

**Department of Economics**  
**University of Madras**  
**Revised Course Structure of M.A. - Economics with effect from 2019-20**

Code	Title of the Course	Core/Electives/Soft Skills/Internship	Credits
<b>(I – Semester)</b>			
ECOC 001	Advanced Micro Economics I	C	4
ECOC 002	Advanced Macro Economics I	C	4
ECOC 003	Public Finance I	C	4
ECOC 004	Statistics for Economists	C	4
ECOE 001	Population Studies	E	3
ECOE 002	Environmental Economics	E	3
UOMS 001	Soft Skills	S	2
<b>(II – Semester)</b>			
ECOC 005	Advanced Micro Economics II	C	4
ECOC 006	Advanced Macro Economics II	C	4
ECOC 007	Public Finance II	C	4
ECOC 008	Mathematics for Economists	C	4
ECOE 003	Agricultural Economics	E	3
ECOE 004	Health Economics	E	3
UOMS 002	Soft Skills	S	2
UOMI 001	Internship	I	2
<b>(III -Semester)</b>			
ECOC 009	Development Economics	C	4
ECOC 010	Research Methodology	C	4
ECOC 011	Monetary Economics	C	4
ECOE 005	Computer Applications in Economics	E	3
ECOE 006	Business Economics	E	3
UOMS 003	Soft Skills	S	2
<b>(IV –Semester)</b>			
ECOC 012	Econometrics	C	4
ECOC 013	Indian Economic Development and Policy	C	4
ECOC 014	International Economics	C	4
ECOC 015	Modern Economic Thought	C	4
ECOE 007	Economics in Everyday Life	E	3
UOMS 004	Soft Skills	S	2
<b>Total</b>			<b>91</b>

<b>Credit Distributions</b>		<b>List of Electives for P.G.</b>	
Core Courses	: 15* 4 = 60	1.Population Studies	
Elective Courses	: 7 * 3 = 21	2.Environmental Economics	
Soft Skill Courses	: 4 * 2 = 08	3.Agricultural Economics	
Internship	: = 02	4.Health Economics	
<b>Total Credits</b>	<b>= 91</b>	5. Computer Applications in Economics	
		6.Business Economics	
		7.Economics in Everyday Life	

## ECOC 001 Advanced Micro Economics I

### Unit - I: Economics of Information

Informational Asymmetric and market failure -Adverse Selection in insurance markets and solution -Moral Hazard – Labour market and asymmetric information – Signals – Efficient wage theory.

### Unit -II: Alternative Theories of Firm

Duopoly price game-dominant strategy-Nash Equilibrium- Full Cost Pricing Rule-Bain's limits pricing theory-Sylos-Labini Model- Input-output model-linear programming applications in decision making.

### Unit –III: Distribution Theories

Neo-classical approach – Marginal productivity theory; Product exhaustion theorem; Hick's technical progress- Modern theory of distribution – Factor Pricing in imperfect product and factor markets- Determination of Wages – Labour supply and wage determination – Role of trade unions and collective bargaining.

### Unit -IV: Market Theories–I

Perfect competition – Short run and long run equilibrium of the firm and industry – Price and output determination – Optimum firm- Monopoly – Short run and long run equilibrium - Price discrimination, monopoly control, and regulation – Contestable Market- Monopolistic competition–Chamberlin Model- selling costs - Excess capacity.

### Unit -V: Market Theories–II

Oligopoly – Non-collusive Models - Cournot- Bertrand – Chamberlin – Edgeworth – Sweezy – Stackelberg- Oligopoly - Collusive Models - Cartels and mergers - Price leadership - Base point price system- Monopsony – Price and output determination – Workable competition.

### References

1. Koutsoyiannis (1979)– Modern Micro Economics, Macmillan Press, London.
2. Richard Varian (1993) – Intermediary Micro Economics , Affiliated East West Press, New York.
3. J.I Ryan(1962), Price Theory, ,MacMillan Press, London
4. N.C.Ray(1998), An Introduction to Microeconomics, MacMillan Press, London.
5. Robert Pindyck and Daniel L. Rubinfeld, (1989) Micro Economics, Macmillan.
6. E K Browning and J M Browning, (2014), Micro Economics- Theory and Applications. 12<sup>th</sup> Edition, Wiley Publications.

## ECOC 002 Advanced Macro Economics I

### Unit-I: Introduction to Macro Economic Analysis

Nature and Scope of Macro Economics -National Income Accounting: concepts - Components - Methods of measuring National- Circular flow model.

### Unit-II: Classical and Keynesian Model

Classical Theory of Employment- Keynes theory of employment and output – Aggregate supply function – Aggregate demand function- IS-LM Model- Theories of Consumption Function: Absolute Income Hypothesis, Relative Income- Hypothesis, Permanent Income Hypothesis, Life Cycle Hypothesis.

### Unit- III: Income Determination

Income Determination in a two sector Economy – Keynesian Approach- Aggregate demand and aggregate supply functions – Effective demand- Integration of real and monetary sectors through IS and LM functions- Dynamic shifting of IS and LM functions.

### Unit-IV: Modern Theories of Income Distribution

Kalecki's Model - Cartters Model - Kaldor's Saving-Investment Model - Weintraub's Model.

