

M.A. ECONOMICS SYLLABUS
FOR SEMESTER SYSTEM

SEMESTER-I

ECO401 – MICROECONOMICS – I

OBJECTIVE

This paper has the focus on economic behavior of an individual and the firm, which is governed by the principles of demand, consumer surplus and consumer behavior under various market situations. The contribution of various economists to the readings of welfare economics will form a part of the teachings of this subject. The aim of this subject is to develop specific skills in the student that are applicable in different fields such as administration, marketing and research, etc.

OUTCOME

As this paper teaches about the behaviour of an individual touching every aspect of day-to-day transactions. The subject prompts the students to do mind boggling exercises while observing his own vis-à-vis others behaviour at home as well at the market places. An interest in the subject and regularity in observing the consumer behaviour leads the students to excel in marketing and consumer research.

MODULE 1

Micro economics - nature, scope, importance & limitations; Methodology of economics - deductive versus inductive; Economics – static and dynamic, positive and normative, general and partial equilibrium; Robbin's definition of economics, difference between macro and micro economics, production possibility frontier.

MODULE 2

Cardinal utility approach - law of diminishing marginal utility, consumer equilibrium, derivation of demand curve, law of demand; Indifference curve analysis of demand - indifference curve, properties, consumer equilibrium, price, income and substitution effects, Giffen paradox, derivation of demand curve, application ad uses of indifference curve; Marshallian cardinal utility vs. indifference curve analysis; Revealed preference theory of demand; Hicks logical ordering theory of demand; Lancaster's attribute theory of demand.

MODULE 3

Consumer surplus-meaning, Marshall's measurement of consumer surplus, measurement of consumer surplus through indifference curve analysis, critical evaluation; Elasticity of demand - meaning, price elasticity of demand, measurement of price elasticity, income elasticity of demand, cross elasticity of demand, measurement of income and cross elasticity of demand.

MODULE 4

Individual behavior towards risk, expected utility and uncertainty, equivalence approaches; Risk and risk aversion – sensitivity analysis, gambling and insurance, the economics of insurance, cost and risk, risk pooling and risk spreading, mean-variance analysis and portfolio selection; The efficient market hypothesis, market with incomplete information, search and transaction costs, the economics of information.

MODULE 5

General equilibrium analysis; Pigou's theory of welfare economics; Conditions of Pareto optimality, Kaldor-Hicks welfare criteria; Bergson - Samuleson's social welfare function; Arrow's impossibility theorem; Grand utility possibility frontier.

Basic Reading List:

- Koutsoyiannis, A. (1979), *Modern Microeconomics*, (2nd Edition), Macmillan Press, London
- Kreps, David M. (1990), *A Course in Microeconomic Theory*, Princeton University Press, Princeton.
- Layard, P.R.G. and A. W. Walters (1978), *Microeconomic Theory*, McGraw Hill, New York.
- Sen, A. (1999), *Microeconomics Theory and Applications*, Oxford University Press, New Delhi.
- Stigler, G. (1996), *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi.
- Varian, H. (2000), *Microeconomic Analysis*, W. W. Norton, New York.

Additional Reading List:**MODULE 1**

- Baumol, W. J. (1982), *Economic Theory and Operations Analysis*, Prentice Hall of India, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), *Price Theory and Applications*, Prentice Hall of India, New Delhi.

MODULE 2

- Baumol, W. J. (1982), *Economic Theory and Operations Analysis*, Prentice Hall of India, New Delhi.
- Green, H.A.G. (1971), *Consumer Theory*, Penguin, Harmondsworth.
- Henderson, J. M. and R. E. Quandt (1980), *Microeconomic Theory : A Mathematical Approach*, McGraw Hill, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), *Price Theory and Applications*, Prentice Hall of India, New Delhi.

MODULE 3

- Baumol, W. J. (1982), *Economic Theory and Operations Analysis*, Prentice Hall of India, New Delhi.
- Green, H.A.G. (1971), *Consumer Theory*, Penguin, Harmondsworth.
- Henderson, J. M. and R. E. Quandt (1980), *Microeconomic Theory : A Mathematical Approach*, McGraw Hill, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), *Price Theory and Applications*, Prentice Hall of India, New Delhi.

MODULE 4

- Arrow, K. J. and M. D. Intrilligator (Eds.) (1981), *Handbook of Mathematical Economics*, Vol. I North Holland, Amsterdam.
- Borch, K. H. (1968), *The Economics of Uncertainty*, Princeton University Press, Princeton.
- Diamond and Rothschild (Eds.) (1978), *Uncertainty in Economics*, Academic Press, New York.
- Hirshleifer, J. and A. Glazer (1997), *Price Theory and Applications*, Prentice Hall of India, New Delhi.

MODULE 5

- Broadway, R. W. and N. Bruce (1984), *Welfare Economics*, Basil Blackwell, London.
- Da Costa, G. C. (1980), *Production, Prices and Distribution*, Tata McGraw Hill, New Delhi.
- Graff, J. De V. (1957), *Theoretical Welfare Economics*, Cambridge University Press, Cambridge.
- Green, H. and V. Walsh (1975), *Classical and Neo-classical Theories of General Equilibrium*, Oxford University Press, London.
- Hansen, B. (1970), *A Survey of General Equilibrium Systems*, McGraw Hill, New York.
- Henderson, J. M. and R. E. Quandt (1980), *Microeconomic Theory : A Mathematical Approach*. McGraw Hill, New Delhi.
- Mishan, E. J. (1969), *Welfare Economics : An Assessment*, North Holland, Amsterdam.
- Quirk, J. and R. Saposnik (1968), *Introduction to General Equilibrium Theory and Welfare Economics*, McGraw Hill, New York.
- Weintrub, E. R. (1974), *General Equilibrium Theory*, Macmillan, London.

ECO-402-MACROECONOMIC ANALYSIS-I

OBJECTIVE

Macroeconomics or aggregative economic analysis establishes the functional relationship between the large aggregates. The aggregate analysis has assumed such a great significance in recent times that a prior understanding of macroeconomic theoretical structure is considered essential for the proper comprehension of the different issues and policies. Macroeconomics now is not only a scientific method of analysis; but also a body of empirical economic knowledge.

OUTCOME

The paper entitled Macro Economic Analysis-I equips the students at the postgraduate level to understand economic facts and latest theoretical developments for empirical analysis.

MODULE 1

Introduction to Macroeconomics; Classical, Neo-classical and Keynesian Macroeconomic theories of income output & employment determination.

MODULE 2

Consumption Function: Keynes' psychological law of consumption, 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.

MODULE 3

Investment Function, Marginal efficiency of capital and investment, the accelerator and investment behaviour, impact of inflation; influence of policy measures on investment.

MODULE 4

Neo-classical and Keynesian Synthesis: The IS-LM model, Derivation of IS and LM curves, Extension of IS- LM model with government sector; Relative effectiveness of monetary and fiscal policies,

MODULE 5

New Classical Macroeconomics: The new classical critique of micro foundations, the new classical approach; Policy implications of new classical approach.

Basic Reading List :

- Ackley, G. (1978), *Macroeconomics • 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.
- Hall, R. E. and J. B. Taylor (1986), *Macroeconomics*, W. W., Norton, New York.
- Jha, R. (1991), *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
- Romer, D. L. (1996), *Advanced Macroeconomics*, McGraw Hill Company Ltd., New York.
- Shapiro, E. (1996), *Macroeconomic Analysis*, Galgotia Publications, New Delhi.
- Surry, M. J. C. (Ed.), *Macroeconomic Themes*, Oxford University Press, Oxford.
- Errol D'souza, (2008), *Macroeconomics*, Pearson Education, India.

Additional Reading List**Module 1**

- McConnel C. R. and H. C. Gupta (1987), *Introduction to Macroeconomics*, Tata McGraw Hill, New Delhi.
- Gupta G. S. (2000), *Macroeconomics*, Tata McGraw Hill, New Delhi.
- Froyen, *Macroeconomic Theory and Practice*.
- Vaish M. C., *Macroeconomic Theory*.

Module 2 :

- Duesenberry, J. S. (1949), *Income Saving and the Theory of Consumer Behaviour*, Harvard University Press, Harvard.
- Friedman, M. (1957), *The Theory of Consumption Function*, Princeton University Press, Princeton.
- Keynes, J. M. (1936), *The General Theory of Employment, Interest and Money*, Macmillan, London.
- Mueller, M. G. (1966), *Readings in Macroeconomics*, Holt Rinehard and Winston New York.

Module 3 :

- Gordon R. and S. G. Harris (1988), *Macroeconomics*, Addison Wesley.
- Culbertson. J. M. (1968), *Macroeconomic Theory and Stabilization Policy*, McGraw Hill, Kogekosh, Tokyo.

Module 4 :

- Leijonhufvud, A. (1969), *On Keynesian Economics and Economics of Keynes*, Oxford University Press, London.
- Levacic, R. and A. Rebman (1986), *Macroeconomics • An Introduction to Keynesian and Neo-classical Controversies*, Macmillan, London.
- Mankiw, N. G. and D. Romer (Eds.) (1991), *New Keynesian Economics*, (2 Vols.), MIT Press, Cambridge.
- Rakshit, M. (1998), *Studies in the Macroeconomics of Developing Countries*, Oxford University Press, New Delhi.
- Friedman, M. (1956), *Studies in the Quantity Theory of Money*, The University of Chicago Press, Chicago.

Module 5 :

- Hicks, J. R. (1974), *The Crisis in Keynesian Economics*, Oxford University Press, New Delhi.
- Jha R. (1999), *Contemporary Macroeconomic Theory and Policy*, New Age International (P.) Ltd., New Delhi.

- Leijonhufvud, A. (1968), On Keynesian Economics and Economics of Keynes, Oxford University Press, London.
- Patinkin, D. (1965), Money, Interest and Prices, Harper and Row, New York.
- Taylor L. (1983), Structuralist Macroeconomics, Basic Books, New Longman.
- Turnovsky, S. J. (1977), Macroeconomic Analysis and Stabilization Policy, Cambridge University Press, Cambridge.

ECO-403-PUBLIC ECONOMICS-I

OBJECTIVE

This paper helps the student to understand the role and function of the Government in an economy which have been changing with the passage of time. It helps students to understand those policies and operations which involve the use of tax and expenditure measures.

OUTCOME

The student, after studying this paper, will be able to understand and appreciate the need, functions. It will help student to understand and analyze the effects of tax policies and the government expenditure.

MODULE 1

Introduction-Role of Government in an organized society; Changing perspective—Government in a mixed economy, public and private sector, private goods, public goods and merit goods; Market failure-its causes.

MODULE 2

Public Choice-Private and public mechanism for allocating resources; Problems for allocating resources; Problems of preference revelation and aggregation of preferences; Voting systems; Arrow impossibility theorem.

MODULE 3

Rationale for Public Policy-Allocation of resources —provision of public goods; Voluntary exchange models; Impossibility of Decentralized provision of public goods -contributions of Samuelson and Musgrave; Demand-revealing schemes for public goods—Stabilization Policy—Keynesian case for stabilization policy;

MODULE 4

Public Expenditure-Wagner's law of increasing state activities; Wiseman-Peacock hypothesis; Pure theory of public expenditure; Structure and growth of public expenditure; Criteria for public investment- Social cost-benefit analysis-zero base budgeting.

MODULE 5

Taxation Theory of incidence; Alternative concepts of incidence—Allocative and equity aspects of individual taxes; Income Tax-its Economic Effects, Income Tax Vs. Expenditure Tax; Benefit and ability to pay approaches; Theory of optimal taxation; Excess burden of taxes; Tradeoff between equity and efficiency; Theory of measurement of dead weight losses;

Basic Reading List

- Atkinson, A. B. and J. E. Stiglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.
- Auerbach, A. J. and M. Feldstern (Eds.) (1985), Handbooks of Public Economics, Vol. 1, North Holland, Amsterdam.
- Buchanan, J. M. (1970), The Public Finances, Richard D. Irwin, Homewood.
- Goode, R. (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
- Houghton, J. M. (1970), The Public Finance : Selected Readings, Penguin, Harmondsworth.
- Herber, B. P. (1967), Modern Public Finance, Richard D. Irwin,
- Jha, R. (1998), Modern Public Economics, Routledge, London.
- Menutt, P. (1996), The Economics of Public Choice, Edward Elgar, U.K.
- Musgrave, R. A. (1959), The Theory of Public Finance, McGraw Hill, Kogakusha, Tokyo.
- Musgrave, R. A. and P. B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
- Shoup, C. S. (1970), Public Finance, Aldine, Chicago.
- Shome, P. (ed.) (1995), Tax Policy • Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.

Additional Reading

List Module 1 :

- Cornes, R. and T. Sandler (1986), The Theory of Externalities, Public Goods and Club Goods, Cambridge University Press, Cambridge.
- Duff, L. (1997), Government and Market, Orient Longman, New Delhi.
- Herber, B. P. (1967), Modern Public Finance, Richard D. Irwin, Homewood.
- Spulber, N. (1998), Redefining the State, Cambridge University Press, Cambridge.

Module 2 :

- Buchanan, J. M. (1968), The Demand and Supply of Public Goods, Rand McNally, Chicago.
- Mueller, D. C. (1979), Public Choice, Cambridge University Press, Cambridge.
- Spulber, N. (1998), Redefining the State, Cambridge University Press, Cambridge.
- Stiglitz, J. E. (1986), Economics of Public Sector, Norton, New York.

Module 3 :

- Dorfman, R. (Ed.) (1970), Measuring the Benefits of Government Investment, Brookings Institution, Washington.
- Duff, L. (1997), Government and Market, Orient Longman, New Delhi.
- Friedman, A. (1986), Welfare Economics and Social Choice Theory, Martins Nijhoff, Boston.
- Glennester, H. and J. Hills (1998), The State of Welfare • The Economic and Social Spending, Oxford University Press. London.

