Course Outline

First Semester

Microeconomics-I
(Contact Hours: 3-1-0 Credits: 04)

Introduction to Microeconomics and its principles, concepts and types of equilibrium, Theory of consumer behaviour under certainty: cardinal and ordinal utility analysis, elasticity of demand, Income, price and substitution effect, application of indifference curves, consumer surplus, network externalities, Bandwagon, Veblen and Snob Effects, concept and axioms of revealed preference theory, measuring risk, concept of risk aversion, neutrality, and loving, insurance and gambling, reducing risk and uncertainty, hidden actions: principals, agents and moral hazard hidden characteristics: market for lemons and adverse selection problem, market signaling, market and government responses to the problems of moral hazard and adverse selection, production function, production with one, two and more variable input, law of returns to factor and scale, economic region of production, elasticity of input substitution, expansion path, factor price changes, production transformation curve. Costs and its types, short-run and long-run costs as per traditional and modern theories of costs, engineering cost curves, economies and diseconomies of scale

Game Theory-I
(Contact Hours: 3-1-0 Credits: 04)

Introduction, overview, uses of game theory, some applications, Strategic games: examples Nash equilibrium: concept and examples, Best response functions, Dominated Actions Symmetric games and symmetric equilibria, Mixed-Strategy Nash Equilibrium**,** pure and mixed strategy Nash equilibria, Alternate Solution Concepts, Iterative removal of strictly dominated strategies, minimax strategies and the minimax theorem for zero-sum game, correlated equilibria, Extensive-Form Games ,Perfect information games: trees, players assigned to nodes, payoffs, backward Induction, sub game perfect equilibrium, introduction to imperfect-information games, mixed versus behavioral strategies, Repeated Games.

Mathematical Methods for Economics
(Contact Hours: 3-1-0 Credits: 04)

Introduction, nature of mathematical economics: mathematical versus non-mathematical economics and econometrics, Utility Analysis: utility function, existence of utility function, maximization of utility, demand functions, demand curves, logarithmic derivation, elasticity of a function, evaluations of elasticities, the elasticity of demand, Ordinal Utility Analysis: indifference curves, rate of substitution, price and income elasticity of demand, substitution and income effects, Consumer choice involving risk and uncertainty: expected utility function, risk aversion, risk

neutrality and risk preference, moral hazards and adverse selection, Integration in economics: integration in cost theory, consumer and producer surplus, public and private goods, Theory of Production: production curves, isoquants, elasticity of substitution, factor intensity, returns to scale, homogeneous and CES production function, Optimizing Behaviour: constrained output maximization, constrained cost minimization, profit maximization, short run and long run cost functions, cost curves. Joint Products: constrained revenue maximization, profit maximization Linear Programming: feasible point set, optimal solutions.

Indian Economy
(Contact Hours: 3-1-0 Credits: 04)

Introduction, overview of economic development since independence, growth and structural changes in the economy, Planning: adoption, objectives, strategy and appraisal, Economic Reforms and Structural Adjustment Programme: Liberalization, Privatization and Globalization. Agricultural Growth: pattern, regional variations and in agricultural development, Green Revolution-I and II, WTO and Indian agriculture. Industrial Growth: phases, growth and structure and regional disparities in industrial development, industrial policies, performance of public sector undertakings, nature and extent of privatization in India; Service Sector Growth-pattern and future prospects, sustainability of services led growth in India; Trade Policy: pre and post reform period, Foreign Capital in India-its need and flow, FDI and MNCs in India; Nature, extent and regional variations in poverty and unemployment, government programmes for eradication of poverty and unemployment with special reference to the post-reform era.

Second Semester

Microeconomics –II
(Contact Hours: 3-1-0 Credits: 04)

Theory of Firm and Market Structure- Competitive market forms: analysis of firm's and industry behaviour, short run and long run equilibrium, applications of competitive firms such as economics of price control, ceiling of price control, floor price policy, Theory of Monopoly; firm's equilibrium in short and long run, monopoly power, price discrimination; degrees, two part tariff, peal load pricing, concept of supply function in monopoly, comparison of monopoly with perfect competition, natural monopoly, theory of monopolistic competition and oligopoly; monopolistic competitive firm's equilibrium in short and long run, long run equilibrium with product variation, role of advertisement and selling costs, excess capacity, Oligopoly; Cournot duopoly model, Bertand model, Chamberlin's model, Kinked demand curve, price leadership models, Theory of factor pricing; theory of rent; Ricardian rent, economic rent, Quasi rent, Theory of Wage; marginal productivity theory of wage; theory of interest, Liquidity preference theory, theory of profit, Risk-bearing theory of profit, General Equilibrium Partial and general equilibrium,

Walrasian excess demand and input-output approaches to general equilibrium, existence, stability and uniqueness of equilibrium and 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 (Stolper- Samuelson theorem), relationship between output mix and real factor prices, effect of changes in factor supply in closed economy (Rybczynski theorem), production and consumption – Introduction of contributions of Arrow and Debreu to General equilibrium analysis. 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.