### Unit-V: Business Cycle

Theories of Schumpeter, Kaldor, Samuelson, Hicks and Goodwin model, Control of Business Cycles, relative Efficiency of Monetary and Fiscal Policies

### References

1. Dornbusch, Rudiger, Stanley Fischer, and Richard Startz (2000). Macroeconomics, Tata McGraw-Hill Publishing Company, New Delhi.
2. Roger E.A. Farmer (2002 ), Macro Economics, Thompson Asia Pvt. Ltd., Singapore
3. Jha, Raghbendra (1991). Contemporary Macroeconomic Theory and Policy, Wiley Eastern Limited, New Delhi.
4. Mankiw. N Gregory (2000) Macro Economics (Worth Publishers, New York)
5. R T Froyen (2008), Macroeconomics, Theory and policies, Prentice Hall.
6. Errol D'Souza (2012), Macro Economics, Pearson Publications, New Delhi.

## ECOC 003 Public Finance I

### **Unit –I: Market Failure and Role of Government**

Models for Public Sector Analysis: General Equilibrium Model, Pareto Optimality and Perfect Competition - Market Failures - Role of Government - Allocation, Distribution and Stabilization Functions- Normative vs Positive Approaches to public finance- The Public Choice Approach.

### **Unit –II: Theories of Public Goods**

The Theory of Public Goods - Demand and Production of Public Goods, Equilibrium Analysis - Merit Goods- Externalities and Efficiency - Externalities and Public Policies- Local Public Goods.

### **Unit –III: Theories of Public Expenditure**

Pure Theories of Public Expenditure: Tiebout, Samuelson and Buchanan's Contributions- Structure and growth of public expenditure.

### **Unit –IV: Evaluation of Public Investments**

Evaluation of public expenditure – Cost - benefit analysis – shadow prices – discount rate.

### **Unit –V: Public Expenditure in India**

The Size of Government in India- Reforms in public expenditure budgeting- Growth and Composition of public expenditure in India.

### **References**

1. Gruber Jonathan (2013), Public Finance and Public Policy, fifth Edition 2018, New York: Worth Publications.
2. David N. Hyman (2005), Public Finance: A Contemporary Application of Theory to Policy, 8<sup>th</sup> Edition, Cengage Learning.
3. Holley H.Ulbrich, (2003), Public Finance in Theory and Practice, Thompson South-Western, Singapore.
4. Musgrave, R.A. and P.B. Musgrave (1976), Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
5. Rosen, Harvey (2013), Public Finance, McGraw Hill, New York.

**Unit -I: Sampling Methods**

Sampling – Random Sampling – Randomized Experiments – Data Collection - Primary and Secondary Data – Sampling Methods – Classification of Data – Graphic and Diagrammatic Representation.

**Unit- II: Descriptive Statistics**

Descriptive Statistics – Centre of Distribution – Mean, Median and Mode – Use of Various Measures of Average – Spread of a Distribution – Range – Quartile Deviation – Mean Deviation – Standard Deviation.

**Unit –III: Correlation**

Relationship between variables – Correlation Techniques – Regression Analysis – Fitting Least Squares Lines – Standard Error of the Estimates -Index Numbers – Time Series Analysis.

**Unit –IV: Standard Deviation Techniques**

The Significance of Mean and other statistics – Standard Error of Mean – Standard Error of Standard Deviation – The Distribution of ‘t’ – Degrees of freedom – Level of Significance.

**Unit –V: Testing of Hypothesis**

Hypothesis Testing – Testing Procedures – Hypothesis Testing using confidence intervals – Using ‘t’ Distribution – Prob. Value (Two – Sided) – SPSS : An Introduction.

**References**

1. Aggarwal. Y.P (2002), Statistics Methods – Concepts Application and Computation, Sterling Publishers Private Ltd., New Delhi.
2. Davis, Glyn & Pecar, Branko, (2010) Business Statistics- Using Excel, Oxford University Press, New York.
3. Gupta, S.P. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
4. Kanji, K. Gopal, (1999) 100 Statistical Tests, Sage Publications, London.
5. Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.
6. Whigham, David, (2008), Business Data Analysis Using Excel, Oxford University Press.
7. Wonnacott H. Thomas & Wonnacott J. Ronald (1969), Introductory Statistics, John Wiley & Sons, Inc. New York.

## ECOIE 001 Population Studies

### Unit -I: Introduction to Demography

Meaning and scope of demography- components of population growth and their interdependence; theories of population-Malthus; optimum theory of population; theory of demographic transition.

### Unit -II: Population Change

Determinants – fertility, nuptiality, migration and mortality- techniques - crude birth and death rates- fertility - total fertility rate, gross reproduction rates, net reproduction rate; factors affecting fertility -socio-economic factors, economic status, health, education, nutrition, caste- nuptiality-concept and analysis of marital status, single mean age at marriage- mortality -mortality at birth and infant mortality rate- sex and age pattern of mortality- factors for decline in mortality in recent past.

### Unit -III: Population: Structure and Projection

Population trends in the twentieth century- population explosion- threatened or real, distant or imminent- demographic effects of sex and age structure, economic and social implications, demographic dividend and age pyramids; concept of stationary, stable and quasi - stationary population; projections- uses and techniques.

### Unit -IV: Source of Demographic data

Study of census in India- history of Census in India- nature of information collected in 2001 and 2011 census in India- National Family Health Survey (NFHS) I, II and III and District Level Household Survey (DLHS) their relative merits and demerits.

### Unit -V: Population and Development

Population policy in India -the shift in policy from population control to family welfare, to women empowerment- population, economy and environment linkages – population and human development issues- Population and Millennium Development Goals (MDG)- education and fertility, migration and urbanization – trends, pattern and consequences; population aging – causes, trends, issues and consequences- skewed sex ratio in India.