Module 4 :

- Mishan, E. J. (1982), Cost-Benefit Analysis • An Informal Introduction, George Allen and Unwin, London.

- Peacock, A and D. J. Robertson (Eds.) (1963), Public Expenditure • Appraisal and Control, Oliver and Boyd, Edinburgh.
- Phyrri, P. (1970), Zero Base Budgeting • A Practical Management Tool for Evaluating Expenses, John Wiley, New York.
- Premchand, A. (1966), Control of Public Expenditure in India, Allied Publishers, New Delhi.
- Sahni, B. S. (Ed.) (1972), Public Expenditure Analysis • Selected Readings, Rotherdam University Press.

Module 5 :

- Bird, R. and O. Oldman (1967), Readings on Taxation in Developing Countries, the John Hopkins University Press, Baltimore.
- Cutt, J. (1969), Taxation and Economic Development in India, Frederick A Praegar Publishers, New York.
- Kaldor, N. (1955), An Expenditure Tax, George Allen and Unwin, London.
- Musgrave, R. A. and C. Shoup (Eds.) (1970), Readings in the Economics of Taxation, George Allen and Unwin, London.

ECO404- INTERNATIONAL ECONOMICS-I

OBJECTIVE

This subject has the focus on foreign exchange and balance of payments that forms the backbone of the international trade of each country. The foreign trade policy of the government of India is an important part of this subject.

OUTCOME

Since the implementation of economic reforms the Indian economy has attracted various global players. This subject imparts knowledge about the working of foreign exchange market, balance of payment and international trade policies of the government of India. The benefits of this subject will be fully reaped by those students who get the opportunity to work in trading houses and financial institutions.

MODULE 1

The balance of payment account – meaning, concepts and components, measurement of deficits and surplus in BOP; Balance of payment equilibrium and disequilibrium, measures to correct BOP; Adjustment mechanism in the BOP – automatic adjustment under the fixed and flexible exchange rates; The gold standard - definition, mechanism, advantages and disadvantages, operation and collapse.

MODULE 2

Elasticity approach and absorption approach; Monetary approach and income approach; Foreign trade multiplier, Marshall - Learner conditions; Devaluation.

MODULE 3

Expenditure reducing and expenditure switching policies, direct controls for adjustment; Policies for achieving internal and external equilibrium simultaneously under alternative exchange rate regimes; Assignment problem- Mundellian model of monetary and fiscal policies.

MODULE 4

Meaning of foreign exchange rate, determination of equilibrium exchange rate; Theories of foreign exchange rate, causes of changes in exchange rate; Flexible exchange rates - case for and against; fixed exchange rates - case for and against; hybrid and multiple exchange rates; Foreign exchange market – structure, methods of foreign payments, spot and forward exchange markets premiums and discounts, hedging, interest arbitrage, speculation.

MODULE 5

Trade problems and trade policies in India; export promotion and export and import policies; Direction and composition of trade and its implications; Impact of trade reforms since 1991 on BOP, growth, income and employment; Problems of India's international debt

Basic Reading List:

- 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.
- Dana, M. S. (2000), International Economics : Study, Guide and Work Book, (5th Edition), Routledge Publishers, London.
- 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.
- King, P. G. (1995), International Economics and International Economics Policy : A Reader, McGraw Hill, International, Singapore.
- Krugman, P. R. and M. Obstfeld (1994), International Economics : Theory and Policy, Glenview, Foresman.
- Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N. J., New York.
- Soderston, Bo (1991), International Economics, The Macmillan Press Ltd., London.

Additional Reading List

Module 1

- Crockett, A. (1982), International Money : Issues and Analysis, The ELBS and Nelson.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.

Module 2

- Crockett, A. (1982), International Money : Issues and Analysis, The ELBS and Nelson.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.

Module 3

- Crockett, A. (1982), International Money : Issues and Analysis, The ELBS and Nelson.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.

Module 4

- Crockett, A. (1982), International Money : Issues and Analysis, The ELBS and Nelson.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.

Module 5

- Bhagwati, J. and P. Desai (1970), India : Planning for Industrialization, Oxford University Press, London.
- Brahmananda, P. R. and V. R. Panchmukhi (Eds.) (1987), The Development Process of the Indian Economy, Himalaya Publishing House, Bombay.
- Joshi, V. and I. M. D. Little (1998), India's Economic Reforms, 1999-2000, Oxford University Press, New Delhi.
- Patel, S. J. (1995), Indian Economy Towards the 21st Century, University Press, Ltd., India.
- Satyanarayan, B. (1986), India's Trade with Asia and the Far East Countries, B. R. Publishing Corp., New Delhi.
- Verma, M. L. (1995), International Trade, Vikas Publishing House Pvt. Ltd. Delhi.

ECO-405-GROWTH & DEVELOPMENT-I

OBJECTIVE

The main objective of this paper is to study the theories of growth and development, social and institutional aspects of development, importance of agriculture, and the rationale and pattern of industrialization in developing countries.

OUTCOME

The student, after studying this paper will be able to understand the issues in the context of development such as infrastructures-linkages, role of international trade, importance of domestic macroeconomic policies, investment criteria and relevance of planning for faster economic development.

MODULE 1

Social and institutional aspects of Development : Meaning of Development, Growth and under- development, criteria of development & growth, perpetuation of underdevelopment; Poverty-absolute and relative; measuring development and development gap - per capita income, inequality of income, Human development index and other indices of development and quality of life, Food security, Education, health and nutrition; Human resource development; Population problem and growth pattern of population - Theory of demographic transition;

MODULE 2

Theories of Development : Classical theory of development - contributions of Adam Smith, Ricardo, Malthus and James Mill; Karl Marx and development of capitalistic economy - theory of social change, surplus value and profit; Immutable laws of capitalist development; Crisis in capitalism - Schumpeter and capitalistic development; innovation - role of credit, profit and degeneration of capitalism; Structural analysis of development;

MODULE 3

Approaches to Development : Partial theories of growth and development - vicious circle of poverty, circular causation, unlimited supply of labour, big push, balanced growth, unbalanced growth, critical minimum effort thesis, low income equilibrium trap; Dualism - technical, behavioural and social; Ranis and Fei model; Structural view of development

MODULE 4

Sectoral Aspects of Development-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; The choice of techniques and appropriate technology and employment;

MODULE 5

Trade and Economic Development : International trade as engine of growth; Static and dynamic gains from trade; Myrdal thesis vs. free trade; Dual gap analysis; Change in pattern of development in India after 1991.

Basic Reading List

- Adelman, I. (1961), *Theories of Economic Growth and Development*, Stanford University Press, Stanford.
- Behrman, S. and T. N. Srinivasan (1995), *Handbook of Development Economics*, Vol. 3, Elsevier, Amsterdam.
- Chenery, H. B. et. al. (Eds.) (1974), *Redistribution with Growth*, Oxford University Press, Oxford.
- Chenery, H. and T. N. Srinivasan (Eds.), (1989), *Handbook of Development Economics*, Vols. 1 & 2, Elsevier, Amsterdam.
- Ghatak, S. (1986), *An Introduction to Development Economics*, Allen and Unwin, London.
- Gillis, M., D. H. Perkins, M. Romer and D. R. Snodgrass (1992), *Economics of Development*, (3rd Edition), W. W. Norton, New York.
- Gimmell, N. (1987), *Surveys in Development Economics*, Blackwell, Oxford.
- Higgins, B. (1959), *Economic Development*, W. W. Norton, New York.
- Hogendorn, J. (1996), *Economic Development*, Addison, Wesley, New York.
- Kindleberger, C. P. (1977), *Economic Development*, (3rd Edition), McGraw Hill, New York.
- Meier, G. M. (1995), *Leading Issues in Economic Development*, (6th Edition), Oxford University Press, New Delhi.
- Myint, Hla (1965), *The Economics of Underdeveloped Countries*, Press, New York.
- Myint, H. (1971), *Economic Theory and Underdeveloped Countries*, Oxford University Press.
- Todaro, M. P. (1996), (6th Edition), *Economic Development*, Longman, London.
- Thirwal, A. P. (1999), (6th Edition), *Growth and Development*, Macmillan, U. K.

Additional Reading List

Modules 1 & 2 :

- Dasgupta, P. (1993), *An Enquiry into Well-being and Destitution*, Clarendon Press, Oxford.
- Hirsch, A. O. (1958), *The Strategy of Economic Development*, Yale University Press New York.
- Lewis, W. A. (1955), *The Theory of Economic Growth*, George Allen and Unwin, London.
- Mehrotra, S. and J. Richard (1998), *Development with a Human Face* • Oxford University Press, New Delhi.
- Meier, G. M. and D. Seers (Eds.) (1987), *Pioneers in Development*, Oxford University Press, New York.
- Myrdal, G. (1957), *Economic Theory and Underdeveloped Regions*, Duckworth, London.
- Schumpeter, J. A. (1949), *The Theory of Economic Development*, Harvard University Press, Cambridge, Mass.
- Todaro, M. P. (1971), *Development Planning • Models and Methods*, Oxford University Press, Oxford.
- United Nations (1994), *Human Development Report*, United Nations, New York.

Modules 3 :

- Hirsch A. O. (1958), *The Strategy of Economic Development*, Yale University Press, New York.
- Lewis, W. A. (1955), *The Theory of Economic Growth*, George Allen and Unwin, London.
- Mehrotra, S. and J. Richard (1998), *Development with a Human Face*. Oxford University Press, New Delhi.
- Myrdal, G. (1957), *Economic Theory and Underdeveloped Regions*, Duckworth, London.
- Ranis, G. and A. Mahmood (1992), *Political Economy for Development*, Blackwell, Cambridge, Mass.
- Sen, A. (1992), *Inequality Reexamined*, Oxford University Press, Oxford.
- United Nations (1994), *Human Development Report*, United Nations, New York.

Module 4 :

- Chakravarti, S. (1987), *Development Planning • The Indian Experience*, Clarendon Press, Oxford.
- Bhagwati, J. and P. Desai (1970), *India • Planning for Industrialization*, Oxford University Press, London.
- Grossman, G. and E. Helpman (1991), *Innovation and Growth in the Global Economy*, MIT Press, Cambridge, Mass.
- Nayyar, D. (Ed.) (1994), *Industrial Growth and Stagnation • The Debate in India*, Oxford University Press, New Delhi.
 - Todaro, M. P. (1971), *Development Planning • Models and Methods*, Oxford University Press, Oxford.
- Weiss, J. (1988), *Industry in Developing Countries*, Croom Helm, London.

Module 5 :

- Grossman, G. and E. Helpman (1991), *Innovation and Growth in the Global Economy*, MIT Press, Cambridge, Mass.
- Hayami, Y. (1997), *Development Economics*, Oxford University Press, New York.
- Hayami, Y. and M. Akoi (Eds.) (1998), *The Institutional Foundations of East Asian Economic Development*, Macmillan, London.
- Killick, T. (1995), *IMF Programmes in Developing Countries • Design and Impact*, Routledge, London.
- Kuznets, Simon (1971), *Economic Growth of Nations, Total Output and Production Structure*, Harvard University Press, Cambridge, Mass.
- Little, I. M. D. (1982), *Economic Development • Theory and International Relations*, Basic Books, New York.
- Mason, M. (1992), *American Multinationals and Japan*, Harvard University Press.
- Therberge, J. D. (Ed.) (1968), *Economics of Trade and Development*, John Wiley, New York.

ECO406 – ENVIRONMENTAL ECONOMICS - I

OBJECTIVE

Environmental economics is considered as an important course for students studying industrial economics and management. Global warning about climatic change and the focus of the United Nations on the adoption and implementation of sustainable development policies in the member countries has carved a niche for the environment economics. This paper is designed to teach the students about various environmental issues, environmental protection policy of the Government of India and the importance of environmental protection for the attainment of sustainable development.

OUTCOME

The environment economics has been considered an important branch of the social sciences in the developed as well as developing countries. After successful completion of studies, the students possessing adequate knowledge about environmental issues will play an important role in the implementation of various environment related programs.

MODULE 1

Elementary ecology- functions of ecosystems and biodiversity, relationship between (a) economy - eco-system and first two laws of Thermodynamics, (b) economic development and environment - environmental Kuznets' curve. Meaning, nature and scope of environmental economics and its relationship with other branches of economics. Conventional national accounting system and natural resource accounting system.

MODULE 2

Incomplete markets, externalities, common property resources- non-exclusion, public goods and non rivalry, non-convexities, asymmetric information.

MODULE 3

Definition and instruments of environmental policy, indicators of effective environment policy, decentralization-liability rules, command and control (standards) policy, market based instruments- price rationing (charges and subsidies), quantitative rationing concept and basic theory of tradable pollution permits, environmental policy in India,

MODULE 4

Environmental pollution, definition of environmental pollution, types of environmental pollution, impact of environmental pollution. Climate change, deforestation, bio-diversity, soil degradation, acid rain and their impact on human health. Methods to control the environmental pollution and environmental conservation.

