

M.ASYLLABUS

(REVISED)

2019



DEPARTMENT OF ECONOMICS

NAGALAND UNIVERSITY

HEADQUARTERS: LUMAMI

INTRODUCTION

The Department offers two year MA programme which provides thorough knowledge of theoretical and applied economics.

PROGRAMME OUTCOMES

1. Upon the completion of the course, students will be able to make decision at micro and macro level in the context of economic theory.
2. It will enhance the student's ability to analyze contemporary issues in global and Indian economy.
3. It will enhance the student's skill to use different software and analytical tools research and data analysis.
4. It will help the students to contextualize social issues and explore solutions to the problems in the light of social and business ethics.
5. Dissertation will help the students in professional writing and presentation skills.

PROGRAMME SPECIFIC OUTCOMES

1. Eco-101: Students will be able to handle financial trends and evaluate project before investing.
2. Eco-201,3003,4003. Capacity to use appropriate statistical tools for research and development.
3. Eco-402. Focus on research data analysis through field study and hand on experience on statistical software packages, like, MS-EXCEL, SPSS, STATA, etc..

Course Outcome

Semester wise	Course No	Course title	Course Outcome
1 st Semester	ECO - 101	Quantitative Methods – I	<ul style="list-style-type: none">• Analyses of interest rate, loan repayment and project evaluation. Evaluation of profit maximization and cost minimization.• Analyses of feasible region and strategies for development.
	ECO - 102	Micro Economics – I	<ul style="list-style-type: none">• Identify the interplay of economic concepts with rationality.• Analyze production decisions in context of dynamic consumer choices.• Integrate firm's behavior with market strategies
	ECO - 103	Macro Economics – I	<ul style="list-style-type: none">• Describe the fundamental premises of macroeconomic theory.• Classify the macroeconomics variables in context of various sector of economy.• Appraise the concept of national income using different methods.• Evaluate the interplay of various sector of

			<ul style="list-style-type: none"> Apply the different development models which relate to structural transformation includes agricultural transformation, rural-urban interaction/migration
	ECO 302 -	Indian Economic Policy	<ul style="list-style-type: none"> Examine a comprehensive understanding of the current issues influencing economic development of India. Application of economic theory in the context of India. Interpret the role and impact of foreign trade and investment in Indian economy.
	ECO 300- -	Optional –I	
	ECO 300- -	Optional –II	
4th Semester	ECO 401 -	Economics of Environment and Natural Resource Management	<ul style="list-style-type: none"> Analyse how and why environmental problems can be modelled as cases of market failure/externalities. Critically discuss the characteristics and properties of measures of benefits and benefit estimation procedures and their applicability to specific situations. Define the basic conditions of the optimal use of renewable and exhaustible resources. Analyse environmental policies as applied to water and air pollution, energy and climate change related issues.
	ECO 402 -	Research Methodology And Dissertation	<ul style="list-style-type: none"> Develop research aptitude and get in-depth understanding of various methods of research. Identify the appropriate research problem and conduct research in an effective way. Apply ethics of research in writing research paper and dissertation thesis.
	ECO 400- -	Optional –I	
	ECO 400- -	Optional –II	

OPTIONAL PAPERS FOR III SEMESTER

Semester wise	Course No.	Course title	Course Outcome
3rd semester	ECO-3001	Industrial Economics-I	<ul style="list-style-type: none"> Describes the industrial efficiency, market structure and concentration. Analyse the cost efficiency and optimum size of industry. It evaluates the projects, its location and prices.
	ECO-	Financial	<ul style="list-style-type: none"> Describe the role of financial institutions and its

3002	Institutions And Markets-I	<p>importance in the economy.</p> <ul style="list-style-type: none"> • Develop the skills to build investment strategy on different financial markets. • Analyze role of money in the economy and the impact of financial market on the macro economy. • Demonstrate analytical and problem-solving skills within money, banking, and financial market disciplines
ECO-3003	Econometrics-I	<ul style="list-style-type: none"> • Understand the core concepts and techniques in econometrics, with a special focus on the classical linear regression model. • In-depth understanding of simple as well as multiple linear regression models. • Understand the assumptions upon which different econometric methods are based and their implications. • Introduction to dummy variables and their use in econometric modelling.
ECO-3004	Agricultural Economics-I	<ul style="list-style-type: none"> • Highlight interdependence between agriculture and industry and the rest of the economy with empirical evidences and theoretical models. • Identify the extent of diversification of rural activities and related issues and problems in the country. • Acquire skill of estimation of farm budgeting, revenue, resource use efficiency in agriculture. • Understanding of Land Reforms and Land Policy in India.
ECO-3005	Demography-I	<ul style="list-style-type: none"> • Clarity on the various measures of demographic variations and understanding of the theories of Population and development. • Demographic trends and effects of sex and age structure, economic and social implications
ECO-3006	Economics Of Gender And Development-I	<ul style="list-style-type: none"> • Justify the position of women's studies and its development, and identify social construction of gender in the context of gender role and its development. • Classify the theoretical standpoint available and reinforced in the study of socioeconomic analysis of gender with special reference to value and distribution • Articulate status of women in decision making, resources ownership, work participation and contribution to national income. • Better understanding of Women, Technology and

			Environment linkages.
	ECO-3007	Computer Application In Economic Analysis	<ul style="list-style-type: none"> • Have a basic understanding of personal computers and their operations. • Understand various software and hardware, various security issues. • Familiarize students with complete fundamentals and the packages commonly used in computing software.
	ECO-3008	Economics And Law	<ul style="list-style-type: none"> • Describes economic analysis of law relating to consumer activities and business organization – both national and international aspects. • Familiarize students with different types of economic offence and punishment.
	ECO-3009	History Of Modern Economic Thoughts	<ul style="list-style-type: none"> • Describes the evolution of value, general equilibrium and welfare economics. • Familiarize students with changing theories and its applicability in the real world.

OPTIONAL PAPERS FOR IV SEMESTER

Semester wise	Course No.	Course title	Course Outcome
4rd semester	ECO-4001	Industrial Economics-II	<ul style="list-style-type: none"> • It describes the industrialization in india since independence. • Familiarize students with financial institutions financing industries. • Examine different industrial policies and issues in India.
	ECO-4002	Financial Institutions And Markets-II	<ul style="list-style-type: none"> • It describes the goals, targets and constraints of monetary policy, financial markets, issues and evidence in Indian Banking system. • Students are familiarized with the role of commercial banks, central banks and private banks. • Students are also familiarized with the availability of funds from Non-Bank Financial Institutions.
	ECO-4003	Econometrics-II	<ul style="list-style-type: none"> • Students would be able to formulate econometric model to analyze data and be able to formulate cause-effect relationship. • Use econometric software for data management and statistical analysis. • Students would be able to understand time series and multivariate analysis. • Demonstrate their understanding of applied econometric analysis models/methods with respect to choice of model, estimation method and interpretation of results.

ECO-4004	Agricultural Economics-II	<ul style="list-style-type: none"> • Clarity on structure, sources and problems associated with rural labour market and rural finance. • Evaluate behaviour of agricultural prices based on theoretical models and empirical analyses and pricing of inputs and role of subsidies. • Develop understanding of Agricultural markets and marketing efficiency, structure and imperfections, marketed and marketable surplus • Identify the trends of agricultural growth, international trade and agri-business under WTO, globalization, liberalization of domestic and international trade.
ECO-4005	Demography-II	<ul style="list-style-type: none"> • Understanding the theories of migration and empirical evidences of the effects of migration on population growth and related issues; Urbanisation-growth and distribution of population. • Acquire skills to undertake census and survey, tools for practical purposes and projections. • Articulate on characteristics of population dynamics and determinants, population policies in India
ECO-4006	Economics Of Gender And Development-II	<ul style="list-style-type: none"> • Identify the status of women in the labour market in terms of supply, nature of work, wage differential and determination, productivity, and opportunities. • Certify better insight into the needs for social security and protection for women in labour market and legislation for women. • Articulate on Gender-planning techniques, Governance and Development Policies and women's empowerment in India.
ECO-4007	Welfare Economics	<ul style="list-style-type: none"> • Describes different theories on aggregate welfare and optimum resource allocation. • Familiarize students with consumer surplus, pareto optimality, compensation criteria and the divergence between private and social cost.
ECO-4008	Economics Of Insurance	<ul style="list-style-type: none"> • It describes economic security and different types of insurance. • Students will be familiarized with social vs private insurance, risk management, essential of life and health insurance and insurance and development.

	ECO-4009	Labour Economics	<ul style="list-style-type: none"> • Students will know the nature and characteristic of labour market in developing country. • The existence of poverty and unemployment in the country. • Students are also familiarized with employment policy, wage determination, labour union movement and labour legislation.
	ECO-4010	Mathematical Economics	<ul style="list-style-type: none"> • Solve fundamental problems in both macroeconomics and microeconomics using mathematical tools. • Calculate economic problems through calculus. • Articulate optimization tools to describe feasible choices and to find best solution in the choices available. Estimate the application of mathematical tools growth models.
	ECO-4011	Economics Of Infrastructure	<ul style="list-style-type: none"> • Describes different theories of infrastructure. • Students gets the knowledge of irrigation and energy infrastructure, transport and communication, social infrastructure, the finance and pricing.

Employability/entrepreneurship/skill development Outcome of the Courses

Career opportunities for MA Economics are given below;

- i) Specialized cadre (Economist) in NABARD, RBI, SBI and other banks for MA Economics Students.
- ii) Indian Economic Service (IES).
- iii) Statistical Investigator (NSSO).
- iv) Census Department.
- v) Labour and Employment Department.
- vi) Statistical Officers in State Economics and Statistical Department.
- vii) Industrial Organisations and Associations.
- viii) International Organisation like World Bank, International Labour Organisation, Food and Agriculture Organisation, Asian Development Banks, IMF, etc.
- ix) Government organization like NITI Aayog.
- x) Research and Data Analyst.
- xi) PhD and Academic Career in Economics.

First Semester.

