, gambling and insurance, the economics of insurance, cost and risk, risk pooling and risk spreading, mean-variance analysis and portfolio selection, optimal consumption under uncertainty, competitive firm under uncertainty, factor demand underprice uncertainty. The economics of search- different models, the efficient market hypothesis, stochastic models of inventory demand; market with incomplete information, search and transaction cost. The economics of information

Readings:

1. Koutsoyiannis, A. (2005) - Modern Microeconomics, Macmillan press, London
2. Layard, P.R.G. and Walters, A.W. (2001) - Microeconomic Theory, McGraw Hill, London.
3. Sen A(2005). - Microeconomics: Theory and Application, Oxford University Press, New Delhi
4. Stigler,G (2008). - Theory of Price, PHI, New Delhi
5. Varian, H.R.(2005) - Microeconomic Analysis, W.W.Norton, NewYork
6. Baumol,W.J (1998). - Economic Theory and Operations Analysis, Prentice Hall, New York
7. Pindyck and D. Rubinfield (2005) - Microeconomics, East West Press, London
8. Nicholson Walter (2007)- Microeconomic Theory, The Drydon Press, London
9. E.K .Browning and J.M. Browning (2003) - Microeconomics; Theory and Applications, Kalyani Publisher, New Delhi.

MACROECONOMIC ANALYSIS II

Module 1: The Labour Market
Profit Maximization and Labour Demand – Utility and Labour Supply – Aggregate Supply with/without Money Illusion – Neoclassical Labour Market Equilibrium – Introducing Unemployment – Principles of Effective Demand - The Keynesian Underemployment Equilibrium.

Module 2: Inflation and Unemployment
The Phillip's Relationship – Theoretical Underpinnings of Phillip's Curve –Natural Rate Hypothesis – Theory of Adaptive Expectation – Expectation Augmented Phillip's Curve – The Rational Expectation and Luca's Supply function – Policy Ineffective Theorem – The Lucas Critique – Rational Expectation and Implications of Monetary Policy.

Module 3: Theories of Business Cycles
Multiplier-Accelerator Interaction Model – Monetarists Interpretation of Business Cycles – Real Business Cycle Theory – Political Business Cycle Model.

Module 4: The Post Keynesian Macroeconomics
Walrasian and Keynesian Adjustment mechanism – Reinterpretation of Keynes – Dual Decision Hypothesis – Neo-Keynesian Quantity Constraint Models – Micro Theoretic foundations for Wage and Price Rigidity – Small Menu Cost – Efficient Wage Theory – Staggered Wage Setting – Insider-Outsider Model – Models of Coordination Failure.

Module 5: Recent Advancements in Macroeconomic Policies
The Debate over Rules vs. Discretion – Taylor's Rule and Monetary Policy – Inflation Targeting – Issues Relating to Inflation Targeting – Country Experiences with Inflation Targeting.

Readings:
1. Rosalind Levacic and Alexander Rebmann (1982), Macroeconomics: An Introduction to Keynesian – Neoclassical Controversies, Macmillan.
2. Errol D'Souza (2008), Macroeconomics, Pearson.
3. David Romer (1996), Advanced Macroeconomics, McGraw-Hill.
4. David, G Pierce and Peter J Tysome (1985), Monetary Economics: theories, evidence and policy, Butter worths.
5. Laidler, D.E.W. (1984), The Buffer Stock Notion in Monetary Economics, Economic Journal 94, 17-34.

STATISTICAL METHODS IN ECONOMICS

Module 1: Sampling Theory

Population and sample- Parameter and statistic-(Census method and sampling method of Data collection); Objects of Sampling- Methods of Sampling- Random and Non- Random; Techniques of sampling under each method- Sampling error and Non-Sampling error- Sampling distribution of a Statistic-Law of Statistical Regularity-Law of Inertia of Large Numbers-Central limit theorem

Module 2: Mathematical Expectation

Random variable-Discrete and continuous- Probability function of discrete Random Variable (Probability Mass Function)- Probability function of Continuous Random Variable (Probability Density Function)- Cumulative Distribution function; Mathematical Expectation-Theorems on Mathematical Expectation-Variance- Theorems on Variance

Module 3: Theory of Estimation

Meaning and concept of an Estimation-Concept of Estimator-Types of Estimation-Point and Interval Estimation- Desirable properties of an Estimator-Standard error of Estimator-Confidence limits for a population parameter