MODULE 5

Historical evolution of sustainable development, definition and concept of sustainable development, growth verses zero growth; limits to growth verses sustainable development debates, models of sustainable development. Inter-generational and intra-generational disparity of welfare

Books Recommended

- Asian Development Bank (1996) : Economic Evaluation of Environmental Impact : A Workbook.
- Baumol William and Wallace Oates (1975) The Theory of Environment Policy, Prentice Hall, New Jersey.
- Centre for Science and environment (1999, 1997, 1991, 1984 and 1982) : The state of India's environment, CSE, New Delhi.
- Collard David, Pearce David, Ulph David (eds.) (1988) : Economics, Growth and Sustainable Environment, St. Martin's Press, New York.
- Cropper M. L. and Oates W. E. (1992) : Environmental Economics : A survey, Journal of Economic Literature.
- Dasgupta Parth and Karl - Goram Malor (eds.) (1997) : The Environment and Emerging Development Issues, Oxford University Press, New York.
- Hanley Nick, Shogren J. F. and White Ben (1997), Environmental Economics in Theory and Practice, Macmillan, New Delhi.
- Kolstad Charles (2000) : Environmental Economics, Oxford University Press, New York.
- Markandya A. and Richardson J. (eds.) (1992) : Environmental Economics : A Reader, St. Martin's Press, New York.
- Mehta Shekhar, Mundel Sudipto and Sarkar U. (1997) : Controlling Pollution, Sage, New Delhi.
- Oates W. E. (1992) : The Economics of the Environment, Cambridge University Press, Cambridge.
- Opschoor J. (Hans), B. Button Kenneth and Peter Nijamp (eds.) (1999) : Environmental Economics and Development, Edward Elgar, U.K.
- Preeman Hyrick A. (1993) : The Measurement of Environment and Resource Values, Resources for Future, Washington D.C.
- Seitz John L. (1995) : Global Issues : An Introduction, Blackwell, Oxford, U.K.
- Seminer (Issue No. 486 : February 2000) : A symposium on Environment : Myth and Reality.
- Siebert H. (1998) : Economics of Environment : Theory and Policy, (5th revised edition), Springer, New York.
- Tietenberg Thomas, Kenneth Button and Peter Nijkamp (eds.) (1999) : Environmental Instruments and Institutions, Edward Elgar, U.K.
- Turner Kerry R., Button Kenneth and Peter Nijkamp (eds.) (1999) : Ecosystems and Nature : Economics, Science and Policy, Edward Elgar, U.K.
- World Bank (1992) : World Development Report 1992 : Development and the Environment, Oxford University Press, New York.
- World Watch Institute (1992) : State of the World, Horizon India Books, New Delhi.

SEMESTER-II

ECO407–MICROECONOMICS–II

OBJECTIVE

The focus of this paper is on imparting rigorous and comprehensive understanding of the behaviour a firm. Teaching of different theories of production, costs, price determination in different market situations is aimed at triggering the analytical skills in the budding economists.

OUTCOME

The strength of microeconomics comes from the simplicity of its underlying structure and its close touch with the real world. The students learn how different players make choices when different forces like scarcity, surplus and regulations govern the market. By understanding the supply and demand theories, the students gain in-depth knowledge about the interaction of various market forces. The Supply and demand refers to goods and services and the concept is the hallmark of the business. A thorough knowledge of this subject would help the students to contribute considerably in the planning and research activities in the industry and academic institutions.

MODULE 1

Production function - concepts, linear homogenous production function, elasticity of substitution, isoquant, isocostline, ridge line, law of variable proportions, returns to scale, producer's equilibrium, choice of optimal combination of inputs; Economies of scale - internal economies and diseconomies, external economies and diseconomies; Cobb - Douglas, CES, and VES production functions; Cost concepts - accounting and economic costs, private cost and social cost, opportunity cost, traditional and modern theories of cost; Revenue concepts - average, marginal and total revenue,

MODULE 2

Perfect competition - features, price determination, equilibrium of the firm and industry, supply curve of firm and industry; Monopoly - price and output determination; Comparison between monopoly equilibrium and perfect competition equilibrium; Discriminating monopoly – price discrimination, equilibrium under discriminating monopoly, welfare aspect of monopoly and regulation of monopoly; Monopolistic competition – price and output determination, critique of Chamberlin's theory of monopolistic competition; Excess capacity under monopolistic competition.

MODULE 3

Oligopoly – price and output determination; Classical models of duopoly; Collusive oligopoly-cartels, Price-Leadership model; Kinked demand curve theory; Bilateral monopoly.

MODULE 4

Average cost pricing, theory of oligopoly; Baumol's model of sales revenue maximization; Marris's managerial model of the firm; Williamson's managerial model of the firm.

MODULE 5

Marginal productivity theory, Euler's theorem and product exhaustion problem; Classical and modern theory of rent, quasi rent; Pricing of factors in perfect competition and imperfect competition; Modern theory of interest, IS-LM Curve model; Theory of profit.

Basic Reading List:

- Koutsoyiannis, A. (1979), *Modern Microeconomics*, (2nd Edition), Macmillan Press, London
- Kreps, David M. (1990), *A Course in Microeconomic Theory*, Princeton University Press, Princeton.
- Layard, P.R.G. and A. W. Walters (1978), *Microeconomic Theory*, McGraw Hill, New York.
- Sen, A. (1999), *Microeconomics Theory and Applications*, Oxford University Press, New Delhi.
- Stigler, G. (1996), *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi.
- Varian, H. (2000), *Microeconomic Analysis*, W. W. Norton, New York.

Additional Reading List

Module 1

- Da Costa, G. C. (1980), *Production, Prices and Distribution*, Tata McGraw Hill, New Delhi.
- Healthfields and Wibe (1987), *An Introduction to Cost and Production Functions*, Macmillan, London.
- Hirshleifer, J. and A. Glazer (1997), *Price Theory and Applications*, Prentice Hall of India, New Delhi.

Module 2

- Archibald, G. C. (Ed.) (1971), *Theory of the Firm*, Penguin, Harmondsworth.
- Da Costa, G. C. (1980), *Production, Prices and Distribution*, Tata McGraw Hill, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), *Price Theory and Applications*, Prentice Hall of India, New Delhi.

Module 3

- Archibald, G. C. (Ed.) (1971), *Theory of the Firm*, Penguin, Harmondsworth.
- Bain, J. (1958), *Barriers to New Competition*, Harvard University Press, Harvard.

Module 4

- Archibald, G. C. (Ed.) (1971), *Theory of the Firm*, Penguin, Harmondsworth.
- Bain, J. (1958), *Barriers to New Competition*, Harvard University Press, Harvard.
- Da Costa, G. C. (1980), *Production, Prices and Distribution*, Tata McGraw Hill, New Delhi.
- Hirshleifer, J. and A. Glazer (1997), *Price Theory and Applications*, Prentice Hall of India, New Delhi.

Module 5

- Bronfenbrenner, M. (1979), *Income Distribution Theory*, Macmillan, London.
- Hirshleifer, J. and A. Glazer (1997), *Price Theory and Applications*, Prentice Hall of India, New Delhi.

ECO-408-MACROECONOMIC ANALYSIS-II

OBJECTIVE

The student will learn about uses, problems and measurement of important economic aggregates like national income, money supply and its determinants, various theories about demand for money, inflation and business cycles-their causes, effects and remedies.

OUTCOME

The paper entitled Macro Economic Analysis-II helps the students at the postgraduate level to understand systemic facts for empirical analysis. The students will be able to appreciate and understand the various economic policies declared by the government from time to time.

MODULE 1

National Income and Accounts: Circular Flow of Income in two, three and four sector economy; different forms of national income accounting.

MODULE 2

Supply of Money, Financial intermediation-a mechanistic model of bank deposit determination; A behavioral model of money supply determination, a demand determined money supply process; RBI approach to money supply; High powered money and money multiplier, budget deficits and money supply; money supply and open economy; control of money supply.

MODULE 3

Demand for Money : 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. Post - Keynesian approaches to Demand for Money - Patinkin and the Real Balance effect. Approaches of Baumol, Tobin and Friedman, Crisis in Keynesian economics and the revival of monetarism.

MODULE 4

Theory of Inflation: Classical, Keynesian and Monetarist approaches to inflation, Structuralist theory of inflation; Philips curve analysis - Short run and long run Philips curve; Tobin's modified Philips curve; Adaptive expectations and rational expectations; Policies to control inflation.

MODULE 5

Business Cycles: Theories of Schumpeter, Kaldor, Samuelson and Hicks, Goodwin's model; Control of business cycles - relative efficiency of monetary and fiscal policies.

Basic Reading List :

- Ackley, G. (1978), *Macroeconomics • 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.
- Hall, R. E. and J. B. Taylor (1986), *Macroeconomics*, W. W., Norton, New York.
- Heijdra, B. J. and V. P. Frederick (2001), *Foundations of Modern Macroeconomics*, Oxford University Press, New York.
- Jha, R. (1991), *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
- Romer, D. L. (1996), *Advanced Macroeconomics*, McGraw Hill Company Ltd., New York.
- Scarfe, B. L. (1977), *Cycles, Growth and Inflation*, McGraw Hill, New York.
- Shapiro, E. (1996), *Macroeconomic Analysis*, Galgotia Publications, New Delhi.
- Errol D'souza, (2008), *Macroeconomics*, Pearson Education, India.

Additional Reading List**Module 1 :**

- Edey, M. and A. T. Peacock (1967), *National Income and Social Accounts*, Hutchinson University Library, London.
- Powelson, J. P. (1960), *National Income and Flow of Funds Analysis*, McGraw Hill, New York.
- Rao, V. K. R. V. (1983), *India's National Income • 1950 to 1980*, Sage Publications, New Delhi.
- Ruggles, R. and N. Ruggles (1956), *National Income Accounts and Income Analysis*, McGraw Hill, New York.
- United Nations (1974), *Year Book of National Account Statistics*.

Module 2 :

- Chakravarty, S. C. (1985), *Report of the Committee to Review the Working of the Monetary System*, Reserve Bank of India, Bombay.
- Gupta, S. B. (1995), *Monetary Planning in India*, Oxford University Press, New Delhi.
- Gurley, J. and E. S. Shaw (1960), *Money in a Theory of Finance*. Brookings Institution, Washington.
- Mckinen, G. E. (1976), *Money, The Price Level and Interest Rates*, Prentice Hall of India, New Delhi.
- Redy, Y. V. (2000), *A Review of Monetary and Financial Sector Refoms in India—A Central Banker's Perspective*, UBSPD, New Delhi.

Module 3 :

- Friedman, M. (1956), *Studies in the Quantity Theory of Money*, The University of Chicago Press, Chicago.
- Keynes, J. M. (1936), *The General Theory of Employment, Interest, and Money*, Macmillan, London.
- Laidler, D. E. W. (1977), *Demand for Money • Theory and Evidence*, Dum-Don Valley, New York.
- Mckinen, G. E. (1978), *Money, The Price Level and Interest Rates*, Prentice Hall of India, New Delhi.

Module 4 :

- Frisch, H. (1983), *Theories of Inflation*, Cambridge University Press, Cambridge.
- Hagger, A. J. (1977), *Inflation • Theory and Policy*, Macmillan, London.

- Hudson, J. (1982), Inflation • A Theoretical Survey and Synthesis, George Allen and Unwin, London.
- Sheffrin S. M. (1996), Rational Expectations, Cambridge University Press, Cambridge.

Module 5 :

- Gordon, R. A. (1961), Business Fluctuations, Harper and Row.
- Gordon R. A. and L. R. Klein (Eds.), (1965), Readings in Business Cycles, Irwin, Homewood.
- Hicks, J. R. (1950), A Contribution to the Theory of Trade Cycles, Clarendon Press, Oxford.
- Lucas, R. (1981), Studies in Business Cycle Theory, M.I.T. Press, Cambridge, Massachusetts.

ECO409–ENVIRONMENTAL ECONOMICS-II

OBJECTIVE

The objective of this paper is to impart knowledge about the importance of environment for the survival of life on the planet earth. This paper is designed to teach about the availability of environmental resources, evaluation of resources, measures adopted for the management and protection of natural resources and different international treaties related to environment protection.

OUTCOME

After completion of studies the students are expected to play an important role in the implementation of sensitization programs aimed at environment protection. The knowledge of environment related issues would add additional qualities in the students and make them conscious about environment protection at every walk of life in their professions.

MODULE 1

Environment as a source of all economic resources. Natural resources - nature and characteristics - renewable and non-renewable Use of natural resources for development - environment economics of exhaustible and renewable resources. Common property resources-concept, nature of CPR, uncertainty of CPR, incomplete markets, non-exclusion, free riding, moral hazards-adverse selection

MODULE 2

History of environment valuation, definition and importance of environment valuation, direct method of environment valuation CVM, indirect method of environment valuation TCM and Hedonic pricing

MODULE 3

Theory of non-market valuation, Cost-benefit analysis, Environmental impact assessment (EIA) in India and Issues in environment valuation

MODULE 4

Meaning of NRMP, NRMP of India - forest, joint forest management - social forestry, water-participatory irrigation management, Involvement of voluntary sector - NGO's - in NRM programs, Case studies of NRM - AKRSP/ DSC , etc.

MODULE 5

Environment and WTO, Treaties in bio-diversity, Kyoto protocol, Montreal protocol, UN convention on climate change, Ramsar, etc. Environment protection movements in India and Gujarat.

Books Recommended

Dasgupta Parth (1982) : The Control of Resources, Harward University Press, Cambridge, Mass.

- Davis Kingsley and Mikhail S. Bernstam (1991) : Resources, Environment and Population, Oxford University Press, New York.
- Pearce and Turner (1990) : Economics of Natural Resources and the Environment.
- Randall Alan (1987) : Resource Economics : An Economic Approach to Natural Resources and Environmental Policy, 2nd ed., John Wiley, New York.
- Turner Kerry R. (ed.) : Sustainable Environmental Economics and Management: Principles and Practices.

Some of the Books and references, suggested for Paper I, are equally useful for the topics covered in this paper.

ECO410 – MANAGERIAL ECONOMICS-I

OBJECTIVE

The focus of Managerial economics is on preparing the students with fundamental knowledge in the areas of business economics. The teaching aims at the explanation of basic concepts of managerial economics, imparting understanding about important statistical tools used in the estimation of demand, and price, cost and budget analysis which are considered to be critical in every business.

OUTCOME

The labour markets are becoming more and more competitive in India. This paper prepares the students to gain basic knowledge required for working efficiently in the business environment. Various concepts commonly used in management, and the application of simple tools in demand and price analysis in each business is of great help to build professional competency in the management.

MODULE 1

Meaning, nature, characteristics, and significance of managerial economics; Scope, role and responsibility of managerial economics; Fundamental concepts, models and methods; Managerial and behavioral theories of firm.