### References

1. John weeks (2005): Population: An introduction to concepts and issues, Wordsworth Learning. Singapore, 9th edition.
2. Bogue, D., (1969): Principles of Demography, John Wiley & Sons, New York.
3. Preston, Samuel H., Heuveline, Patrick, and Guillot, Michel (2001) Demography: Measuring and Modelling Population Processes. Oxford: Blackwell Publishers.
4. Bose, A. (1996), India's Basic Demographic Statistics, B.R. Publishing, Delhi.
5. Agarwal, S.N. (1985) India's Population Problem, Tata McGraw Hill, Mumbai.

## ECOIE 002 Environmental Economics

### Unit -I: Theory and Concept

Nature and significance of environmental economics – definition and scope of environmental economics – basic theory – market system and the environment – welfare and environment – the economics of externalities.

### Unit -II: Environment and Economics

Environment – economy linkage – environment as a necessity and luxury – population and environment linkage – environmental use as an allocative problem – environment as a public good – valuation of environmental damages: land, water, air and forest.

### Unit -III: Environmental Problems

Economic development and environmental problems – air pollution – water pollution – sound pollution – energy use and environment problem – pollution and urbanization – global warming and greenhouse effect – health, urbanization, transport and technology – environmental degradation.

### Unit -IV: Pollution Control

Prevention, control and abatement of pollution – choice of policy instruments in developing countries – environmental law – sustainable development – indicators of sustainable development – environmental planning – environmental accounting.

### Unit -V: Policy Measures

Basic approach – design of environmental policy – Indian environment policies and performance – pollution control boards and their function.

### References

1. Karpagam M : Environmental Economics Sterling Publishers 2000.
2. Bhattacharya : Environmental Economics – OUP ,2002
3. Karpagam M and R Geetha : Green Management – Theory and Practice, Ane Book House, 2010
4. Tan Hodge, (1995): Environmental Economics, Macmillan Press.

## ECOC 005 Advanced Micro Economics II

### Unit -I: Theory of Cost

What are costs? – Production and costs – various measures of cost – cost curves and their shapes – the relationship between short run and long run average total cost – elasticity of cost.

### Unit -II: Theory of Revenue and Equilibrium

What are revenues – average and marginal revenue – relation between AR and MR Curves – AR, MR and elasticity – importance of revenue curves – interactions of cost and revenues – conditions of equilibrium of a firm.

### Unit-III: Factor Pricing

Market for the factors of production – marginal productivity theory of pricing of factor (distribution theory) – Euler's theorem-linkages among the factors of production – theories of wages – determination – wages and collective bargaining – wage differentials – rent – Ricardian and modern theories of rent – scarcity rent – differential rent and quasi rent – interest – classical and Keynesian theories – profit – innovation, risk and uncertainty theories – the concept of normal profit – monopoly profit.

### Unit -IV: Welfare Economics

What is welfare economics – economic and general welfare problems in measuring welfare –classical welfare economics – Pigovian welfare condition – Pareto's criteria – value judgment – concept of a social welfare function-compensation principle –the Kaldor- Hicks criterion.

### Unit -V: Non - Price Competitive Strategies

Product Differentiation: Horizontal and vertical product differentiation – product differentiation in the traditional theory - Product differentiation in the modern theory- Role of advertisement in the traditional theory- Role of Advertisement in the modern theory - Bushnell, Kafogilss, De Bartolo and Haveman's extension of Baumol's sales maximization model.

### References

- 1 Koutsoyiannis (1979)– Modern Micro Economics, Macmillan Press, London.
- 2 Richard Varian (1993) – Intermediary Micro Economics , Affiliated East West Press, New York.
- 3 J.l Ryan(1962), Price Theory, ,MacMillan Press, London
- 4 N.C.Ray(1998), An Introduction to Microeconomics, MacMillan Press, London.
- 5 Robert Pindyck and Daniel L. Rubinfeld, (1989) Micro Economics, Macmillan.
- 6 E K Browning and J M Browning, (2014), Micro Economics- Theory and Applications. 12<sup>th</sup> Edition, Wiley Publications.



## ECOC 006 Advanced Macro Economics II

### Unit-I: Modern Keynesian Macroeconomics

Central propositions of Keynesian macroeconomics- Mundell-Fleming model- Minsky's financial instability hypothesis- The Great Recession and the revival of Keynesian macroeconomics.

### Unit-II: Real Business Cycle Theory

Source of Productivity shocks in Real Business Cycle Theory- Stabilisation Policy and Unemployment- Role of money in Real Business Cycle Theory'- Policy implications of real business cycle theory.

### Unit-III: New Keynesian Macroeconomics

Core propositions of new Keynesian macroeconomics- Wage and Price Rigidities- New Keynesian business cycle theory- Policy implications of new Keynesian macroeconomics.

### Unit-IV: Austrian Macroeconomic Theory

Basic Principles of Austrian Economic Theory- Austrian Theory and Business Cycles- Policy Implications of Austrian Theory.

### Unit – V: Macro Economic Implications and Policy Issues of Indian Economy

Understanding the macro economy of India - Services led growth-The Indian experience -External capital flows and foreign exchange reserves- Inflation in India – Global Financial Crisis – Its Impact on the Indian Economy.

### References

1. Mankiw. N Gregory (2000) Macro Economics (Worth Publishers, New York)
2. Roger E.A. Farmer (2002 ), Macro Economics, Thompson Asia Pvt. Ltd., Singapore
3. Mihir Rakshit (2007) Money and Finance in the Indian Economy, OUP, New Delhi, India
4. Mihir Rakshit (2007) Macro Economics of Post-Reform India, OUP, New Delhi, India.
5. R T Froyen (2008), Macroeconomics, Theory and policies, Prentice Hall.
6. Errol D'Souza (2012), Macro Economics, Pearson Publications, New Delhi.