Module 4: Theoretical Distribution

Definition-types of theoretical distribution-Discrete theoretical distribution-Binomial Distribution-Poisson distribution; Continuous theoretical Distribution-Normal Distribution-Standard Normal Variate -Z distribution; Other Theoretical Distribution-Students "t" Dostribution-Chi-Square (χ^2) Distribution- F-Distribution

Module 5: Statistical Inference

Formulation of Statistical Hypothesis; Testing of Hypothesis-Null Hypothesis and Alternative Hypothesis-Stages in Hypothesis testing-Types of Error in Hypothesis testing-Type I error and Type II error-Level of Significance and confidence coefficient-Critical region or rejection region; Two tailed test and one-Tailed Test; Computation of Test statistic and significance Test-small sample test-'t' Test- χ^2 test- F test; Large sample test- Z test; Test of Significance concerning correlation coefficient; Power of Test; Analysis of Variance

Readings:

1. Speigal.M. R. (1992), Theory and problems of Statistics, McGraw Hill, London.
2. Monga,G.S. (1972), Mathematics and Statistics for Economists, Vikas Publications, New Delhi.
3. Gupta.S.C. (1993) Fundamentals of Applied Statistics, S.Chand, New Delhi.

APPLIED ECONOMETRICS

Module 1: Applied Consumption Demand Analysis

Engel curves, complete demand models; general and particular restrictions on demand functions, specification, estimation and applications of complete demand systems; Measures of economic inequality.

Module 2: Production Analysis

Relationship among production, cost and profit functions, specification, estimation and applications; frontier production functions, measurement of multifactor productivity.

Module 3: Dynamic Economic Models

Role of lags in economics – Estimation of Distributed Lag models – Adaptive Expectation models – Partial adjustment model – Method of instrumental Variable – Autoregressive model – Durbin h test – Almon approach to Distributed lag models – Casualty in Economics. Difference and trend stationary processes; unit roots; co integration; Granger causality; macro econometric models and critical review of existing Indian macro econometric models after 1990.

Module 4: Applications of Qualitative and Limited Dependent Variable Models

The nature of Qualitative response model - Logit and Probit models, Tobit model, Multinomial Logit, Nested Multinomial Logit Model

Module 5: Panel Data Models

Introduction – Estimation of panel data models – Fixed effects model – random effect model.

Readings:

1. D. N Gujarati (2003), Basic Econometric Methods, McGraw Hill, New York, 2004
2. Greene, W. (2003), 'Econometric Analysis', 5th edition, Prentice Hall
3. Nachane D.M (2006), Econometrics: Theoretical Foundation and Empirical Perspective

PUBLIC ECONOMICS

Module 1: Public Choice
Problems of preference revelation and aggregation of preferences; Voting systems; Arrow impossibility theorem; An economic theory of democracy; Politico-eco-bureaucracy; Rent seeking and directly unproductive profit seeking (DUP) activities.

Module 2: Rationale for Public Policy
Demand revealing schemes for public goods — Contributions of Clarks, Groves and Leyard, Tiebout model, theory of club goods; Stabilization Policy — Keynesian case for stabilization policy; Uncertainty and expectations; Failure of inter-temporal markets; Liquidity preference; Social goals; Poverty alleviation; Provision of infrastructural facilities, removing distributional inequalities and regional imbalances.

Module 3: Taxation and Public Debt
Trade off between equity and efficiency in Taxation ; Theory of measurement of dead weight losses; The problem of double taxation. Classical view of public debt; Compensatory aspect of debt policy; Burden of public debt; Sources of public debt;

Module 4: Fiscal Policy
Objectives of fiscal policy — full employment, anti-inflation, economic growth, redistribution of income and wealth; Interdependence of fiscal and monetary policies; Budgetary deficits and its implications; Fiscal policy for stabilization — automatic vs. discretionary stabilization; Alternative measures of resource mobilization and their impact on growth, distribution and prices; Balanced budget multiplier.

Module 5: Indian Public Finances
Lack of flexibility in Central and State budgets, shrinking size of development finance through budgets; Trends in public expenditure and public debt; Fiscal crisis and fiscal sector reforms in India; Reports of Finance Commissions in India.