Course No	Title of Course	Course Credit	Weightage for Internal examination (marks)	Weightage for Semester Examination (marks)	Total Marks	Duration of semester end exam. in hours
ECO-101 Compulsory	Quantitative Methods – I	04	30	70	100	3
ECO-102 Compulsory	Micro Economics – I	04	30	70	100	3
ECO-103 Compulsory	Macro Economics – I	04	30	70	100	3
ECO-104 Compulsory	Public Economics	04	30	70	100	3

Second Semester

Course No	Title of Course	Course Credit	Weightage for Internal examination (marks)	Weightage for Semester Examination (marks)	Total Marks	Duration of semester end exam. in hours
ECO-201 Compulsory	Quantitative Methods-II	04	30	70	100	3
ECO-202 Compulsory	Micro Economics-II	04	30	70	100	3
ECO-203 Compulsory	Macro Economics-II	04	30	70	100	3
ECO-204 Compulsory	International Trade and Finance	04	30	70	100	3

Third Semester

Course No	Title of Course	Course Credit	Weightage for Internal Examination (marks)	Weightage for Semester Examination (marks)	Total Marks	Duration of End term exam. in hours
ECO-301 Compulsory	Economics of Growth and Development	04	30	70	100	3
ECO-302 Compulsory	Indian Economic Policy	04	30	70	100	3

ECO-300_	Optional-I	04	30	70	100	3
ECO-300_	Optional - II	04	30	70	100	3

Fourth Semester

Course No	Title of Course	Course Credit	Weightage for Internal Examination (marks)	Weightage for Semester Examination (marks)	Total Marks	Duration of semester end exam. in hours
ECO-401 Compulsory	Economics of Environment and Natural Resource Management	04	30	70	100	3
ECO-402 Compulsory	Research Methodology And Dissertation	04	30	70	100	3
ECO-400_	Optional-I	04	30	70	100	3
ECO-400_	Optional - II	04	30	70	100	3

UNITS AND CREDITS

Course No	Paper	Units	Credits	Lectures per unit	Credits per Units
First Semester					
ECO-101	Quantitative Methods-I	5	4	08	0.8
ECO-102	Micro Economics-I	5	4	08	0.8
ECO-103	Macro Economics-I	5	4	08	0.8
ECO-104	Public Economics	5	4	08	0.8
Second Semester					
ECO-201	Quantitative Methods-II	5	4	08	0.8
ECO-202	Micro Economics-II	5	4	08	0.8
ECO-203	MacroEconomics-II	5	4	08	0.8
ECO-204	International Trade and Finance	5	4	08	0.8
Third Semester					
ECO-301	Economics of Growth and Development	5	4	08	0.8
ECO-302	Indian Economic Policy	5	4	08	0.8
ECO-300_	Optional-I	5	4	08	0.8
ECO-300_	Optional - II	5	4	08	0.8
Fourth Semester					

ECO-401	Economics of Environment and Natural Resource Management	5	4	08	0.8
ECO-402	Research Methodology And Dissertation	5	4	08	0.8
ECO-400_	Optional-I	5	4	08	0.8
ECO-400_	Optional - II	5	4	08	0.8

Structure of question paper for end term examination: (70 Marks; Time; Three Hours)

There will be ten questions, two from each unit. Each question carries 14 marks. Students have to attempt five questions, one question from each unit.

Core Papers and Optional papers:

The department offers 12 core papers and 4 optional papers. Students have to choose 2 optional papers in 3rd semester starting with a code, Eco – 300..... and 2 optional papers in the 4th semester starting with a code, Eco – 400....

For course no ECO-402, Title: Research Methodology and Dissertation:

1. Internal assessment will be for 30 marks, covering unit I and study tour presentation.
2. Dissertation Writing will be for 50 marks and followed by Viva Voce for 20 marks.
3. External examiner will be appointed by the University for Evaluation of dissertation and to conduct Viva voice.

SEMESTER-I
Course Title: Quantitative Methods-I
Course No: ECO-101

Unit I: Sets and Financial Mathematics 08 Lectures
Concepts and solution; Financial Mathematics: Interest rate (simple and compound).
Net Present Value. Internal Rate of Return and Loan Repayment; Introduction
to input-output analysis.

Unit II: Determinant and Matrix 08 Lectures
Determinants and their basic properties; Solution of Simultaneous equations through
Cramer's rule: Concept of Matrix-their types, simple operations on matrices, matrix
inversion and rank of a matrix: Concept of vector-its properties; matrices and Vectors;
concept of quadratic forms- Eigen roots and Eigen vectors.

Unit III: Differentiation and Integration 08 Lectures
Concept of derivatives; Rules of differentiation; Interpretation of revenue, cost, demand,
supply functions; Elasticities and their types; Problems of maxima and minima in single
and multivariable functions. Unconstrained and constrained optimization in simple
economic problems; Simple problems in market equilibrium; Concept of integration;
Simple rules of integration; Application to consumer's surplus and producer's surplus.

Unit IV: Difference and Differential Equation 08 Lectures
Difference equations - Solution of first order and second order difference equations:
Applications in trade cycle models; Growth models and lagged market equilibrium
models. Differential equation and solution.

Unit V: Linear Programming and Game Theory 08 Lectures
Linear programming - Basic concept; Formulation of linear programming problem - Its
structure and variables; Solution of linear programming through graphic and simplex
method. Formulation of the dual of a programme and its interpretation; Shadow prices
and their uses; Concept of duality and statement of duality theorems; Concept of game;
Strategies- Saddle point solution, mixed and value of game.

References

- Mathematics for Economics by Michael Hoy et al, PHI, New Delhi, 2004.
- Quantitative Methods for Business and Economics by Adil H. Mouhammed, PHI, New Delhi, 2003.
- Taro Yamane, Mathematics for Economists, PHI, 1973.
- Quantitative Techniques in Management by N.D. Vohra, TMH.
- Allen R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press, London.
- Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics (3rd Edition), McGraw Hill, New Delhi.
- Croxton, F.E., D.J. Cowden and S. Klein (1973), Applied General Statistics, Prentice Hall, New Delhi.
- Gupta, S.C. and V.K. Kapoor (1983), Fundamentals of Applied Statistics, S. Chand and Sons, New Delhi.

- Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book, London

Subject Title: Micro Economics-I
Course Number: Eco-102
(40 lectures)

- Unit I: Consumer Behaviour.** 08 Lectures
 Preference Ordering: Violation of the premises of the indifference curve analysis.
 Revealed preference theory; derivation of demand and indifference curve.
 Revision of the demand theory by Hicks; weak and strong ordering, consistency test,
 derivation of demand and indifference curve.
 Lancaster Demand Theory (Characteristics of goods approach)
- Unit II: Recent Demand theory:** 08 Lectures
 Von Neumann-Morganstern Theory (Consumer choice involving risks)
 Indirect utility functions (Duality theory).
 Pragmatic approach and constant-elasticity demand function.
 Dynamic Version of the demand function; the distributed lag models of demand.
 Linear expenditure systems.
- Unit III: Production and Cost** 08 Lectures
 Production Function, Isoquants, Elasticity of substitutions between factor,
 Least cost combination of factors (choice of inputs),
 Derivation of cost functions from production functions
 Production function of Multi product firm,
 Homogenous and Linearly Homogeneity Production function,
 Cobb-Douglas production function,
 CES production function,
 Stopler-Samuelson Theorem,
- Unit IV: Oligopoly** 08 Lectures
 Oligopoly: Non-collusive Models (Cournot, Bertrand, Edgeworth, Chamberlin, Sweezy
 and Stackelberg's solution) and Collusive Models -Cartels and mergers, Price leadership
 and Basing point price system
- Unit V: Monopsony** 08 Lectures
 Monopsony and Discriminating Monopsony in Input Markets, Bilateral Monopoly.
 Workable competition-structure, conduct and performance norms

Basic Reading List

- □ Kreps, David M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton.
- □ Koutsoyiannis, A. (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London.
- 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.
- Varian, H. (2000), Microeconomic Analysis, W.W. Norton, New York.

Additional Reading List

- □ 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.
- □ 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.
- □ 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.
- □ Archibald, G.C. (Ed.) (1971), Theory of the Firm, Penguin, Harmondsworth.
- □ Broadway, R.W. and N. Bruce (1984), Welfare Economics, Basil Blackwell, London.
- □ Graff, J. De. V. (1957), Theoretical Welfare Economics, Cambridge University Press, Cambridge.
- □ Quirk, J. and R. Saposnik (1968), Introduction to General Equilibrium Theory and Welfare Economics, McGraw Hill, New York.
- □ Borch, K.H. (1968), The Economics of Uncertainty, Princeton University Press, Princeton.
- □ Diamond and Rothschild (Eds.) (1978), Uncertainty in Economics, Academic Press New York

**Subject Title: Macro Economics-I
Course No: ECO-103**

Unit I: National Income and Accounts

08 Lectures

Circular Flow of income in two, three and four sector economy: Different forms of national income accounting: - social accounting, input-output accounting, flow of funds accounting and balance of payments accounting.

Unit II: Consumption Function

08 Lectures

Keynes' psychological law of consumption -implications of the law: short-run and long-run consumption function; Empirical evidence on consumption function. Income-consumption relationship - absolute income, relative income, life cycle and permanent income hypotheses.

Unit III Investment Function

08 Lectures

Marginal efficiency of investment and level of investment; Marginal efficiency of capital

and investment-long run and short run; The accelerator and investment behavior; Kelacki theory of Investment; Impact of inflation and Influence of policy measures on investment.

Unit IV Demand for Money

08 Lectures

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: Derivation of IS - LM curve.

Unit V Post-Keynesian Demand For Money

08 Lectures

Post-Keynesian Approaches to Demand for Money. Patinkin Real balance Effect, Approaches of Baumol and Tobin; Friedman and the modern quantity theory: Crises in Keynesian economics and the revival of monetarism.

References

- □ Ackley, G. (1978), Macroeconomics: Theory and Policy, Macmillan, New York.
- □ Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 Vols.), Oxford University Press, London.
- □ Branson, W.A. (1989), Macroeconomic Theory and Policy, (3rd Edition), Harper and Row, New York.
- Dornbusch, R. and F. Stanley (1999), Macroeconomics, Irwin McGraw Hill, Inc. New York, 7th Edition.
- Heijdra, B.J. and V.P. Fredericck (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
- 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.

Subject Title: Public Economics

Course No: ECO-104

Unit I: Public Goods

08 Lectures

Public economic policies- allocative, distributive and stabilization; Theory of public goods; Efficiency and externalities; Internalisation of externalities; Theory of second best.

Unit II: Public choice

08 Lectures

An economic theory of democracy; Arrow's impossibility theorem; Demand revealing schemes for public goods-contributions of Clark and Tiebout; Theory of club goods;

Unit III: Public Expenditure and Taxation

08 Lectures

Samuelson, Wagner and Wiseman-Peacock on public expenditure; Cost-Benefit analysis: Program budgeting; Allocative and distributive aspects of a tax; Tax neutrality;

Benefit and ability to pay approach.

Unit IV: Fiscal Policy

08 Lectures

Theory of fiscal policy; Objectives of fiscal policy-full employment, anti-inflation. economic growth, redistribution of income and wealth, stabilisation; Interdependence of fiscal and monetary policies; Fiscal policy with special reference to Underdeveloped countries.

Unit V: Indian Public Finance

08 Lectures

Trends in public. expenditure, and debt; Fiscal federalism in India; Criteria for transfer of resources; Centre -state financial relations; Problems of state's resources and indebtedness; Revenue of union, state and local bodies; Reports of finance commission in India.