### Unit –I: Taxation

Principles of Taxation: Tax Neutrality- Benefit and Ability to pay principles – Tax Incidence - Buoyancy and Elasticity Estimates of Taxation, Tax Efforts- Direct versus Indirect Taxes and Equity - Taxation of income and wealth - Taxation of consumption and Trade- Tax structure and growth in India - Tax Evasion and Administration – State Taxes - Tax Policy Reforms.

### Unit- II: Deficit Financing and Public Debt

Deficit financing – monetarist versus Keynesian views – pattern of deficit financing – public debt management and implication for growth, inflation and interest rate- Theories of Public Debt – Classical and Modern Theories - Concept of Burden of Public Debt- Growth and composition of public debt in India- Debt Management.

### Unit –III: Fiscal Policy

Objectives of Fiscal Policy: Allocation, Growth and Distribution- Budgetary Deficits and Its Implications - Fiscal and Monetary Policies – Fiscal Policy for Stabilization – Automatic vs. Discretionary Stabilization.

### Unit -IV: Fiscal Federalism

Fiscal federalism – Role of finance commission – Principles –Recommendations of 14<sup>th</sup> Finance Commission and Terms of Reference of the 15<sup>th</sup> Finance Commission – Transfer of resources from Union and States and States to Local Bodies.

### Unit -V: Indian Public Finance

Financial Autonomy in India – Tax Reform proposals of Kelkar Committee- Tax structure and Working of Fiscal federalism in India – Resource transfer from union to state of Tamil Nadu – VAT – Merits and Demerits- GST- design, implementation and impact- Fiscal consolidation in India since 2001-2002 – Fiscal responsibilities of central and state- FRBM Act 2003- Central and State government Budgets – issues of fiscal deficit- Fiscal policy and Economic downturn : Fiscal correction versus additional Stimulus.

### References

1. Gruber Jonathan (2013), Public Finance and Public Policy, fifth Edition 2018, New York: Worth Publications.
2. David N. Hyman (2005), Public Finance: A Contemporary Application of Theory to Policy, 8<sup>th</sup> Edition, Cengage Learning.
3. Rosen, Harvey (2013), Public Finance, McGraw Hill, New York.
4. Amerash Bagchi (2005), Readings in Public Finance, Oxford University Press, New Delhi.
5. Rao, M. Govida and Nirvikar Singh, (2005), The Political Economy of Federalism in India, Oxford University Press, New Delhi.
6. Government of India, Economic Survey (Annual issues). Ministry of Finance, New Delhi.
7. Articles from Economic and Political weekly.

## ECOC 008 Mathematics for Economists

### Unit- I: Elementary Calculus

Mathematics for Economists – History of Thought – Graphs and Co-ordinates – intercept and slope of a straight line equations in Economics. Elementary functions – Linear functions – non - linear functions – Economic Applications – Market Equilibrium – National Income determination

### Unit –II: Liner Algebra

Determinants and their basic properties – Solution of simultaneous equations through Cramer’s rule –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: Differential Equations-I

Exponential growth – Separable equations – linear differential equations and integrating factors – Second-order differential equations – Economic applications of differential equations.

### Unit –IV: Differential Equations-II

Solving first-order difference equations – Application of first-order difference equations to financial problems – The cobweb model – Second-order difference equations –use of matrix diagonalisation – Economic applications of second – order difference equations – Applications in Trade and Growth models.

### Unit –V: Linear Programming

Basic concept, formulation of a linear programming problem -its structure and variables – Solution of linear programming through graphical and simplex method – Statement of basic theorems of linear programming –Concept of duality and statement of duality theorems – Concept of a game – Strategies – simple and mixed – Value of a game – Saddle point solution – Simple applications.

### References

1. Anthony, Martin & Biggs, Norman (2009), Mathematics for Economics and Finance- Methods and Modelling, Cambridge University Press, New York.
2. Bradley, Teresa & Patton, Paul (2002), Essential Mathematics for Economics and Business, Wiley India Private Ltd., New Delhi.
3. Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
4. Renshaw, Geoff, (2009), Maths for Economics (2<sup>nd</sup> Edition), Oxford University Press, New York.
5. Weber, E. Jean, (1982), Mathematical Analysis Business and Economic Applications (4<sup>th</sup> Edition), Harper & Row, Publishers, New York.

## ECOE 003 Agricultural Economics

### Unit –I: Introduction

Scope and significance of agriculture- role of agriculture in India's development- inter-sectoral linkages - an overview.

### Unit –II: Agricultural Production and Productivity

Production function analysis - relevance to farm production economics- productivity trends- causes and consequences of low production and productivity- size - efficiency relations in Indian agriculture - role of technology in agriculture - structural changes in agriculture.

### Unit –III: Agricultural Labour

Agricultural labour: types – supply of labour – problems - rural unemployment: types, consequences and remedial measures- minimum wages for agricultural workers - an evaluation- poverty eradication programmes – recent wage and self-employment programmes

### Unit –IV: Agricultural Finance and Capital

Agricultural finance: meaning, nature, types, sources and problems of agricultural finance- co-operatives in rural finance- role of commercial banks and NABARD in rural finance- farm capital - meaning, types, and marginal efficiency of farm - capital and capital formation in agriculture.

