

BERHAMPUR UNIVERSITY

COURSE OF STUDIES

(CBCS PATTERN)

FOR

M.A. ECONOMICS

SEMESTERS I & II EXAMINATIONS – 2020, 2021

SEMESTERS III & IV EXAMINATIONS – 2021, 2022



PUBLISHED BY

BERHAMPUR UNIVERSITY
BHANJA BIHAR
BERHAMPUR – 760 007, GANJAM (ODISHA)
2020

Approved

Chairman, BOS (ECO)

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SEMESTERS I & II EXAMINATIONS
SEMESTERS III & IV EXAMINATIONS

Introduction

The Department of Economics was established in 1972 with two years Master Degree Course in Economics. In order to encourage research activities, the M. Phil. course was introduced in 1979-80. The department also offers Ph. D. programme under the supervision of the faculty members. Currently, the department is running under the headship of Chairperson, PG Council, Berhampur University and the Coordinator of the Department Mr. Bishnu Charan Behera, Assistant Professor along with Prof. Sudhakar Patra, Dr. Sandhya Rani Das, Reader and two Assistant Professors, Mr. Pabitra Singh and Dr. Diptimayee Mishra. The department is providing value based quality education by using ICT enabled facility, class room presentation and weekly seminar. The Department has an academic hall and two class rooms with LCD Projectors, faculty chambers, office room, head room, research scholar room, computer lab, seminar library etc.

Note: Each paper carries 100 marks, which includes 20 marks of Mid-Sem. examination and 80 marks of End-Sem. Examination.

NB: Second unit in each paper shall be self study.

| Semester | Core Course | Name of the Paper | No. of Credits | Marks |
|---------------------|-------------|--|----------------|--|
| SEMESTER – I | | | | 100 (80 End Semester +20 Mid Semester) |
| ECON C 101 | Core | Microeconomic Analysis – I | 04 | -do- |
| ECON C 102 | Core | Macroeconomic Analysis – I | 04 | -do- |
| ECON C 103 | Core | Quantitative Methods and Computer Applications – I | 04 | -do- |
| ECON C 104 | Core | Public Economics – I | 04 | -do- |
| ECON C 105 | Core | Economics of Growth and Development – I | 04 | -do- |

| Semester | Core Course | Name of the Paper | No. of Credits | Marks |
|----------------------|-------------|---|----------------|--|
| SEMESTER – II | | | | 100 (80 End Semester +20 Mid Semester) |
| ECON C 201 | Core | Microeconomic Analysis – II | 04 | -do- |
| ECON C 202 | Core | Macroeconomic Analysis – II | 04 | -do- |
| ECON C 203 | Core | Quantitative Methods and Computer Applications – II | 04 | -do- |
| ECON C 204 | Core | Public Economics – II | 04 | -do- |
| ECON C 205 | Core | Economics of Growth and Development –II | 04 | -do- |

| Semester | Core Course | Name of the Paper | No. of Credits | Marks |
|--|-----------------|--|----------------|--|
| SEMESTER – III | | | | 100 (80 End Semester +20 Mid Semester) |
| ECON C 301 | Core | International Trade and Finance – I | 04 | -do- |
| ECON C 302 | Core | Economics of Social Sector and Environment – I | 04 | -do- |
| Group-A(One paper to be opted) | | | | |
| ECON E 303 | Elective | Mathematical Economics – I | 04 | -do- |
| ECON E 304 | Elective | Industrial Economics – I | 04 | -do- |
| ECON E 305 | Elective | Computer Application in Economic Analysis-I | 04 | -do- |
| Group-B(One paper to be opted) | | | | |
| ECON E 306 | Elective | Econometrics – I | 04 | -do- |
| ECON E 307 | Elective | Financial Institutions and Markets – I | 04 | -do- |
| ECON E 308 | Elective | Agricultural Economics – I | 04 | -do- |
| Choice Based Credit Transfer (CBCT) | | | | |
| ECON AE 309 | Allied Elective | Indian Economic Policy | 04 | -do- |

| Semester | Core Course | Name of the Paper | No. of Credits | Marks |
|--|-------------|---|----------------|--|
| SEMESTER – IV | | | | 100 (80 End Semester +20 Mid Semester) |
| ECON C 401 | Core | International Trade and Finance – II | 04 | -do- |
| ECON C 402 | Core | Economics of Social Sector and Environment – II | 04 | -do- |
| ECON C 403 | Core | Research Methodology | 04 | -do- |
| Group-A(One paper to be opted) | | | | |
| ECON E 404 | Elective | Mathematical Economics – II | 04 | -do- |
| ECON E 405 | Elective | Industrial Economics – II | 04 | -do- |
| ECON E 406 | Elective | Computer Application in Economic Analysis-II | 04 | -do- |
| Group-B(One paper to be opted) | | | | |
| ECON E 407 | Elective | Econometrics – II | 04 | -do- |
| ECON E 408 | Elective | Financial Institutions and Markets – II | 04 | -do- |
| ECON E 409 | Elective | Agricultural Economics – II | 04 | -do- |

- C - Core 1500 (Mandatory with no Choice)
- E - Elective 400 (Mandatory with choice)
- AE - Allied Elective 100 (CBCS with inter-departmental choice)

Course No.

Course Name: Master of Economics

Semester: I/II/III/IV.

Credits: 80

Core: 15 Papers and Elective: 07

Papers (AE-01, G[A]-03, G[B]-03, Students have to choose 2 papers from each group)

Objective and brief description on course and expectations:

To create competent human resources in the field of Economics by imparting knowledge.

Course Details

| ECON C 101: Microeconomic Analysis – I | | |
|--|--|--------------|
| Objective: The course has been designed to equip the students with the tools of micro economic fundamentals for a sound understanding of the behaviour of micro economic units like a rational consumer and the firms in various market structures. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Choice Theory and Consumer Demand</i> Consumer Preferences - Assumptions about Preferences; Utility Function-Basic concepts; Indifference Curve Analysis – Consumers Equilibrium; Marshallian and Hicksian demand functions; Decomposition of Price effect; Indirect Utility Function and Duality in consumption; Revealed Preference Theory; The Von-Neumann-Morgenstern axioms and expected utility theory. | 12 |
| Unit-II | <i>Production and Costs</i> Fundamentals of Production function – Product Curves, Isoquants, Marginal rate of Technical Substitution; Short-run and Long-run laws of Production; Types of Production Function-Linear Homogenous, Leontief, Cobb-Douglas, CES, Non-homogeneous, Homothetic Production Functions. Profit maximization and Cost Minimisation; Cost function –Traditional and Modern Theories of Cost. | 12 |
| Unit-III | <i>Monopoly and Monopolistic Competition</i> Monopoly – Profit Maximisation (Short-run and Long-run), Deadweight loss, Natural Monopoly, Measures of Monopoly Power, Control and Regulation; Discriminating Monopolist; Monopolistic Competition – Equilibrium of the firm and the group, Excess capacity. | 12 |
| Unit-IV | <i>Oligopolistic Market Structure</i> Non-collusive – Cournot and Stackelberg Duopoly Models; Sweezy’s Small Group Oligopoly Model; Collusive – Cartels and Mergers, Market Share, Price Leadership Models; Differentiated Oligopoly, Non-price Competition. | 12 |
| Total | | 48 |
| References: Baumol, W.J. (1982), Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi. Broadway, R.W. and N.Bruce (1984). Welfare Economics, Basil Blackwell, London. Feldmen, A.M. (1980), Welfare Economics and Social Choice Theory Martinus Nijhoff Publishing, Boston. Graff, J. De V. (1957), Theoretical Welfare Economics, Cambridge University Press, Cambridge. Green, H.A.G. (1971), Consumer Theory, Penguin, Harmondsworth. | | |

Henderson, J.M. and R.E. Quandt (1980), *Microeconomic Theory: A Mathematical Approach*, Mc Graw Hill, New Delhi.

Koutsoyiannis, A. (1979), *Modern Microeconomics*, (2nd Edition), Macmillan Press, London.

Kreps, David, M. (1990). *A course in microeconomic theory* Princeton university press.

Laidler David (1977). *Introduction to microeconomics*, Philip Allan Publishers.

Little, I.M.D. (1957), *A Critique of Welfare Economics* (second edition) Oxford University Press, London.

Nath, S.K. (1969), *A Reappraisal of welfare economics*, Routledge of Kegan Paul, London.

Pyndyck, R.S. & D.L. Rubinfeld (1999), *Microeconomics*, (3rd Edition) Pentice Hall of India.

Roychowudhury, K.C. (1980), *Microeconomics*, Tata Mc Graw Hill, New Delhi.

Sen, A.K. (1970), *Collective Choice and Social Welfare*, Holden Day Inc. San Fransico.

Stigler, G. (1996), *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi.

Varian, H. (2000), *Microeconomics Analysis*, W.W. Norton, New York.

Weintrub, E.R. (1974), *General Equilibrium Theory*, Macmillan, London.

Assessment : 100 (80 End Semester +20 Mid Semester)

| ECON C 102:Macroeconomic Analysis – I | | |
|---|--|--------------|
| Objective: This course attempts to build the theoretical understanding of students from classical to contemporary macroeconomics. It aims to improve the macroeconomic analytical skills from relevant policy perspective. | | |
| Unit | Contents | Hours |
| Unit-I | <i>National Income Accounts and Social Welfare</i> Different systems of national income accounting: Social accounting, Input-output accounting, Flow of funds accounting and Balance of Payments accounting; United Nations System of National Accounts (SNA); National income and social welfare, Measure of Economic Welfare (MEW) | 12 |
| Unit-II | <i>Consumption Function</i> Keynes' Psychological Law of Consumption: Implication of the law, Short-run and long-run consumption function, Empirical evidence on consumption function; Income-consumption relationship: Absolute income, Relative income, Life cycle and Permanent income hypotheses. | 12 |
| Unit-III | <i>Investment function</i> Investment multiplier, Theories of investment and accelerator, Super multiplier, Influence of policy measures on investment. | 12 |
| Unit-IV | <i>Demand for Money</i> Classical approach to demand for money: Quantity theory approach, Fisher's equation, Cambridge quantity theory, Keynes's liquidity preference approach: transaction, precautionary and speculative demand for money; Aggregate demand for money; Neo-classical and Keynesian views on interest. | 12 |
| Total | | 48 |
| References: Ackley, G. (1978), <i>Microeconomics : Theory and Policy</i> , Macmillan, New York. | | |
| Branson, W.A. (1989), <i>Macroeconomic Theory and Policy</i> , (3 rd Edition), Harper and Row, New York. | | |
| Dornbusch, R. and F. Stanley (1997), <i>Macroeconomics</i> , McGraw Hill, Inc, New York. | | |