MODULE 2

Use of Optimization Techniques in the theory of firm, differential calculus; Rules of derivation, optimization in calculus; Multivariate optimization and constrained optimization by lagrangian method; Application cases.

MODULE 3

Purpose of forecasting demand, steps involved in forecasting, determinants of demand forecasting; Methods of demand forecasting, for established products and for new products.

MODULE 4

Some popular pricing practices; Pricing in large enterprises; Pricing approach in small business

MODULE 5

Evaluating capital projects, methods of evaluation; cost of capital

Books Recommended

- Dominic Salvatore, 'Managerial Economics', McGraw Hill International Editions, 1989.
- Peterson C.H. and Lewis WC, 'Managerial Economics', Eastern, Economic Edition, Prentice Hall of India.
- Dholkia R.H. and Oza A.N., 'Microeconomics for managers', Oxford University Press, 1996.
- Rikie W. D. and J. N. Crook, 'Managerial Economics', Heritage Publishers, 1988.
- Dutt R. and Sundaram KPM, 'Indian Economy', S Chand Group, New Delhi.

ECO411-EA:Q.M.E.-1(QUANTITATIVE METHODS IN ECONOMICS-I)

OBJECTIVE

The main objective of this paper is to train the students to use the techniques of mathematical and statistical analysis, which are commonly applied, to understand and analyze economic problems. The emphasis of this paper is on understanding economic concepts with the help of mathematical and statistical methods rather than learning mathematics and statistics itself.

OUTCOME

After studying this paper a student will be initiated into various economic concepts which are amenable to mathematical and statistical treatment. The paper also deals with simple tools and techniques which will help a student in data collection, presentation, analysis and drawing inferences about various statistical hypotheses.

MODULE 1

Concept of function and types of functions; Limit, continuity and derivative; Rules of differentiation; Interpretation of revenue, cost, demand, supply functions; Elasticities and their types;; Rules of partial differentiation; Problems of maxima and minima in single and multivariable functions;; Simple problems in market equilibrium; Concept of integration; Simple rules of integration; Application to consumer's surplus;.

MODULE 2

Determinants and their basic properties; Solution of simultaneous equations through Cramer's rule; Concept of matrix—their types, simple operations on matrices, matrix inversion ;Concept of vector—its properties; Matrices and vectors

MODULE 3

Review of basic concepts-Population, sample , Measures of central tendency, dispersion, skewness and Kurtosis

MODULE 4

Meaning, assumptions and limitations of simple correlation and regression analysis; Pearson's product moment and spearman's rank correlation coefficients and their properties; Concept of the least squares and the lines of regression; Standard error of estimate;

MODULE 5

Probability-Various definitions; Laws of addition and multiplication; Conditional probability and concept of interdependence; Baye's theorem and its applications;

Basic Reading List :

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

Additional Reading List :**Module 1 :**

- Monga, G. S. (1972), *Mathematics and Statistics for Economics*, Vikas Publishing House, New Delhi.
- Vygodsky, G. S. (1971), *Mathematical Handbook, (Higher Mathematics)*, Mir Publishers, Moscow.

Module 2 :

- Chiang, A. C. (1986), *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.
- Monga, G. S. (1972), *Mathematics and Statistics for Economics*, Vikas Publishing House, New Delhi.

Module 3 :

- Chou, Y. (1975), *Statistics Analysis*, Holt, Reinhart and Winston, New York.
- Croxton, Crowden and Klein (1971), *Applied General Statistics*, Prentice Hall of India, New Delhi.
- Gupta S.P. (2005), *Statistical Methods*, S. Chand & Sons, New Delhi
- Nagar, A. L. and R. K. Das (1993), *Basic Statistics*, Oxford University Press, New Delhi.

Module 4 :

- Chou, Y. (1975), *Statistics Analysis*, Holt, Reinhart and Winston, New York.
- Goon, A. M., M. K. Gupta and B. Dasgupta (1993), *Fundamentals of Statistics, Vol. 1*, The World Press Ltd., Calcutta.

Module 5 :

- Gupta S.P. (2005), *Statistical Methods*, S. Chand & Sons, New Delhi
- Hogg. R. V. and A. T. Craig (1970), *Introduction to Mathematical Statistics (3rd Edition)*, Macmillan Publishing Co., New York.
- Millar, J. (1996), *Statistics for Advanced Level*, Cambridge University Press, Cambridge.

ECO411-EB:R.M.E.-1(RESEARCH METHIDIOLOGY IN ECONOMICS-I)

Note :This paper is offered to only those students who have either studied papers of Mathematical Economics, Econometrics, Managerial Economics or Statistical Methods(as first subsidiary) at B.A. level.

OBJECTIVE

The objective of this paper is to equip the students with statistical tools and techniques with examples from economics so that when he takes up any research projects he can use them.

OUTCOME

After studying this paper the student will be better equipped to do a more scientific study of various economic issues. This paper will also help him in future research in the subject.

MODULE 1

Review of basic concepts : Population & sample — Measures of central tendency, dispersion, skewness and Kurtosis.

MODULE 2

Probability-Relevance-Definition-Sample space-events-theorems of probability—The Bay's theorem.

MODULE 3

Probability Distribution : Random variable — Expectation and Properties — variance — Joint Probability distribution — Conditional Distribution and independence.

MUDULE 4

Theoretical Probability Distributions; Binomial, Poisson, Normal Distribution and their application in economics.

MODULE 5

Sampling and Sampling Distributions : Census v/s sampling, probability sampling v/s non-probability sampling-simple random sampling—Types of sampling—Sampling and non-sampling errors — Central Limit Theorem—Determination of sample size. X^2 , t and F distribution and their uses.

Basic Reading List:

- Quantitative Techniques for Managerial Decisions by U. K. Srivastav, G. V. Shenoy and S. C. Sharma, 1989, Published by Wiley Eastern Limited.
- 'Basic Statistics', by A. L. Nagar and R. K. Das, Published by Oxford Univrersity Press.
- Quantitative Techniques by C. R. Kothari.
- Statistics for Economists — Merryl and Fox.
- Statistical Methods by S.P. Gupta, S.Chand & Company, New Delhi
- 'Basic Econometrics' by Damodar Gujarati — 2002, Published by MacGraw Hill International.

ECO412EA–INDUSTRIAL ECONOMICS-I

OBJECTIVE

Industrialization has played a key role in the growth of economies across the globe. The focus of this paper is on the teachings related to industrial structure, theories of firm, location theories, issues related to investment decisions including industrial finance, project evaluation, profitability and productivity. The main objective of this paper is to impart adequate knowledge to the students for their career growth.

OUTCOME

The study of industrial economics opens wider avenues to the students in the areas related to trade and commerce. The rise and fall of industrial houses, rising competition in domestic and global markets have opened new opportunities and challenges to professionals holding responsible positions in industry and commerce. A thorough knowledge of industry related issues and methods of evaluating business development would help the students to disseminate their skills in business, trade, industry, administration and market research.

MODULE 1

Meaning, scope, need and significance of the study of industrial economics; Market structure and market conduct, product differentiation and advertisement; Measurement of market structure and its effects on market performance; Relationship of market structure with profitability and innovation.; Theories of diversification, integration and merger

MODULE 2

Product pricing - theories and evidence; Nature and types of investment decisions, preparation of time profile of a project; Investment expenditure, methods of evaluating investment expenditure, cost-benefit analysis, net present value (NPV) and internal rate of return (IRR); Financial statements – balance sheet, profit and loss account; Analysis of financial ratios and their relationships- assessment of financial soundness.

MODULE 3

Firm - concept, characteristics of firm; Objectives of firm and determinants of optimum size of a firm; Theory of growth of the firm – Devine, Penrose, and Marris; Importance of industrial location and factors influencing the location; Theories of industrial location - Weber, Sargent Florence.

MODULE 4

Meaning, scope, importance of industrial finance; Risk of industrial finance, methods to avert risk; Sources of industrial finance - internal and external, role, nature, volume and types of institutional finance - IDBI, IFCI, SFCs, SIDC, commercial banks.

MODULE 5

Classifications of industries, industrial structure; Small scale and cottage industries; Productivity - norms and importance of productivity in competitive environment; Factors affecting productivity, measures required for improving productivity.

Basic Reading List:

- Datt, G. (1996) : Bargaining Power, Wages and Employment • An Analysis of Agricultural Labour Markets in India, Sage Publications, New Delhi.
- Hajela, P. D. (1998) : Labour Restructuring in India • A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
- MacConnell, C. R. and S. L. Brue (1986) : Contemporary Labour Economics, MacGraw Hill, New York.
- Rosenberg M. R. (1988), Labour Markets in Low Income Countries in Chenery, H. B. and T. N. Srinivasan (Eds.) : The Handbook of Development Economics, North-Holland, New York.
- Venkata Ratnam, C. S. (2001) : Globalization and Labour-Management Relations: Dynamics of Change, Sage Publications/Response Books, New Delhi.

Additional Reading List:

Module 1 :

- Bains, J. S. (1976), Industrial Organization, Cheltenham, U.K.
- Harndeen, J. B. (1975), The Economic of Corporate Economy, Dunellen Publishers, New York.
- Kamien, M. T. and N. L. Schwartz (1982), Market Structure and Innovation, Cambridge University Press, Cambridge.
- Kirkpatrick, C. M., N. Lee and E.I. Nixon (1984), Industrial Structure and Policy in Less Developed Countries, ELBS/George Allen and Unwin, London.
- Menon, K. S. V. (1979), Development of Backward Areas Through Incentives, Asia Publishing House, Bombay.
- Smith, D. M. (1971), Industrial Location : An Economic and Geographic Analysis, John Wiley, New York.
- Wiles, P. J. D. (1963), Price, Cost and Output, Praeger, New York.

Module 2 :

- Dasgupta, P. S. Marglin and A. Sen (1972), Guideline for Project Evaluation, Unido Publications, New York.
- Fog, B. (1959), Industrial Pricing Policies, North Holland, Amsterdam.
- Koulsoyiannis, A. (1979), Modern Microeconomics, Macmillan, New York.

Module 3 :

- Harndeen, J. B. (1975), The Economics of Corporate Economy, Dunellen Publishers, New York.
- Kirkpatrick, C. M., N. Lee and E.I. Nixon (1984), Industrial Structure and Policy in Less Developed Countries, ELBS/George Allen and Unwin, London.
- Menon, K. S. V. (1979), Development of Backward Areas Through Incentives, Asia Publishing House, Bombay.
- Smith, D. M. (1971), Industrial Location : An Economic and Geographic Analysis, John Wiley, New York.

Module 4 :

- Gupta, L. C. (1969), The Changing Structure of Industrial Finance in India, Oxford University Press, New Delhi.
- Khan, M. Y. (1981), Indian Financial Systems, Allied Publishers, New Delhi.
- Sen, R. and B. Chatterjee (2001), Indian Economy : Agenda for the 21st Century, (Essays in honour of Professor P. R. Brahmananda), Deep and Deep Publications Pvt. Ltd., New Delhi.

Module 5 :

- Ghosh, P. K. (1977), Government and Industry, Oxford University Press, New Delhi.
- Sandesara, J. C. (1982), Industrial Growth in India : Performance and Prospects, Lala Lajpat Rai College, Bombay.

ECO412-EB-ECONOMETRICS-I

OBJECTIVE

The main objective of this paper is to understand the importance of Econometrics for analysis purpose. The students will be taught the use, application and limitations of ordinary least squares estimation method which widely used for economic analysis. They will taught regression analysis with both qualitative as well as quantitative data.

OUTCOME

After studying this paper the student will be able to apply the regression technique for economic analysis. He will also be able to appreciate the limitations of his research work in the context of the analysis technique he has used.

MODULE 1

Basic Econometrics : Nature, meaning and scope of econometrics; Simple and general linear regression model—Assumptions, Estimation (through OLS approach) and properties of estimators; Gauss-Markov theorem; Matrix Approach to Linear Regression Model, Concepts and derivation of R^2 and adjusted R^2 ; application in regression analysis; Estimation of non-linear equation.

MODULE 2

Problems in Regression Analysis-Nature, test, consequences and remedial steps of problems of Heteroscedasticity; Multicollinearity and Auto-correlation; Problems of specification error; Errors of measurement.

MODULE 3

Regressions with Qualitative Independent Variables: Dummy variable technique—Testing structural stability of regression models, comparing two regressions, interaction effects, seasonal analysis, piecewise linear regression.,

MODULE 4

Regression on Dummy Dependant variable-Use of dummy variables in regression with dummy dependent variables; The LPM-its estimation and problem in estimation of LPM, Logit Model-estimation, The Probit Model and the Tobit models.

MODULE 5

Dynamic Econometric Model-Autoregressive and distributed lag models—Koyck model, Partial adjustment model, adaptive expectations; Problem of auto- correlation—Application; Almon approach to distributed-lag models;

Basic Reading List :

- Dongherty, C. (1992) : Introduction to Econometrics, Oxford University Press, New York.
- Goldberger, A. S. (1998) : Introductory Econometrics, Harvard University Press, Cambridge, Mass.
- Gujarati, D. N. (1995) : Basic Econometrics (2nd 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.
- Maddala, G. S. (Ed.) (1993) : Econometrics Methods and Application (2 Vols.), Aldershot U.K.
- Ramu Ramanathan (2002): Introductory Econometrics with Applications, 5th edition, Thompson-South-Western, India

Additional Reading List :

Module 1

- Croxton, F. E., D. J. Cowden and S. Klein (1973) : Applied General Statistics, Prentice Hall, New Delhi.
- Maddala, G. S. (1997) : Econometrics, McGraw Hill, New York.

Module 2 :

- Intrilligator, M. D. (1978) : Econometric Methods, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
- Johnston, J. (1991) : Econometric Methods, McGraw Hill Book Co., London.