### Unit –V: Agricultural Policy

Agricultural price policy - objectives, instruments and impact- economic reforms and agricultural policy – WTO and agriculture- agricultural taxation and its relevance.

### References

1. Bilgrami, S.A.R. (1996): Agricultural Economics, Himalayas Publishing House, Delhi.
2. Dantwala M.L et al. (1991), Indian Agricultural Development since Independence, Oxford & IBH, New Delhi.
3. Gualti A and T. Kelly (1999), Trade Liberalisation and Indian Agriculture, Oxford University Press, New Delhi.
4. Kahion and Tyagi (1983), Agriculture Price Policy in India, Allied Publishers, New Delhi.
5. Memoria C. B (2003), Agricultural Problems in India.
6. Rao, Hanumanth (1975), Agricultural Growth, Rural Poverty an Environmental Degradation in India, Oxford University Press, New Delhi.
7. Sadhu and Singh (2013) Fundamentals of Agricultural Economics, Himalaya, New Delhi.

## ECO 004 Health Economics

### Unit -I - Health Economics – Basic Concepts

Definition and Dimensions of Health [WHO definition]-Meaning and Importance of Health Economics- Determinants of Health- Input and Output Indicators of Health.

### Unit -II -Health and Development

Income and Health Linkages- Concept of Wellbeing – PQLI and HDI- Poverty and Health – Occupational Health Hazards- Fertility, Morbidity, Mortality and Life Expectancy- Nutrition and Health – Mal-nutrition – Under-nutrition.

### Unit -III - Health as Investment

Economics of Public Health- Education and Health – Concept of Health Education- Capital Formation in Health Care.

### Unit-IV - Micro-Economics of Health Services

Demand for health services - Preference for health care and health cure - Income and Price effects- Physician as a price-discriminating monopolist- Health Production Function with Illustration.

### Unit -V - Health in Developing Countries

Significance of Health in LDCs- Measuring the Burden of Disease - The Concepts DALY and QALYs- Challenges for the Future.

### References

1. Asha A. Bhende and Tara Kanitkar (2001), Principles of Population Studies [Himalaya Publishing House, New Delhi].
2. Park, K. (2000), Park's Text Book of Preventive and Social Medicine. 16<sup>th</sup> edition. [M/s Banarsidas Bhanot Publishers, Jalalpur].
3. William Jack (1999), Principles of Health Economics for Developing Countries, WBI Development studies [The World Bank, Washington. D.C.].
4. Government of India (1983), National Health Policy, New Delhi.
5. Jean Dreze and AmartyaSen (1998), Indian Economic Development and Social Opportunity [Oxford University Press].
6. SomkidKaewsonthi and Alan G. Harding (1993), Micro Economic Analysis and Applications in the Health Sector, Students Guide [The Centre for Health Economics Faculty of Economics, Chulalongkorn University].
7. WHO (1986), South-East Asian Region. SEA/ACMR12/Agenda Item 13. Health Economic Research. Prepared by SomkidKaewsonthi [Chulalongkorn University, Bangkok. Thailand].
8. World Bank (2002), Better Health Systems for India's Poor. Findings, Analysis and Options. Human Development Network. Health, Nutrition and Population Series [The World Bank Washington].

## ECOC 009 Development Economics

### Unit -I: Introduction

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

### Unit -II: Theories of Growth and Development

Classical Economic Theory, Neo-Classical Economic Theory, Marxian Economics, Keynesian Economics. Rosenstein Rodan's Big- Push theory, Theory of Backwash and Spread effect-Stage theories of development - Marx and Rostow.

### Unit -III: Dualism

Social, technical and financial dualism. Lewis model of economic development, Ranis and Fei model, Jorgenson's model, Criticism. Balanced and unbalanced growth, Linkage effect Hirschman and Nurkse.

### Unit -IV: Theories of Development and the Indian experience

Indian Social Structure and Development – Caste – Properties, Common Property Resources; agriculture and labour, access to land, access to education, employment, judicial and political power and development.

### Unit -V: Relevance of Mainstream theories and the need for alternatives

Relevance of Mainstream theories and the need for alternative theories of development – modernity, post-modernity, structuralism, post-structuralism, Post colonialism, Post-developmentalism, Feminist approaches, Emerging Paradigms in Cultural Studies, Rights based approach to development and alternatives.

### References

1. Michael p. Todaro and Stephen C. Smith (2004) Economic Development, Pearson Education, Singapore cha- 2, 6,7, 8.
2. Yujiro Hayami (2003), Development Economics: New Delhi Oxford University Press.
3. Debraj Ray (2009) Development Economics, New Delhi, Oxford University Press.
4. Jomo K.S. and Ben Fiveth (Eds); (2005), "The New Development Economics: London Zes Books and New Delhi, Tulika Books.
5. World Development Reports, (The World Bank1998, 20 05, 2007, and 2009).
6. Thirwall, A.P. (1999). Growth and Development, (6<sup>th</sup> Edition). Macmillan, U.K.
7. Gerald Meir, (2003), Leading Issues in Economic Development, Oxford University Press.

## ECOC 010 Research Methodology

### Unit – I: Research Methods in Economics

Nature of Social Science Research – Research Methods in Social Science – Formulating the problem- Types and Sources of Hypothesis – Characteristics of a Good hypothesis- Components and types of research design – Collection of data – sources and methods.- Presentation of results – Format of a Report.

### Unit – II: Sampling and Data collection

Sampling; Need, types, Probability sampling, random, systematic, stratified, multistage or cluster sampling, Non Probability sampling; Purposive Judgment, quota and snowball sampling- Data collection; Primary and Secondary data; NSS and census data Methods of data collection- Tools of data collection; schedule and questionnaire.