References

- Misra, B (1997), Public Economics, Macmillan India Limited, New Delhi.
- Cornes, R and T, Sandler (1986) The Theory of externalities Public Goods and Club goods and Club Goods, Cambridge University Press, Cambridge.
- Cullis, J and P. Jones (1998) Public Finance and Public choice, Oxford University Press, New York.
- Hyman, D.N The Economics of Government Activity.
- Hyman, D.N (1990) Public Finance: A Contemporary Application of theory and practice, Dryden Press, Chicago.
- Davie Bruce F. Duncombe Bruce, F (1972), Public Finance Holt, Rinehart and Winston
- Mukherjee, S., A. Ghose and R.N.Nag, Analytical Public Finance. Public Economics-Public Choice-Public Policies. New Central Book Agency(P) Ltd. Kolkata.
- Om Prakash, Public Economics. Theory and Practice. Vishal Publishing Co.Jalandhar.
- Musgrave R.A and P.B, Musgrave (1976) Public Finance in Theory and Practice Mc Graw Hill.
- Jha .R (1999) Modern Public Economics, Routledge, London.
- Richard A Musgrave and Peggy B. Musgrave Public Finance in Theory and Practice. Mc Graw-Hill Companies

SEMESTER II

Subject Title: Quantitative Methods-II

Course No: ECO-201

UNIT I: Correlation and Regression Analysis

08 Lectures

Correlation Analysis: Meaning, Assumptions, Utility, Correlation and Causation, Properties; Methods of Studying Correlation- Graphic methods and Algebraic methods, Coefficient of determination and probable error; Partial and Multiple correlations.

Regression Analysis: Meaning, Utility, Nature of regression lines, Methods of obtaining Regression Lines; Regression Equations, Regression Coefficients, Properties of Regression Coefficients; Partial and Multiple Regression.

UNIT II: Non-linear equations

08 Lectures

Methods of estimation of non-linear equations, Parabolic Equation, Exponential Series, Geometric and Logarithmic series; Gompertz and Logistic relationships .

UNIT III: Probability and Probability Distributions

08 Lectures

Probability Theory: Classical, relative and subjective probability, Addition and Multiplication Probability models, Conditional probability and Bayes theorem.
Probability Distributions: Binomial distribution: The characteristics and applications
Poisson distribution: The characteristics and applications.
Normal distribution: The characteristics and applications.

UNIT IV: Sampling and Sampling Method

08 Lectures

Sampling and Sampling methods; Sampling and non-sampling errors, Law of large number and central limit theorem, Sampling Distributions and their characteristics.

UNIT V: Statistical Estimation and Hypothesis testing

08 Lectures

Point and Interval estimation of population mean; Standard error of Estimate; proportion and variance, Statistical testing of hypothesis and errors; Large and small sampling tests- Z, t and F tests; Non-parametric Tests: Chi-square test; Sign test, Wilcoxon Signed- rank test, Kruskal-Walis test.

References

- Levin and Rubin (2007). Statistics for Management. PHI publications. 7th edition.
- Monga G. S. (1972), Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi.
- SC Gupta (2011). Fundamentals of Statistics. Himalaya Publishing House. ISBN 978-93-5024-595-8.
- SP Gupta (2008). Statistical Methods. 31st Edition. Sultan Chand and Sons.
- Veerachamy R. (2002), Quantitative Methods for Economists, New Ages international Publishers, Bangalore.

Subject Title: Micro Economics-II**Course No: ECO-202****Unit I: Distribution:**

08 Lectures

Marginal productivity theory, Product Exhaustion Theory: (Euler 's and Clark-Wicksteed-Walras). Macro Theories of Distribution: (Ricardo, Marx, Kalecki, Kaldor and Pasinetti).

Unit II: Managerial Theories of Firm

08 Lectures

Critical evaluation of marginal analysis, Baumols sales revenue maximization model. Williamsons model of managerial discretion, Marris model of managerial enterprises, Cyert and March behavioural model of the firm,

Unit III: Limit Pricing theory

08 Lectures

Hall and Hitch full cost pricing principle, Limit Pricing Principle: Contribution of Bain. Sylos- Labini and Modigliani,

Unit IV: Welfare Economics

08 Lectures

Pigovian welfare economics, Pareto optimal conditions, Value judgment, Samuelsons - Bergsons socialwelfare function, Kaldor and Hicks compensation principle, Theory of second best, Arrow impossibility theorem.

Unit V: General Equilibrium

08 Lectures

Partial and general equilibrium, Problems of existence, stability and uniqueness of equilibrium, Walras excess demand approach, Input-Output approach and Linear Programming approach to general equilibrium.

References

Kerps, David M. (1990), A Course in macroeconomic Theory, Princeton University Press. Princeton.

Koutsoyiannis, A. (1979), Modern Microeconomics, Macmillan press, London.

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, Prentice Hall of India New Delhi.

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

Archibald, G.C. (Ed.), Theory of Firm, Penguin, Harmondsworth

Bain,J. (1958), Barriers to New Competition, Harvard University Press. Harvard.

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

Hansen, B. (1970), A Survey of General Equilibrium System. McGraw Hill, New York.

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

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

Subject Title: Macro Economics-II**Course No: ECO-203****Unit I: Supply of Money**

08 Lectures

Financial Intermediation - a mechanistic model of bank deposit determination; A behavioural model of money supply determination: A demand determined money supply process: RBI approach to money supply; High powered money and money multiplier: Control of money supply.

Unit II: Neo-Classical and Keynesian Synthesis

08 Lectures

Classical and Keynesian views on interest; Extension of IS-LM model with government - tor (Tax and Its Multiplier and Government Expenditure and its Multiplier); Relative effectiveness of monetary and fiscal policies; Extension of IS-LM models with labour market and flexible prices.

Unit III: Macroeconomics in an Open Economy

08 Lectures

Mundell - Fleming model- Asset markets, expectations and exchange rates. Monetary approach to balance of payments.

Unit IV: Theory of Inflation

08 Lectures

Classical, Keynesian and Monetarist approaches to inflation; Structuralist theory of inflation: Phillips curve analysis - Short run and long run Phillips curve; Friedman and Phelps - the natural rate of unemployment hypothesis; Tobin's modified Phillips curve; Adaptive expectations and rational expectations; Policies to control inflation.

Unit V: Business Cycles

08 Lectures

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

References

- Ackely,G. (1978), Macro Economic: Theory and Policy,Macmillan, New York.
Branson,W.A. (1989), Macroeconomic Theory and Policy, (3rd edition) Harper and Row, New York.
Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd. New Delhi.
Shapiro,E (1996) Macroeconomic Analysis Galgodia Publications, New Delhi.
Gupta, S.B.,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.
Reddy, Y.V. (2000), A review of monetary and financial Sector Reforms in India-A central Banker's Perspective. UBSPD. New Delhi.
Levacic, R. and A. Rebman (1986), Macro Economics: An Introduction to Keynesian and Neo- Classical Controversies, Macmillan. London .
Rakshit, M. (1998), Studies in the Macroeconomics of Developing Countries, Oxford University Press. New Delhi.
Hudson,J (1982), Inflation: A Theoretical SURVEY and Synthesis. George Allen and Unwin, London.
Sheffrin, S.M. (1996), Rational Expectations, Cambridge University Press, Cambridge.
Gordon, R.A. (1961), Business Fluctuations, Haper 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.

Subject Title: International Trade and Finance**Course No: ECO-204****Unit I: Theory of international Trade:**

08 Lectures

The pure theory of international trade- Law of Reciprocal Demand; Heckscher-Ohlin theory of trade; Leontief Paradox; Theorem of factor price equalization; The Rybczynski theorem; Concept and policy implications of immiserizing growth.

Unit II: Effects of Trade and Theory of Interventions.

08 Lectures

Concepts of terms of trade; Hypothesis of secular deterioration of terms of trade and policy implications for less developed countries; Measurement of gains from trade and their distribution; Tariffs - Economic effects of tariffs (partial and general), Custom duties- partial and general analysis.

Unit III:: Foreign Exchange Market And Exchange Rate. 08 Lectures

Foreign Exchange Market - Demand for and supply of Foreign exchange; Foreign Exchange markets - Spot and Forwards markets, Premium and discounts, Hedging, Speculation and Interest arbitrage; Determination of Exchange Rates; Mint parity theory, the Purchasing power Parity Theory, Relative merits and demerits of fixed and flexible exchange rates.

Unit IV: Balance of Payments: 08 Lectures

Meaning and components of balance of payments; Equilibrium and disequilibrium in the balance of payments; The process of adjustment under systems of gold standard, fixed and flexible exchange rates; Expenditure- changing and expenditure-switching policies and direct controls adjustment: Policies for achieving internal and external equilibrium simultaneously under alternative exchange rate regimes; Foreign trade multiplier with and without foreign repercussions and determination of national income and output.

Unit V: Emergence of International Monetary System, Institutions and Regional Blocks.

08 Lectures

Rise and fall of Gold standard and Bretton-woods system; International trade and financial institutions-Functions of *GATT/WTO*, IMF, World Bank and Asian development Bank; Emergence of trading blocks at the global level; SAARC/SAFTA and ASEAN regions.

References

- Bhagwati, J (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press Massachusetts.
Kindleberger, c.P.(1973), International Economics, RD. Irwin, Homewood.
King, P.G. (1995), International Economics and International Economic 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, NJ., New York.
Soderston, Bo (1991), International Economics, The Macmillan Press Ltd. London.
Bhagwati, J (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press Massachusetts.
Corden, W.M. (1965), Recent Developments in the Theory of International trade, Princeton University Press, Princeton.
Aggrawal, M.R. (1979), Regional Economic Cooperation in South Asia, S.Chand and Co. . New Delhi.
Brahamananda, P.R. (1982), The IMF Loan and India's Economic Future, Himalaya publishing House, Bombay.
Kindleberger, CP. (1996), A History of Financial Crisis: Manias, Panics and Crashes, (3rd Edition) John Wiley, New York.
Manmohan Singh (1964), India's Export Trends and Prospects for Self-Sustained growth. Oxford University press, New Delhi.
Mundell, R, (1968), International Economics, Macmillan Company ,New York.
Pomfert, R. (1996), International Trade: An Introduction to Theory and policy, Basil Blackwell. Oxford.
Tew,B. (1985), The Evaluation of the International monetary System: 1945-85, Hutchingson.

SEMESTER-III

Subject Title: Economics of Growth and Development

Course No: ECO: 301

UNIT I: Theories of Development 08 Lectures

Contributions of Classical economists to the theory of development; Karl Marx and development of capitalistic economy; Schumpeter and capitalistic development; Structural view of development.