Readings:
1. Goode, R. (1986), Government Finance in Developing Countries, TMH, New Delhi
2. Jha. R. (1998), Modern Public Economics, Routledge, London.
3. Musgrave, R.A. and P.B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo
4. Atkinson, A.B. and J.E. Stiglitz (1980), Lectures on Public Economics, TMH, New York.
5. Herber, B.P. (1967), Modern Public Finance, Richard D. Irwin, Homewood.
6. Stiglitz, J.E (2000), Economics of the Public Sector.

INTERNATIONAL TRADE AND FINANCE

Module 1: Foreign Exchange Rate
Foreign Exchange; Foreign Exchange Rate; Foreign Exchange market and exchange rate determination; functions of foreign exchange markets, uses of the foreign exchange Market; Theories of Foreign Exchange rate-the Mint parity theory; the Purchasing power parity Theory; The Balance of payment Theory; Monetary approach to the purchasing parity Theory

Module 2: Foreign Exchange market
Introduction; Structure and Functions of foreign Exchange market; Methods of Foreign payments; Concepts of Spot and Forward exchange Rate; Determinants of Exchange Rate under Fixed and Flexible Exchange Rate; Regime and Role of hedging in the determination of exchange rate; Theory of Interest Rate parity

Module 3:.Open Economy Macro-Economics
Determination of output, interest rates and exchange rates in the long and short runs; Macro-economic policy in an open economy and international policy coordination: fixed and Flexible exchange rates.

Module 4: International Monetary Institutions and Issues
Rise and Fall of Gold Standard; Bretten woods system, International Liquidity; Need, Objectives of IMF, The Subsequent Reforms of IMF; Currency crises, stabilization and other contemporary issues.

Module 5: Trade Situations in India
Trade problems and trade policies in India during the last five decades; Recent changes in the Direction and Composition of Trade and their Implications; Rationale and Impact of Trade reforms since 1991 on BOP; Employment and growth; Trade policy and Welfare with special reference to Developing countries; Instruments of Export Promotion and Recent Import and Export policies and Agenda for Future.

Readings:
1. Paul Krugman and Maurice Obstfeld (2006), International Economics: Theory and policy, latest edition
2. Salvatore D (1997), International Economics, PHI, New York
3. Dana ,M.S (2000), International Economics ,Routledge Publications ,London
4. Carbough ,R.J (1999), International Economics
5. Bhagwati.j (1981), International Trade, Cambridge University Press, London

COMPUTER APPLICATIONS IN ECONOMIC ANALYSIS

Module 1: Overview of Computer & Dealing with data

Basic operating instructions – Describing the data to RATS and E-views software packages – SPSS – Reading the data – Computing statistics – Displaying the data – Data transformations and creating new series – Graphing the data – Using SRC file in the RATS package - The tools – Where are your data now? Missing data – RATS format – Error messages – Familiarity with different data base such as: PROWESS, Capital online, HBS, National Sample Survey Organization reports, Census data – National Health and Family Welfare reports - Displaying graphs on the screen – Saving and operating graphs – Printing graphs – Labeling graphs – Overlay (two scale) graphs – Multiple graphs on a page.

Module 2: Scalars, Matrices and Functions

Working with scalars – Getting information from RATS – The RATS Data types – Basic Data types – The Aggregate Data types – Matrix calculations.

Module 3: Linear Regression & Hypothesis Testing

Annotated regression output – Extensions to linear regression; A framework – Heteroscedasticity – Serial correlation – Example 5.1 – Instrumental variables – Example 5.2. Polynomial distributed lags – Example 5.3. Choosing lag length information criteria – Example 5.4. Grunfeld's investment equations; Use of SUR - Example 6.1. - Testing for Heteroscedasticity – Serial correlation – Granger – Sims casuality/Exogeneity tests – Chow or structural stability tests.

Module 4: Non Linear Estimation

General principles and problems – Newton-Raphson and related methods – Setting up your model; Non-linear least squares/Two stage least squares; Example 7.1. Generalized instrumental variables.

Module 5: Introduction to Forecasting

Introduction – Forecast performance – Univariate forecasting – Box-Jenkins models – ARIMA procedures.

Readings:

1. Applied Econometric Time Series (1995), John Wiley & Sons, New York.
2. Box,G.E.R. and Jenkins,G.M.(1976), Time Series Analysis, Forecasting and Control, Holden Day, San Francisco.
3. Hamilton. J. (1994), Time Series Analysis, Princeton University, Princeton.