### Unit – III: Data Processing and Presentation

Processing and analysis of data: Editing, coding and tabulation; use of computers in social science research- Diagrammatic and graphic representation of data- Interpretation of results and Report writing – Preparation of Project Proposals.

### Unit – IV: Statistical Inferences

Census Versus sampling -Random and Non-Random sampling Techniques- Estimation – Point and interval estimation – Statistics and Parameter – Standard Error – Confidence interval- Null and Alternative hypothesis – Type I Error and Type II Error, Level of Significance – Critical region – Steps in Testing of Hypothesis.

### Unit – V: Large and small Sample Tests

Properties and uses of Normal Distribution – Standard normal ‘Z’ Statistic- Z-Test of Significance of proportions, means and Correlation- ‘t’ Test for sample mean and Equality of mean – Paired ‘t’ Test- Chi-Square Test for Association of Attributes.

### References

1. Mukherji, ParthaNath. Methodology in Social Research, New Delhi: Sage Publication, 2000.
2. Thakur, Devendra., Research Methodology in Social Science, New Delhi: Deep and Deep Publications, 2003.
3. Misra R.P., Research Methodology A Hand Book, New Delhi: Concept publishers 1988.
4. C.R. Kothari (2002), Research Methodology Vikas publishing House, New Delhi.
5. Kenneth. D, and Bailey (1962), Methods of Social Research, Longman’s Green Co, New York.
6. Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.

## ECOC 011 Monetary Economics

### Unit -I: Functions and Theories of Money

Money and its function – the concepts and definitions of money – measurement of money – advantages of money – theories of demand for money: Classical approach, the transactions and cash balance approach, the Keynesian analysis.

### Unit -II: Money Supply

Financial intermediaries – nature and functions – theories of money supply – mechanistic model of money supply determination – high powered money and behavioral model of money supply determination – methods of monetary control – Interest rates in closed and open economies – theories of term structure.

### Unit -III: Monetary Transmission Mechanism

Meaning – interest rate channel, credit channel, bank lending channel, balance sheet channel, exchange rate channel, other asset price channels.

### Unit -IV: Monetary Policy

Instruments, targets, indicators, lags in monetary policy and rules versus discretion debate.

### Unit -V: Central Banking

Functions of a central bank – quantitative and qualitative methods of credit control – bank rate policy, open market operations, cash reserve ratio, selective methods, role and functions of Reserve Bank of India – objectives and limitations of monetary policy with special reference to India.

### References

1. Pierce, D G and P J Tysome (1985) Monetary economics: theories, evidence and policy, Butterworths, London.
2. Saving, R T (1967), —Monetary policy targets and indicators, Journal of Political economy, 75: 446-465
3. Carl E Walsh (1998), Monetary Theory and Policy, MIT Press, Cambridge.
4. Bennett McCallum (1989), Monetary Economics: Theory and Policy, Macmillan.
5. C Rangarajan (1999), Indian Economy: Essays in Money and Finance, UBSPD.
6. Narendra Jadhav (1994), Monetary Economics for India, Macmillan.
7. R.B.I: Money supply in India: Concepts, Compilations and Analysis Report of the Second Working Group 1977
8. R.B.I: Working of the Monetary System in India: Report of Sukumony Chakravarthy Committee, 1985.



**Unit-I - Text Management with MS-WORD**

Creating new Documents –Document template – Typing Text – Editing Text – Insert Text – Go to, Find, and Replace text or word - Formatting of Text – Format painter – Cut and Paste utility - Copying Document/text in the same or Different file or Document – Drag and drop of typed text- creating tables – using auto correct, dictionary thesaurus.

**Unit-II - Managing Data Base**

EXCEL: The typical worksheet or spread sheet – cell and their properties – formatting cell – text, numbers, currency, accounting, date, time, percentage, scientific – formats- Formula: using arithmetic and relational operators in a worksheet -Advanced Formulas: sum, count, Average, Max, Min, Product -Using auto format.

**Unit-III - Graphs and Charts**

Bar diagrams, pie charts, Area- Building Line Diagrams, Histograms, Scatter plots- Frequency Graphs, Ogive, Lorenz curve- Time Series.

**Unit- IV - Data Analysis-I**

Naming variables - Coding and Recoding of data - Arithmetic calculations with in variables- Descriptive Statistics: Frequencies, Descriptive, Explore, Cross Tabulation - Compare Means: One sample T- test, Independent Sample T – test, paired sample T test, One way ANOVA- Correlation: Bivariate, Partial- Regression: Linear, Curve Estimation, Multiple Regression.

**Unit-V - Data Analysis-II**

Classification: K-means cluster, Hierarchical cluster, Discriminant function - Non-parametric Test: Chi-square, Bi-nominal- Time Series – Exponential Smoothing, Auto regression, Seasonal Decomposition

**References**

1. Lipschutz M.M. and S. Lipschutz (1982), Theory and problems of Data processing :Schaum's Outline Series, (McGraw Hill, New York).
2. Corey Sandler, Tom Badgett, Jan Weingarten (1997), Office 97 for Windows(BPB Publications, New Delhi).
3. Andy Field (2000), Discovering Statistics Using SPSS for Windows – Advanced Techniques for the Beginner [Sage Publications, New Delhi].

## ECO 006 Business Economics

### Unit-I: Managerial Objectives of the Firm

Economics and management- Managerial models of the firm- Baumol's Sales and revenue maximizing model- Williamson's managerial utility maximizing model- Marris' model- Behavioral model to the firm.