Unit II: Approaches to Development 08 Lectures

Partial theories of growth and development- Circular causation; Big push theory; Balance and

unbalance growth; Technical Dualism; Dependency theory of development.

Unit III: Economic Growth Models

08 Lectures

Harrod and Domar growth model; Neo-classical growth models: Solow, Meade, and Mrs. Joan Robinson; Cambridge criticism of Neo classical analysis of growth.

Unit IV: Technological Change and Growth Models

08 Lectures

Production Function Approach to Economic Growth and Growth Accounting; Golden rule of accumulation; Endogenous growth models (Romer, Lucas, AK model)

Unit V: Social Aspects of Development

08 Lectures

Development and Underdevelopment; Measures of Poverty and inequality; Measuring development. Population as limits to growth and as ultimate source, Population, poverty and environment linkages.

References

Alderman, 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.

Brown, M. (1966), On the Theory and Measurement of Technical Change, Cambridge University Press. Cambridge, Mass.

Dasgupta, P. (1993), An Enquiry into Well-being and Destitution, Clarendon Press, 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, Addison Wesley, New York.

Kahkonen, S. and M. Olso. (2000), A new Institutional Approach to Economic Development, Vistaar.

Kindleberger, c.P. (1977). Economic Development, (3rd Edition), McGraw Hill, New York.

Subject Title: Indian Economic Policy

Course No: ECO-302

UNIT I: Indian Economy

08 Lectures

Basic characteristics of Indian economy; Features of Indian population, rural urban migration: Urbanization; poverty and inequality; unemployment; Infrastructure- development, issues and policies in financing infrastructure.

UNIT II: Agricultural Sector

08 Lectures

Characteristics of Indian agriculture; Agricultural policy; Land utilization and cropping pattern: Land reforms; Agricultural prices and price policy; Agricultural marketing and

warehousing; Issues of food security; Policy of sustainable agriculture; WTO and its impact on Indian agriculture

Unit III: Industrial and Banking Sectors and Indian Public Finance 08 Lectures
Performance of Public and private industries in India; Industrial policies; RBI and Commercial banks-role functions and performance, Reforms of banking sector, Non Banking financial companies in the capital market; Centre-State financial relations; Central Finance- Trends and issues (including central budget), State finances- features and Issues, fiscal policy of India; Finance Commission

UNIT IV: Indian Planning, External sectors and Reforms 08 Lectures

Economic Planning- Strategy. objectives, achievements and problems; Grass-root organizations or development Structure and direction of trade, Balance of payments; external and internal policies and reforms; MNCs and foreign capital in India; WTO and its impact on Indian economy; Issues of governance; Competitions and safety nets in Indian economy.

UNIT V: Economy of North Eastern Region of India 08 Lectures

Natural and Human Resources of NE economy; Structural change and infrastructure Development in NE economy; land tenure systems; Agricultural production, productivity, problems and prospects, shifting cultivation and its effects: Industrial development- problems and potentials

References

- Ahluwalia, U. and LM.D. Little (Eds) (1999), India's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
Bardehan, P.K. (9th Ed) (1999), The Political Economy of Development in India, Oxford University press, New Delhi.
Brahmananda, P.R and Y.R. Panchmukhi (Ed) (2001), Development Experience in the Indian Economy: Inter-State perspectives, Bookwell, Delhi.
Government of India, Economic Survey, (Annual), Ministry of Finance, New Delhi.
Reserve Bank of India, Report on Currency and Finance (Annual)
Sen, R.K. and B. Chatterjee (2001), Indian Economy: Agenda for 21st Century, (Essay in honour of Pr of. Bramanda), Deep&Deep Pub., New Delhi.
Byres, T.J (Ed) (1998), The Indian Economy: Major Debates since Independence. Oxford University Press, New Delhi.
Government of India, Planning Commission (1999), Ninth Five Year Plan, 1997-2002, Vol. I & II. New Delhi.
Kabra. K.N. (1997), Development Planning in India, Sage Publications, New Delhi.

SEMESTER-IV

Subject title: Economics of Environment and Natural Resource Management

Course No: ECO-401

Unit I: Environment Concepts Lectures 8

Concepts of Environment, ecology and eco-system; linkages of Economy and Environment; Externalities and market inefficiency; Property rights, non-convexities and externalities; Pareto optimal provision of public goods-Lindhal's equilibrium; Preference revelation problem and public goods.

Unit II: Measurement of Environmental Values

Lectures 8

Total economic values of environmental goods; Observed market behaviour and Hedonic property values; Household production method and travel cost method; Contingent valuation method.

Unit III: Theories of Environmental Policy

Lectures 8

Pigouvian taxes and subsidies; Marketable pollution permits; Coase's Bargaining solution and collective action; Monitoring and enforcement of environmental regulation. Global environmental externalities and climate change-Tradable pollution permits and carbon tax.

Unit IV: Resource Management and Sustainable Development

Lectures 8

Theories of optimal use of exhaustible and renewable resources; concept of sustainable development and indicators; integrated environment and economic accounting.

Unit V: Environmental Policies and Institutions in India

Lectures 8

Evolution of policy frame work and mechanism for environment regulation in India;Policy instruments for controlling water and air pollution in India;Forestry policies in India; People's participation in the management of common and forest lands: Joint forest management, Social forestry-rationale and benefits.

References

- Baumol, W.J and Otes 1988), The Theory of Environment Policy, (2nd Edition), CambridgeUniversity Press. Cambridge
- Bromely,D.W. (Ed.). (1995), Hand book of Environmental Economics, Black-well, London.
- Fisher, A.C.(1981), Resource and Environmental Economics. Cambridge University Press.Cambridge
- Hanley, N.. IF. Shogern and B. White (1997), Environmental Economics in Theory and Practice, Macmillan .
- Hussen, A.M. (1999), Principles of Environmental Economics. Routledge, London.
- Kolstad, C.D. (1999), Environmental Economics, Oxford University Press, New Delhi.
- Pearce, D.W. and RTumer, (1991), Economics of Natural Resource Use and Environment.Jhon Hopkin university Press, Baltimore .
- Perman, RMaand J McGilvary (1996), Natural Resource and Environmental Economics. Longman, London.
- Tietenberg,T. (1994), Environmental Economics and Policy, Harper Collins, New York.
- Crones, R. and T. Sandler (1989), The Theory of Externalities and Public Goods, CambridgeUniversity Press. Cambridge.
- Bhattacharya N , Environmental Economics, Oxford University Press, New Delhi
- Larsen, B and A. Shaw (1994) Global Tradable Carbon Permits, Participation Incentives, and Transfers, Oxford Economic papers, Vol.46.
- Wballey,J. and RWigle (1997), 'The International Incidence of Carbon Taxes' in Tietenberg, T. Ed.) Economics of Global Warming, 1997, Edward Elgar, U.K.
- Chopra, K, G.K Kadekodi and N.M Murty (1990), Participatory Development: An Approach to the Management of Common Property Resources, Sage, New Delhi .
- Mehata, S.S. Mundle and U. Sankar (1995), Controlling Pollution: Incentives and Regulation, Sage. New Delhi.

ECO -402: RESEARCH METHODOLOGIES AND DISSERTATION**Unit I Research Methodology****(15)**

Meaning and objectives of social science research, Research Design, Formulation of research problems and Literature Review.Types of data, data collection,Data analysis and test of hypothesis.

Study Tour and Presentation	(15)
Dissertation Writing	(50)
Viva Voce	(20)

Suggesting Readings:

- Ahuja, Ram(2009), Research Methods; Rawat Publications, Jaipur.
- Bailey, Kenneth D (1978), Methods of Social Research; the Free Press, New York.
- Bateile, A&T.N.Madan(1975);Encounter and Experience; Personal Accounts of Fieldwork; Vikas Publishing House, New Delhi.
- Huang D.S; Regression and Econometrics Method.
- Goldberger A.S; Topics in Regression Analysis.
- Shymala S, Kaur Navdeep, Arul Pragasam T; A Textbook on Econometrics, Vishal Publishing Co.Jalandhar.

OPTIONAL PAPERS FOR III SEMESTER

Subject Title: INDUSTRIAL ECONOMICS-I
Course No: ECO- 3001

Unit I: Concepts and organizational form.

08 Lectures

Introduction and scope of Industrial economics. Industrial efficiency-concepts and measurement. Organizational form and alternative motives of the firm.

Unit II: Market structure, conduct and concentration. 08 Lectures
Market structures and innovation; Market conduct and market concentration; Diversification, vertical integration and merger.

Unit III: Size of the firm, profitability and Industrial Labour. 08 Lectures
Cost theory and optimum size of the firm; Growth of the firm; Concept and measurement of profitability; Concepts, determinants and measurement of labour productivity.

Unit IV: Pricing, project evaluation and location of industries. 08 Lectures
Pricing decisions; Nature and types of Investment decisions; Methods of project evaluation; social cost- benefit analysis; Determinants and approaches to Industrial location.

Unit V: Industrial Finance and accounting 08 Lectures
Need, types and sources of finance; financial statement-Balance sheet, profit and loss account; Analysis of financial ratios and relationship

Reference

- Bains, I.S. (1996), Industrial Organisation, Cheltenham, UK.
Barthwal, RR (1985), Industrial economics, Wiley Eastern Ltd., New Delhi
Dasgupta, P.S., Marglin and A. Sen (1972), Guideline for Project Evaluation, Unido Publications, New York.
Divine, P.J and RM. Jones et. al. (1976), An Introduction to Industrial Economics, George Allen and Unwin Ltd .. London.
Fog,B. (1959), Industrial Pricing Policies, North Holland, Amsterdam.
Hay,D and D.I. Morris (1979), Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.
Kamien, M. T. and N.L. Schwartz (1982), Market Structure and Innovation, Cambridge University Press, Cambridge.
Koutsoyiannis, A. (1979), Modern Microeconomics, Macmillan, New York.
Narayan, B.N. (1997), Industrial Economics. Anmol Publications Pvt. Ltd., New Delhi.
Paul, R. Ferguson and Glenys, I. Ferguson (1994), Industrial Economics. Issues and perspectives. Second edition. The MacMillan Press Ltd., London.
Singh, A and AN. Sadhu (1988), Industrial Economics, Himalaya Publishing House, Bombay.
Stewart, H.W. (1978), Industrial Economics. An Applied Approach. The MacMillan Press Ltd., London.

Subject Title: FINANCIAL INSTITUTIONS AND MARKETS-I **Course No: ECO-3002**

Unit I: Financial System. 08 Lectures
Structure and Functions of the Financial System, Indicators of the Financial Development: Equilibrium and Financial Markets; Financial system and economic development; Financial intermediation and financial intermediaries. Structure and growth of the Indian Financial

Systems since 1950's.

UNIT II: Security Analysis.