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|---|
| Duessenbery, J.S. (1949). Income, saving and the theory of consumer behaviour, Harvard University Press, Harvard. |
| Friedmen, M. (1956) Studies in the quantity theory of money, The University of Chicago Press, Chicago. |
| Frisch, H. (1993). Theories of inflation, Cambridge University Press, Cambridge. |
| Hicks, J.R. (1950). A contribution to the theory of trade cycles, clarendon press, Oxford. |
| Jha, R. (1999). Contemporary Macroeconomics Theory and Policy, New Age International (P) Ltd., New Delhi. |
| Keynes, J.M. (1936). The General Theory of Employment, Interest and Money, Macmillan, London. |
| Mckinen, G.E. (1978), Money, The Price Level and Interest Rates. Prentice Hall of India, New Delhi. |
| Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi. Surrey, M.J.C. (Ed.) (1976), Macroeconomic Themes, Oxford University Press, Oxford. |
| Assessment : 100 (80 End Semester +20 Mid Semester) |

| ECON C 103:Quantitative Methods and Computer Applications–I (Statistical Methods) | | |
|--|---|--------------|
| Objective: The fundamental objective of this paper is to teach different statistical and mathematical tools which are routinely being applied by economists to solve various real world problems. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Probability and Theoretical Distribution</i> Deterministic and non-deterministic experiments, various types of events, classical and empirical probability, Laws of addition and multiplication; conditional probability and concept of interdependence. Baye’s theorem and its applications; Elementary concept of random variable; Probability mass and density functions; Expectations, Properties of Binomial, Poisson and Normal distributions. | 12 |
| Unit-II | <i>Sampling and Estimation Theory</i> Basics of Sampling – Universe and Sample, Population Parameter and Sample Statistics, Sample size; Theory of Sampling distribution and Standard Error; Random and non-random sampling; Simple random, Stratified random and P.P.S. Sampling. Point Estimation and Interval Estimation, Desirable properties of an Estimator. | 12 |
| Unit-III | <i>Correlation and Regression analysis</i> Correlation – Simple, partial and multiple correlation (applications only); Multiple regression, partial regression coefficient, Estimation of regression coefficients in a multiple regression model; Standard error of regression coefficients, Goodness of fit of a regression model. | 12 |
| Unit-IV | <i>Testing of hypothesis and Computer Application</i> Null and alternative; Type-1 and Type-2 Errors, Goodness of fit; Confidence intervals and level of significance; Hypothesis testing based on Z, t, (Chi square) and F Tests;. Computer Application in Economics : Basic applications of Microsoft Office- Excel. | 12 |
| Total | | 48 |
| References: Allen, R.G.D. (1974), Mathematical Analysis for Economics, Macmillan Press and ELBS, London. | | |

Chang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.

Croxtan , Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi.

Dowling, E.D. (1986). Theory and Problems of Mathematics for Economists, Schaum's Outline Series, McGraw Hill, New York.

Gupta, S.C. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.

Gupta, S.P.(), Statistical Methods,

Kothari, C.R.(1992). An Introduction to Operational Research, Vikas Publishing House, New Delhi.

Monga, G.S.(1971), Mathematical and Statistics for Economists, Vikas Publishing House, New Delhi.

Taha, H.A. (1997), Operations Research : An Introduction (6th Edition), Prentice Hall of India Pvt. Ltd., New Delhi.

Yamane, Taro (1975), Statistics : An Introductory Analysis, Harper & Row.

Yamane, Taro (1975), Mathematics for Economists, Prentice Hall of India, New Delhi.

Kerns (1993), Essentials of Microsoft Windows, Word and Excel, Prentice Hall of India, New Delhi.

Martin S. Matthew (1997), Excel for Windows 95, Tata McGraw Hill, New Delhi.

Assessment : 100 (80 End Semester +20 Mid Semester)

ECON C 104:Public Economics – I

Objective: Objective of this course is to familiarise the students with the concepts, principles and theories of Public economics. The students will understand about the public expenditure, public revenue, public finance, public budget and role of government, need for public provision of public goods, theory of taxation, theory of expenditure, Fiscal federal relations, fiscal policy instruments and their impact on macro economy.

| Unit | Contents | Hours |
|----------|---|-------|
| Unit-I | <i>Public expenditure and public debt</i> Public Expenditure–Hypotheses: Wagner’s law of increasing state activities, Peacock-Wiseman hypothesis. Pure theory of public expenditure; Structure, growth and effect of public expenditure; Evaluation of public investment; Social Cost-benefit analysis – Project evaluation, Estimation of costs, discount rate, Public Debt– Sources, Effects, burden and it’s management. | 12 |
| Unit-II | <i>Fiscal policy and budget</i> Fiscal policy– Objectives of fiscal policy, Neutral & compensatory and functional finance, Fiscal policy for stabilization-automatic vs. discretionary stabilization; inter-dependence of fiscal and monetary policies, The Public Budgets– Kinds of Budgets, Zero-base budgeting, Different concepts of budget deficit, Budgetary deficits and its implications, Balanced budget multiplier. | 12 |
| Unit-III | <i>Theories of Public Revenue</i> Public Revenue – Different Approaches to the division of tax burden, Incidence and effects of taxation, Elasticity and buoyancy; Taxable | 12 |

| | | |
|---|---|----|
| | capacity; Benefit and ability to pay approaches; Theory of optimal taxation. | |
| Unit-IV | <i>Indian Public Finance</i> Indian tax system, Trends in revenue and expenditure of the Central and State Government; Major taxes in India: base of taxes, direct and indirect taxes, taxation of agriculture, expenditure tax, Reforms in direct and indirect taxes, taxes on services, measuring progressivity and effect of taxation, Non-tax revenue of the center, State and local bodies; Analysis of the Union and state government budget, Trends in public debt, Fiscal crisis and fiscal sector reforms in India; Reports of Finance Commissions in India. | 12 |
| Total | | 48 |
| <p>References: Atkinson, A.B. and J.E. Siglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.</p> <p>Buchanan, J.M. (1970). The Public Finances; Richard D. Irwin, Homewood.</p> <p>Goode, R. (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.</p> <p>Musgrave, R.A.(1959), The Theory of Public Finance, Tata McGraw Hill, Kogakhusa, Tokyo.</p> <p>Musgrave, R.A. and P.B.Musgrave (1976). Public Finance in theory and Practice, McGraw Hill, Kogakusha, Tokyo.</p> <p>Herber, B.P. (1967), Modern Public Finance, Richard D. Irwin, Homewood.</p> <p>Mueller, D.C.(1979) Public Choice, Cambridge University Press, Cambridge.</p> <p>Duff, L. (1997), Government and Market, Orient Longman, New Delhi.</p> <p>Mishan, E.J. (1982), Cost Benefit Analysis : An informal Introduction George Allen and Unwin, London.</p> <p>Bird, R. and O.Oldman (1967), Readings on Taxation in Developing Countries, the John Hopkins University Press, Baltimore.</p> <p>Musgrave, R.A. and C. Shoup (Eds.) (1970), “Readings in the Economics of Taxation”, George Allen and Unwin, London.</p> <p>Barman, K. (1986). Public Debt Management in India, Uppal Publishing House, New Delhi.</p> <p>Sreekantaradhya, B.S. (1972), Public Debt and Economic Development in India, New Delhi.</p> <p>Peacock, A. and G.K. Shaw (1976), The Economic Theory of Fiscal Policy, George Allen and Unwin, London.</p> <p>Chelliah, Raja J. et al. (1981), Trends and Issues in India’s Federal Finance, National Institute of Public Finance and Policy, New Delhi.</p> <p>Musgrave, R.A. (1977), Essays in Fiscal Federalism, Greenwood West Port.</p> <p>Oates, W.E. (1972), Fiscal Federalism, Harcourt Brace and Johanowich, New Delhi.</p> <p>Srivastava, D.K. (Ed.) (2000). Fiscal Federalism in India, Har-Anand Publications Ltd., New Delhi.</p> <p>Bhargava, P.K. (1984), Some Aspects of Indian Public Finances, Uppal Publishing House, New Delhi.</p> <p>Government of India (1992), Reports of the Tax Reforms Committee – Interim and Final (Chairman : Raja J. Chelliah).</p> <p>Mundle, S. (1999), Public Finance Policy : Issues for India, Oxford University Press, New Delhi.</p> | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

| ECON C 105: Economics of Growth and Development – I | | |
|---|---|--------------|
| Objective: The course will explore the concepts and theories of Development Economics with an aim to develop the research capabilities of the students. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Economic Growth</i> Economic growth versus Economic development; Exogenous Growth Models – Harrod and Domar growth model and it's instability in equilibrium; Solow Model; Meade's Steady State Growth Model; Kaldor's Model; Romer's Endogenous growth model. | 12 |
| Unit-II | <i>Social Aspects of Development</i> Poverty and Inequality – Indicators and Measurement of Poverty and Inequality; Food Security and Nutrition; Human Capital – Human Development Index and Quality of Life Index; Role of Education and Health in Development; Theory of Demographic Transition, Optimum Theory of Population, Measurement of fertility– Total fertility rate, gross and net reproduction rate. | 12 |
| Unit-III | <i>Investment Techniques</i> Investment criteria and choice of technique– Capital Turnover Criterion, SMP Criterion, Marginal Per Capita Reinvestment criterion, Labour versus capital intensive techniques. | 12 |
| Unit-IV | <i>Planning Techniques</i> Planning techniques–Project evaluation and the Cost-benefit analysis; Linear programming and shadow pricing; Planning in a Market Oriented Economy. | 12 |
| Total | | 48 |
| <p>References: Higgins, B.(1959), Economic Development, W.W.Nortorn, New York. Kindlegerger, C.P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York. Meier, G.M.(1995), Leading Issues in Economics Development, (6th Edition), Oxford University Press, New Delhi. Myint, Hla (1965), The Economics of Underdeveloped Countries, Preager, New York. Myint, H. (1971), Economic Theory and Underdeveloped Countries, Oxford University Press, New York. Todaro, M.P. (1996), (6th Edition), Economic Development, Longman, London. Thirlwal, A.P. (1999), (6th Edition). Growth and Development, Macmillan, U.K. Sen, A.K. (Ed.), (1990), Growth Economics, Penguin, Harmondsworth. Lewis, W.A. (1955), The Theory of Economic Growth, George Allen and Unwin, London. Myrdal, G. (1957), Economic Theory and Underdeveloped Regions, Duckworth, London. Schumpeter, J.A.(1949), The Theory of Economic Development, Harvard University Press Cambridge, Mass. United Nations (1994), Human Development Report, United Nationals, New York. A.G.Frank, On Capitalist Underdevelopment, Monthly Review Press. Bhagwati, J. & P. Desai (1970), India : Planning for Industrialization, Oxford University Press, London. Todaro, M.P. (1971), Development Planning: Models and Methods, Oxford University Press, Oxford. Chakravarti, S. (1987), Development Planning: The Indian Experience, Clarendon Press, Oxford.</p> | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

ECON C 201: Microeconomic Analysis – II

Objective: The course has been designed to equip the students with the tools of micro economic fundamentals for a sound understanding of the behaviour of micro economic units like a rational consumer and the firms in various market structures.

| Unit | Contents | Hours |
|----------|---|-------|
| Unit-I | <i>Managerial and Behavioural Theories of the Firm</i> The Marginalist Controversy; A Representative Model of Average Cost Pricing; Bain's Limiting Price Theory; Theory of Sales Revenue Maximization; Marris's and William's Static Managerial Model of the Firm. | 12 |
| Unit-II | <i>Theory of Distribution</i> Neo-classical Approach – Marginal productivity theory; The Adding-up problem- Product Exhaustion Theorem; Factor Pricing in Perfect and Imperfect Markets. | 12 |
| Unit-III | <i>General Equilibrium Analysis</i> Partial vs General Equilibrium; Existence, Stability and Uniqueness of Competitive equilibria; Efficiency in Production, Consumption and Product mix - A $2 \times 2 \times 2$ General Equilibrium Model. | 12 |
| Unit-IV | <i>Welfare Economics</i> Pigovian Welfare Economics; Pareto Optimality Conditions; Compensation Principle, Bergson-Samuelson's Social Welfare Function; Theory of Second Best; Arrow's Impossibility Theorem; The theory of Social Choice. | 12 |
| Total | | 48 |

References: Baumol, W.J. (1982), Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.