### Unit-II: Competitive Advantage

Structure conduct – Performance theory- Generic strategies for competitive advantage (Michael Porter) - The five forces model of competition- Sustaining competitive advantage- Economics of scale as barrier to entry- mergers- differentiation as barrier to entry.

### Unit-III: Pricing Strategies

Price discrimination: First degree, Second degree and third degree price discrimination- Approached to Pricing- Cost-plus pricing- target return pricing - product life cycle pricing: skimming strategy-penetration strategy- transfer pricing.

### Unit-IV: Non Price Competition

Non-Price Competition: Components of the marketing mix- Promotion in marketing mix- Dorfman-Steiner condition for advertising expenditure- Determinants of advertising elasticity of demand- Product policy and place in the marketing mix- Product mix decisions- Place: selecting a marketing channel.

### Unit-V: Investment Appraisal

The investment selection process- Estimating cash flows- Evaluating Investment-payback method- net present value method- The cost of capital- dividend valuation model- Capital –asset pricing model.

### References

1. Keat, Paul G and Young, Philip K.Y - Managerial Economics, Pearson Education, New Delhi.
2. K. Jothi Sivagnanam, and R. Srinivasan, (2010), Business Economics, Tata McGraw Hill Education Private Limited, New Delhi.
3. Varshney R.L and Maheshwari K L, Managerial Economics , Sultan Chand, New Delhi
4. William F. Samuelson and Stephen G. Marks – Managerial Economics. Wiley Student Edition.
5. Hirschey and Pappas, Fundamentals of Managerial Economics, Thomson Learning.
6. Belleflamme, Paul & Peitz, Martin, (2010), Industrial Organization- Markets and Strategies, Cambridge University Press, New York.
7. McGuigan, R. James, Moyer, R. Charles & Harris H. Frederick, (2005), Managerial Economics- Applications, Strategy, and Tactics, Cengage Learning, New Delhi.

## ECOC 012 Econometrics

### Unit -I: Basic Regression

Analysis nature and scope of econometrics – simple regression model: specification, OLS method, assumptions of CLRM and gauss Markov theorem, hypothesis testing and goodness of fit – extensions of simple regression model: regression through origin, scaling and units of measurement, functional forms of regression model – maximum likelihood estimation.

### Unit -II: Multiple Regression Models

Model specification, interpretation multiple regression equation, testing hypothesis: individual partial regression coefficient and overall significance, goodness of fit – F-tests, R2 and adjusted R2.

### Unit -III: Relaxing Select CLRM Assumptions

Multicollinearity, heteroscedasticity and autocorrelation- nature, consequences, detection and remedial measures- general criteria for model selection, types of specification errors and testing model specification, errors of measurement.

### Unit-IV: Simultaneous Equations System

Introduction to simultaneous equation models – problem of identification and consequences of ignoring simultaneity – estimation procedures: indirect least squares, 2SLS, 3SLS – application: a simple Keynesian model.

### Unit -V: Dummy Variable Models

Qualitative independent variables: qualitative variables with two categories and many categories, estimating seasonal effects, testing for structural change, piecewise linear regression, qualitative and limited dependent variable: Binary Choice Model, Probit Model, Logit Model, limited dependent variable.

### References

1. Pindyck, Robert S. and Daniel L. Rubinfeld (1995) – Econometric Models and Economic Forecasts, 4th Edition, Irwin McGraw-Hill, New York
2. Ramanathan, Ramu (2000) – Introductory Econometrics with Applications, 5th Edition, Cengage Learning India Pvt. Ltd., New Delhi
3. Dongherty, C. (1992), Introduction to Econometrics, Oxford University Press, New York.
4. Gujarati D.N. & Sangeetha, Basic Econometrics, Tata McGraw-Hill Publishing Company, 4<sup>th</sup> edition, 2007.

**Unit-I: Growth and Structural Change**

Indian economy at Independence- The policy framework: statist policy, transition to market-oriented policy, role of erstwhile Planning Commission and NITI Aayog- Two phases of growth, factors underlying turnaround- Structural change in Indian economy.

**Unit- II: Agricultural and Industrial Sectors Agricultural Sector**

Performance of agricultural sector, factors determining agricultural growth - factors underlying food inflation- agricultural price policy and food security- industrial growth - industrial growth before and after reforms - dualism in Indian manufacturing- issues in performance of public sector enterprises and privatization.

**Unit- III: Fiscal Developments, Finance and External Sector**

Expenditure trends- GST: rationale and impact- evolution of the financial sector in post-liberalization period- external sector performance: emergence of India as major exporter in services, performance of manufacturing sector.

**Unit-IV: Poverty and Inequality**

Measuring poverty in India: selection of poverty lines- poverty in pre and post liberalization periods- impact of growth on poverty- PDS vs cash transfers, feasibility of universal basic income in India - inequality in India in pre and post liberalization periods.

**Unit-V: Social Issues**

Gender gap in India and trends in female labour force participation rates, factors determining female labour force participation- employment: changing nature of employment in India, jobless growth- labour in informal sector- India's demographic transition.

**References**

1. KausikBasu (Ed.) (2012), Oxford Companion to Indian Economy, 3<sup>rd</sup> Edition, OUP, New Delhi.
2. Uma Kapila (Ed.) (2018), Indian Economy Since Independence , Academic Foundation, New Delhi, 29<sup>th</sup> Edition.
3. Ashima Goyal (Ed.) The Oxford Handbook of the Indian Economy in the 21<sup>st</sup> Century: Understanding the Inherent Dynamism, Oxford University Press.
4. Government of India, Economic Survey (Annual issues). Ministry of Finance, New Delhi

### Unit -I: Trade Theories

Comparative Advantage: The Ricardian Model- Specific Factors and Income Distribution- Resources and Trade: The Heckscher-Ohlin Model- the Standard Trade Model; External Economies of Scale and the International Location of Production.