08 Lectures

Criteria to evaluate assets, risk and financial assets. Types of risk, return on assets, risk-return trade off. Valuation of securities.

UNIT III: Structure of Interest Rates.

08 Lectures

Theories of interest rates; Level of Interest Rates: Long and short period rates; Term structure of interest rates, spread between lending and deposit rates; administered interest rates, appropriate interest rate policy.

UNIT IV: International Financial Markets.

08 Lectures

Foreign exchange markets: Nature, organization and participants; Exchange rates: Determinants, types and systems; Working of the floating exchange rate since 1973: Devaluation and depreciation; currency convertibility; Foreign capital flows: Uses and determinants.

UNIT V: International Financial Institution.

08 Lectures

Multilateral financial institutions and their operations. The theory of optimum currency area; Asian Development Bank and India; Euro-dollar and Euro currency markets-Their developmental role and regulation at the international level.

Reference

Bhole,L M,(1999), Financial Institutions and Markets, Tata McGraw Hill Company Ltd, New Delhi.

Bishop. P and D, Dixon, (1992), Foreign Exchange Handbook, McGraw Hill, New York.
Brahmananda. P R, (1982), IMF Loan and India's Economic Future, Himalaya Publishing House, Bombay.

Crocker, A,(1982), International Money: Issues and Analysis, The English Language Book Society, London.

Edminster, R O, (1986), Financial Institutions, Markets and Management, McGraw Hill, New Delhi.

Fisher, G E and R J, Jordon, (1992), Security Analysis' and Portfolio Management, Eastern Economy Edition, New Delhi.

Goldsmith, R W, (1969), Financial structure and Development, Yale, London.

Johnson,H J,(1993), Financial Institutions and Markets, McGraw, New York.

Kindleberger, C P,(1996), A History of Financial Crisis, Manias, Panics and Crashes, John Wiley and Sons, New York.

Mackinnon,R J,(1979), Money in International Exchange, OUP, Oxford.

Subject Title: ECONOMETRICS I

Course No: ECO - 3003

Unit I: Basic Econometrics.

08 Lectures

Nature, Meaning and scope of Econometric; Simple and general linear model - Assumptions, Estimation (through OLS approach) and properties of estimators. Gauss-Markov theorem.

Concepts and derivation of R^2 adjusted R^2 , concept and analysis of Variance approach and its application in regression analysis; Estimation of non-linear equations - parabolic, exponential, geometric, hyperbolic, modified exponential, Gompertz and logistic functions.

Unit II: Problems in Regression Analysis.

08 Lectures

Nature, test, consequences and remedial steps of problems of heteroscedasticity; Multi-collinearity: Problems with Measuring Multi-collinearity, Solution to the Multi-collinearity Problem; Principal component Regression; Dropping of Variables.

Unit III: Auto-Correlation.

08 Lectures

Auto-correlation. Durbin-Watson Test, Estimation in Levels versus First Differences, Estimation Procedures with Autocorrelated Errors, Effects of AR (1) Errors on OLS Estimates, Test of Serial Correlation in Models with Lagged Dependent Variables, Strategies when the DW Test statistic is Significant, and Trends and Random Walks.

Unit IV: Regressions with Qualitative Independent Variables.

08 Lectures

Dummy variable technique - testing structural stability of regression models comparing to regression, interaction effect, seasonal analysis, piecewise linear regression, use of dummy variables, regression with dummy dependent variables. The LPM, Logit, Probit and Tobit models - Applications.

Unit V: Dynamic Econometric model.

08 Lectures

Autoregressive and Distributed lag models - Koyak model, partial adjustment model, adaptive expectation. Problems of auto-correlation - Application. Almon approach to distributed-Lag models. Error correlation mechanism, Causality test, Granger test and Sims's test.

Reference:

- Amemiya, T (1985), Advanced Econometrics, Harvard University Press, Cambridge, Mass
- Dougherty, C, (1992), Introduction to Econometrics, Oxford University Press, New York.
- Gujarati, D.N. (1995), Basic Econometrics (2nd Edition), McGraw Hill, New Delhi.
- Intriligator. M.D. (1978), Econometric Model, Techniques and Applications, Wiley, New York.
- J. Johnston (1998), Econometric Method, Wiley, New York.
- kennedy, P. (1998), A Guide to Econometrics (4th Edition), MIT Press, New York.
- Kmenta, J. (1997), Elements of Econometrics (Reprint Edition), University of Michigan Press Ltd .. New York.
- Koutsoyiannis, A. (1977), Theory of Econometrics (2nd Edition), Macmillan Press Ltd., London.
- Maddala. G.S (Ed) (1993), Econometrics Methods and Application (2 Vol.), Aldershot, U.K.
- Theil. H. (1981), Introduction to Econometrics, Prentice Hall of India, New Delhi.

Subject Title: AGRICULTURAL ECONOMICS-I

Course No: ECO-3004

Unit I: Agriculture and Economic Development

08 Lectures

Nature 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.

Unit II: Diversification of Rural Economic activities

08 Lectures

Livestock economics-Livestock resources and their productivity; Problems of marketing: white revolution: Fishery and poultry development; Forestry, horticulture and floriculture; Issues and problems in rural industrialization and development of agro-based industries.

Unit III: Economics of Rural Infrastructure

08 Lectures

Use of land, water and energy; Rural transport, communication, banking, extension services, role. Modes and problems of rural electrification; Rural social infrastructure-education and health and information dissemination.

Unit IV: Agricultural production and productivity

08 Lectures

Agricultural Production-Resource use and efficiency; Production function and analyses in Agriculture; Factor combination and resource substitution; cost and supply curve; Size of farm and laws of returns-theoretical and empirical findings; Farm budgeting and cost concepts: Supply response of individual crops and aggregate supply; Resource use efficiency in traditional agriculture: technical change, labour absorption and gender issues in agricultural services.

Unit V: Land Reforms and Land Policy

08 Lectures

Principles of Land utilization; Land distribution-Structure and trends; land values and rent: land tenures and farming systems-Peasant, capitalist, collective and state farming, Tenancy and crop sharing-Forms, incidence and effects; land reform measures and performances and performance; Problems of marginal and Small farmers.

Reference

Appu, P.S. (1996), Land Reforms in India, Vikas. New Delhi.

Bardhan, P. (1984). Land, Labour and Rural poverty, Oxford University Press, New Delhi.

Bhaduri, A. (1984), The Economic Structure of Backward Agriculture, Macmillan, New Delhi.

Bhardwaj, K. (1974), Production Conditions in Indian Agriculture, Cambridge University press, Cambridge.

Bilgri, S.AK (1996), Agricultural Economic, Himalaya Publishing House, Delhi.

Brahmananda, P.R. and Y.R. Panchumukhi, (Eds.) (1987), The Development Process of the Indian economy, Himalaya Publishing house, Bombay.

Brahmananda, P.R., B.K. Narayan and A. Kalappa (Ed), (1987), Dimensions of Rural Development in India, Himalaya Publishing House, Bombay.

Subject Title: DEMOGRAPHY-I
Course No: ECO-3005

Unit I: Demography

08 Lectures

Meaning and scope of demography; Components of population growth and their inter-dependence; Measure of population change; Structure, distribution and sources of population data.

Unit II: Theories of Population

08 Lectures

Theories of Population-Malthus, optimum theory of population; Theories of demographic transition- views of Medows, Enke and Simon; Population and development.

Unit III: Structure of Population

08 Lectures

Population trends in the twentieth century; Population explosion-threatened or real. distant or imminent; International aspects of population growth and distribution; Pattern of age and sex structure in developed and less developed countries; Determinants of age and sex structure: Demographic effects of sex and age structure, economic and social implications.

Unit IV: Fertility and Nuptiality

08 Lectures

Importance of study of fertility-total fertility rate, gross and net reproduction rate: Levels and trends of fertility in more and less developed countries; Factors affecting fertility-socio-economic factors (economic status, health, education, nutrition, caste, religion, race, region, rural-urban and status of husband and wife); Nuptiality-concept and analysis of marital status, single mean age at marriage, synthetic cohorts methods; Trends in age at marriage

Unit V: Mortality

08 Lectures

Mortality-death rates, crude and age-specific rates, Mortality at birth and infant mortality rate-Levels and trends in more and less developed countries; Sex and age pattern of mortality; Factors for decline in mortality in recent past.

Reference

Agarwala, S.N, India's population problem, Tata McGraw Hill Co, Mumbai.

Bogue DJ, (1971) Principles of demography, John Wiley. New York.

Bose A, India's basic demographic statistics, B.R Publishing Corporation, New Delhi.

Chenery, H and T.N Srinivasan (eds) (1989), Handbook of development economics, Vol I&II, Elsevier, Amsterdam.

Chiang, C.L (1974) Life Tables and Mortality Analysis, WHO, Geneva

Choubey, P.K, (2000), Population policy in India, Kanishka Publication, New Delhi.

Simon, J.L, (1992), Population and Development in poor countries, Princeton University Press.

Srinivasan, K and A Shariff, (1998), India: Towards population and demographic goals, Oxford University Press.

Srinivasan, K, (1998), Basic Demographic Techniques and Applications, Sage, New Delhi.

Subject Title: ECONOMICS OF GENDER AND DEVELOPMENT-I
Course NO: ECO-3006

Unit I: Introduction to Gender studies.

08 Lectures

Importance and concept of women studies; Women in patriarchal and matriarchal societies and structure; Patrilineal and matrilineal systems-its relevance to present day societies in India: Economic basis and functioning of patriarchy in developed and LDC's particularly India: Gender basis in the theories of value, distribution and population.

Unit II: Demographic Aspects.

08 Lectures

Demography of female population-age structure, mortality rates and ratio; causes of declining sex ratios and fertility rates in LDC's particularly India; Theories and measurement of fertility and its control; Women and their access to nutrition, health, education and social and community resources and their impact on female mortality and fertility ,economic status and in work participation rate.

Unit III: Women in Decision Making.

08 Lectures

Factors affecting decision making by women; property rights, access to and control over resources, assets; Power of decision making at household, class, community level; Economic status of women and its effect on work participation rate, income level, health and nutrition in developing countries and India; Role of kinship in allocating domestic and social resources.

Unit IV: Conceptualisation of Women's work.

08 Lectures

Concept and analysis of women's work; Valuation of women's work-visible and invisible work. paid and unpaid work, economically productive and socially productive work; Economic status, private property, and participation-women contribution to national income.

Unit V: Women, Technology and Environment.

08 Lectures

Impact of technological development and modernization on women's work participation in various sectors; Female activities and ecological-environment concerns: the two ways relationship; role of new technologies for helping women.

Reference

Agarwal, B, (1994), A Fields of one's own: Gender and Land rights in South Asia, Cambridge University Press, Cambridge.