Broadway, R.W. and N.Bruce (1984). Welfare Economics, Basil Blackwell, London.

Feldmen, A.M. (1980), Welfare Economics and Social Choice Theory Martinus Nijhoff Publishing, Boston.

Graff, J. De V. (1957), Theoretical Welfare Economics, Cambridge University Press, Cambridge.

Green, H.A.G. (1971), Consumer Theory, Penguin, Harmondsworth.

Henderson, J.M. and R.E. Quandt (1980), Microeconomic Theory: A Mathematical Approach, Mc Graw Hill, New Delhi.

Koutsoyiannis, A. (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London.

Kreps, David, M. (1990). A course in microeconomic theory Princeton university press.

Laidler David (1977). Introduction to microeconomics, Philip Allan Publishers.

Little, I.M.D. (1957), A Critique of Welfare Economics (second edition) Oxford University Press, London.

Nath, S.K. (1969), A Reappraisal of welfare economics, Routledge of Kegan Paul, London.

Pyndyck, R.S. & D.L. Rubinfeld (1999), Microeconomics, (3rd Edition) Prentice Hall of India.

Roychowdhury, K.C. (1980), Microeconomics, Tata Mc Graw Hill, New Delhi.

Sen, A.K. (1970), Collective Choice and Social Welfare, Holden Day Inc. San Francisco.

Stigler, G. (1996), Theory of Price, (4th Edition), Prentice Hall of India, New Delhi.

Varian, H. (2000), Microeconomics Analysis, W.W. Norton, New York.

Weintrub, E.R. (1974), General Equilibrium Theory, Macmillan, London.

Assessment : 100 (80 End Semester +20 Mid Semester)

ECON C 202:Macroeconomic Analysis – II

Objective: This course attempts to build the theoretical understanding of students from classical to contemporary macroeconomics. It aims to improve the macroeconomic analytical skills from relevant policy perspective.

| Unit | Contents | Hours |
|----------|--|-------|
| Unit-I | <i>The IS-LM and Post-Keynesian approaches</i> The IS-LM model; Extension of IS-LM model with labour market and flexible price; General equilibrium of product and money market; Post-Keynesian approaches to demand for money; Patinkin and the Real Balance Effect; Friedman and the modern quantity theory; Monetarism vs. Fiscalism. | 12 |
| Unit-II | <i>Supply of money</i> Components and determinants of money supply; Factors influencing changes in money supply; Financial Intermediation, Growth and role of Non-Banking Financial Intermediaries (NBFIs) and Regional Rural Banks, Distinction between Banks and NBFIs; RBI approach to money supply; High powered money and money multiplier. | 12 |
| Unit-III | <i>Theory of Inflation</i> Inflation: Theories of inflation; Structuralist approach to inflation; Philip curve analysis, Short-run and long-run Philips curve, Tobin's modified Phillips curve; Policies to control inflation. | 12 |
| Unit-IV | <i>Theories of Business Cycles</i> Business cycles: Theories of business cycles – Schumpeter, Kaldor, Samuelson and Hicks; Macro-economic equilibrium – relative roles of monetary fiscal policies. | 12 |
| Total | | 48 |

References: Ackley, G. (1978), Microeconomics : Theory and Policy, Macmillan, New York.

Branson, W.A. (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.

Dornbusch, R. and F. Stanley (1997), Macroeconomics, McGraw Hill, Inc, New York.

Duessenbery, J.S. (1949). Income, saving and the theory of consumer behaviour, Harvard University Press, Harvard.

Friedmen, M. (1956) Studies in the quantity theory of money, The University of Chicago Press, Chicago.

Frisch, H. (1993). Theories of inflation, Cambridge University Press, Cambridge.

Hicks, J.R. (1950). A contribution to the theory of trade cycles, clarendon press, Oxford.

Jha, R. (1999). Contemporary Macroeconomics Theory and Policy, New Age International (P) Ltd., New Delhi.

Keynes, J.M. (1936). The General Theory of Employment, Interest and Money, Macmillan, London.

Mckinen, G.E. (1978), Money, The Price Level and Interest Rates. Prentice Hall of India, New Delhi.

Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi. Surrey,

M.J.C. (Ed.) (1976), Macroeconomic Themes, Oxford University Press, Oxford.

Assessment : 100 (80 End Semester +20 Mid Semester)

**ECON C 203: Quantitative Methods and Computer Applications–II
(Statistical Methods)**

Objective: The fundamental objective of this paper is to teach different statistical and mathematical tools which are routinely being applied by economists to solve various real world problems.

| Unit | Contents | Hours |
|-------------|--|--------------|
| Unit-I | <i>Functions and Derivatives in Economics</i> Function and type of Functions and their Applications in Economics; Simple Derivative and Differential (both first and second order) and their applications in Economics; Partial Derivatives, Total Derivative and Total Differential and their applications in Economics; Unconstrained and Constrained Optimization of multivariate functions and their application in simple economic problems. | 12 |
| Unit-II | <i>Matrices and Determinants</i> Matrix – Concept of matrix and types of matrices, Operations on matrices, matrix inversion and rank of a matrix, Concept of quadratic forms, Eigen roots and Eigen vectors of matrices. Determinant and its properties. Simple application of vectors, matrices and determinants– Solution of simultaneous equations. | 12 |
| Unit-III | <i>Integration, Differential and Difference Equations</i> Integration and its geometrical interpretation, Methods of integration, Application of integration–Consumer’s Surplus and Producer’s Surplus; Differential equations – Solution of first order and second order difference equations, their simple applications in economics. | 12 |
| Unit-IV | <i>Elementary Operations Research and Computer Application</i> Linear programming – formulation of linear programming and its graphical method of solution, input-output analysis – determination of equilibrium level of outputs, prices and employment; Game Theory – Concept the game, solution of game with saddle point and mixed strategies and value of a game. Computer Applications : Use of statistical packages (S.P.S.S.) in frequency distribution, correlation and regression analysis, ANOVA. | 12 |
| Total | | 48 |

References: Allen, R.G.D. (1974), Mathematical Analysis for Economics, Macmillan Press and ELBS, London.

Chang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.

Croxton , Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi.

Dowling, E.D. (1986). Theory and Problems of Mathematics for Economists, Schaum’s Outline Series, McGraw Hill, New York.

Gupta, S.C. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.

Gupta, S.P.(), Statistical Methods,

Kothari, C.R.(1992). An Introduction to Operational Research, Vikas Publishing House, New Delhi.

Monga, G.S.(1971), Mathematical and Statistics for Economists, Vikas Publishing House, New Delhi.

Taha, H.A. (1997), Operations Research : An Introduction (6th Edition), Prentice Hall of India Pvt. Ltd., New Delhi.

Yamane, Taro (1975), Statistics : An Introductory Analysis, Harper & Row.

Yamane, Taro (1975), Mathematics for Economists, Prentice Hall of India, New Delhi.

Kerns (1993), Essentials of Microsoft Windows, Word and Excel, Prentice Hall of India, New Delhi.

Martin S. Matthew (1997), Excel for Windows 95, Tata McGraw Hill, New Delhi.

Assessment : 100 (80 End Semester +20 Mid Semester)

| ECON C 204: Public Economics – II | | |
|---|---|-------|
| Objective: Objective of this course is to familiarise the students with the concepts, principles and theories of Public economics. The students will understand about the public expenditure, public revenue, public finance, public budget and role of government, need for public provision of public goods, theory of taxation, theory of expenditure, Fiscal federal relations, fiscal policy instruments and their impact on macro economy. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Role of Public sector</i> Role of Government in organized society; Changing perspective of government in a mixed economy, public and private sector cooperation or competition, Government as an agent for economic planning and development; Government as a tool of operationalising the planning process, private goods, public goods and merit goods. | 12 |
| Unit-II | <i>Preference Revelation for Public Goods.</i> Market failure: Imperfections decreasing costs, externalities, public goods; Private and public mechanism for allocating resources; Problems for allocating resources; Problems of preference revelation and aggregation of preferences; An economic theory of democracy, Role of bureaucracy. Free rider problem, median voter theorem, theory of rent seeking. | 12 |
| Unit-III | <i>Rationale for Public Policy</i> Allocation of resources – Theory of public goods, Voluntary exchange models, Impossibility of decentralized provision of public goods ;contributions of Lindahal and Johansen; Samuelson; Demand revealing schemes for public goods – Tiebout model, Theory of club goods, Stabilization policy – Keynesian case for stabilization policy. Uncertainty and expectations, Failure of Intertemporal markets, Liquidity preference, social goals, poverty alleviation, Provision of infrastructural facilities, Removing distributional inequalities and regional imbalances. | 12 |
| Unit-IV | <i>Fiscal Federalism</i> Fiscal Federalism. Principles of multi-unit finance; Fiscal federalism in India. Vertical and horizontal imbalance. Assignment of function and sources of revenue, constitutional provisions, finance commission and planning commission, devolution of resources and grants. Theory of grants. Resource transfer from union to states – Criteria for transfer of resources; center – State financial relations in India. Problems of states | 12 |