Macroeconomics-I
(Contact Hours: 3-1-0 Credits: 04)

Introduction to Macroeconomics, National Income Circular flow of income in two, three- and four-sector economy; National income aggregates – measurement and interrelationship; National income and welfare. Classical Macro Economics Simple Classical model –equilibrium output and employment; Quantity Theory of Money; Classical theory of interest rate; policy implications of the Classical equilibrium model; Classical model with savings and investment. The Keynesian System Equilibrium in the Product Market – The aggregate demand and aggregate supply approach, Savings- Investment approach; Changes in equilibrium income – the Multiplier; The Keynesian theory of interest rate and money demand. Consumption Function Keynes' psychological law of consumption; short run and long run consumption function; Income consumption relationship – absolute income, relative income, life cycle and permanent Income hypothesis; consumption function puzzle; Kuznets' consumption function and Kuznets' findings. Investment Function Components of investment; marginal efficiency of capital and investment; accelerator and investment behaviour.

Basic Econometrics
(Contact Hours: 3-1-0 Credits: 04)

Introduction to Econometric Analysis, Statistical Inference, Regression Analysis- Two variable regression model; The concept of the PRF; Classical assumptions of regression; Derivation of the OLS estimators and their variance; Properties of OLS estimators under classical assumptions; Gauss-Markov Theorem; Tests of Hypothesis, Measures of goodness of fit: R square and its limitations; Adjusted R square and its limitations, Econometric Model Specification, Failure of Classical Assumptions- Multi-collinearity and its implications; Auto-correlation: Consequence, Heteroscedasticity.

Quantitative Methods for Social Sciences
(Contact Hours: 3-1-0 Credits: 04)

Introduction to Quantitative Methods, Classification & Presentation of Data, Mathematical basis of Managerial Decision-Concepts, Statistical Concepts- Measures of Central Tendency, Measures of Dispersion, Measures of Association, Sampling and sample size estimation, Point estimation, Statistical Intervals based on Single sample, Hypothesis Testing based on single sample, Inferences based on Two samples, t, Z and chi- square and F tests, Simple Linear Regression and Correlation, Multiple Regression Model, Time Series Analysis, Multivariate Analysis- ANOVA, MANOVA, Factor Analysis, Discriminant Analysis.

Computer Programming Lab
(Contact Hours: 0-0-2 Credits: 01)

Basic Programming In C: Data types, Declaring Variables, Initializing Variables, Type Conversion; Operators and Expressions: And Input Output In C Conditional operators, Arithmetic, Relational, Assignment, Logical and Bitwise operators, Formatted Functions, Flags, Widths and Precision with Format String, Unformatted Functions; Decision Statements: If statement, IF- else, If-else-if, break, continue, go to, switch case ; Loop Control: The for loops , nested for loop, the while loop, do while loop; Data Structure: Array and structure: Array, 2 D array, Matrix operations, structure and functions; C++ programming: Programs based on class and objects

Third Semester

Time Series-I
(Contact Hours: 3-1-0 Credits: 04)

Basic Statistics Review (with linear regression and hypothesis testing); stochastic process and its main characteristics, time series as a discrete stochastic process; stationarity: main characteristics of stochastic processes (means, autocovariation and autocorrelation functions). Visualizing Time Series, White Noise and Random Walks; Autoregressive models AR(p), Backshift Operator, Autoregressive-moving average models ARMA (p,q) Moving average models MA(q). Condition of invertability. Autoregressive models AR(p). Yull-Worker equations. Stationarity conditions. Autoregressive-moving average models ARMA (p,q); Coefficient estimation in ARMA (p,q) processes. Box-Jenkins' approach Coefficients estimation in autoregressive models. Coefficient estimation in ARMA (p) processes. Quality of adjustment of time series models. AIC information criterion. BIC information criterion. Box-Jenkins methodology to identification of stationary time series models.