Agnihotri, SB, (2000), Sex ratio in India Population: A fresh exploration, Sage Publication, New

Seth,M, (2000), Women and Development: The Indian experience. Sage Publication, New Delhi.

Srinivasan, K, (1998), Basic Demographic techniques and Application, Sage Publication, New Delhi.

Venkateswaran,S,(1995), Environment. Development and the Gender Gap. Sage Publication.New Delhi.

Young, K, et al, (eds), (1987), Serving *two* masters, Routledge and Kegan Paul, London.

Subject Title: COMPUTER APPLICATION IN ECONOMIC ANALYSIS

Course No: 3007

Unit I: Introduction to Computer and Peripherals.

08 Lectures

Computer components-CPU, input-output devices, key board, mouse and scanner, video display. printers and plotters, data storage and retrieval, hard disk, floppy disk and CD ROM; Types of computer and their applications; computer networking and resource sharing, hardware, software, examples and techniques in programming languages -basics, visual, C, C++ and java.

Unit II: Data processing, Techniques and Algorithms.

08 Lectures

Concept of data, record and files; types of data and data structures, data analysis, file handling and operations like opening, appending and cascading, closing and attribute control: data operations; Algorithms like sorting, merging, joining and bifurcation; data base concepts and operations on data base; DBMS and RDBMS.

Unit III: Statistical Processing Techniques and Methods.

08 Lectures

Series, group, tables, graph and objects; time and frequency series; regression methods and techniques: regression analysis; data validation; trends and cyclical forecasting; system modelling and description; system equation; specification; error and correction strategies; statistical modelling and descriptive statistics; distribution functions; regression statistics.

Unit IV: Application to Finance.

08 Lectures

Online banking; ATM's, electronic stock exchange; electronic trading; data sharing and decimation; 'electronic transaction; document delivery: authentication and validation transaction processing.

Unit V: Application to Commerce.

08 Lectures

Electronic trading and marketing; on line shopping and malls; B2B, B2C, C2B, and G2B models and their applications; document and transaction security and digital signature: integrated transaction on mobile platform.

Reference

Intrilligator, M D, (1978), Econometrics models , techniques and application, Prentice Hall. Englewood Cliffs, NJ

Levin, R I and C A Kirkpatrick, (1975) Quantitative approaches to management, (3rd ed), McGraw hill.

Lipschultz, M M and S, Lipschultz, (1982), Theory and problems of data processing, Schums outline series, McGraw Hill, New York.

Mirsky, L. (1955), Introduction to linear algebra, Oxford University Press.

Rajaraman, V, (1996), Fundamentals of computers, Prentice Hall of India, New Delhi.

Rajasekaran, S, (1986), Numerical Methods in Science and Engineering, A. H, Wheeler. Allahabad.

Sanders, D H, (1988), Computers today,

Sinha, P K, (1992), Computer fundamentals. BPB Publication, New Delhi.

Wood. M8, (1983), Introducing computer security, Broadman Associates, Delhi.

Subject Title: ECONOMICS AND LAW
Course No: 3008

Unit I: Introduction to Law and Legal Institutions.

08 Lectures

Economic analysis of law; Introduction to legal reasoning; nature of economic reasoning; Economic approaches to law-history and criticism; The civil law and the common law traditions; the institutions of the federal and state courts systems; the nature of legal dispute; evolution of legal rules.

Unit II: Law relating to Consumer Activities.

08 Lectures

Bargain theory; economic theory and role of contract; remedies as incentives; formation, defences and performance excuses; bargaining power and unconscious ability; defining tort law; economics of tort liability and economic models; economics of accidents, fault, victims: fault and strict liability; functions of damages; consumer protection; consumer courts.

Unit III: Law of Business Organisation.

08 Lectures

Structure of firm-kinds, corporations, corporate vest, capital, shares debentures; insiders trading, antitrust, RBI, LRDA, MRPT; role of SEBI; economics of mergers, amalgamations and takeovers: International aspects-GATT, WTO, TRIPS and TRIMS; export and import policy; custom duties; MNC's and direct foreign investment; FEMA

Unit IV: Economic Theory of Crime and Punishment.

08 Lectures

The traditional theory of criminal law; economic theory of crime and punishment; efficient punishment; efficiency of capital sentence; drugs and crime; plea bargaining: reforms of criminal procedure and futility thesis; law relating to economic offences; corruption and human rights.

Unit V: Macro Economics and Law.

08 Lectures

Law and distribution of income and wealth: inequality; Contract theory of distributive justice; economic and social cost of poverty; wealth distribution by liability rules; taxation and efficiency: personal and corporate taxation; progressive principle; economics of federalism; freedom of inter state trade and commerce; national and international environmental problems and international environmental agreements- their legal and economic implications; economic of social order.

Reference

Apte, PG (1998), International financial management, (2nd ed), Tata McGraw hill Publishing Co Ltd. New Delhi.

Bouckaert, B and G, De Geest (ed),(1999), Encyclopedia of law and economics,(Vol I to V), Edward Elgar Publishing ltd, UK.

Swanson, T M and S John ston , (1999), Global environmental problems and international environmental agreements, Edward Elgar Publishing Co, UK

Watal, J, (2001), Intellectual property rights in the WTO and developing countries, OUP, New Delhi.

Zerbe, R O, (2000), Economic efficiency in law and economics, Edward Elgar Publishing company. UK

Subject Title: HISTORY OF MODERN ECONOMIC THOUGHTS
Course No: 3010

Unit I: Theories of Value, General equilibrium and Welfare. 08 Lectures
Samuelson.Paul.A; Hicks,John,RArrow,Kenneth,J;Debreu,G G:Coase. Ronald.

Unit II: Macro Economics, Monetary Economics and Financial Economics. 08 Lectures
Friedman. Milton: Tobin. James; Modigliani, Franco; Markowitz, Harry, M; Sharpe, William, F.

Unit III: Economic Development and Growth and International Trade. 08 Lectures
Economic Development and Growth: Kuznets, Simmons; Lewis,Sir W Arthur;
Solow,Robert,M. International Trade:Ohlin, Bertil; Mundell, Robert.A.

Unit IV: Input-Output Analysis, Programming, Social Accounting, Economic and Social System. 08 Lectures
Leontief, Wassily, W;Kantorovich, Leonid.Koopmans, C: Hayek, Fredreich; Myrdal, Gunnar.

Unit V: Others. 08 Lectures
Industrial Economics-Stingler.George J; Theory of Public Choice-Buchanan, James,M:Rational expectation approach to macro economics-Lucas, Robert, J; Asymmetric information and tax theory-Mirrlees, James; Applied welfare economics-Sen, Amartya, K.

Reference

- Arrow, K J, (1983), collected papers of Kenneth J Arrow, Vol I &11, MIT Press Cambridge.
- Buchanan, J.M, (1986), the Constitution of Economic Policy, Nobel Lecture.
- Findlay, R, (1980), on W. Arthur Lewiss contribution to Economics. Scandinavian Journal of Economics, Vol 82.
- Friedman,M,(1969), The Optimum Quantity of Money and Other Essays, Aldine Publishers. Chicago.
- Frisch, R, (1933), Propagation Problem and Impulse Problems in Dynamic Economics, Longman. London.
- Kuznets, S. (1965), Economic Growth and Structure: Selected Essays, W .W, Norton, New York.
- Leontief, W.W, (1966), Input-Output Economics, Oxford, New York.
- Lewis, W.A, (1955), The Theory of Economic Growth, Macmillan, London.
- Lucas, RJ, (1990), Supply- Side Economics: An Analytical Review, Oxford, New York.
- Miller, M.H, (1991), Financial Innovations and Market Volatility. Oxford. New York.
- Myrdal G, (1957), Economic Theory and Under Developed Regions, Duckworth, London.
- Myrdal, G,(1968), Asian Drama: An Enquiry into the Poverty of Nations, Modem Library, New York.
- Samuelson, P A, (194 7), Foundations of economic analysis. Harvard University Press,

OPTIONAL PAPERS FOR IV SEMESTER

ECO-4001 INDUSTRIAL ECONOMICS-II

Unit I: Industrialisation.

08 Lectures

Industrialisation-rational. objectives, strategies and policies; Industrialisation In India; Rural industrialisation-issues and problems; Industrial process during plan periods.

Unit II: Large and small scale Industries.

08 Lectures

Large and small scale industries-role, performance and problems; Institutional finance-role, nature, volume and types; IDB, IFCI, SFCs, SIDC, Commercial banks etc.

Unit III: Industrial policies and Industrial labour.

08 Lectures

Indian industrial policies-issues and evaluation; Industrial licensing policy; MRTP Act. Structure of Industrial labour; Industrial relations: Labour market reforms.

Unit IV: Private and public industries.

08 Lectures

Growth, role and performance of public sectors; pricing in public industries; Regional industrial growth in India; Importance and challenges for industries in changing scene of Indian economy.

Unit V: Relevant issues regarding Indian Industries.

08 Lectures

Industrial economic concentration and remedial measures; MNCs and transfer of technology; Liberalisation and privatisation; Pollution control policies.

References

Desai.B. (1994) Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House. Mumbai.

Mamoria and Mamoria (2000), Dynamics of Industrial Relations in India (15th Edition), Himalaya Publishing House, Mumbai.

Government of India. economic Survey (Annual).

Reserve Bank of India, Report on currency and Finance (Annual)

EC0-4002 FINANCIAL INSTITUTIONS AND MARKETS-II

UNIT I: Regulatory and Promotional Institutions

08 Lectures

Functions and role of Central Bank in developed and developing countries; Goals, targets and constraints of monetary policy; Instruments of monetary regulations; Trade-off in using different instruments of monetary regulations. SEBI: Organization, objectives and-functions; Its impact on the working of capital market in India

Unit II: Banking Institutions

08 Lectures

Functions and role of Commercial Banks; Bank Nationalisation: Rationale and review, justification of nationalisation; Concept of credit creation; Resource base and portfolio management of Commercial Bank; Co-operative Banks and their structure.

UNIT III: Non- Bank Financial Institutions

08 Lectures

Definition and Types of NBFIs: Role and Functions; its impact on monetary policy and measures taken to control their operations. Distinction between NBFIs and Commercial Banks. Development Banks: role and functions

UNIT IV: Financial Markets.

08 Lectures

Role and Structure of Money and Capital Markets. Markets for Derivatives: Meaning, types and uses (Futures, options, swaps and warrants): Valuation of derivatives.

UNIT V: Issues and Evidence.

08 Lectures

Defects of Indian Banking system. Suggestions to improve working. RBI Credit to Government and deficit financing: Role of domestic monetary policies in the context of global economic and financial integration. Recent financial sector Reforms-review of the Chakravarty and Narashimam Committee report.