RESEARCH METHODOLOGY

Module 1:
Meaning of research- objectives of research - Approach to research- Significance of research - Types of research- Research in social science - Facts, theories and concepts in social science research - Research Design - features of a good research design.

Module 2:
Research problem – Identifying the research problem – formulation of research problem, concept of hypothesis- role and formulation of hypothesis- scientific methods of research- nature of scientific research- stages of scientific methods.

Module 3:
Logic and Scientific method- deductive and inductive methods- the case study methods- merits and demerits of case study methods- survey methods- merits and demerits of survey methods- type of survey- selecting the survey method – sample survey different types – merits and demerits.

Module 4:
Schedule and questionnaire – principle underlying the construction of questionnaire- measurement and scaling techniques- processing and analysis of data

Module 5:
Interpretation and report writing- steps- bibliography quality of a good research report.

Readings:
1. C.R. Kothari (1985),- Research Methodology, Wiley Eastern Ltd., New Delhi.
2. W. G. Cochran (1977)- Sampling Technique, John wiley, New York.
3. W.J. Goode and P.K. Hatt (1952) - Methods in Social Research, McGraw Hill, New York.
4. T.S. Wilkinson and P.L. Bhandarkar (1994) Methodology and Techniques of social Research, Himalaya Publishing
5. Earl Babies (2006), The practice of Social research, Wadsworth Publishing

INDIAN ECONOMY: ISSUES AND POLICIES – I

Module I: Resource Development in India

Resource profile of India-policies relating to the development of land, forest, water, fisheries and mineral resources of India- Economic development and Environmental degradation- Land degradation and soil erosion- Deforestation – Faulty utilization of water resources – Mining effects- Atmospheric pollution – Measures taken -Global climate change and India-various Global summits and their implications to India

Module II: Profile of Human Resources of India

Characteristics of Indian Population - qualitative and quantitative aspects – Population as a factor of development- Population policy –National population Policy (2000), Demographic dividend- Human Development during the plan period- Appraisal of Government measures – Human Development Index of States and India – India's Human Development record in global perspective.

Module III: Infrastructure Development in India

Infrastructure and Economic development -Economic Infrastructure –Energy, Power, Transport, communication, science and technology-policies pertaining to Economic Infrastructure Development –Financing of infrastructure development –PPP model-Financing institutions-international collaborations -Social Infrastructure-Education, Health – Achievements and failures of Education and Health systems of India –outlook for future development of social Infrastructure

Module IV: Planning Economic Development

Alternative development strategies- goal of self reliance based on import substitution and the post 1991 globalization strategies based on stabilization and structural adjustment packages – Indicative planning – Decentralized planning – District planning- Local planning- Panchayat Experience -73rd and 74th constitutional Amendments- critical Evaluation of Plan performance in India.

Module V: Agriculture and Rural Development

Current issues in Indian Agriculture-New thrust Areas in agriculture and future prospects of Green Revolution- Commercialization and diversification -Food security issues-Pricing of agricultural inputs and outputs-subsides in Agriculture-Economic Reforms and Agriculture-Impact of WTO on Indian Agriculture – Food processing- Agricultural policies- Public Distribution System- Agricultural finance -, Agriculture inputs - marketing and warehousing – policies for sustainable Agriculture- Impact of public Expenditure on Agricultural Growth – Rural Development programmes including poverty alleviation programmes- Bharat Nirman, Mahatma Gandhi National Rural Employment Guarantee programme – Water Supply, Sanitation, Public Health Programmes.

Readings:

1. Ahluwalia. I.J. and I.M.D Little (Eds) (1999), India's Economic Reforms and Development, Oxford University Press (OUP), New Delhi.
2. Bardhan, P.K. (1999), The Political Economy of Development in India, OUP, New Delhi.
3. Bawa,R.S. and P.S. Raikhy,(1997), Structural Changes in Indian Economy, Gurunanak Dev University press, Amritsar.
4. Chakravarty, S. (1987), Development planning: The Indian Experience, OUP, New Delhi.
5. Datt.R. (2001), Second Generation Economic Reforms in India, Deep & Deep Publications.
6. Ruddar Datt and K.P.M. Sundaram. (2008), Indian Economy, Sultan Chand and Co, New Delhi

CONTRIBUTIONS BY NOBLE LAUREATES I

Module 1: Welfare Economics

John Hicks; Kenneth Arrow; James Buchanan; Amertya K Sen; Leonid Kantorovich; Tjalling Koopmans