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| | resources and indebtedness, transfer of resources from union and states to local bodies. | |
| Total | | 48 |
| <p>References: Atkinson, A.B. and J.E. Siglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.</p> <p>Aurebach, A. and Feldstein, M., Handbook of Public Economics, Vol. 3, North Holland, 2002</p> <p>Buchanan, J.M. (1970). The Public Finances; Richard D. Irwin, Homewood.</p> <p>Bird, R. and O. Oldman (1967), Readings on Taxation in Developing Countries, the John Hopkins University Press, Baltimore.</p> <p>Barman, K. (1986). Public Debt Management in India, Uppal Publishing House, New Delhi.</p> <p>Bhargava, P.K. (1984), Some Aspects of Indian Public Finances, Uppal Publishing House, New Delhi.</p> <p>Boadway, Public Sector Economics, Cambridge University Press, 1979</p> <p>Chelliah, Raja J. et al. (1981), Trends and Issues in India's Federal Finance, National Institute of Public Finance and Policy, New Delhi.</p> <p>Duff, L. (1997), Government and Market, Orient Longman, New Delhi.</p> <p>Goode, R. (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.</p> <p>Government of India (1992), Reports of the Tax Reforms Committee – Interim and Final (Chairman : Raja J. Chelliah).</p> <p>Govinda Rao M. and T. K. Sen, Fiscal Federalism in India: Theory and Practice, 1996</p> <p>Herber, B.P. (1967), Modern Public Finance, Richard D. Irwin, Homewood.</p> <p>Hillman A. L., Public Finance and Public Policy, Cambridge University Press, 2003</p> <p>Musgrave, R.A. (1959), The Theory of Public Finance, Tata McGraw Hill, Kogakusha, Tokyo.</p> <p>Musgrave, R.A. and P.B. Musgrave (1976). Public Finance in theory and Practice, McGraw Hill, Kogakusha, Tokyo.</p> <p>Mueller, D.C. (1979) Public Choice, Cambridge University Press, Cambridge.</p> <p>Mishan, E.J. (1982), Cost Benefit Analysis : An informal Introduction George Allen and Unwin, London.</p> <p>Musgrave, R.A. and C. Shoup (Eds.) (1970), "Readings in the Economics of Taxation", George Allen and Unwin, London.</p> <p>Musgrave, R.A. (1977), Essays in Fiscal Federalism, Greenwood West Port.</p> <p>Mundle, S. (1999), Public Finance Policy : Issues for India, Oxford University Press, New Delhi.</p> <p>Oates, W.E. (1972), Fiscal Federalism, Harcourt Brace and Johanowich, New Delhi.</p> <p>Peacock, A. and G.K. Shaw (1976), The Economic Theory of Fiscal Policy, George Allen and Unwin, London.</p> <p>Richard , A Musgrave and P.B. Musgrave, Public finance in Theory and Practice, McGraw Hill, 1989.</p> <p>Sreekantaradhya, B.S. (1972), Public Debt and Economic Development in India, New Delhi.</p> <p>Srivastava, D.K. (Ed.) (2000). Fiscal Federalism in India, Har-Anand Publications Ltd., New Delhi.</p> <p>Srivastava, D.K., T.K. Sen et al. Government Subsidies in India, NIPFP, 1997.</p> | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

ECON C 205: Economics of Growth and Development – II

Objective: The course will explore the concepts and theories of Development Economics with an aim to develop the research capabilities of the students.

| Unit | Contents | Hours |
|----------|--|-------|
| Unit-I | <i>Approaches to Development-I</i> Partial theories of growth and development – Vicious circles of Poverty, Circular Causation; Development Theories – Classical, Marx and Schumpeter theories of development; Unlimited supply of labour; Big push; Balanced and Unbalanced growth. | 12 |
| Unit-II | <i>Approaches to Development-II</i> Critical Minimum Effort Thesis; Low-income Equilibrium Trap; Forward and Backward Linkage; Ranis & Fei model; Dependency theory of development. | 12 |
| Unit-III | <i>Sectoral Aspects of Development</i> Role of agriculture in economic development; Efficiency and productivity in agriculture; New technology and sustainable agriculture; Globalization and agricultural growth; Rationale and Pattern of Industrialization in developing countries; Terms of trade between agriculture and industry; Infrastructure and its importance. | 12 |
| Unit-IV | <i>Macroeconomic Policies</i> Macroeconomic policies and development – Role of monetary and Fiscal policies in developing countries - Prior savings, Inflation and growth; External resources – FDI, AIDs and Technology inflow; MNC activity in developing countries. | 12 |
| Total | | 48 |

References: Higgins, B.(1959), Economic Development, W.W.Norton, New York.
Kindleberger, C.P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York.
Meier, G.M.(1995), Leading Issues in Economics Development, (6th Edition), Oxford University Press, New Delhi.
Myint, Hla (1965), The Economics of Underdeveloped Countries, Preager, New York.
Myint, H. (1971), Economic Theory and Underdeveloped Countries, Oxford University Press, New York.
Todaro, M.P. (1996), (6th Edition), Economic Development, Longman, London. Thirlwal, A.P. (1999), (6th Edition). Growth and Development, Macmillan, U.K. Sen, A.K. (Ed.), (1990), Growth Economics, Penguin, Harmondsworth.
Lewis, W.A. (1955), The Theory of Economic Growth, George Allen and Unwin, London.
Myrdal, G. (1957), Economic Theory and Underdeveloped Regions, Duckworth, London.
Schumpeter, J.A.(1949), The Theory of Economic Development, Harvard University Press Cambridge, Mass.
United Nations (1994), Human Development Report, United Nations, New York. A.G.Frank, On Capitalist Underdevelopment, Monthly Review Press.
Bhagwati, J. & P. Desai (1970), India : Planning for Industrialization, Oxford University Press, London.
Todaro, M.P. (1971), Development Planning: Models and Methods, Oxford University Press, Oxford.
Chakravarti, S. (1987), Development Planning: The Indian Experience, Clarendon Press, Oxford.

Assessment : 100 (80 End Semester +20 Mid Semester)

ECON C 301: International Trade and Finance – I

Objective: This course aims to provide an understanding of theories of international trade, gains from trade and intervention in trade. This help students to improve their analytical skills and they can relate with current trade situation.

| Unit | Contents | Hours |
|----------|---|-------|
| Unit-I | <i>Theory of International Trade-I</i> The pure theory of international trade – Theories of absolute advantage, comparative advantage and opportunity costs; Empirical testing of classical theory; Trade equilibrium under constant, increasing and diminishing cost conditions, and imperfect competition. | 12 |
| Unit-II | <i>Theory of International Trade-II</i> Heckscher–Ohlin theory of trade, Leontief paradox, Theorem of factor price equalization, Stolper–Samuelson theorem, Rybczynski theorem, Kravis and Linder theorem of trade. Technological change and international trade. . | 12 |
| Unit-III | <i>Gains from trade</i> Gains from trade: their measurement and distribution; Concept of terms of trade, their uses and limitations; Hypothesis of secular deterioration of terms of trade, its empirical relevance and policy implications for less developed countries; Terms of trade and income distribution; Trade as an engine of economic growth; Concept and policy implications of immiserising growth. | 12 |
| Unit-IV | <i>Interventions in trade</i> Theory of interventions: Tariffs, Quotas and Non-tariff barriers; Effects of tariffs under partial and general equilibrium perspectives; Tariff and income distribution; Optimum tariff; Dumping - Forms of Dumping – Antidumping and International Price Discrimination. Metzler Paradox; Effective. Rate of protectionTypes of regional economic integration; Theory of customs union: Viner’s partial equilibrium approach to welfare effects of customs union; General equilibrium analysis of customs union – Lipsey model and Vanek model; Empirical findings and dynamic considerations of customs union and free trade area. . | 12 |
| Total | | 48 |

References:

- Bhagwati , J. (Ed.)(1981), International Trade, Selected Readings, Cambridge, University Press, Massachusetts.
- Carbough, R.J. (1999), International Economics, International Thompson Publishing, New York.
- Chacholiades, M.(1990), International Trade : Theory and Policy, McGraw Hill, Kogakusha, Japan.
- Dunn, R.M. and J.H. Mutti (2000), International Economics, Routledge, London. Kenen, P.B.(1994), The International Economy, Cambridge University Press, London. Kindleberger, C.P. (1973), International Economics, R.D.Irwin, Homewood.
- Krugman, P.R. and M.Obstfeld (1994), International Economics : Theory and Policy, Glenview, Foreman.
- Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N. J., New York.
- Soderston, Bo (1991), International Economics, The Macmillan Press Ltd., London.
- Nichans, J. (1984), International Monetary Economics. John Hopkins University Press, Baltimore.
- Yeager, L.B. (1976), International Monetary Relations, Theory, History and Policy, Harper and Row, New York.

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|--|
| Aggarwala, M.R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi. |
| Brahmananda, P.R. (1982), The IMF loan and India's Economic Future, Himalaya Publishing House, Bombay. |
| Kenen, P.B. (1995), Economic and Monetary Union in Europe, Cambridge University Press, U.K. |
| Kindleberger, C.P. (1996). A History of Financial Crisis : Manias, Panics and Crashes, (3 rd Edition), John Wiley and Sons, New York. |
| Assessment : 100 (80 End Semester +20 Mid Semester) |

| ECON C 302:Economics of Social Sector and Environment – I | | |
|---|---|--------------|
| Objective: The main objective of the course is to introduce students to the resources and environmental economics, and environmental policy and regulation in India. It will help students understand the link between environment, education and health. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Economics of Environmental Policy</i> Environmental externalities and market inefficiency – Environmental taxes and subsidies; Marketable pollution permit; Deposit refund system; Coase's property rights and bargaining solution; Command and control approach; Comparison of regulations and markets-based instruments; Global environmental externalities; Climate change and carbon tax; Trade and environment. Porter's hypothesis, Pollution havens hypothesis. | 12 |
| Unit-II | <i>Environmental and Natural Resource Policies in India</i> Mechanism for environmental regulation in India; Environmental laws and their implementation; Policy instruments for controlling water and air pollution; Forest policy; People's participation in the management of common and forest lands; Joint Forest Management; Social forestry – rationale and benefit. | 12 |
| Unit-III | <i>Economics of Education</i> Education as an instrument for economic growth; Human capital vs. physical capital; Demand for education – private and social demand; Cost of education, wastage and stagnation benefits of education – direct and indirect benefits, private and social benefits. | 12 |
| Unit-IV | <i>Economics of Health</i> Health Dimension of development; Determinants of health – poverty, malnutrition and environmental issues. Economic dimensions of health care – Demand and supply of health care; The concept of Burden of Disease; Institutional issues in health care delivery in India. | 12 |
| Total | | 48 |
| References: | | |
| Baumol, W.J. and W.E. Oates (1988); The Theory of Environmental Policy, (2 nd Edition), Cambridge University Press, Cambridge. | | |
| Berman, P. (Ed.) (1995). Health Sector Reform in Developing Countries: Making Health Development Sustainable, Boston : Harvard Series on Population and International Health. | | |
| Blaug, M. (1972), Introduction to Economics of Education, Penguin, London. Bromely, D.W.(Ed.)(1995), Handbook of Environment Economics, Blackwell, London. Cohn, E. and T.Gaske (1989), Economics of Education, Pergamon Press, London. | | |
| Fisher, A.C. (1981), Resource and Environmental Economics, Cambridge University Press, Cambridge. | | |
| Hanley, N.J.F. Shogern and B.White (1997), Environmental Economics in Theory and Practice, Macmillan. | | |

Jeroen, C. J. M. and Van Den Bergh (1999), Handbook of Environmental and Resource Economics, Edward Elgar Publishing Ltd., U.K.

Common, M. (1998), Environmental and Resource Economics, Longman, London.