Module 3 :

- Chow, G. C. (1983) : Econometrics, McGraw Hill, New York.
- Pindyck, R. S. and D. L. Rubinfeld (1976) : Econometric Models and Economic Forecasts, McGraw Hill Kogakusha, Tokyo.

Module 4 :

- Chow, G. C. (1983), Econometrics, McGraw Hill, New York.
- Franses, P. H. (1998), Time Series Models for Business and Economic Forecasting, Cambridge University Press, New York.
- Hamonda, O. F. and J. C. R. Roley (1997), Time Series Model, Causality and Exogeneity, Cheltenham, U. K.
- Hansen, P. R. and S. Johanson, (1998), Workbook on Cointegration, Oxford University Press, New York.
- Harvey, A. C. (1981), Econometric Analysis of Time Series, Phillip Allen, London.
- Johnston, J. (1991), Econometric Methods, McGraw Hill Book Co., London.
- Maddala, G. S. (1997), Econometrics, McGraw Hill, New York.

Module 5 :

- Chow, G. C. (1983) : Econometrics, McGraw Hill, New York.
- Intrilligator, M. D. (1978) : Econometric Methods, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
- Pindyck, R. S. and D. L. Rubinfeld (1976) : Econometric Models and Economic Forecasts, McGraw Hill, Kogakusha, Tokyo.
- Dhrymes, P. J. (1970) : Econometrics - Statistical Foundations and Applications, Harper and Row Publishers, New York.
- Franses, P. H. (1998) : Time Series Models for Business and Economic Forecasting, Cambridge University Press, Cambridge.
- Intrilligator, M. D. (1978) : Econometric Methods, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
- Draper, N. R. and H. Smith (1966) : Applied Regression Analysis, John Wiley, New York.
- Harvey, A. C. (1981) : Econometric Analysis of Time Series, Philip Allen, London.

SEMESTER-III

ECO501 - INTERNATIONAL ECONOMICS - II

OBJECTIVE

This course is designed to impart thorough understanding about the broad principles and theories, which tend to govern the flow of trade in goods, services and capital at the global level. Besides, preparing the students about the relevance and limitations of these principles, the contents of the paper, spread over different subjects, lay stress on the theory and nature of the subject, which, in turn, will greatly help them to examine the impact of the trade policies. This subject will impart learning of various theories of international trade, economics of international trade, theories and practice of trade regulations and restrictions the in international trade including trade cartels and market blockade.

OUTCOME

The aim of this subject is to provide an understanding of the economics of international trade from a microeconomic perspective. The study of international economics will prepare the students to demonstrate knowledge and understanding of various players in the global markets and also the intricacies of international trade.

MODULE 1

Classical theories of comparative advantage-Adam Smith, Ricardo; Neoclassical theory – Haberler's opportunity cost theory; Modern theory - Heckscher-Ohlin theorem, Leontief paradox; Factor price equalization theorem – Stolper-Samuelson, Rybczynski.

MODULE 2

Vent-for-Surplus approach, availability approach (I.B.Kravis); Monopolistic competition and trade, increasing returns to scale and trade; Other technological explanations for international trade and intra-industry trade; International trade and growth, immiserizing growth.

MODULE 3

Terms of Trade – meaning, importance, factors affecting TOT; Mill's theory of reciprocal demand; Marshall's theory of offer curves, elasticity of offer curve; Gains from international trade; Secular deterioration of TOT – Singer, Prebisch theory.

MODULE 4

Free trade versus protection, economic arguments for protection; Tariffs - types of tariffs, effects of tariffs, partial and general equilibrium; Optimum tariff and protective tariff; Import quota – types, effects; Non-tariff barriers.

MODULE 5

Theory of custom unions – trade creation and trade diversion, production and consumption effects, other dynamic effects of customs unions; Economic progress under SAARC/SAPTA, NAFTA, ASEAN, EU, EURO dollar market; International monetary system; International trade and financial institutions – GATT, WTO, IMF, World Bank, Asian Development Bank.

Basic Reading List:

- 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.
- Dana, M. S. (2000), International Economics • Study, Guide and Work Book, (5th Edition), Routledge Publishers, London.
- 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.
- King, P. G. (1995), International Economics and International Economics Policy : A Reader, McGraw Hill, International, Singapore.
- Krugman, P. R. and M. Obstfeld (1994), International Economics : Theory and Policy, Glenview, Foresman.
- Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N. J., New York.
- Soderston, Bo (1991), International Economics, The Macmillan Press Ltd., London.

Additional Reading List :

Module 1

- Bhagwati, J. (Ed.) (1981), International Trade : Selected Readings, Cambridge University Press, Mass.
- Corden, W. M. (1965), Recent Developments in the Theory of International Trade, Princeton University Press, Princeton.
- Greenway, D. (1983), International Trade Policy, Macmillan Publishers Ltd., London.

Module 2

- Aggarwal, M. R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.
- Barrow, R. J. (1979), Macro Economic, 4th Edition, John Wiley, New York.
- Clement, M. O., R. L. Pffister and K. J. Rothwell (1969), Theoretical Issues in International Economics Cosntable Publication, London.
- Corden, W.M. (1974), Trade Policy and Economic Welfare, Clarendon Press, Oxford.

Module 3

- Goldstein, M. (1998), The Asian Financial Crisis :• Causes, Cure and Systematic Implication, Institute for International Economics, Washington, D.C.
- Jackson, J. (1989), The World Trading System, Cambridge University Press, Mass.

Module 4

- Aggarwal, M. R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.
- Pomfrert, R. (1988), Unequal Trade : The Economics of Discriminatory International Trade Policies, Black well Publishers, Oxford.

Module 5

- Aggarwal, 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.
- Grable, J. O. (1996), International Financial Markets, Prentice Hall, Englewood Cliffs, New York.
- 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, (3rd Edition), John Wiley and Sons, New York.
- Manmohan Singh (1964), India's Export Trends and the Prospects for Self-sustained Growth, Oxford University Press, New Delhi.
- Mishkin, S. F. (1998), The Economic of Money, Banking and Financial Markets, (5th Edition), Harper Colins Publishers, New York.
- Mundell, R. (1968), International Economic, The Macmillan Company Ltd., New York.
- Nayyar, D. (1976), India's Exports and Export Policies in the 1960s, Cabbridge University Press.
- Panchmukhi, V. R. (1978), Trade Policies of India — A Quantitative Analysis, Concept Publishing Company, New Delhi.
- Panchmukhi, V. R., K. M. Raipuria and R. Tandon (1987), Money and Finance in World Economic Order, (RIS), Indus Publishing Co., Delhi.
- Pomfret, R. (1996), International Trade : An Introduction to Theory and Policy, Basil Blackwell, Oxford.
- Soloman, R. (1982), The International Monetary System 1945-1981, Harper and Row Publishers, New York.
- Tew, B. (1985), The Evaluation of the International Monetary System : 1945-1985, Hutchinson.
- Whalley, John (1985), Trade Liberalization Among Major Trading Areas, Cambridge University Press, Mass.

ECO-502-GROWTH & DEVELOPMENT-II

OBJECTIVE

The main objective of this paper is to understand the difference between growth and development and various growth models which can explain the causes of growth in other countries. It also helps students to understand the role of various international financial institutions in economic development.

OUTCOME

The student will be able to reasons for economic growth. He will understand the role and importance of various macroeconomic policies for. The student after studying this paper will be able to appreciate the role of World B and IMF in economic development.

MODULE 1

Economic growth and development - Factors affecting economic growth : capital, labour and technology; Growth models - Harrod and Domar, instability of equilibrium; Neo-classical growth models - Solow and Meade, Mrs. Joan Robinson's growth model, The capital controversy.

MODULE 2

Technological progress - embodied and disembodied technical progress; Hicks, Harrod; Growth models of Kaldor and Pasinetti, optimal savings and Ramsay's rule, golden rule of accumulation, two-sector model of Ujawa, Stability of equilibrium; AK model - Explanations of cross country differentials in economic growth.

MODULE 3

Macroeconomic Policies and Development-Role of monetary and fiscal policies in developing countries - Prior savings, inflation and growth - Empirical evidence; External resources MNC activity in developing countries;

MODULE 4

Need for investment criteria in developing countries, Alternative investment criteria; Need for planning-democratic, decentralized and indicative planning, micro-level planning; Review of Indian plan models and planning.

MODULE 5

IMF & World Bank policies in developing Countries, post GATT international economic order, WTO & developing countries, Infrastructure & its importance in Developing countries, terms of trade between agriculture and industry in India.

Basic Reading List :

- Adelman, I. (1961), *Theories of Economic Growth and Development*, Stanford University Press, Stanford.
- Brown, M. (1966), *On the Theory and Measurement of Technical Change*, Cambridge University Press, Cambridge, Mass.
- Chenery, H. B. et. al. (Eds.) (1974), *Redistribution with Growth*, Oxford University Press, Oxford.
- Chenery, H. and T. N. Srinivasan (Eds.), (1989), *Handbook of Development Economics*, Vols. 1 & 2, Elsevier, Amsterdam.
- Ghatak, S. (1986), *An Introduction to Development Economics*, Allen and Unwin, London.
- Gillis, M., D. H. Perkins, M. Romer and D. R. Snodgrass (1992), *Economics of Development*, (3rd Edition), W. W. Norton, New York.
- Gimmell, N. (1987), *Surveys in Development Economics*, Blackwell, Oxford.
- Higgins, B. (1959), *Economic Development*, W. W. Norton, New York.
- Hogendorn, J. (1996), *Economic Development*, Addison, Wesley, New York.
- Kahkonon, S. and M. Olson (2000), *A New Institutional Approach to Economic Development*, Vistaar.
- Kindleberger, C. P. (1977), *Economic Development*, (3rd Edition), McGraw Hill, New York.
- Meier, G. M. (1995), *Leading Issues in Economic Development*, (6th Edition), Oxford University Press, New Delhi.
- Myint, Hla (1965), *The Economics of Underdeveloped Countries*, Press, New York.
- Myint, H. (1971), *Economic Theory and Underdeveloped Countries*, Oxford University Press.
- Todaro, M. P. (1996), (6th Edition), *Economic Development*, Longman, London.
- Thirwal, A. P. (1999), (6th Edition), *Growth and Development*, Macmillan, U. K.

Additional Reading List

Modules 1 & 2 :

- Barrel, R., G. Mason and M. O. Mahoney (2000), *Productivity, Innovation and Economic Performance*, Cambridge University Press, Cambridge.
- Barrow, R. and X Sela-I, Martin, *Economic Growth*, McGraw Hill, New York.
- Chakravarti, S. (1982), *Alternative Approaches to the Theory of Economic Growth*, Oxford University Press, New Delhi.
- Hayami, Y. (1997), *Development Economics*, Oxford University Press, New York.
- Meadows, D. H. et.al. (1972), *The Limits to Growth*, Universe Books New York.
- Sen, A. K. (Ed.) (1990), *Growth Economics*, Penguin, Harmondsworth.
- Solow, R. M. (2000), *Growth Theory • An Exposition*, Oxford University Press, Oxford.
- Taylor, L. (1979), *Macro Models for Developing Countries*, McGraw Hill, New York.
- Therberge, J. D. et. al. (1968), *Economics of Trade and Development*, John Wiley, New York.

Module 3,4 & 5 :

- Brahmananda, P. R. and C. N. Vakil (1956), *Planning for an Expanding Economy*, Vora and Co., Bombay.
- Chakravarti, S. (1987), *Development Planning • The Indian Experience*, Clarendon Press, Oxford.
- Gupta, S. B. (1988), *Monetary Economics • Institutions, Theory and Policy*, S. Chand and Co., New Delhi.
- Jadhav, N. (1995), *Monetary Economics for India*, Macmillan, New Delhi.
- Killick, T. (1995), *IMF Programmes in Developing Countries • Design and Impact*, Routledge, London.
- Little, I. M. D. (1982), *Economics Development • Theory and International Relations*, Basic Books, New York.
- Mason, M. (1992), *American Multinationals and Japan*, Harvard University Press, Cambridge, Mass.
- Mehrotra. S. and J. Richard (1998), *Development with a Human Face*, Oxford University Press,

New Delhi.

- Therberge, J. D. (Ed.) (1968), *Economics of Trade and Development*, John Wiley, New York.
- World Bank (1993), *East Asian Miracle*, World Bank Report, Washington D. C.
- World Bank (1994), *Infrastructure and Development*, World Bank, Washington D. C.
- United Nations (1994), *Human Development Report*, United Nations, New York.
- Dasgupta, P., A. K. Sen and S. Marglin (1972), *Guidelines for Project Evaluation*, UNIDO, Vienna.
- Mishan, E. J. (1975), *Cost-Benefit Analysis*, (2nd Edition), Allen and Unwin, London.
- Bhagwati, J. and P. Desai (1970), *India • Planning for Industrialization*, Oxford University Press, London.
- Brahmananda, P. R. and C. N. Vakil (1956), *Planning for an Expanding Economy*, Vora and Co., Bombay.
- Chakravarti, S. (1987), *Development Planning • The Indian Experience*, Clarendon Press, Oxford.
- Mehrotra, S. and J. Richard (1998), *Development with a Human Face*, Oxford University Press, New Delhi.
- Thirlwal, A. P. (1974), *Inflation, Saving and Growth in Developing Economies*, Macmillan, London.
- Todaro, M. P. (1971) *Development Planning • Models and Methods*, Oxford University Press, Oxford.

ECO-503-PUBLIC ECONOMICS-II

OBJECTIVE

The objective of this paper is to highlight various issues related to the working of Government viz.- public debt, fiscal federalism and fiscal policy. This paper combines a thorough understanding of fiscal institutions with careful analysis of the issues which underline budgetary policies in general and Indian experience in particular.

OUTCOME

After studying this paper the student will be able to understand and analyze the public debt management, fiscal policy and fiscal federalism in India. He will be also able to critically evaluate the budgetary process and its implications.