Module 2: Open Economy Macroeconomics, Theory of General Equilibrium and Development of National Accounts

Bertin Ohlin; James Meade; Robert Mundell; Paul Krugman; Gerard Debreu; Richard Stone

Module 3: Theory of Money, Economic Fluctuations and Policy

Gunner Myrdal; Friedrich Hayek; Milton Friedman; Lawrence Klein; Robert Lucas; Finn E Kydland; Edward C Prescott; Edmund Phelps

Module 4: Economic Organizations, Game Theory and Decision Making

Herbert Simon; John Harsanyi; John Forbes Nash; Reinhard Selten; Robert Aumann; Thomas Shelling

Module 5: Tools in Economics and Mechanism Design Theory

Ragnar Frisch; John Tinbergen; Paul Samuelson; Wassily Leontief; Trygve Haavelmo; James Heckman; Robert Engle; Clive Granger; Leonid Hurwicz; Eric Maskin; Roger Myerson

Readings:

1. Lindbeck, Assar (ed.) (1992), Nobel lectures in economic sciences 1969-1980, World Scientific,London.
2. Maler,Karl-Goram (ed.) (1992), Nobel lectures in economic sciences 1981-1990, World Scientific, London.
3. Puttaswamaiah (1995), Nobel Economists, Vol.2 1975-85, Indus Publishing Company, New Delhi.

INDIAN ECONOMY: ISSUES AND POLICIES - II

Module 1: Industrial Development
Critique of industrial policies-industrial reforms-Sources of Industrial finances- Banks, share market, Insurance companies, Pension funds, Non-banking sources and Foreign Direct Investment (FDI) – Role of Foreign Capital for direct investment and portfolio investment- Mulitnationals – reform of public sector enterprises-privatization and disinvestment debate-globalization and its impact on industrial development- regional disparities in industrial and structural growth -issues facing small scale sector-unorganized sector- Reservation policy relating to small scale Industries- Industrial relations and Labour welfare-National commission on labour- issues in labour market reforms.

Module 2: India's External Sector
Foreign Trade: Salient features of India's Foreign trade- composition, direction and Organisation of Trade – New Economic policy and trade: Intellectual Property Rights, Implications of TRIPS, TRIMS, GATS and New EXIM policy- Impact of WTO on various aspects of Indian Economy- Balance of Payments, tariff policy- New Exchange Rate Regime: Partial and full convertibility, Capital Account convertibility, Exchange rate and WTO requirements

Module 3: Indian Public Finance
Finances of central and state governments-an overview of central budgets-trends-public debt of India-deficit financing in India-fiscal reforms – Fiscal Responsibility Act-recommendations of tax and expenditure commissions-centre-state financial relations- Constitutional provisions relating to fiscal and financial powers of the states – financial aspects of Sarkaria Commission –The Finance commission awards-thirteenth finance commission award-centre-state conflict on finances

Module 4: Financial System in India
Money and capital markets- Changing role of RBI -financial sector reforms-monetary policy of RBI and interest rate polices- issues of commercial banks-stock exchange-working of SEBI and capital market reforms- Development finance Institutions, foreign banks and non banking financial institutions-Analysis of price behavior in India-policies of price control

Module 5: Current Indian Economic Issues
Adverse impact of Economic Reforms (privatization, liberalization and globalization)- impact of global financial crisis on the Indian economy-response of India to global crisis- Decelerating agricultural growth- Causes of environmental degradation-jobless growth and unemployment –inequality and economic power- poverty and deprivation-parallel economy- Growing regional inequalties- Rural urban disparities- problems of urbanization and migration- Balance of payments crisis -Growing fiscal deficit

Readings:
1. Ahluwalia. I.J. and I.M.D Little (Eds) (1999), India's Economic Reforms and Development, Oxford University Press (OUP), New Delhi.
2. Bardhan, P.K. (1999), The Political Economy of Development in India, OUP, New Delhi.
3. Bawa,R.S. and P.S. Raikhy,(1997), Structural Changes in Indian Economy, Gurunanak Dev University press, Amritsar.
4. Chakravarty, S. (1987), Development planning: The Indian Experience, OUP, New Delhi.
5. Datt.R. (2001), Second Generation Economic Reforms in India, Deep & Deep Publications.
6. Ruddar Datt and K.P.M. Sundaram. (2008), Indian Economy, Sultan Chand & Co, New Delhi

ECONOMICS OF EDUCATION

Module 1: Theory of Human Capital Formation
Concept of human capital forms of human capital – human capital and economics growth – measures of human capital – limitations of human capital approach

Module 2: Education and Human Capital Formation
Education as an economic good. consumption and investment aspects of education- private and social benefit of education – contribution of education to economic development – the methods of schults and education and human values.