Jarrett, H. (1966), Environmental Quality in a Growing Economy, Johns Hopkins, Baltimore.

Kiarman, H.E. (1965), The Economics of Health, Columbia University Press, New York. Kolstd, C.D. (1999). Environmental Economics, Oxford University Press, New Delhi.

Assessment : 100 (80 End Semester +20 Mid Semester)

ECON E 303:Mathematical Economics – I

Objective: The course aims at teaching the learners to understand the methods to use math principle. It also aims to make learners to understand the consumer and producer behaviour, and their application in economics.

| Unit | Contents | Hours |
|----------|---|-------|
| Unit-I | <i>Consumer Behaviour</i> Utility Function: Basic concepts, Cardinal and Ordinal measure of utility; Utility maximization; Ordinary and Compensated demand functions; Derivation of Slutsky Equation, Price and income elasticities of demand and the nature of commodities, The Linear expenditure system, Duality Theorems– Direct and Indirect Utility function duality, Roy’s Identity; Theory of revealed preference; Consumer behaviour under risk and uncertainty. | 12 |
| Unit-II | <i>Production, Cost and the Firm</i> Production Function: Basic Concepts, Elasticity of Substitution, Properties of Homogeneous, Cobb-Douglas (CD), CES Production Function; Optimization Behaviour of the firm– Constrained output maximisation and cost minimisation; Unconstrained profit maximisation; Derivation of Input demand functions; Optimization Behaviour of multi-product firm – Constrained revenue maximisation and Unconstrained profit maximisation; Duality in production– Production and Cost function Duality, Derivation of short-run and long-run cost functions. | 12 |
| Unit-III | <i>Perfect Competition, Monopoly and Monopolistic Market Structures</i> Equilibrium of a Firm under perfect competition; Short-run and Long-run equilibrium of a Monopoly Firm; Discriminating Monopoly; Equilibrium of a Multiplant Monopoly; Price and output determination under Monopolistic Competition in the Short-run and Long-run. | 12 |
| Unit-IV | <i>Oligopolistic Market Structure</i> Non-collusive and Collusive Duopoly and Oligopoly: Non-collusive Models – Cournot, Stackelberg and Kinked Demand Curve Models; Collusive Models – Cartels and Mergers, Market Share, Price Leadership Models; Factor pricing under Bilateral monopoly. | 12 |
| Total | | 48 |

References:

Allen, R.G.D. (1976), Mathematical Economics, Macmillan, London.

Henderson, J.M. and R.E.Quandt (1990), Microeconomics Theory: A Mathematical Approach McGraw Hill, New Delhi.

Ferguson, C.E.(1976), Neo-classical Theory of Production and Distribution.

Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press and ELBS London.

Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.

Jha, R.(1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.

Hadley, G. (1962), Linear Programming, Addison Wesley Publishing Co., Massachusetts.

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| Kothari, C.R. (1992), An Introduction to Operations Research, Vikas Publishing House, New Delhi. |
| Dorfman, R.P.A.Solow R.W. : Linear Programming and Economics Analysis, McGraw Hill. |
| Gillett, B.E. Introduction to Operations Research, McGraw Hill, New York. |
| Assessment : 100 (80 End Semester +20 Mid Semester) |

| ECON E 304:Industrial Economics-I | | |
|---|---|--------------|
| Objective: This course provides an introduction to current theory and empirical work in Industrial economics. It starts by examining the internal structure of firms. It then moves on to the analysis of various aspects of strategic interaction between firms and the determinants of industrial structure. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Concept and Scope of industrial economics</i> Concept and Scope of industrial economics; Organisation of a firm: Ownership, control and objectives of the firm; Choice of the organizational form; Business motives of the firm. | 12 |
| Unit-II | <i>Industrial Location Theories</i> Analysis of industrial location–Determinants of industrial location; Approaches to industrial locational Analysis; Economic theories of industrial location: Weber’s Theory, Market Area Theory of Palander and Central Place Theory of Losch; Operational approaches to industrial location, Factors affecting location. | 12 |
| Unit-III | <i>Market Structure, Market Conduct and Profitability</i> Market structure: Standard forms of market structures, Sellers’ concentration; Product differentiation; Entry conditions. Profitability: Market structure and profitability: Determinants of profitability. Theory of profitability; Market structure and innovation: The theories of technological innovation. | 12 |
| Unit-IV | <i>Market Concentration and Market Performance</i> Market concentration: Theoretical issues; Measurement of market concentration and monopoly power; Extent of market concentration; Concentration and market performance of a firm. Market Performance: Growth of the firm; Conceptual framework for the theory of growth; Constraints on growth of the firm; Industrial Productivity and Efficiency; Measurement of Industrial efficiency; Some efficiency condition in production. | 12 |
| Total | | 48 |
| References: Barthwal, R.R. (1985), Industrial Economics, Wiley Eastern Ltd., New Delhi. Desai, B. (1999), Industrial Economy in India (3 rd Edition), Himalaya Publishing House, Mumbai. Government of India, Economic Survey (Annual) Kuchhal, S.C. (1980), Industrial Economy of India (5 th Edition), Chaitanya Publishing House, Allahabad. Singh, A. and A.N.Sadhu (1988), Industrial Economics, Himalaya Publishing House, Bombay. Bagchi, A. and M. Banerjee (Eds.) (1979), Change and Choice in Indian Industry, Bagchi Publications, Calcutta. Kelkar, V.L. and V.V. Bhanoji Rao (Eds.) (1996), India Development Policy Imperatives, Tata McGraw Hill, New Delhi. Sandesara, J.C. (1992). Industrial Policy and Planning – 1994 – 1991 : Tendencies, Interpretations and Issues, Sage Publications, India Pvt. Ltd., New Delhi. Sandesara, J.C. (1982), Industrial Growth in India. | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

| ECON E 305:Computer Application in Economic Analysis – I |
|--|
| Objective: This course provides an introduction to computer and operating systems. The students can able to understand and use different statistical packages in Economics. |

| Unit | Contents | Hours |
|--|---|-------|
| Unit-I | <i>Introduction to computer and Operating Systems</i> Computer Organisation; Central Processing Unit; Types of Memory; Input and Output devices; Classification of computers; Programming languages; Operating System- DOS and Windows; Data Representation and the Number systems: decimal, binary, octal and hexadecimal. | 12 |
| Unit-II | <i>Use of Computer for Office Automation</i> 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. | 12 |
| Unit-III | <i>Statistical Data Processing Techniques-I</i> 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. | 12 |
| Unit-IV | <i>Statistical Data Processing Techniques-II</i> Analysis of Variance (ANOVA), Analysis of Covariance (ANCOVA), Linear programming; Time Series Trend Analysis; Input-output Analysis, Game theory – Saddle point and Mixed strategy solutions. | 12 |
| Total | | 48 |
| References: Balguruswamy, E. (1997), Programming in Basic, Tata McGraw Hill, New Delhi. Byron S. Gottfried (1997); Programming with Basic, Schaum's Cutline Series, McGraw Hill, New York. Jaggi, V.P. and Jain, Sushma (1994), Computers for Beginners. Academic Press, New Delhi. Jaggi, V.P. and Jain, Sushma (1994), Basic for Beginners, Academic Press, New Delhi. Kerns (1993), Essentials of Microsoft Windows, Word and Excel, Prentice Hall of India, New Delhi. Martin S. Matthew (1997), Excel for Windows 95, Tata McGraw Hill, New Delhi. Ram, B. (1997), Computer Fundamentals, Second Edition, New Age International, New Delhi. Tom Sheldon (1997), Windows 95 Made Easy, Tata McGraw Hill, New Delhi. | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

| ECON E 306:Econometrics – I | | |
|--|---|-------|
| Objective: The course is designed to introduce the basic tools of econometric analysis. The students will understand the methods of econometric analysis and their application in empirical research. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Basic Econometrics</i> Nature, meaning and scope of econometrics; Simple linear regression model – Assumptions; OLS Estimation; Blue properties of OLS estimators and the Gauss-Markov theorem; Derivation of R ² ; Inference in the least-squares model, Analysis of variance and the least-squares model; Prediction in the least-squares model; Estimation of extension two variable linear regression model | 12 |
| Unit-II | <i>Problems in Regression Analysis</i> Multiple/General regression model, Non-linear regression models – parabolic, exponential, log-linear, semi-log, hyperbolic, and logistic regression models. Meaning and nature, tests, consequences and remedial measures of problems of Heteroscedasticity. | 12 |
| Unit-III | <i>Regressions with Qualitative and Lagged Variables</i> Multicollinearity and Auto-correlation; Problems of Specification Error and Errors of Measurement. Estimation of regression models by using Computer, Econometrics software: Gretl | 12 |
| Unit-IV | <i>Regressions with Qualitative and Lagged Variables</i> Dummy variable technique - Testing structural stability of regression models, Comparing two or more regression models, Interaction effects, Seasonal | 12 |

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| | analysis, Other use of dummy variables; Regression with dummy dependent variables - LPM, Logit, Probit models and their applications. | |
| Total | | 48 |
| References: | | |
| Goldberger, A.S. (1998), Introductory Econometrics, Harvard University Press, Cambridge, Mass. | | |
| Gujarati, D.N. (2005), Basic Econometric (3 rd Edition), McGraw Hill, New Delhi. | | |
| Kmenta, J. (1997), Elements of Econometrics (Reprint Edition), University of Michigan Press, New York. | | |
| Koutsoyiannis, A. (1977), Theory of Econometrics (2 nd ed.) The Macmillan Press Ltd., London. | | |
| Theil, H. (1981) Introduction to Econometric Prentice Hall of India, New Delhi. Johnson, J. (1991), Econometric Methods, McGraw Hill Book Co., London. | | |
| Pindyck, R.S. and D.L. Rubinfeld (1976), Econometric Modles and Economic Forecasts, McGraw Hill Kogakusha, Tokyo. | | |
| Harvey, A.C.(1981), Econometric Analysis of Time Series, Phillip Allen, London. | | |
| Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey. | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

| ECON E 307:Financial Institutions and Markets – I | | |
|--|---|--------------|
| Objective: The objective of this course is to undertake a rigorous study of the theoretical and empirical foundations of financial economics. Students can able understand nature and role of Financial system and structure of interest rates. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Nature and Role of Financial System</i> Money and finance –Financial inter-mediation and financial intermediaries – The structure of the financial system – Functions of the financial sector – Indicator of financial development – Equilibrium in Financial markets – Financial system and economic development. | 12 |
| Unit-II | <i>Structure of Interest Rates</i> Theories of interest rate determination – Level of interest rates – Long period and short period rates – Term structure of interest rates – Spread between lending and deposit rates – Administered interest rates – Appropriate interest rate policy. | 12 |
| Unit-III | <i>The Central Bank and Monetary Policy</i> Functions of central bank – The aims and objectives of the monetary policy in developed and developing countries – Instruments of monetary policy – proliferation of banking and non-bank financial intermediaries – Effectiveness of monetary policy – Credit creation and its control | 12 |
| Unit-IV | <i>The Commercial Banks and Development Banks</i> Profitability and efficiency of banks; Development banks – Role and functions; Investment banking and merchant banking; Financial sector reforms in India. | 12 |
| Total | | 48 |
| References: | | |
| Agnihotri, S.B. (2000), Sex Ratio in Indian Population : A Fresh Exploration, SAGE, New Delhi. | | |
| Agrawala S.N. (1972), India’s Population Problem, Tata Mc Graw-Hill Co., Bombay. | | |
| Bhole, L.M. (1999), Financial Institutions and Markets, Tata Mc Graw Hill Company Ltd., New Delhi. | | |
| Bhole, L.M. (2020), Indian Financial System, Chugh Publications, Allahabad. | | |
| Bose, A. (1996), India’s Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi. | | |
| Chamberlain, G. (1981). Training in Options, Woodhed-Faulker, Cambridge. | | |
| Chandler L.V. and S.M. Goldfeld (1977). The Economics of Money and Banking, Harper & Row, | | |