MODULE 1

Public Debt-Classical view of public debt; Compensatory aspect of debt policy; Burden of public debt; Sources of public debt; Debt through created money; Public borrowings and price level; Crowding out of private investment and activity; principles of debt management and repayment.

MODULE 2

Fiscal Policy-Objectives of fiscal policy—full employment, anti-inflation, economic growth, redistribution of income and wealth; Interdependence of fiscal and monetary policies; Fiscal policy for stabilization—automatic Vs, discretionary stabilization;

MODULE 3

Fiscal Federalism-Fiscal federalism in India; Vertical and horizontal imbalance; Constitutional provisions, Assignment of function and sources of revenue;; Finance Commission and Planning Commission; Reports of Finance Commissions in India. Devolution of resources and grants;; Resource transfer from Union to States—Criteria for transfer of resources; Centre-State financial relations in India; Problems of states' resources and indebtedness; Transfer of resources from Union and States to local bodies.

MODULE 4

Indian Public Finances : Indian tax system; Revenue of the Union, States and local bodies; Major taxes in India; base of taxes, direct and indirect taxes, taxation of agriculture, reforms in direct and indirect taxes, Brief view of VAT & GST.; Non-tax revenue of Centre, State and local bodies;

MODULE 5

Analysis of Central and state government budgets; Lack of flexibility in Central and State budgets;; Trends in public expenditure and public debt in Indian Economy; Fiscal crisis and fiscal sector reforms in India after 1991 Economic Reforms; Balanced budget multiplier. Various concepts of Deficits, Budgetary-Fiscal deficits and its implications.

Basic Reading List

- Atkinson, A. B. and J. E. Siglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.
- Buchanan, J. M. (1970), The Public Finances, Richard D. Irwin, Homewood.
- Goode, R. (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
- Houghton, J. M. (1970), The Public Finance : Selected Readings, Penguin, Harmondsworth.
- Jha, R. (1998), Modern Public Economics, Routledge, London.
- Musgrave, R. A. (1959), The Theory of Public Finance, McGraw Hill, Kogakusha, Tokyo.
- Musgrave, R. A. and P. B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
- Shoup, C. S. (1970), Public Finance, Aldine, Chicago.
- Shome, P. (ed.) (1995), Tax Policy • Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.

Additional Reading List

Module 1 :

- Barman, K. (1986), Public Debt Management in India, Uppal Publishing House, New Delhi.
- Buchanan, J. M. (1958), Public Principles of Public Debt, A Defense and Restatement, Richard D. Irwin Homewood.
- Ferguson, J. M. (Ed.) (1964), Public Debt and Future Generations, North Caroline University Press, Chapel Hill.
- Sreekantaradhya, B. S. (1972), Public Debt and Economic Development in India, New Delhi.

Module 2 :

- American Economic Association (1955), Readings in Fiscal Policy, George Allen and Unwin, London.
- Chelliah, Raja J. (1971), Fiscal Policy in Underdeveloped Countries, George Allen and Unwin, London.
- Government of India (1985), Long Term Fiscal Policy, New Delhi.
- Peacock, A. and G. K. Shaw (1976), The Economic Theory of Fiscal Policy, George Allen and Unwin, London.

Module 3 :

- Bhargava, R. N. (1967), The Theory and Working of Union Finance in India, Chaitanya Publishing House, Allahabad.
- Bhargava, P. K. (1982), Centre State Resource Transfers in India, The Academic Press, Gurgaon.
- Chelliah, Raja J. et. al. (1981), Trends and Issues in India's Federal Finance, National Institute of Public Finance and Policy, New Delhi.
- Gulati, I. S. (1979), Centre State Financial Relations • An Assessment of the Role of Finance Commission, M. S. University of Baroda, Baroda.
- Lakdawala, D. T. (1967), Union State Financial Relations, Lalwani Publishing House, Mumbai.
- Musgrave, R. A. (1977), Essays in Fiscal Federalism, Greenwood West Port.
- Oates, W. E. (1972), Fiscal Federalism, Harcourt Brace and Johanowich, New York.
- Reports of various Finance Commissions.
- Srivastava, D. K. (Ed.) (2000), Fiscal Federalism in India, Har-Anand Publication Ltd. New Delhi.

Module 4 :

- Bhargava, R. N. (1969), Indian Public Finance, B. D. Bhargava and Sons, Chandausi.
- Bhargava, P. K. (1976), Taxation of Agriculture in India, Vora and Co. Bombay.
- Bhargava, P. K. (1984), Some Aspects of Indian Public Finances, Uppal Publishing House, New Delhi.
- Bhargava, P. K. (1991), India's Fiscal Crisis, Ashish Publishing House, New Delhi.
- Borkar, V. V. (1971), Income Tax Reform in India, Popular Prakashan, Bombay.
- Chelliah, R. J. (Ed.) (1997), Towards Sustainable Growth, Oxford University Press, New Delhi.
- Datt, R. (Ed.) (2001), Second Generation Economic Reforms in India, Deep & Deep Publications,

New Delhi.

- Gandhi, V. P. (1970), Some Aspects of India's Tax Structure, Vora and Company, Bombay.
- Government of India (1992), Reports of the Tax Reforms Committee-Interim and Final (Chairman : Raja J. Chelliah).
- Jain, A. K. (1975), Taxation of Income in India, Macmillan Company of India Ltd., New Delhi.
- Jain, I. (1988), Resource Mobilization and Fiscal Policy in India, Deep & Deep Publications, New Delhi.
- Kumar, A. (1999), The Black Economy in India, Penguin, Harmondsworth.
- Mundle, S. (1999), Public Finance, Policy Issues for India, Oxford University Press, New Delhi.
- Singh, T. (2000), The Corporation Tax in India, Classical Publishing Company, New Delhi.

Module 5 :

- Ganguly, S.P. (2000), Fundamentals of Government Budgeting in India, Concept Publishing Company, New Delhi
- Economic Development in India, Edited, Raj & Uma Kapila, Economic Development in India-A Continuing series in India, Academic Foundation, New Delhi
- Economic--functional classification of central and state government budgets Author National Council of Applied Economic Research Published 1960
- A. Premchand; International Monetary Fund; Government Budgeting and Expenditure Controls-Theory and Practice;
- Budget - Government of India, Ministry of Finance, Different Volumes 2 Publisher: Vitta Mantralaya (Ministry of Finance),
The Politics of Economic Reforms in India(2005); Editor-Jos Mooji; Sage Publications India, New Delhi

ECO504-MANAGERIAL ECONOMICS-II

OBJECTIVE

This paper is designed with the purpose of imparting knowledge to the students about various administrative and logistical aspects of business. Important policies of the Government concerning the industry and business like MRTP, FERA, FEMA, etc, process of business decisions, business risks and different statistical tools useful for the analysis of business development etc., would be taught under this subject.

OUTCOME

On successful completion of the studies, the students would possess wide knowledge of various legal and administrative formalities that are considered to be an integral part of the industrial development policies of the Government of India. The learning of project planning, decision making under competition and uncertainty, different statistical methods used for business analysis etc. would prepare the students to become a part of the decision making team of the management in industry as well as commerce.

MODULE 1

Industrial Policy, licensing policy, MRTP Act; MNC's, FERA and FEMA Act; Economic Reforms, Liberalisation, Globalisation and privation; Govt. policy and its impact on profitability, markets and production

Module 2

Measuring and describing risk, preferences towards risk-reducing; Decision analysis; Risk in project analysis, decisions under uncertainty; Maximin and minimax criteria, other methods and dealing with uncertainty.

MODULE 3

Public sector decisions; Economic decisions in multinational setting; Locational decisions

MODULE 4

Profit - policy and planning; Profit - control and forecasting; Taxation and decision making, excise taxes, taxes on profit, taxes on inputs, property taxes, tax preferences

MODULE 5

Concept of game—two-person zero-sum game, pay-off matrix, pure and mixed strategies, maximin and minimax solutions, saddle point solution; non-constant sum game; Prisoner's dilemma; Linear programming — primal and dual problem, simplex method; transport and storage problems and other applications of linear programming in economics; Input-output analysis — open and closed systems, Hawkins-Simon conditions; Leontief's dynamic system; testing consistency of planning models.

Books Recommended

- Dominick Salvatore, 'Managerial Economics', McGraw Hill International Editions.
- Peterson C.H. and Lewis WC, 'Managerial Economics', Eastern, Economic Edition, Prentice Hall of India,
- Miller R. and Meiners R, 'Intermediate Micro Economics', McGraw Hill Publishers.
- Pindyou R. and Rubinfeld D.L. , 'Microeconomics', Prentice Hall of India.

Additional Reading List :

- Brigham E.F. and Pappas J.L , Managerial Economics, Dried & Press
- Diwedi D.N, Managerial Economics, Vikas Publishing House, New Delhi
- Dwivedi, R.S, Organisational Behaviour, McMillan Publishing
- Jain T.R. , Economics for Managers, V.K Publications
- Mehta P.L Managerial Economics, Sultan Chand, New Delhi
- Salvatore, Managerial Economics in Global Economy, Thomson Learning, Bombay
- Varshnay R.L., Managerial Economics, Sultan Chand Publications

ECO505-EA:Q.M.E.-2(QUANTITATIVE METHODS IN ECONOMICS-II)

OBJECTIVE

The main objective of this paper is to train the students to use the techniques of mathematical and statistical analysis, which are commonly applied, to understand and analyze economic problems. The emphasis of this paper is on understanding economic concepts with the help of mathematical and statistical methods rather than learning mathematics and statistics itself.

OUTCOME

After studying this paper a student will be initiated into various economic concepts, which are amenable to mathematical and statistical treatment. The paper also deals with simple tools and techniques, which will help a student in data collection, presentation, analysis and drawing inferences about various statistical hypotheses.

MODULE 1

Linear programming—Basic concept; Formulation of a linear programming problem—Its structure and variables; Nature of feasible, basic and optimal solution; Solution of linear programming through graphical method; Statement of basic theorems of linear programming; Formulation of the dual of a programme and its interpretation;

MODULE 2

Theoretical Probability Distributions; Binomial, Poisson, Normal Distribution and their application in economics.

MODULE

Basic concept of sampling—random and non-random sampling; Methods of Sampling; Concept of an estimator and its sampling distribution; Desirable properties of an estimator; Testing of Hypothesis ,formulation of statistical hypotheses—Null and alternative ,type 1 and type 2 errors; Goodness of fit; Confidence intervals and level of significance; Hypothesis testing based on Z, t, χ^2 (Chi-square) and F tests;.

MODULE 4

Index Numbers-Variou formulae of Index Numbers, Construction - Problems and Tests of Index Number. Theory of Cost of Living Index Numbers & Wholesale price Index.

MODULE 5

Time series Analysis-Meaning, Methods & Analysis of time series & its Applications in Economic Forecasting

Basic Reading List :

- 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.
- Gupta, S. C. (1993), *Fundamental of Applied Statistics*, S. Chand & Sons, New Delhi.
- Handry, A. T. (1999), *Operations Research*, Prentice Hall of Inca. New Delhi.
- Speigal, M. R. (1992), *Theory and Problems of Statistics*, McGraw Hill Book Co., London.
- Taha, H. A. (1997), *Operations Research • An Introduction (5th Edition)*, Prentice Hall of India Pvt. Ltd. New Delhi.

Additional Reading List :**Module 1 :**

- Baumol, W. J. (1984), *Economic Theory and Operations Analysis*, Prentice Hall, Englewood Cliffs, New Jersey.
- Monga, G. S. (1972), *Mathematics and Statistics for Economics*, Vikas Publishing House, New Delhi.

Module 2 ,3,4 & 5:

- Goon, A. M., M. K. Gupta and B. Dasgupta (1993), *Fundamentals of Statistics*, Vol. 1, The World Press Ltd., Calcutta.
- Goon, A. M., M. K. Gupta and B. Dasgupta (1993), *Fundamentals of Statistics*, Vol. 1, The World Press Ltd., Calcutta.
- Gupta, S. P. (2005), *Statistical Methods*, S. Chand & Sons, New Delhi.
- Chou, Y. (1975), *Statistics Analysis*, Holt, Reinhart and Winston, New York.
- Croxton, Crowden and Klein (1971), *Applied General Statistics*, Prentice Hall of India, New Delhi.
- Millar, J. (1996), *Statistics for Advanced Level*, Cambridge University Press, Cambridge.
- Nagar, A. L. and R. K. Das (1993), *Basic Statistics*, Oxford University Press, New Delhi.
- Hogg, R. V. and A. T. Craig (1970), *Introduction to Mathematics Statistics (3rd Edition)*, Macmillan Publishing Co., New York.
- Sukhatme, P. V. and B. V. Sukhatme (1970), *Sampling Theory of Survey with Applications*, Iowa State University Press, Ames.

ECO505-EB:R.M.E.-2(RESEARCH METHODOLOGY IN ECONOMICS-II)

Note: This paper is offered to only those students who have either studied papers of Mathematical Economics, Econometrics, Managerial Economics or Statistical Methods(as first subsidiary) at B.A. level.

OBJECTIVE

The objective of this paper is to equip the students with statistical tools and techniques with examples from economics so that when he takes up any research projects he can use them.

OUTCOME

After studying this paper the student will be better equipped to do a more scientific study of various economic issues. This paper will also help him in future research in the subject.

MODULE 1

Point and interval estimation, Meaning of estimation, Characteristic of a good estimator.

MODULE 2

Testing of hypothesis; Concept of hypothesis testing, Type — I and Type II errors, Testing of Means, Proportions, equality of population means, two variances etc. Z-test, Student-t-test, Chi-square test, F test, Non-parametric tests. Confidence interval approach - two tail and one-tail test hypothesis.

MODULE 3

Correlation Theory — Linear zero order Correlation — Correlation with the grouped data, partial and multiple correlations. Regression — Single and Multivariate — estimation of parameters through OLS — properties of estimators — Gauss Markov theorem — R^2 and relationship with β .