Reference

- Bhole.LM,(2000),Indian Financial System, Chugh Publication, Allahabad
Chamberlin, G, (1981), Trading in Options, Woodhead-Faulker, Cambridge.
Chandler, L V and S M Goldfeld, (1977), The Economics of Money and Banking, Harper and Row, New York.
Chandra. P, (1997), Financial Markets. (4th Ed),Tata McGraw Hill, New Delhi.
Farrell, J L, (1997), Portfolio Management (2nd Ed), McGraw Hill, New York.
Goss, B A and B S Yamey, (1978), The Economics of Futures Trading, Macmillan, London.
Gupta, L C, (ed), (1999), India's Financial Markets and Institutions, Society for Capital Research and Development, Delhi.
Gupta, S B, (1983), Monetary Economics, S.Chand&Company, New Delhi.
Hanson, J A and S, Kathuria, (eds),(1999), India: A Financial Sector [or the Twenty-First Century, OUP, New Delhi.
Robinson, R I, and D, Wright man, (1981), Financial Markets, McGraw Hill,

London.

Weller, P, (1992), The Theory of Future Markets. Blackwell, Oxford.

ECO - 4003 ECONOMETRICS II

Unit I: Simultaneous Equation Models.

08 Lectures

The simultaneous equation bias and inconsistency of OLS estimators. The Identification Problem - Rules of Identification (order and rank conditions). Methods of estimating simultaneous equation system. Recursive methods and OLS. ILS, 2SLS, 3SLS and ML methods - Application.

Unit II: Time Series Analysis.

08 Lectures

Stationary, unit roots, co-integration-spurious regression, Dicky-Fuller test, Engle-Granger test. Random walk model, Forecasting with ARMA (Autoregressive Moving Average) modelling. Box- Jenkins Methodology. Vector Auto regression. Problems with VAR modelling - Applications. Time Varying parameters and Kalman Filter.

Unit III: Panel Data Techniques.

08 Lectures

Fixed Effects Model. Random Effects Model. Fixed versus Random Effects - Hausman Test and Breusch and Pagan Test. Random Coefficient Model.

Unit IV: Small Sample Inference and Large Sample Theory.

08 Lectures

Monte Carlos Methods. Jackknife and Bootstrap Sampling Methods. The ML Method. Methods of Solving The Likelihood Equations. The Cramer - Rao Lower Bound.

Unit V: Multivariate analysis.

08 Lectures

Multivariate probability distribution. Marginal and Conditional probability distribution. Multivariate normal distribution and its properties. Hotelling T -scale. Discriminant Analysis.

Reference:

Baltagi, B.H. (1998), Econometrics, Springer, New York.

Goldberger, AS (1998), introduction to Econometrics, Harvard University Press, Cambridge. Mass.

Hill RC., E.G William and G.G. Judge (1997), Undergraduate Econometrics, Wiley, New York.

Intriligator. M.D. (1978), Econometric Model, Techniques and Applications, Wiley, New York.

J. Johnston (1998), Econometric Method, Wiley, New York.

Kmenta, J. (1997), Elements of Econometrics (Reprint Edition). University of Michigan Press Ltd. , New York.

Theil. H. (1981), introduction to Econometrics, Prentice Hall of India, New Delhi.

ECO-4004: AGRICULTURAL ECONOMICS-II

Unit I: Rural Labour Market

08 Lectures

Rural labour supply; Mobility of labour and segmentation in labour markets; marginalization of rural labour: nature, extent and trends in rural unemployment; Agricultural wages in India: Male-female wages differences; non-agricultural rural employment-trends and determinations.

Unit II: Rural Finance

08 Lectures

Role of capital and rural credit; Organized and unorganized capital market; Rural savings and capital formation; Characteristics and sources of rural credit---cooperatives, commercial banks. Regional Rural banks. Role of NABARD. Cooperative movement-growth of cooperative sector; Agricultural cooperation in India; Problems and prospects of cooperative institutions.

Unit-III: Agricultural Price and Marketing

08 Lectures

Behaviour of agricultural prices-Cobweb model; price and income stability; State policy with respect to agricultural marketing; warehousing; prices; Taxation and crop insurance; Terms of trade between agricultural and non-agricultural prices; Need for state intervention; Objectives of agricultural price policy-instruments and evaluation; Food security in India and public distribution system. Marketing and state policy; Agricultural markets and marketing efficiency-Marketing functions and costs; Market structure and imperfections; Regulated markets; marketed and marketable surplus.

Unit IV: Agricultural Growth in India

08 Lectures

Recent trends in agricultural growth in India; Inter-regional variation in growth of output and productivity; cropping pattern shifts; Supply inputs-Irrigation, power, seeds and fertilizers: Pricing of inputs and role of subsidies; Distribution of gains from technological change; Role of Public investment and capital formation in Indian agriculture; Strategy of agricultural development and technological progress; Sustainable agriculture-indigenous practices; biotechnological practices and growth potential.

Unit V: Agriculture and External Sector

08 Lectures

International trade in agricultural commodities; Commodity agreement-Role of World Trade organization; Issues of liberalization of domestic and international trade in agriculture-nature and features of agri-business; Role of MNCs; globalization of Indian economy and problems and prospects of Indian agriculture; impact of WTO on Indian agriculture.

Reference

Bhaduri, A. 1984), The Economic Structure of Backward Agriculture, Macmillan. New Delhi.

Dhawan. B.D (1988). Irrigations in India's Agricultural Development, Sage Pub. New Delhi.

Gulati, A and T. Kelly (1999), Trade liberalization and Indian Agriculture, Oxford University

Press, New Delhi.

Johar, N. (Ed) (1996), Challenges to Indian Banking, Macmillan. New Delhi.

Joshi. P.C (1975), Land Reforms in India: trends and prospects, Allied publishers, Bombay.

Kahlon, AS. and Tyagi D.S (1983), Agricultural Price policy In India. Allied Publishers, New Delhi.

EC04005: DEMOGRAPHY-II

Unit I: Migration and Urbanization

08 Lectures

Concept and types-temporal, internal and international migration-its effect on population growth and pattern; Factors affecting migration; Theories of migration related to internal migration; Urbanisation-growth and distribution of rural-urban population in developed and developing countries.

Unit II: Census

08 Lectures

Study of census in India-Methodology and characteristics of census; Nature of information collected in census; National Family Health Survey 1 and 2 and Rapid Household Survey.

Unit III: Life table and Population Projection

08 Lectures

Life table-construction and uses; Concept of stable population; Methods of population projection.

Unit IV: Population and Development in India.

08 Lectures

Changing characteristics of population in India, Population economy and environment linkages-population, health, nutrition, productivity nexus; Population and human development issues; Culture and fertility; Demography and household economic behaviour.

Unit V: Population Policy in India.

08 Lectures

Evolution of population policy-The shift in policy from population control to family welfare to empowerment; Family planning strategies and their outcomes; Reproductive health, maternal nutrition and child health policies; Population and strategies for human development of different social groups; Social impact of new reproductive technologies and their regulation; The new population policy; Task before the national population commission.

Reference

Agarwala,S.N,India's population problem, Tata McGraw Hill Co, Mumbai.

Agnihotri S.B (2000) Sex Ratio in Indian population: A fresh Exploration, Sage Pub. New Delhi

Ahmed, I (ED) (1985) Technology and Rural Women: Conceptual and Empirical Issues, George Allen & Unwin, London.

Amsden, A.H(ED.1980) The Economics of Women and Work, Penguin, Harmondsworth, Bogue D.J, Principles of demography, John Wiley, New York.

Bose A, India's basic demographic statistics, B.R Publishing Corporation, New Delhi.

Boserup,E, (1970), Women's role in Economic Development, George Allen and Unwin, London.

Chenery,H and T.N Srinivasan (eds) (1989), Handbook of development economics, Vol I & II,

Elsevier,Amsterdam.

ECO-4006: ECONOMICS OF GENDER AND DEVELOPMENT -II

Unit I: Women and Labour Market.

08 Lectures

Factors affecting female entry in labour markets; supply and demand for female labour in developed and developing countries, particularly in India, studies of female work participation in agriculture, non-agriculture rural activities, informal sector, cottage and small scale industries, organized industries and services sector; wage differential in female activities; determination of wage differential, gender education, skill, productivity, efficiency, opportunity.

Unit II: Social Security.

08 Lectures

Social Security for women: entitlements, ensuring economic independence and risk coverage, access to credit and insurance markets; role of voluntary organizations, self help groups in providing social security; labour biases and gender discrimination; effectiveness of collective bargaining.

Unit III: Social Protection for Women.

08 Lectures

Review of legislation for women entitlements, protection of property rights. social security schemes for safety net for women; need for female labour union; affirmative action for women and improvement in their economic and social status.

Unit IV: Gender Planning.

08 Lectures

Gender and development indices; mainstreaming gender into development policies: Gender-planning techniques.

Unit V: Governance and Development Policies.

08 Lectures

Gender sensitive governance; paradigm shifts from women's well being to women empowerment; Democratic decentralization (Panchayats) and women's empowerment in India.

Reference

- Baud, ISA, (1992), Forms of Production and Women Labour: Gender Aspects of Industrialisation in India and Mexico. Sage Publication, New Delhi.
- Buvinic M and MA Lycette.(1989). Women, poverty and development in the third world: in Lewis JP (ed) Strengthening the poor: What have we learnt, OECD.
- Custers,P,(1997), Capital accumulation and women labour in Asian Economics, Vistaar, New Delhi.
- Dantwala, ML,H Seth, and P, Visaria,(1998), Social change through voluntary action, Sage Publication. New Delhi.
- Jhabwala, Rand RK Subramanya,(2000), (eds), The unorganized sector: Work security and

social protection, Sage Publication, New Delhi.

Kaipagam,U,(1994), Labour and Gender: Survival in Urban India, Sage Publication, New Delhi.

EC0-4007: WELFARE ECONOMICS

Unit I: Pre-Paretian Welfare Economics.

08 Lectures

Benthamite approach to aggregate welfare; Optimum resource allocation and welfare maximization: Assumption of uniform income-utility function of individuals; Income distribution; Issues of interpersonal comparison of utility.

Unit II: Consumer Surplus Pre-Paretian Welfare Economics.

08 Lectures

Marshallian welfare economics; Consumer surplus; Measurement of consumer surpluses: Principle of compensation variation: Hicks four consumer surpluses; Consumer surplus and tax bounty analysis.

Unit III: Paretian Welfare Economics.

08 Lectures

Pareto optimality conditions; concept of contract curve; Top level optimum: Infinite number of non-comparable optima versus unique social optimum.

Unit IV: Compensation Criteria.

08 Lectures

Contribution of Barone, Kaldor and Hicks, Scitovsky double criterion; concept of community indifference curve: Samuelsons utility possibility curve; Value judgment and welfare economics: Bergsons social welfare function, Arrow impossibility theorem.