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| <p>New York.</p> <p>Chandra, P. (1997) Financial Markets. (4th Edition). Table McGraw Hill, New Delhi. Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi.</p> <p>Edminsiter, R.O. (1988) Financial Institutions, Markets and Management Mc Graw Hill, New York.</p> <p>Goldsmith, R.W. (1969) Financial Structure and Development Yale, London.</p> <p>Gulati, S.C. (1988), Fertility in India : An Econometric Study of a Metropolis, SAGE, New Delhi.</p> <p>Gupta, L.C. (Ed.) (1999) India's Financial Markets and Institutions, Society for Capital Research and Development, Delhi.</p> |
| Assessment : 100 (80 End Semester +20 Mid Semester) |

| ECON E 308:Agricultural Economics – I | | |
|--|---|--------------|
| Objective: The major objective of this course is to make understand the importance of agriculture in economic development and to discuss major agricultural issues and policies. It aims to provide a theoretical understanding of agricultural development which will enhance the analytical understanding of the issues. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Agriculture and Economic Development</i> Nature and scope of agricultural and rural economics; Traditional agriculture and its modernization; Role of agriculture in economic development; Interdependence between agriculture and industry – some empirical evidence; Models of interaction between agriculture and the rest of the economy; Agricultural development, poverty and environment. | 12 |
| Unit-II | <i>Rural infrastructure, economic activities</i> Use of land, water and energy; Rural transport; communication, banking, extension services, role, modes and problems of rural electrification, rural social infrastructure – education and health and information dissemination. Livestock economics – Livestock resources and their productivity; Problems of marketing; White revolution; Fishery and poultry development; Forestry, horticulture and floriculture; issues and problems in rural industrialization and development of agro-based industries. | 12 |
| Unit-III | <i>Land Reforms and labour market</i> Rural labour supply; Interlocking of factor markets; Mobility of labour and segmentation in labour markets; marginalisation of rural labour; Nature, extent and trends in rural unemployment; Agricultural wages in India; male-female wage differences; Non-agricultural rural employment – Trends and determinants. Principles of land utilization; Land distribution – Structure and trends; Land values and rent; Land tenures and farming systems – Peasant; capitalist collective and state farming; Tenancy and crop sharing – forms, incidence and effects; Land reform measures and performance; Women and land reforms; Problems of marginal and small farmers. | 12 |
| Unit-IV | <i>Agricultural Productivity</i> Agricultural production – Resource use and efficiency; Production function analyses in agriculture; Factor combination and resource substitution; cost and supply curves; size of farm and laws of returns – Theoretical and empirical findings; Farm budgeting and cost concepts; Supply response of individual crops and aggregate supply; Resource use efficiency in traditional agriculture; technical change, Labour absorption and gender issues in agricultural services. | 12 |
| Total | | 48 |
| <p>Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.</p> <p>Brahmananda, P.R., B.K.Narayan and A.Kalappa (Ed.)(1987), Dimensions of Rural Development in India, Himalaya Publishing House, New Delhi.</p> <p>Dantwala M.I. et al (1991), Indian Agricultural Development Since Independence, Oxford & IBH, New Delhi.</p> | | |

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| Ghatak, S. and K. Ingerscent (1984), Agriculture and Economic Development, Select Books, New Delhi. |
| Rao, C.H. Hanumantha (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi. |
| Rudra, A. (1982), Indian Agricultural Economics : Myths and Reality, Allied Publishers, New Delhi. |
| Soni, R. N. (1995), Leading Issues in Agricultural Economics, Vishal Publishing Co., Jalandhar. |
| Wanmali S. and C. Ramasamy (Eds.) (1995), Developing Rural Infrastructure, Macmillan, New Delhi. |
| Assessment : 100 (80 End Semester +20 Mid Semester) |

| ECON AE 309:Indian Economic Policy | | |
|---|--|-------|
| Objective: The major objective of this course is to make understand the status and importance of basic economic indicators of Indian Economy. | | |
| Unit | Contents | Hours |
| Unit-I | Public Finance Fiscal Policy; Growth of public expenditure; Tax policy and tax reforms; Main source of revenue of Union and State governments; Fiscal correction for economic growth; Public debt policy; External debt; Deficit financing. | 12 |
| Unit-II | Agriculture and Industrial Sectors Agricultural Finance; Agricultural subsidies and food security in India; Public sector enterprises and their performance; problems of sick units India. Growth and pattern of Industrialization; Productivity in Industrial sector. | 12 |
| Unit-III | Infrastructure Sources of energy; power, coal, oil and gas, atomic energy and non conventional energy sources; Energy crisis; Energy strategy; Transport system in India: road transport, water transport, air transport and communication. | 12 |
| Unit-IV | External Sector Multinational corporations: Reasons for the growth of MNCs; FERA and FEMA; WTO and India: India's commitments to WTO and benefits proclaimed for India. | 12 |
| Total | | 48 |
| <p>Ahluwalia, J.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.</p> <p>Bawa, R.S. and P.S.Raikhy (Ed.) (1997), Structural, Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.</p> <p>Jain, B. (1992). The Indian Economy-Problems and Prospects. Viking, New Delhi.</p> <p>Joshi, V. and I.M.D. Little (1999), India : Macro Economics and Political Economy, 1964-1991, Oxford University Press, New Delhi.</p> <p>Sandesara, J.C.(1992), Industrial Policy and Planning, 1947-1991 : Tendencies, Interpretations and Issues, Sage Publications, New Delhi.</p> <p>Haq, M. (1996), Reflections on Human Development, Oxford University Press, New Delhi.</p> <p>Todaro, M. (1997), Economic Development in the Third World, Addition-Wesley, England.</p> <p>Byres, T.J. (Ed.)(1998), The Indian Economic : Major Debates Since Independence, Oxford University Press, New Delhi.</p> <p>Chakravarty, S. (1987), Development Planning – The Indian Experience, Oxford University Press, New Delhi.</p> | | |

Brahmananda, P.R. and V.R. Panchmukhi (Eds.) (1987), The Development Process of the Indian Economy, Himalaya Publishing House, Bombay.

Dandekar, V.M. (1996), The Indian Economy, 1947-92, Vol.II, Sage Publications, New Delhi.

Hanumantha Rao, C.H. and H.Linnemann (Eds.)(1996), Economic Reforms and Poverty Alleviation in India, Sage Publications, New Delhi.

Narain, D. (1988), Studies on Indian Agriculture, Oxford University Press, New Delhi.

Bhagwati, J.N. and P.Desai (1970), India : Planning for Industrialization, Oxford University Press, London.

Bhargava, P.K. (1991), India's Fiscal Crisis, Ashish Publishing House, New Delhi.

Chelliah, Raja. J. (1996), Towards Sustainable Growth - Essays in fiscal and financial.

Mundle, S. (1999), Public Finance : Policy Issues for India, Oxford University Press, New Delhi.

Bhole, L.M.(2000), Indian Financial System, Chugh Publications, Allahabad.

Rangarajan, C. (1998), Indian Economy : Essays on Money and Finance, UBS, New Delhi.

Nayyar, D. (Ed.)(1997), Trade and Industrialization, Oxford University Press, New Delhi.

Byres, T.J. (Ed.)(1997), The State, Development Planning and Liberalization in India, Oxford University Press, New Delhi.

Gupta, S.P. (1998), Post-Reform India : Emerging Trends, Allied Publishers, New Delhi.

Srinivasan, T.N. (Ed.)(2000), Eight Lectures on India's Economic Reforms, Oxford University Press, Oxford.

Assessment : 100 (80 End Semester +20 Mid Semester)

| ECON C 401:International Trade and Finance – II | | |
|---|--|--------------|
| Objective: This course aims to provide an understanding of approaches for balance of payments adjustments trade policies, balance of payments, international institutions and economic integration. This help students to improve their analytical skills and they can relate with current trade situation. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Balance of payments</i> Meaning and components of balance of payments; Equilibrium and disequilibrium in the balance of payments; Devaluation and balance of payments adjustment; Foreign trade multiplier with and without foreign repercussions and determination of national income and output. | 12 |
| Unit-II | <i>Approaches for Balance of Payment Adjustments</i> Absorption, Payments and Monetary approaches for adjustment in the balance of payments; Expenditure-reducing and expenditure-switching policies for balance of payments adjustment; Approaches for achieving internal and external equilibrium simultaneously: The Swan model and Mundell-Fleming model; Relative merits and demerits of fixed and flexible exchange rates in the context of growth and development in developing countries. Theory of foreign exchange markets, Exchange trading, Arbitrage, and market hedging. | 12 |
| Unit-III | <i>International Economic Co-operation</i> Regionalism – EU, rationale and progress of SAARC/SAPTA and ASEAN region; problems and prospects of forming customs union in Asia; Multilateralism – UNCTAD, NIEO, GATT/WTO; Optimum Currency Areas; Rise and fall of gold standard and Bretton-Woods system and emerging international monetary system. International financial institutions – IMF and World Bank; Need, adequacy and determinants of international liquidity; | 12 |