MODULE 4

Index Numbers-Variou formulae of Index Numbers, Construction — Problems and Tests of Index Number. Theory of Cost of Living Index Numbers & Wholesale price Index.

MODULE 5

Time series Analysis — Estimation of trend. Seasonal Indexes and Tests of Randomness. Forecasting based on time series analysis.

Basic Reading List:

- Quantitative Techniques for Managerial Decisions by U. K. Srivastav, G. V. Shenoy and S. C. Sharma, 1989, Published by Wiley Eastern Limited.
- ‘Basic Statistics’, by A. L. Nagar and R. K. Das, Published by Oxford University Press.
- Quantitative Techniques by C. R. Kothari.
- Statistics for Economists — Merryl and Fox.
- Statistical Methods by S.P. Gupta, S.Chand & Company, New Delhi
- ‘Basic Econometrics’ by Damodar Gujarati — 2002, Published by MacGraw Hill International.

ECO506EA–INDUSTRIAL ECONOMICS-II

OBJECTIVE

This subject is designed to impart adequate knowledge to the students about the issues related to industrial development in India. Understanding about the policies related to industrial development, employment, labour laws, trade unions are critical for the students of industrial economics. Teaching of this paper covers all the important areas of the Indian industry that the students are expected to know.

OUTCOME

This subject will introduce the students to various fields of the industry that opens new challenges and opportunities. After successful completion of studies the bright students would be able to contribute considerably to various fields of industry such as industry, business, trade unions, NGOs and industry related research institutes.

MODULE 1

Classification of industries, Industrial policy of India - prior to 1991 - new industrial policy - appraisal of NIP; Public sector in India-objectives- role- performance- problems- policy towards public sector since 1991- appraisal of the policy; Privatization as a measure to solve problems of PSUs - privatization-different methods - policy – evaluation of policy

MODULE 2

Industrial development during the planning period- changes in the pattern of industrial development - problems of industrial development in India; Small scale industries –importance - role - policy - problems - measures to improve performance; Industrial sickness –meaning-magnitude-causes - remedial measures; Industrial productivity in India; MNCs - transfer of technology - Foreign capital.

MODULE 3

Employment, development and poverty relationship; Employment trends and employment structure; Problem of unemployment in India - nature of unemployment - methods of measurement - estimates - educated unemployment; Employment policy in India- major employment generation programmes; Impact of economic reforms, globalization and technological changes on employment in India.

MODULE 4

Social security- need – meaning - evolution - social insurance - social assistance; Social security measures in India - critical evaluation; Labour legislation in India- Factory Act 1948 - Industrial Dispute Act 1947 – Industrial Employment (Standing Order) Act 1946 - Contract Labour (Regulation and Abolition Act 1970. Trade Union Act 1926, Child Labour Act and Women Labour Act, Labour Legislation in Mines and Plantation; Industrial disputes- causes – forms - preventive and settlement machinery.

MODULE 5

Meaning and different theories of trade unionism; Objectives and structure of trade unions in India; Methods to achieve objectives, role and functions of trade unions; Development of trade unions in India; Problems of Indian trade unions and suggestions to make them effective.

Basic Reading List:

- Ahluwalia, I. J. (1985), *Industrial Growth in India*, Oxford University Press, New Delhi.
- Cherunilam, F. (1994), *Industrial Economics • Indian Perspective (3rd Edition)*, Himalaya Publishing House, Mumbai.
- Desai, B. (1999), *Industrial Economy in India (3rd Edition)*, Himalaya Publishing House, Mumbai.
- Government of India, *Economic Survey (Annual)*.
- Mishra SK & Puri VK – *Indian Economy*, Humaliya publishing House, New Delhi.
- Papola, T. S., P. P. Ghosh and A. N. Sharma (Eds.) (1993) : *Labour, Employment and Industrial Relations in India*, B. R. Publishing Corporation, New Delhi.

Additional Reading List :

Module 1

- Bhagwati J. and P. Desai (1972), *India, Planning for Industrialization*, Oxford University Press, London.
- Brahmananda, P. R. and V. R. Panchamukhi (Eds.) (1987), *The Development Process of the Indian Economy*, Himalaya Publishing House, Bombay.
- Chakravarty, S. (1987), *Development Planning : The Indian Experience*, Oxford University Press, New Delhi.
- Datta, B. (1992), *Indian Planning at the Crossroads*, Oxford University Press, New Delhi.
- Ghosh, P. K. (1977), *Government and Industry*, Oxford University Press, New Delhi.
- Joshi, V. and I.M.D. Little (1999), *India : Macro Economics and Political Economy : 1964-1991*, Oxford University Press, New Delhi.

Module 2

- Brahmananda, P. R. and V. R. Panchamukhi (Eds.) (1987), *The Development Process of the Indian Economy*, Himalaya Publishing House, Bombay.
- Chakravarty, S. (1987), *Development Planning : The Indian Experience*, Oxford University Press, New Delhi.
- Datta, B. (1992), *Indian Planning at the Crossroads*, Oxford University Press, New Delhi.
- Dhameeja, N. and K. S. Sastry (1998), *Privatization : Theory and Practice*, A. H. Wheeler, New Delhi.
- Jalan, B. (1996), *India's Economic Policy*, Viking, New Delhi.
- Joshi, V. and I.M.D. Little (1999), *India : Macro Economics and Political Economy : 1964-1991*, Oxford University Press, New Delhi.
- Kelkar, V. L. and V. V. Bhanoji Rao (Eds.) (1996), *India Development Policy Imperatives*, Tata McGraw Hill, New Delhi.
- Rama Murti, R. and R. Vernan (Eds.) (1991), *Privatization and Control of State-owned Enterprises*, The World Bank, Washington.
- Sandesara, J. C.(1992), *Industrial Policy and Planning — 1947-1991: Tendencies, Interpretations and Issues*, Sage Publications, India Pvt. Ltd., New Delhi.

Module 3

- Das, N. (1960) : *Unemployment, Full Employment and India*, Asia Publishing House, Bombay.
- Deshpande, L. K., P. R. Brahmananda, E.A.G. Robinson, (Eds.) (1983) : *Employment Policy in a Developing Economy*, Vol. I & II Macmillan, London.
- Kannapan, S. (1983) : *Employment Problems and Urban Labour Markets in Developing Countries*, University of Michigan, Ann Arbor.
- Papola, T. S. and Sharma, A. N., (Eds.) (1999) : *Gender and Employment in India*, Vikas Publishing House, New Delhi.
- Sharma A. N. and A. Kunda (ed.), (2001) : *Informal Sector in India : Emerging Perspectives*, Institute for Human Development, New Delhi.

Module 4

- Deshpande, S. G. Standing and, L. K. Deshpande (1998) : Labour Flexibility in a Third World Metropolis, Commonwealth Publishers, New Delhi.
- Hauseman, S. (1991): Industrial Restructuring with Job Security, Harvard University Press, Cambridge, Mass.
- MHRD, GOI (1987) : Shram Shakti : Report of the National Commission on Self-employed Women and Women Workers in the Informal Sector, Ministry of Human Resources Development, New Delhi.
- Misra, L. (2000) : Child Labour in India, Oxford University Press, New Delhi.
- Riveros, L. (1990) : Labour Market Policies and Labour Market Reforms in Socialist Economies, World Bank, Washington D.C.
- Standing G. and V. Tokman, (Eds.) (1991) : Towards Social Adjustment, ILO, Geneva.

Module 5

- Breman, J. (1996) : Footloose Labour : Working in India's Informal Economy, Cambridge University Press, Cambridge.
- Memoria, C. B. (1966) : Labour Problems and Social Welfare in India, Kitab Mahal, Allahabad.
- Punekar, S. D. (1978): Labour Welfare, Trade Unionism and Industrial Relations, Himalaya Publishing House, Bombay.
- Sach, J. (1990), : Social Conflict and Populist Policies in Latin America, in R. Brunnetta and C. D. Aringa, (Eds.) : Labour Relations and Economic Performance, Macmillan, Basing Stock.
- Singh, V. B., (Ed.) (1970) : Industrial Labour in India, Popular Prakashan, Bombay.

ECO506-EB-ECONOMETRICS-II

OBJECTIVE

The objective of this paper is to give an exposure to the students opting this paper about the simultaneous equation models and some advanced econometrics involving time series data. The use of some selected computer packages like SPSS and other will be given to students.

OUTCOME

After studying this paper the student will be able to understand the limitations of classical regression method. He will be in a position to decide which alternative method best suits his own research problem. He will also learn to apply the computer packages and interpret his results.

MODULE 1

Simultaneous Equation Models: Introduction and examples-the simultaneous equation bias and inconsistency of OLS estimators. The identification problem-rules of identification-order and rank conditions.

MODULE 2

Methods of estimating simultaneous equation system; Recursive methods and OLS; Indirect least squares (ILS); 2SLS, 3SLS methods and applications.

MODULE 3

Time Series Econometrics-Stationarity, unit roots, co-integration-spurious regression. Dickey-Fuller test, Engle-Granger test, Random walk model, Forecasting with ARIMA models; Vector autoregressive model-problems with VAR modeling—applications-estimation.

MODULE 4

Introduction to Panel Data Model-use of panel data set to investigate dynamics. Fixed effect regressions-least squares dummy variable fixed effects. Random effect regressions, Random effects or OLS?

MODULE 5

Computer applications in Econometrics: A basic exposure to use of various computer packages for econometric analysis, interpretation & prediction of the computer generated results.

Basic Reading List :

- Dongherty, C. (1992) : Introduction to Econometrics, Oxford University Press, New York.
- Goldberger, A. S. (1998) : Introductory Econometrics, Harward University Press, Cambridge, Mass.
- Gujarati, D. N. (1995) : Basic Econometrics (2nd 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.
- Maddala, G. S. (Ed.) (1993) : Econometrics Methods and Application (2 Vols.), Aldershot U.K.

Additional Reading List :**Module 1**

- Croxton, F. E., D. J. Cowden and S. Klein (1973) : Applied General Statistics, Prentice Hall, New Delhi.
- Maddala, G. S. (1997) : Econometrics, McGraw Hill, New York.

Module 2 :

- Intriligator, M. D. (1978) : Econometric Methods, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
- Johnston, J. (1991) : Econometric Methods, McGraw Hill Book Co., Londoan.

Module 3 :

- Chow, G. C. (1983) : Econometrics, McGraw Hill, NewYork.
- Pindyck, R. S. and D. L. Rubinfeld (1976) : Econometric Models and Economic Forecasts, McGraw Hill Kogakusha, Tokyo.

Module 4 :

- Chow, G. C. (1983), Econometrics, McGraw Hill, New York.
- Franses, P. H. (1998), Time Series Models for Business and Economic Forecasting, Cambridge University Press, New York.
- Hamonda, O. F. and J. C. R. Roley (1997), Time Series Model, Causality and Exogeneity, Cheltenham, U. K.
- Hansen, P. R. and S. Johanson, (1998), Workbook on Cointegration, Oxford University Press, New York.
- Harvey, A. C. (1981), Econometric Analysis of Time Series, Phillip Allen, London.
- Johnston, J. (1991), Econometric Methods, McGraw Hill Book Co., London.
- Maddala, G. S. (1997), Econometrics, McGraw Hill, New York.

Module 5 :

- Chow, G. C. (1983) : Econometrics, McGraw Hill, New York.
- Intriligator, M. D. (1978) : Econometric Methods, Techniques and Applications, Prentice Hall, Englewood Cliffs, New Jersey.
- Pindyck, R. S. and D. L. Rubinfeld (1976) : Econometric Models and Economic Forecasts, McGraw Hill, Kogakusha, Tokyo.

ECO-507-APPLICATION OF RESEARCH METHODS IN ECONOMICS

OBJECTIVE

The main objective of this paper is to provide the student tools and techniques that will help him to perform any research in the subject of economics more scientifically and objectively. The main purpose of this paper is to teach him how to apply the mathematical and statistical tools for economic analysis.

OUTCOME

The student, after studying this paper, will be able to undertake any research in the subject independently and in a more scientific way.

MODULE 1

Meaning of research, components of research work, identification of research problem. Inductive and deductive- inductive method and need for the study. Review of literature, methodology, objectives, sources of data collection, data analysis and interpretation of results.

MODULE 2

Concept of function, Economic Models and its use in Economic Research. Basic concept of Derivative and integration and its application in Economics. Price Index-conversion of current series into constant, Growth rates-their calculation and interpretation.

MODULE 3

Measures of central tendency & measures of variation and its applications in economics. Elementary concept of random variable; Probability, mass and density functions; Expectations, Probability distributions & their use in economics for estimation

MODULE 4

Linear programming—Basic concept; Formulation of a linear programming problem—Its structure and variables & its applications in economics;

MODULE 5

Partial and multiple correlation and regression (applications only); Methods of estimation of non-linear equations

Basic Reading List :

- Dongherty, C. (1992) : Introduction to Econometrics, Oxford University Press, New York.
- Goldberger, A. S. (1998) : Introductory Econometrics, Harvard University Press, Cambridge, Mass.
- Gujarati, D. N. (1995) : Basic Econometrics (2nd 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.
- Maddala, G. S. (Ed.) (1993) : Econometrics Methods and Application (2 Vols.), Aldershot U.K.

ECO-508E-AGRICULTURE ECONOMICS

OBJECTIVE

The objective of this course is to provide a detailed treatment of issues in agricultural economics to those intending to specialize in this area.

OUTCOME

This paper will familiarize the students with policy issues that are relevant to Indian agricultural economics and enable them to analyze the issues, using basic micro-economic concepts.

MODULE 1

Agriculture & Economic Development-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.

MODULE 2

Demand for agriculture products; Its special characteristics - Difference between the nature of demand for agricultural products and demand for Industrial products; Income and price elasticities of demand for agricultural products; Measurement of elasticities, Agricultural production - Resource use and efficiency; Production function analysis in agriculture, Supply function of agricultural products-Cob-web model, cyclical fluctuation in agriculture activities.