### Unit -II: Trade under Imperfect Competition

Monopolistic competition models of trade- Love-for-Variety preferences- Gains from trade- Tariff versus Quota under Monopoly- Strategic trade policy- Cournot and Bertrand competition-Voluntary Import Expansion and Export Restrictions.

### Unit -III: Open-Economy Macroeconomics

National Income Accounting and the Balance of Payments- Exchange rate and Foreign Exchange Market- Fixed and Floating Exchange Rates.

### Unit -IV: Exchange Rate Models

Purchasing Power Parity- Exchange rate, Interest rate and Money- Exchange Rate and Price level –Overshooting Model of Exchange Rate- Exchange Rate and Output in the Long-run.

### Unit -V: Trade Policies

The Instruments of Trade Policy-the Political Economy of Trade Policy- Trade Policy in Developing Countries- Controversies in Trade Policy- International Monetary Systems- Optimum Currency Areas and the European Experience- Financial Globalization- Opportunity and Crisis- Developing Countries: Growth, Crisis, and Reforms.

### References

1. Krugman P. R., Obstfeld M., and Melitz M., (2006), International Economics: Theory and policy. (Latest edition).
2. Salvatore D. (1997), International Economics, PHI, New York.
3. Carbough ,R. J. (1999), International Economics.
4. Dana, M. S. (2000), International Economics, Routledge Publications, London.
5. Bhagwati J. (1981), International Trade, Cambridge University Press, London.
6. Van Marrewijk, C., International Economics, Oxford University Press, 2007.
7. Caves, R, R. Jones, and J. Frankel, World Trade and Payments: an Introduction, Addison-Wesley, 1999

**Unit –I: Keynesian Theory**

Post-Keynesian Theory - Post-Keynesian Criticism of Neo-Classical Economics – Post-Keynesian Theory of Capital and Income Distribution - Post - Keynesian Theory of Employment.

**Unit –II: Neo-Classical Theories**

Feminist Economics: Critique of Neo-Classical Economics by Feminist Economics – The Provisioning Theory of Gender Definition of Economics – The Andro-Centric nature of Neo-Classical Economics and Feminist Economics' Alternative.

**Unit –III: Institutional Economics**

New Institutional Economics: Theory of Firm – Asymmetric Information – Property Rights in New Institutional Economic Theory.

**Unit –IV: Ecological Economics**

Ecological Economics: Distinction between Ecological and Environmental Economics- Economy- Nature Linkages in Ecological Economics Framework – Herman Dally's Steady State Economy – Deliberative Approach to Environmental Valuation – Sustainable Development: Eco-Centric vs. Techno-Centric Approaches.

**Unit –V: Marxian Economics**

Marxian Economics: Marxist Theory of Capitalistic Development - Marxian Economic Development – Paul Sweezy's Monopoly Capital – The Dependency Theory of Development.

**References**

1. Daniel Bell and Irving Cristol (eds), *The Crisis in Economic Theory*, Chapter 10.
2. Julie A. Nelson and Nancy Folbre, (eds), *Beyond Economic Man*, Chapter 1.
3. Herman Dally, *Ecological Economics: Principles and Applications*, Chapter 21.
4. S. Neelakantan, *New Institutional Economics and Agrarian Change*, IEA, 1992.
5. E.K. Hunt and Mark Lautzenheiser, *History of Economic Thought: A Critical Perspective*, Chapters 18 & 19.
6. *New Palgrave Dictionary*, Second Edition, Free Online Edition.

### Unit -I: Thinking about Prices

How are prices determined: The concept of willingness to Pay- Understanding Inflation: Meaning of Inflation and how it is measured in India- Inflation rate and the prices you pay in shops: why they diverge- Application: why prices are higher in some locations than others although the production and selling costs are identical.

### Unit -II: Economics of Social Customs

Economics of rising age of marriage and declining family size- How economic globalization is changing the Indian family- Economics of gift-giving: why value of gift in kind is higher compared to gift in cash- Application: Reasoning about economic Inequality between men and women.

### Unit- III: Economics of Social Evils

Discrimination: Why discrimination can be rational and the economic harm it causes- Pollution: The economic roots of the pollution problem- Addiction: Economic case for legalizing drugs as solution to addiction- Corruption-An Economists Perspective- Application: Why prohibition does more harm than good: An Economic Perspective.

### Unit -IV: Economics of Arts, Sports, and Science

Understanding the declining demand for performing arts from economic perspective- Economics of Sports: Role of economic competition in sporting activity- Economics and Science: What motivates scientific research?- Application: How economic Globalization and commercialization enrich Indian music.

### Unit -V: National Issues

The Union Budget and you – Taxes, Subsidies and Fiscal Deficit- How the stock market works – Bulls and Bears- The global economic crisis: Its origin and impact on India- Application: Living through an economic downturn.

### References

1. Robert J. Stonebraker (2005), The Joy of Economics: Making Sense of Life, Online book available free at <http://www.faculty.winthrop.edu.stonebraker/book.html>.
2. Tim Harford (2000), The Logic of Life: Discovering the New Economics of Everything, (London: Little ).
3. Paul Hayne (1998), Economic Way of Thinking, Prentice Hall.