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| | Conditionality clause of IMF from the point of view of India. Theory of short-term capital movements and East Asian crisis, Asian Development Bank – Their achievements and failures. | |
| Unit-IV | <i>Trade Policies and India</i> 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 balance of payments, employment and growth; Instruments of export promotion; Recent import and export policies, and agenda for the future.. | 12 |
| Total | | 48 |
| References: | | |
| Manmohan Singh (1964), India's Export Trends and the Prospects for Self-sustained Growth, Oxford University Press, New Delhi. | | |
| Mundell, R. (1968), International Economics. The Macmillan Company Ltd. New York. | | |
| Panchmukhi, V.R., K.M. Raipuria and R.Tandon (1987), Money and Finance in World Economic Order (RIS), Indus Publishing Co., Delhi. | | |
| Panchmukhi, V.R. (1978), Trade Policies of India - A Quantitative Analysis, Concept Publishing Company, New Delhi. | | |
| Joshi, V. and I.M.D. Little (1998), India's Economic Reforms, 1999-2000, Oxford University Press, New Delhi. | | |
| Ptel, S.J. (1995), Indian Economy Towards the 21 st Century, University Press Ltd., India. | | |
| Satyanarayan, B. (1986), India's Trade with Asia and the Far East Countries, B.R.Publishing Corp, New Delhi. | | |
| Vimer, J. Studies in Theory of International Economics. A.E.A. – Readings in International Economics. | | |
| A.E.A. – Readings in the Theory of International Trade. | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

| ECON C 402:Economics of Social Sector and Environment – II | | |
|--|---|--------------|
| Objective: This course aims to provide an understanding of measurement of environmental values, non-renewable and renewable resources. Student can able link the environment with development. This helps them to understand the current situation of the environment. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Measurement of environmental values</i> Need for environmental valuation; Total economic value – Use values, option values and non-use values; Valuation methods: Methods based on observed market behaviour – Hedonic pricing method and Travel cost method (household production function models); Methods based on response to hypothetical markets – contingent valuation method; Environmental values and Cost – Benefit Analysis; Choice of discount rate. | 12 |
| Unit-II | <i>Economics of Non-renewable Natural Resource Management</i> Theory of Externality, Hotelling's rule, Solow-Harwick's rule. Types of natural resources; Concern for natural resource scarcity; Theory of optimal extraction of non-renewable (exhaustible) resources – Extraction under perfectly competitive and monopolistic markets. | 12 |
| Unit-III | <i>Economics of Renewable Natural Resource Management</i> Theory of optimal use of renewable resources – Biological growth process, Harvesting under private property and open access conditions; Approach for | 12 |

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| | common property resources. | |
| Unit-IV | <i>Environment and development</i> Environment and development trade-off; The Environmental Kuznets Curve hypothesis and its limitations; Sustainable development: Weak and strong sustainability; Rules and indicators of sustainable development; Integrated environmental and economic accounting; Measurement of environmentally-corrected GDP. | 12 |
| Total | | 48 |
| References: | | |
| <p>Pearce, D.W. and R. Turner (1991), Economics of Natural Resource Use and Environment, Johan Hopkins University Press, Baltimore.</p> <p>Perman, R. Ma and J. Mc Gilvary (1996) Natural Resource and Environmental Economics, Longman, London.</p> <p>Sankar, U. (Ed.) (2001) Environmental Economics, Oxford University Press, New Delhi. Schultz, T.W. (1971), Investment in Human Capital, Free Press, New York</p> <p>Tietenberg, T. (1994), Environmental Economics and Policy, Harper Collins, New York.</p> <p>Smith, V. Kerry (1996), Estimating Economic Values for Nature : Methods for Non-market valuation, Edward Elgar, Cheltenham, U.K.</p> <p>Daly, H.E. (1996), Steady-State Economy.</p> <p>CSE (Centre for Science and Environmental), The State of India's Environment (Five Reports), New Delhi, Case Studies (India)</p> <p>Chopra, K. (1998), Valuation of Bio-diversity within protected areas alternative approaches and a case study, Institute of Economic Growth, Delhi.</p> <p>Chopra, K. G.K. Kadekodi and M.N.Murty (1990), Participatory Development : An Approach to the Management of Common Property Resource, SAGE, New Delhi.</p> <p>Meheta, S.S. Mundel and U. Sankar (1995), Controlling Pollution : Incentives and Regulations SAGE, New Delhi.</p> <p>Murty, M.N., A.James and S.Misra (1999), The Economics of Water Pollution in India, Oxford University Press, New Delhi.</p> <p>Dasgupta, P.S. and G.M. Heal (1995), Economic Theory and Exhaustible Resources, Cambridge University Press, Cambridge.</p> <p>Dasgupta, P.S. and K.G. Maler (Ed.)(1997), Environment and Emerging Development Issues, Cambridge University Press, Cambridge, Mass.</p> <p>United Nations (1993), Integrated Environmental and Economics Accounting. United Nations, New York.</p> <p>Bhattacharya, R.N. (Ed.) (2001), Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.</p> <p>Chopra, K. and G.K. Kadekodi (1999). Operationalising Sustainable Development. Economic Ecological Modelling for Developing Countries, SAGE, New Delhi.</p> <p>Keer, J.M. et al. (Eds.) (1997), Natural Resource Economics : Theory and Applications in India, Oxford and IBH Publications Co. Pvt. Ltd., New Delhi.</p> <p>Sengupta, R.P. (2001), Ecology and Economics: An Approach to Sustainable Development. Oxford University Press, New Delhi.</p> <p>Becker, G.S. (1974), Human Capital (2nd Edition). National Bureau of Economics Research New York.</p> <p>Tilak, J.B.G. (1994), Education for Development in Asia, Sage Publications, New Delhi.</p> <p>Panchamukhi, P.R. (1980), Economics of Health : A Trend Report in ICSSR, A Survey of Research in Economics, Vol.VI, Infrastructure, Allied, Delhi.</p> | | |

World Bank (1993), The World Development Report, 1993 : Investing in Health, Oxford University Press, New York.

World Bank (1992), Environment and Development Oxford University Press, New York.
 Timothy C.Habb and John C. Whitehead, (ed), Environmental and Natural Resources

Economics, An Encyclopaedia, Greenwood, Oxford, 2014.

Assessment : 100 (80 End Semester +20 Mid Semester)

ECON C 403:Research Methodology

Objective: The aim of the course is to introduce students to quantitative and qualitative methods for conducting meaningful inquiry and research. It is expected to gain an overview of research intent and design, methodology and technique, format and presentation, research ethics and data management and analysis.

| Unit | Contents | Hours |
|----------|--|-------|
| Unit-I | <i>Introduction to Social Science Research</i> Introduction to social science research, different types of research,. Methods of collection of data questionnaire and interview participant observation, theory of case studies, type of data primary & secondary, time-series and cross-section data. Database of the Indian economy. | 12 |
| Unit-II | <i>Review of Literature and Research Design</i> Need for reviewing literature, Sources of Literature, What to review and for what purpose, the Research proposal and the Formulation of research design, Need of a research design, Different research design, Features of a good research design | 12 |
| Unit-III | <i>Sampling in Social Science Research</i> Sampling in social science research, Different sampling methods- Random sampling, Probability sampling, simple and stratified random sampling, cluster sampling, systematic sampling, Sampling and non-sampling errors. | 12 |
| Unit-IV | <i>Research Report</i> Meaning and purpose of report, Target group in report writing, Contents of a report, Format of a Report, Qualities of a good research report, Types of a report. Planning of a report, Organisation of a report, Presentation of a report, Style in Report writing, Conclusion and Generalization. | 12 |
| Total | | 48 |

References:

1. Research Methodology- C. R Kothari
2. Research Methodology- Cauvery R. et al
3. Basic Statistics, Goon Gupta and Dasgupta
4. Scientific Social Survey and Research-P.V.Young

Assessment : 100 (80 End Semester +20 Mid Semester)

ECON E 404:Mathematical Economics – II

Objective: The aim of the course is to provide the understanding of market equilibrium, game theory, Linear programming and input-output analysis.

| Unit | Contents | Hours |
|--------|--|-------|
| Unit-I | <i>Market Equilibrium</i> Single Market Equilibrium - Marshallian Vs Walrasian equilibrium conditions; Lagged market equilibrium, Cobweb Model; Multi-market equilibrium – | 12 |

| | | |
|----------|---|----|
| | General equilibrium system of Walras, Stability conditions for equilibrium. | |
| Unit-II | Game Theory The pay-off matrix of a game; two person, zero-sum game; non-constant sum game; pure and mixed strategies, maximin and minimax solutions, saddle point solution, Cooperative games, Nash Bargaining Solution; Prisoner's dilemma. | 12 |
| Unit-III | Linear programming and Non Linear Programming Linear programming– Primal and dual problem, Simplex method; Transport and storage problems and other applications of linear programming in economics, Concept of Non Linear Programming, Kuhn Tucker Conditions of optimisation. | 12 |
| Unit-IV | Input-output Analysis – Open and Closed systems. Transaction Matrix and coefficient Matrix, Hawkins Simon conditions. Dynamic Input-output system. Application in Economics. | 12 |
| Total | | 48 |

References:

Allen, R.G.D. (1976), *Mathematical Economics*, Macmillan, London.

Henderson, J.M. and R.E. Quandt (1990), *Microeconomics Theory: A Mathematical Approach* McGraw Hill, New Delhi.

Ferguson, C.E. (1976), *Neo-classical Theory of Production and Distribution*.

Allen, R.G.D. (1974), *Mathematical Analysis for Economists*, Macmillan Press and ELBS London.

Chiang, A.C. (1986), *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.

Jha, R. (1991), *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.

Hadley, G. (1962), *Linear Programming*, Addison Wesley Publishing Co., Massachusetts.

Kothari, C.R. (1992), *An Introduction to Operations Research*, Vikas Publishing House, New Delhi.

Dorfman, R.P.A. Solow R.W. : *Linear Programming and Economics Analysis*, McGraw Hill.

Gillett, B.E. *Introduction to Operations Research*, McGraw Hill, New York.

Assessment : 100 (80 End Semester +20 Mid Semester)

ECON E 405: Industrial Economics – II

Objective: The aim of the course is to introduce the students to integration and merger of plants, optimum size of plants. The students can able understand the industrial policy and industrial development in India.

| Unit | Contents | Hours |
|----------|---|-------|
| Unit-I | Optimum Plant Size and Diversification, Vertical Integration and Merger The cost theory and optimum size of the plant: The theory of cost and production functions, Efficiency and the size of the firm; Empirical estimation. Motives for diversification: Theories and empirical evidence on mergers and acquisitions (M & As) and diversification; Measurement approaches and empirical evidence. | 12 |
| Unit-II | Industrial Finance Accounting, Ratio Analysis and Investment decisions Finance Accounting: Need of Finance; type of Finance and source of finance; Financial statements: Balance Sheet, Profit and Loss Account; Assessment of financial soundness. Financial ratio analysis: Classification and description of financial ratios; The standard of comparison of ratios; Break Even analysis; Application of Break Even analysis. Investment Decisions: Nature and type of Investment decisions. | 12 |
| Unit-III | Indian Industrial Growth | 12 |