Introduction to Research Methodology
(Contact Hours: 3-1-0 Credits: 04)

Concept of Research, Types of Research, Types of Business Problems Encountered by the Researcher, Steps Involved in Research Process. Research Design : Various Methods of Research Design, Concept of Sample, Sample Size and Sampling Procedure, Various Types of Sampling Techniques, Validity, Reliability, Descriptive Statistics, Univariate & Bivariate Analysis, Use of SPSS in Data Analysis, Report Preparation: Types and Layout of Research Report, Bibliography and Annexure, Drawing Conclusions, Suggestions and Recommendations.

List of Electives

Agricultural Economics
(Contact Hours: 3-0-0 Credits: 03)

Introduction: Nature and scope of Agricultural Economics, Production and cost functions of agricultural commodities. Production Economics: Factor-product relationship. Determination of optimum input and output, Factor-factor relationship, Product-product relationship, Type of enterprise relationship. Farm Management: Farm management definition, scope, importance, Typical farm management decisions, Economic principles applied to the organization of farm business, Cost concepts and farm efficiency, Farm planning and budgeting, Risk and uncertainty. Agricultural Markets: Nature of Agricultural markets, How it is different from industrial commodity markets Basic Price Analysis of Agricultural commodities: Supply and Demand, Factors affecting agricultural Prices, Imperfect competitions, Granger Causality Test Strategic Price Setting Models: of Pricing, Market skimming, Market penetration, Competitor matching, Price leadership, Price discrimination International Agricultural Trade: Introduction, Future markets Hedging, Options.

Development Economics-I
(Contact Hours: 3-0-0 Credits: 03)

Economic growth and development- Factors affecting economic growth- Capital, labour and Technology; Technological progress-Embodied and disembodied technical progress, Production function approach to the sources of growth; Measuring development and development gap- per capita income, inequality of income and wealth, Human development index and other indices of development; Human resource development-Population problem; Demographic transition, Population, poverty and environment; Sustainable development; Macro Economic Policy and Economic Development- Monetary and Fiscal policies in developing countries, MNC activity in

developing countries; IMF and World Bank policies in developing countries; Federal Development-Financial Federalism under Constitution, Finance Commissions in India;Need for planning, Review of Indian plan models.

Industrial Economics
(Contact Hours: 3-0-0 Credits: 03)

Introduction of Industrial Economics. Industrial Organization and Market Structure. Industrial location and Industrial Productivity. Industrial Efficiency. Indian Industrial Growth and Pattern. Industrial Profile and Problems. Institutional Finance for Industrial Development. Industrial Imbalance & Social Security System provided by Government of India for various industries.

Health Economics
(Contact Hours: 3-0-0 Credits: 03)

The course will utilize basic economic analysis to answer questions about issues concerning the health care industry. It will develop a detailed demand and supply model of the health care industries to predict the consequences of various possible changes in health markets, such as changes in third-party financing of health care. It will also compare and contrast the Indian health care market and institutions with those of selected countries from around the world. It will seek to discuss the roles of both public and private sector financing of health care and the division between public and private health care goods and services. The course will help to analyze the role of professional education, training and licensing in physician and allied health professions, and their effects on quality and cost of health care.

Public Finance
(Contact Hours: 3-0-0 Credits: 03)

Introduction to public finance, Scope of public Economics, Public Revenue- General Considerations, Division of Tax Burden, Incidence and Impact of Taxes, Effect of Tax, Classification of Taxes, Public Debt, Wagner's Law of Increasing State Activity, Theory of Public Expenditure, Effect of Public Expenditure, Public Budget, The Federal Set-up -, The Financial Issues in a Federal Set-up, Principles for Efficient Division of Financial Resources between Governments, Financial Federalism under Constitution, Finance Commissions in India,Central Government Debt, Debt of State Governments, Introduction, Deficit Spending, Expenditure Trends & Policy, Trends in Receipts, Indian Tax System, Multi- Level Government, Financial Resources and Needs of Local Bodies, State Finance Commission.

Advanced Research Methodology
(Contact Hours: 3-0-0 Credits: 03)

The course aims at acquainting the students with the meaning, purpose and significance of research in humanities and social sciences. It aims to identify the different epistemological assumptions that underpins any piece of research, and appreciates the value and limitation of these in various applications. It also looks to clearly identify research questions and explain the relevance of the questions to an academic literature. It also seeks to understand the research process and the different methodologies and to know the research designs and prepare a research proposal (synopsis). It also allows a student to critically evaluate other research work.