MODULE 3

Agriculture & Rural Finance : Role of capital and rural credit; Organized and unorganized capital Market; Rural saving and capital formation characteristics and sources of rural credit institutional and non-institutional; Role of NABARD.

MODULE 4

Land Reforms and Land Policy : Principles of land utilization; Land distribution - structure and trends; land tenures and farming systems ,land reform measures and performance; problems of marginal and small farmers. Irrigation - Methods - Sources - Criteria for selection of irrigation projects.

MODULE 5

Market organization, village, wholesale and Terminal Markets - Co-operative Marketing - storage and processing – Forward Markets - Marketable surplus, regulated markets, State Trading., Recent trends in agricultural growth in India; price & production control; Behaviour of Agricultural price, Economic of price support.

Basic Reading List:

- Bilgrami, S. A. R. (1996), *Agricultural Economics*, Himalaya Publishing House, Delhi.
- Dantwala, M. L. et. al. (1991), *Indian Agricultural Development Since Independence*, Oxford & IBH, New Delhi.
- Joshi, P. C. (1975), *Land Reforms in India • Trends and Prospects*, Allied Publishers, Bombay.
- Rao, C. H. Hanumantha (1975), *Agricultural Growth, Rural Poverty and Environmental Degradation in India*, Oxford University Press, New Delhi.
- Reserve Bank of India, *Report on Currency and Finance (Annual)*, Mumbai.
- Rudra, A. (1982), *Indian Agricultural Economics : Myths and Reality*, Allied Publishers, New Delhi.

Additional Reading List :**Model 1,2, 3,4 & 5**

- Bardhan, P. (1984), *Land, Labour and Rural Poverty*, Oxford University Press, New Delhi.
- Chadha, G. K. and A. N. Sharma (1997), *Growth, Employment and Poverty • Change and Continuity in Rural India*, Vikas Publishing, New Delhi.
- Chakravarty, S. (1987), *Development Planning • The Indian Experience*, Oxford University Press, New Delhi.
- Chaudhary, P. (1972), *Readings in Indian Agricultural Development*, George Allen & Unwin, London.
- Chelliah, Raja and R. Sudarshan (1999), *Income, Poverty and Beyond • Human Development in India*, Social Science Press, New Delhi.
- Datwala, M. L. (1996), *Dilemmas of Growth • The Indian Experience*, Sage Publications, New Delhi.
- Ghatak, S. and K. Ingerscent (1984), *Agriculture and Economic Development*, Select books, New Delhi.
- Government of India, *Five Year Plans*, New Delhi.
- Meier, G. M. (1995), *Leading Issues in Economic Development*, Oxford University Press, New Delhi.
- Raj, K. N. et. al. (1988), *Essays in the Commercialization of Indian Agriculture*, Oxford University Press, New Delhi.
- Bharadwaj K. (1974), *Production Conditions in Agriculture*, Cambridge University Press, Cambridge.
- Brahmananda, P. R. and V. R. Panchumukhi (Eds.) (1987), *The Development Process of the Indian Economy*, Himalaya Publishing House, Bombay.
- Desai G. and A. Vaidyanathan (Eds.) (1995), *Strategic Issues in Future Growth of Fertiliser Use in India*, Macmillan, New Delhi.
- Soni, R. N. (1995), *Leading Issues in Agricultural Economics*, Arihant Press, Jalandhar.
- Raghvan and L. Sarkar (Eds.) (1996), *Poverty and Employment*, New Age, New Delhi.
- Visaria, P. and R. Basant (1994), *Non-Agricultural Employment in India • Trends and prospects*, Sage Publications, New Delhi.
- Jodhar N. (Ed.) (1996), *Challenges to Indian Banking*, Macmillan, New Delhi.
- Reserve Bank of India (1989), *Report of the Agricultural Credit Review Committee*, Bombay.
- Cohen, R. L. : *The Economics of Agriculture*, Ch. 1, Section I

ECO509E–LABOUR ECONOMICS

OBJECTIVE

The study of labour economics is vital as it touches every issues of economic development. The umbrella of labour economics covers various concepts, Indian labour markets, wage theories, wage determination, wage and productivity relationship and collective bargaining theories and practice.

OUTCOME

The interest in labour economics motivates the students to concentrate on empirical research related to different spheres of labour economics. Conceptual clarity helps the students to collecting relevant data and applying appropriate methodologies while doing policy research in the Government offices, corporate houses as well as research institutes.

MODULE 1

Meaning – nature - scope - importance of labour economics; Meaning - concept - significance - characteristics of labour; Labour problems in India; Labour policy in India; Impact of economic reforms and globalization on labour.

MODULE 2

Characteristics of labour in India - migration - mobility - absenteeism - turnover etc; Characteristics of Indian labour market; Economic reforms / globalization and labour market flexibility; Impact of technology and rationalisation on Indian labour market; Second national commission on labour

MODULE 3

Classical theories - neo-classical theory - collective bargaining; Criteria for wage determination- wage comparison - capacity to pay - productivity - cost of living; Concept of minimum wage - fair and living wage rate; Wage determination in India -organized sector - unorganized sector - agriculture sector.

MODULE 4

Bonus - Payment of Bonus Act 1965 - present bonus system - issues related to payment of Bonus; Payment of dearness allowance - various systems of D.A. payment – present system of D.A payment - issues related to payment of D.A; Wage policy in India during the five year plans - share of wages in national income; Wage differential

MODULE 5

Meaning – nature - objectives of collective bargaining; Theories of collective bargaining; Collective bargaining in India; Workers participation in management- concept – models; Workers participation in India.

Basic Reading List:

- Datt, G. (1996) : Bargaining Power, Wages and Employment : An Analysis of Agricultural Labour Markets in India, Sage Publications, New Delhi.
- Hajela, P. D. (1998) : Labour Restructuring in India : A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
- Lester, R. A. (1964) : Economics of Labour, (2nd Edition), Macmillan, New York.
- MacConnell, C. R. and S. L. Brue (1986) : Contemporary Labour Economics, MacGraw Hill, New York.
- Papola, T. S., P. P. Ghosh and A. N. Sharma (Eds.) (1993) : Labour, Employment and Industrial Relations in India, B. R. Publishing Corporation, New Delhi.
- Rosenberg M. R. (1988), Labour Markets in Low Income Countries , in Chenery, H. B. and T. N. Srinivasan (Eds.) : The Handbook of Development Economics, North-Holland, New York.
- Venkata Ratnam, C. S. (2001) : Globalization and Labour-Management Relations : Dynamics of Change, Sage Publications/Response Books, New Delhi.

Additional Reading List :

Module 1

- Deshpande, S. G. Standing and, L. K. Deshpande (1998) : Labour Flexibility in a Third World Metropolis, Commonwealth Publishers, New Delhi.
- Hauseman, S. (1991) : Industrial Restructuring with Job Security, Harvard University Press, Cambridge, Mass.
- McCormick, B. and Smith (Eds.) (1968) : The Labour Market, Penguin, Harmondsworth.
- MHRD, GOI (1987) : Shram Shakti : Report of the National Commission on Self-employed Women and Women Workers in the Informal Sector, Ministry of Human Resources Development, New Delhi.
- Misra, L. (2000) : Child Labour in India, Oxford University Press, New Delhi.
- Papola, T. S. and Rodgers, G. (Eds.) (1992) : Labour Institutions and Economic Development in India, International Institute for Labour Studies, Geneva.
- Rees, A. (1973) : Economics of Work and Pay, Harper and Row, New York.
- Riveros, L. (1990) : Labour Market Policies and Labour Market Reforms in Socialist Economies, World Bank, Washington D.C.
- Sen, A. K. (1975) : Employment, Technology and Development, Oxford University Press.
- Solow, R. M. (1990) : Labour Market as an Institution, Blackwell, London.
- Standing G. and V. Tokman, (Eds.) (1991) : Towards Social Adjustment, ILO, Geneva. New Delhi.

Module 2

- McCormick, B. and Smith (Eds.) (1968): The Labour Market, Penguin, Harmondsworth.
- Papola, T. S. and Rodgers, G. (Eds.) (1992) : Labour Institutions and Economic Development in India, International Institute for Labour Studies, Geneva.
- Rees, A. (1973) : Economics of Work and Pay, Harper and Row, New York.
- Sen, A. K. (1975) : Employment, Technology and Development, Oxford University Press, New Delhi.
- Solow, R. M. (1990) : Labour Market as an Institution, Blackwell, London.

Module 3

- Binswanger H. P. and M. R. Rosenzweig (Eds.), (1984) : Contractual Arrangements, Employment and Wages in Rural Labour Markets in Asia, Yale University Press, New Haven.
- Deshpande L. K. and J. C. Sandesara (Eds.), (1970) : Wage Policy and Wages Determination in India, Bombay University Press, Bombay.
- Foster, A. D. and M. R. Rosenberg, (1993) : Information Flows and Discrimination in Labour Markets in Rural Areas in Developing Countries, Annual Conference on Development Economics, World Bank, Washington D. C.
- Hicks J. R. (1932) : The Theory of Wages, Clarendon Press, Oxford.

- Madan, B. K. (1977) : The Real Wages of Industrial Workers in India, Management Development Institute, New Delhi.
- Mazumdar, D. (1989) : Micro-economic Issues of Labour Markets in Developing Countries, EDI Services Paper No. 40, World Bank, Washington D. C.

Module 4

- Binswanger H. P. and M. R. Rosenzweig (Eds.), (1984) : Contractual Arrangements, Employment and Wages in Rural Labour Markets in Asia, Yale University Press, New Haven.
- Desphande L. K. and J. C. Sandesara (Eds.), (1970) : Wage Policy and Wages Determination in India, Bombay University Press, Bombay.
- Foster, A. D. and M. R. Rosenberg, (1993) : Information Flows and Discrimination in Labour Markets in Rural Areas in Developing Countries, Annual Conference on Development Economics, World Bank, Washington D. C.
- Hicks J. R. (1932) : The Theory of Wages, Clarendon Press, Oxford.
- Madan, B. K. (1977) : The Real Wages of Industrial Workers in India, Management Development Institute, New Delhi.
- Mazumdar, D. (1989) : Micro-economic Issues of Labour Markets in Developing Countries, EDI Services Paper No. 40, World Bank, Washington D. C.

Module 5

- Katz H, Kochan H.A., Katz H.C., Colvin A.J.S., An Introduction to Collective Bargaining & Industrial Relations, McGraw-Hill Companies
- M. Mustafa, O. Sharma, Workers Participation In Management, Deep and Deep Publications, N. Delhi
- Sharma A.K., Labour Economics, Anmol Publications, New Delhi

ECO510E-MATHEMATICAL ECONOMICS

OBJECTIVE

This course is designed to equip students to understand the economic concepts and theories which use mathematical tools and techniques to refine the verbal logic. Mathematical economics deals with various applications of mathematical tools and techniques in defining and developing economic relationships.

OUTCOME

After studying this paper the student will be able to apply various mathematical techniques/methods/models to the different parts of economic theory like consumer theory, theory of production, pricing, trade cycles, growth models, etc. The paper covers important aspects of microeconomics, macroeconomics and development. The use of calculus will enable the students to formulate the economic problems in multivariable mode and yield valuable insight about optimizing human behaviour.

MODULE 1

Theory of Consumer Behaviour-Cardinal and ordinal utility maximization, Slutsky equation, compensated demand functions, income, substitution, and price effects; Concept of elasticities.

MODULE 2

Theory of Production: Production function — homogeneous and non-homogeneous; Properties of Cobb-Douglas Production function; CES; Simple derivation of short and long run cost functions.

MODULE 3

Price Determination in Various Markets: Price determination in perfect competition, monopoly, monopolistic competition, duopoly and oligopoly. Pricing of factors of production.

MODULE

Determination of Income and Fluctuations in Income: Classical and Keynes' macro system; Determinants of investment; Accelerator; trade cycle model of Samuelson and Hicks (IS-LM model).

MODULE 5

Game Theory and Linear Programming and Input-output Analysis.: Concept of game—Two-person zero-sum game, Pay-off matrix, pure and mixed strategies, Linear programming problem, Applications of linear programming in economics;

Basic Reading List

- Allen, R. G. D. (1976), *Mathematical Economics*, Macmillan, London.
- Arrow, K. J. and M. Intriligator (Eds.) (1982), *Handbook of Mathematical Economics*, Volumes I, II, and III, North Holland, Amsterdam.
- Henderson, J. M. and R. E. Quandt (1980), *Microeconomic Theory • A Mathematical Approach*, McGraw Hill, New Delhi.

Additional Reading List

Module 2 :

- Chung, J. W. (1993), *Utility and Production • Theory and Applications*, Basil Blackwell, London.
- Ferguson, C. E. (1976), *Neo-classical Theory of Production and Distribution*.

Module 3 and 4

- Allen, R. G. D. (1974), *Mathematical Analysis for Economics*, Macmillan Press and ELBS, London.
- Chiang, A. C. (1986), *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.

Module 5

- Mankiw, N. G. and D. Romer (Eds.) (1991), *New Keynesian Economics (2 Vols.)*, MIT Press, Cambridge, Mass.
- Hadley, G. (1962), *Linear Programming*, Addison Wesley Publishing Co., Massachusetts.
- Hiller, F. S. and G. J. Lieberman (1985), *Operations Research*, C. B. S., New Delhi.
- Kothari, C. R. (1992), *An Introduction to Operations Research*, Vikas Publishing House, New Delhi.
- Nash, J. F. (1996), *Essays on Game Theory*, Cheltenham, U.K.

ECO511PT-PT-PROJECT

Every student shall be required to undertake a research based project. The project topics would be related to the course studied by the student in the previous semester.

The project topics would be decided by the Head of the Department along with the Guide.

Each student would be required to submit the project of at least 100 written pages before the commencement of the end semester examination of the fourth semester