| | | |
|---|---|----|
| | Classification of industries; Industrial policy in India - Role of Public and private sectors; Recent trends in Indian industrial growth; MNCs and transfer of technology; Liberalization and privatization and the growth of industries. | |
| Unit-IV | <i>Industrial Finance and Labour</i> Industrial Finance: Role, nature, volume and types of institutional finance – IDBI, IFCI, SFCs, SIDC, commercial banks etc. Industrial Labour: Structure of industrial labour; Employment dimensions of Indian industries; Industrial legislation; Industrial relations; Exit policy and social security; Wages and problem of bonus; labour market reforms. | 12 |
| Total | | 48 |
| References: Barthwal, R.R. (1985), Industrial Economics, Wiley Eastern Ltd., New Delhi. Desai, B. (1999), Industrial Economy in India (3 rd Edition), Himalaya Publishing House, Mumbai. Government of India, Economic Survey (Annual) Kuchhal, S.C. (1980), Industrial Economy of India (5 th Edition), Chaitanya Publishing House, Allahabad. Singh, A. and A.N.Sadhu (1988), Industrial Economics, Himalaya Publishing House, Bombay. Bagchi, A. and M. Banerjee (Eds.) (1979), Change and Choice in Indian Industry, Bagchi Publications, Calcutta. Kelkar, V.L. and V.V. Bhanaji Rao (Eds.) (1996), India Development Policy Imperatives, Tata McGraw Hill, New Delhi. Sandesara, J.C. (1992). Industrial Policy and Planning – 1994 – 1991 : Tendencies, Interpretations and Issues, Sage Publications, India Pvt. Ltd., New Delhi. Sandesara, J.C. (1982), Industrial Growth in India. | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

| ECON E 406:Computer Application in Economic Analysis – II | | |
|---|--|--------------|
| Objective: The aim of the course is provide basic understanding to data processing techniques and methods of using econometric packages. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Basic of Database</i> 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. | 12 |
| Unit-II | <i>MS-Access and Power point</i> Economic Application of MS-Access; and Handling and command descriptions of MS-Power Point; Slide creation and presentation through MS-Power point. | 12 |
| Unit-III | <i>Data Processing Techniques and Methods of Using Econometric Packages</i> Econometric package handling and command descriptions of LIMDEP; Estimation of demand functions, supply function, Engel function, Production function, cost function, and consumption function usings. | 12 |
| Unit-IV | <i>Time-series Analysis and Methods of Using Eviews</i> Package handling and command descriptions of EViews and GRETLE; Simple time series Analysis – Trend analysis; Estimation of demand function, production function and investment function using time series data, Basics of internet; Search Engines. | 12 |
| Total | | 48 |
| References: Balguruswamy, E. (1997), Programming in Basic, Tata McGraw Hill, New Delhi. Byron S. Gottfried (1997); Programming with Basic, Schaum’s Cutline Series, McGraw | | |

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| <p>Hill, New York.</p> <p>Jaggi, V.P. and Jain, Sushma (1994), Computers for Beginners. Academic Press, New Delhi.</p> <p>Jaggi, V.P. and Jain, Sushma (1994), Basic for Beginners, Academic Press, New Delhi.</p> <p>Kerns (1993), Essentials of Microsoft Windows, Word and Excel, Prentice Hall of India, New Delhi.</p> <p>Martin S. Matthew (1997), Excel for Windows 95, Tata McGraw Hill, New Delhi.</p> <p>Ram, B. (1997), Computer Fundamentals, Second Edition, New Age International, New Delhi.</p> <p>Tom Sheldon (1997), Windows 95 Made Easy, Tata McGraw Hill, New Delhi.</p> |
| Assessment : 100 (80 End Semester +20 Mid Semester) |

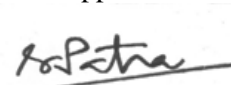
| ECON E 407:Econometrics – II | | |
|---|---|-------|
| <p>Objective: The aim of the course is to introduce the students to the econometric methods and estimation in the context of simultaneous equation frame work, dynamic and autoregressive models. The students will understand the methods of elementary time series and their estimation and application in empirical research.</p> | | |
| Unit | Contents | Hours |
| Unit-I | <p><i>Simultaneous Equation Models-Meaning</i> Introduction to Simultaneous Equation models with examples; Simultaneous equation bias and inconsistency of OLS estimators; Structural and Reduced form; Identification problem–Order and Rank conditions for identification</p> | 12 |
| Unit-II | <p><i>Estimation of Simultaneous Equations</i> Methods of estimating simultaneous equation system: Recursive methods and OLS, Indirect least squares (ILS), 2SLS and 3SLS.</p> | 12 |
| Unit-III | <p><i>Autoregressive and Distributed Lag Models</i> Autoregressive and Distributed Lag Models – Koyck model; Adaptive Expectation model; Stock Adjustment model; Almon approach to distributed-lag models</p> | 12 |
| Unit-IV | <p><i>Time Series Analysis</i> Time-Series Analysis – Basic concepts of time-series; Stationary and Non-stationary Stochastic Process; Integrated Stochastic Process; Random Walk model; Tests of Stationarity–Autocorrelation function and Correlogram; Unit Root test and Dickey-Fuller test, Co-integration and Engle-Granger (EG) test.</p> | 12 |
| Total | | 48 |
| <p>References: Goldgerger, A.S. (1998), Introductory Econometrics, Harvard University Press, Cambridge, Mass. Gujarati, D.N. (2005), Basic Econometric (3rd Edition), McGraw Hill, New Delhi. Kmenta, J. (1997), Elements of Econometrics (Reprint Edition), University of Michigan Press, New York. Koutsoyiannis, A. (1977), Theory of Econometrics (2nd ed.) The Macmillan Press Ltd., London. Theil, H. (1981) Introduction to Econometric Prentice Hall of India, New Delhi. Johnson, J. (1991), Econometric Methods, McGraw Hill Book Co., London. Pindyck, R.S. and D.L. Rubinfeld (1976), Econometric Modles and Economic Forecasts, McGraw Hill Kogakusha, Tokyo. Harvey, A.C.(1981), Econometric Analysis of Time Series, Phillip Allen, London. Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey.</p> | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

| ECON E 408:Financial Institutions and Markets – II | | |
|---|--|--------------|
| Objective: The aim of the course is to introduce to students to Non-bank Financial Intermediaries, Financial markets, securities and derivatives markets and international financial markets. | | |
| Unit | Contents | Hours |
| Unit-I | <i>Non-bank Financial Intermediaries</i> Definition and types of non-bank financial institutions: Their growth and impact on India's economic development, measures taken to control their operations. | 12 |
| Unit-II | <i>Financial Markets</i> Role and structure of money market and capital market – call money market. Treasury bill market, commercial bill market including commercial paper and certificate of deposits, discount market. | 12 |
| Unit-III | <i>Securities and Derivatives Markets</i> Government securities market – markets for derivatives: features and options and other derivatives : types, uses and pricing of derivatives – Primary and secondary market for securities; SEBI: its impact on the working of capital market in India; IRDA and its role in financial markets. | 12 |
| Unit-IV | <i>International Financial Markets</i> Reforms in International monetary system for developing countries – Lending operation of world bank and its affiliates – Working of IDA and IFC; The Growth of Regional financial institutions; Asian Development Bank and its lending activities; Asian Development Bank and India, Euro-dollar and Euro-Currency markets; their developmental role and regulation at the International level. | 12 |
| Total | | 48 |
| References: Hanson, J.A. and S. Rathuria (Eds.) (1999) India. A Financial Sector for the Twenty First Century, Oxford University Press, New Delhi. Harker, P.T. and S.A. Zenias (2000) (Ed.), Performance of Financial Institutions, Cambridge University Press, Cambridge. Johnson, H.J. (1993) Financial Institutions and Markets, Mc Graw Hill, New York. Khan, M.Y. (1996). Indian Financial System. Tata Mc Graw Hill, New Delhi. Machiraju, M.R. (1999), Indian Financial Systems. Vikas Publishing House, New Delhi. Mitra, A. (1979), Implications of Declining Sex Ratio in India's Population, Allied, New Delhi. Ohlson, J.A. (1987). The Theory of Financial Markets and Institutions, North Holland Amsterdam. Prasad, K.N. (2001). Development of India Financial System. Sarup & Sons, New Delhi. Robinson, R.I. and D. Wrightman (1981). Financial Markets, McGraw Hill, London. Sahadevan, K. G. and M.T. Thiripalraju (1997), Mutual Funds, PHI, New Delhi. Sayers, R.S. (1967), Modern Banking, Oxford University Press, New Delhi. Srinivasan, K. (1998), Basic Demographic Techniques and Applications, SAGE, New Delhi. Sudarshan and A. Shariff (1999), Gender Population and Development, Oxford University Press, New Delhi. | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

| ECON E 409:Agricultural Economics – II |
|---|
| Objective: The major objective of this course is to make understand the importance of rural finance and cooperation in India, agricultural prices, agricultural growth in India and its relation with external |

| sector. | | |
|--|--|--------------|
| Unit | Contents | Hours |
| Unit-I | <i>Rural finance and cooperation in India</i> Role of capital and rural credit; Organized and unorganized capital market; Rural savings and capital formation; characteristics and sources of rural credit – Institutional and non-institutional; Reorganization of rural credit – co-operatives, commercial banks, regional rural banks, role of NABARD. Cooperative movement; Genesis and growth of cooperative sector; Agricultural cooperation in India; Problems and prospects of cooperative Institutions. | 12 |
| Unit-II | <i>Agricultural Prices</i> Marketing and state policy; Agricultural markets and marketing efficiency – Marketing functions and costs. Market structure and imperfections; Regulated markets; Marketed and marketable surplus; Behaviour of agricultural prices – Cobweb model; Price and income stability; State policy with respect to agricultural marketing; ware-housing; prices; taxation and crop insurance; Terms of trade between agricultural and non-agricultural prices; Need for state intervention; Objectives of agricultural price policy – Instruments and evaluation; Food security in India and Public distribution system.. | 12 |
| Unit-III | <i>Agricultural growth in India</i> Recent trends in agricultural growth in India; Inter-regional variations in growth of output and productivity; Cropping pattern shifts; Supply of inputs – irrigation, power, seed and fertilizers; pricing of inputs and role of subsidies; Distribution of gains from technological change; Role of public investment and capital formation in Indian agriculture; Strategy of agricultural development and technological progress; sustainable agriculture – indigenous practices; bio-technological practices and growth potential. | 12 |
| Unit-IV | <i>Agriculture and external sector</i> International trade in agricultural commodities; commodity agreements; Issues in liberalization of domestic and international trade in agriculture; Role of MNCs.; Globalisation of Indian economy and problems and prospects of Indian agriculture; Impact of World Trade Organisation on Indian agriculture. | 12 |
| Total | | 48 |
| References: Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi. Brahmananda, P.R., B.K.Narayan and A.Kalappa (Ed.)(1987), Dimensions of Rural Development in India, Himalaya Publishing House, New Delhi. Dantwala M.I. et al (1991), Indian Agricultural Development Since Independence, Oxford & IBH, New Delhi. Ghatak, S. and K. Ingerscent (1984), Agriculture and Economic Development, Select Books, New Delhi. Rao, C.H. Hanumantha (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi. Rudra, A. (1982), Indian Agricultural Economics : Myths and Reality, Allied Publishers, New Delhi. Soni, R. N. (1995), Leading Issues in Agricultural Economics, Vishal Publishing Co., Jalandhar. Wanmali S. and C. Ramasamy (Eds.) (1995), Developing Rural Infrastructure, Macmillan, New Delhi. | | |
| Assessment : 100 (80 End Semester +20 Mid Semester) | | |

Approved



Chairman, BOS(ECO)