Module 3: Demand For Education
Education and productivity – private and social demand for education- investment in education – rate of return analysis – private and social rates of return – limitations of rate of return approach – rate of return and earnings distribution – equity aspects.

Module 4: Supply of Educational Facilities
Components of educational supply – private and public facilities – pattern of organization and operation of education industry – organization and operation of different limitations of production function analysis.

Module 5: Financing of Education
Private resources in education and their limitations – rationale behind public involvement in education – forms of public financing subsidization, secondary, and post – secondary education in india – trends and issues – The New Education Policy.

Module 6: Education and Manpower Planning
Importance of educational and manpower planning in development and less – development countries – the operation of markets for unskilled and skilled labour – approaches to educational and manpower planning cost benefit approach – O.E.C,D. approach – M.R.P. approach – educational planning in E.D.C's – educational planning in India.

Module 7: Migration and On-the-Job Training
Migration and human capital formation – labour market and migration in India – on-the-job training and skill formation.

Readings
1. Mark Blaug,(2000) Economics of Education
2. K.Venkatasubramanian,(1998) Education and Economic Development of Tn.
3. G.S.Parnes, Planning Education for Economic Social Development.
4. Cohn,(2005) Economics of Education.
5. Tilak(2006), Economics of Inequality in Education
6. Sudha V.Rao (2003), Education and Rural Development
7. Theodore W. Schultz (1999) , Investment in Human Capital
8. Nalla Gounden A.M.(1998), Education And Economic Development

Module 1: 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 – risk: Risk versus return: Mean – variance analysis.

Module 2: 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 – Estimating the expected return of a bond for portfolio analysis.

Module 3: 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 4: Efficiency & Volatility in Financial Markets

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

Module 5: Option: Features and Price Bounds

Basic taxonomy of option analysis – Payoff structure of an option – Price Bounds for Options (depending on their type, the time left to expiry and their strike price) – put – call parity relationship - Risk Neutral pricing – basic notions of Binomial – Multinomial – Black-Scholes Pricing – What the hedge ratio ('Delta') – Gamma – Vega Theta – Rho means.

Readings:

1. D.G. Luenberger (1998), Investment Science, Oxford University Press, New York.
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 (2005), Morden Portfolio Theory and Investment Analysis, Wiley,
4. Z. Bodie, A. Kane and A.J. Marcus (2004), Investments, Irwin McGraw – Hill, London.
5. R. A. Haugen (2001), Morden Investment Theory, Fifth Edition, Prentice Hall,
6. J. C. Hull (2004), Futures and Option Markets, Prentice- Hall, New Jersey

CONTRIBUTIONS BY NOBEL LAUREATES II

Module 1: Institutional Change, Development and Growth

Simon Kuznets; Theodore Schultz; Arthur Lewis; Robert Solow; Robert Fogel; DouglassNorth

Module 2: Markets with Asymmetric Information; Markets and Efficient Utilization of Resources

George Akerlof; Michael Spence; Joseph E Stiglitz; James Mirrlees; William Vickrey; Maurice Allais

Module 3: Financial Markets and Instruments

James Tobin; Franco Modigliani; Harry Markowitz; Merton Miller; William Forsyth Sharpe; Robert C Merton; Myron Schools

Module IV: Behavioural Economics

Daniel Kahneman; Gary Becker; Daniel Mc Fadden; Vernon L Smith

Module V: Economics of Governance; Common Property Rights and Public Regulations

Elinor Ostrom; Oliver Williamson; George Stigler; Ronald Coase

Readings:

1. Lindbeck, Assar (ed.) (1992), Nobel lectures in economic sciences 1969-1980, World Scientific,London.
2. Maler,Karl-Goram (ed.) (1992), Nobel lectures in economic sciences 1981-1990, World Scientific, London.
3. Puttaswamaiah (1995), Nobel Economists, Vol. 2 1975-85, Indus Publishing Company, New Delhi.