Unit V: Later Development.

08 Lectures

Divergence between private and social costs; Problems of non-market interdependence: Externalities of production and consumption; External economics and diseconomics; Problem of Public goods, Pigovian welfare economics; Second best optima; Cost-benefit analysis; Dynamic welfare economics.

Reference

Arrow K J (1951), Social choice and Individual Values, Yale University Press, New Haven.

Baumol, W J, (1965), Welfare Economics and the theory of the State, (2nd " ed), Longmans. London.

Baumol. W J, (ed), (200 I), Welfare Economics, Edward Elgar Publishing Ltd, U.K.

Broadway, R Wand N Bruce, (1984), Welfare Economics, Basil Blackwcll, Oxford.

Duesenberry, J S, (1949), Income, Saving and the Theory of Consumer behaviour, Harvard University Press, Cambridge, Mass.

Feldman, A M, (1980), Welfare Economics and Social Choice Theory, MartinusNijhofI, Boston.

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Cambridge. Mass.

Hicks, J R, (1956), A Revision of demand theory, Clarendon Press, Oxford.

Little. I M D, (1939), A Critique of Welfare Economics, Cambridge University Press. Cambridge, Mass.

Marshall, A, (1946), Principles of Economics, Macmillan, London.

Myint, H, (1948), Theories of Welfare Economics, Longmans, London.

ECO-4008: ECONOMICS OF INSURANCE

Unit I: Introduction.

08 Lectures

Economic security; Human quest for security through time; Exposure to losses: Role of insurance, definition of insurance; Risk of pooling and risk transfer; Economic and legal perspectives; Social versus Private insurance; Life versus non-life insurance; Classification of life, health, general insurance policies.

Unit II: Risk and Risk Management.

08 Lectures

Fundamentals of uncertainty and risk; Pure and Speculative risk: Expected utility and decision making under uncertainty; Expected utility and the demand for insurance; Concept of risk management; Essentials of risk management; Elements of risk management: risk assessment, control and financing; Concept and fundamentals of Reinsurance: Reinsurance markets in developing countries

Unit III: Insurance and Economic Development.

08 Lectures

Risk management and insurance in economic development; Insurance institutions as financial intermediaries and as investment institutions; Insurance institutions in Indian capital market; Regulations governing investment of insurance institutions in India; IRDA rules in this regard.

Unit IV: Essentials of Life and Health Insurance

08 Lectures

Fundamentals and functions of life and health insurance: Mathematical basis of life insurance; Plans of life insurance; Legal aspects of life insurance; Provisions of policies: Selection and classification of risk; Basics of premium construction; Individual life insurance: uses, types of evaluation: Principle of underwriting of life and health insurance; Group insurance and superannuation (pension) schemes; Set-up and management of insurance companies.

Unit V: Essential of General Insurance.

08 Lectures

Definition, types and importance; its role in a country's economic development; Fundamentals of: common law, equity, proposal/accidence, indemnity, insurable interest, contribution subrogation, representation; utmost good faith, material fact, physical hazard, moral hazard: policy endorsements conditions/ warranties; Concept of short term risk; selection and inspection of risks; Rating and calculation of premiums; Tariffs and non tariffs; Marketing of general insurance; Technology development and general insurance.

Reference

Benjamin, B, (1991), General Insurance, Heinemann, London.

Bialek, R. (ed), (1999), Underwriting in life and insurance, LOMA, Atlanta, Ga
Black, KJr and H D Skipper Jr, (2000), Life and Health Insurance, Prentice Hall, Upper Saddle River, New Jersey.
Dionne, G, and S E Harrington (eds), (1997), Foundations of Insurance Economics. Kluwer Academic Publishers, Boston.
Drofman, M S, (1994), Risk and Insurance, Prentice Hall, Englewood-cliff
Insurance Regulation and Development Authority (2001), IRDA Regulations, New Delhi.
Pteffer, I, and D R, Klock. (1974), Perspectives on Insurance, Prentice Hall Inc, Englewood, Cliffs.

ECO-4009: LABOUR ECONOMICS

Unit I: Labour Markets.

08 Lectures

Nature and characteristics of labour market in developing countries like India; Paradigms of labour market analysis: classical, neo-classical and dualistic economy; Demand for labour in relation to size and patterns of investment; Choice of technologies and labour policies; Supply of labour in relation to growth of labour force; Labour market policies; Mobility and productivity of labour; Methods of recruitment and placement; Employment service organization in India.

Unit II: Employment.

08 Lectures

Employment and development relationship; Poverty and unemployment in developing countries; Unemployment: concept, types and measurement, particularly in India; Impact of rationalization: Technological change and modernization on employment in organized private industry; Public sector and employment in agriculture sector; Analysis of educated unemployed; Employment policy in five year plans and its evaluation.

Unit III: Wage Determination.

08 Lectures

Classical, neo-classical and bargaining theory of wage determination; Concept of minimum wage: Living wage and fair wage in theory and practice; Discrimination in labour markets; Wage determination in various sector-rural. urban. organized and informal sectors; Inflation-wage relationship at micro and macro levels; Productivity and wage relationship; Analysis of rigidity in labour markets; National wage policy; Wages and wage boards in India; Bonus system and profit sharing.

Unit IV: Industrial Relations.

08 Lectures

Theories of labour movement: growth, pattern and structure of labour unions in India, achievement of labour union; Causes of industrial disputes and their settlement and prevention mechanism: Role of tripartism; Current trends in collective bargaining; Role of judicial activism: Labour legislation in India; Indian labour laws and practices in relation to international labour standards.

Unit V: State and Labour

08 Lectures

State and social security of labour; Concept of social security and its evolution; Social assistance and social insurance: Review and appraisal of state policies with respect to

social security and labour welfare in India; Special problems of labour: child labour, female labour, discrimination and gender bias in treatment of labour; Labour market reforms: exit policy, need for safety nets; Measures imparting flexibility in labour markets; National commission on labour; Globalisation and labour markets

Reference

- Breman, J, (1996), Footloose Labour: Working in India's Informal Economy, Cambridge University Press, Cambridge.
- Das, N, (1960), Unemployment, Full Employment and India, Asia Publishing House, Bombay.
- Hajela, P D, (1998), Labour Restructuring in India: A Critique of the new Economic Policies. Commonwealth Publishers, New Delhi.

EC04010: MATHEMATICAL ECONOMICS

Unit I: Theory of consumer behaviour and production

08 Lectures

Theory of revealed preference and index number; consumer behaviour under risk and uncertainty. Input demand functions; Adding up theorem; Technical progress through production function; Analysis of joint maximization and multi product firm; Production possibility curve; Empirical

Unit II: Price determination in various markets.

08 Lectures

Price determination under perfect competition, monopoly, monopolistic competition, duopoly, oligopoly and monopsony; Factor pricing; Bilateral monopoly.

Unit III: Market equilibrium.

08 Lectures

Single market equilibrium-Marshallian and Walrasian equilibrium conditions; Lagged market equilibrium: multi-market equilibrium- General Equilibrium system of Walras and Debreu: Conditions of stability of equilibrium.

Unit IV: Determination of Income and Fluctuation in Income.

08 Lectures

Classical and Keynes' macro system; static and dynamic multiplier; Determinants of Investment; Accelerator; Trade cycle model of Samuelson and Hicks, Godwin, Kalecki and Philips; Stabilisation policy; Rational expectation and economic policy; Lucas model.

Unit V: Growth Models

08 Lectures

Harrod's problem; Neoclassical model of growth; Solow and Meade growth models with Technical Progress; Optimal Growth and Golden rule of Accumulation; Turnpike theorem; Endogenous growth.

Reference

- Allen. R.G.D, (1974), Mathematical analysis for Economist, Macmillan Press and ELBS, London.
- Alien, RGD. (1976), Mathematical Economics, Macmillan, London.

Arrow, KJ and M Intrilligator (eds) (1982), Handbook of Mathematical Economics, Vols I, II and III. North Holland, Amsterdam.

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

Chung, JW, (1993), Utility and Production: Theory and Application, Basil Blackwell, London.

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

Subject Title: Economics of Infrastructure
Course No. ECO-4011

Unit I Theories of Economics of Infrastructure Lectures 8

Infrastructure in economic development– Public good, social good and physical infrastructure, special characteristics of public utilities. The peak load, off load problem. Dual principal controversy –Economics of scale in joint supply –Managing cost pricing and other methods of pricing public utilities, cross subsidization –free prices equity and efficiency.

Unit II Irrigation and Energy Lectures 8

Investment in Irrigation- Measurement of Benefits – Social Rate of Return on Investment- Pricing Methods – Environmental and Social Concerns –Energy – Economy Linkages – Energy Demand and Supply Analysis-Energy Pricing – Energy Crisis and Security – Private Participation: opportunities and challenges- Need for Integrated Energy Policy.

Unit III Transport and Communication Lectures 8

Structure of Transport costs- Cost Functions – Demand for Transport: Determinants- Models of Passenger and Freight Demand- Rural and Urban Transport Planning - Cost Functions in Communication Sector- Standard of Services – Private Sector Participation – Pricing Methods –Issues in Governance and Regulation.

Unit IV Social Infrastructure Lectures 8

Investment in Education – Analysis of Production and Cost Functions –Measurement of Benefits – Educational Planning and Development-GATS and Education; Housing, Water Supply and Sanitation – Demand and Supply Situation – Flagship programmes – Public Sector and Community Collaboration- Privatization feasibility – Involving Users –Environmental and Social Concerns.

Unit- V Infrastructure – Finance and Pricing Lectures 8

Methods of Financing – Types, Source, Public and Private, Resource use efficiency - Methods and techniques of pricing - Two-part tariff, peak load pricing, price discrimination and subsidization; Cost vs. Benefit as the basis; Cost based Approaches.

References

- World Development Report 1994, “Infrastructure for Development, Oxford University Press, New York..
- Parikh K.S. (Ed) India Development Reports, Oxford University Press, New Delhi.
- Indian Council of Social Science Research (ICSSR) 1976, Economics of Infrastructure, vol. IV, New Delhi.
- Paul Stevens (Ed) (2000) The Economics of Energy Vol I & II.
- Sankar U (1992) Pricing in Public Sector: Theory and Applications, Indian Economic Association Trust for Research and Development, New Delhi.
- Blang on (Ed) (1971) Economics of Education, Penguin Books, England.
- Zweifel Peter &Freidrick Breyer (1997) Health Economics, Oxford University Press, New York.
- Nosten H.S (1971) Modern Transport Economics, C.E. Merrill, London.
- KessidesChristiue, “The Contributions of Infrastructure to Economic Development : A Review of Experience and Policy Implications, World Bank Discussion Paper 213, 1993.
- India Infrastructure Report