

MASTER OF ARTS ECONOMICS

SYLLABUS & REGULATIONS
WITH EFFECT FROM 2025-2026

M.A. ECONOMICS
P.G. Degree Programme (CBCS) Regulations-2016
Amended as per NEP-2020



CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)
SRI VENKATESWARA UNIVERSITY
Accredited by "NAAC" with A⁺ Grade

Tirupati, Andhra Pradesh - 517502

M.A Economics Course Structure and Syllabus as per NEP 2020 (Choice Based Credit System)

| | Course Code | Title of the Course | No. of Credits | Internal Assessment | Semester End Exams | Total Marks |
|--------------------|-------------|-------------------------------------|----------------|---------------------|--------------------|-------------|
| Semester - 1 | M.A E101 | Micro Economics | 4 | 30 | 70 | 100 |
| | M.A E102 | Macro Economics | 4 | 30 | 70 | 100 |
| | M.A E103 | Public Finance | 4 | 30 | 70 | 100 |
| | M.A E104 | History of Economic Thought | 4 | 30 | 70 | 100 |
| | M.A E105 | Mathematical Methods in Economics | 4 | 30 | 70 | 100 |
| | M.A E106 | Rural Development | 4 | 30 | 70 | 100 |
| Total | | | 24 | 180 | 420 | 600 |
| Semester - 2 | M.A E201 | International Economics | 4 | 30 | 70 | 100 |
| | M.A E202 | Money and Banking | 4 | 30 | 70 | 100 |
| | M.A E203 | Development Economics | 4 | 30 | 70 | 100 |
| | M.A E204 | Statistical Methods in Economics | 4 | 30 | 70 | 100 |
| | M.A E205 | Indian Financial System | 4 | 30 | 70 | 100 |
| | M.A E206 | Fundamentals of Economics | 4 | 30 | 70 | 100 |
| Total | | | 24 | 180 | 420 | 600 |
| Semester - 3 | M.A E301 | Indian Economy | 4 | 30 | 70 | 100 |
| | M.A E302 | Labour Economics | 4 | 30 | 70 | 100 |
| | M.A E303 | Advanced Statistical Techniques | 4 | 30 | 70 | 100 |
| | M.A E304 | Computer Applications in Economics | 4 | 30 | 70 | 100 |
| | M.A E305 | Health Economics | 4 | 30 | 70 | 100 |
| | M.A E306 | Contemporary Indian Economic Issues | 4 | 30 | 70 | 100 |
| Total | | | 24 | 180 | 420 | 600 |
| Semester - 4 | M.A E401 | Agricultural Economics | 4 | 30 | 70 | 100 |
| | M.A E402 | Environmental Economics | 4 | 30 | 70 | 100 |
| | M.A E403 | Econometrics | 4 | 30 | 70 | 100 |
| | M.A E404 | Research Methodology | 4 | 30 | 70 | 100 |
| | M.A E405 | Economics of Andhra Pradesh | 4 | 30 | 70 | 100 |
| | M.A E406 | Project | 4 | 30 | 70 | 100 |
| Sub Total | | | 24 | 180 | 420 | 600 |
| Grand Total | | | 96 | 720 | 1680 | 2400 |

CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)
SRI VENKATESWARA UNIVERSITY : : TIRUPATI

M.A. ECONOMICS

**(Revised Scheme of Instruction and Examination, Syllabus etc., under
CBCS Regulations -2016 is Amended as per NEP-2020)**

(With effect from the batch admitted in the academic year 2025-26)

FIRST SEMESTER

M.A E101- Macro Economics

Module-I: National Income, Consumption Behaviour and Investment

Circular Flow Of Income – Concepts of National Income – Methods and problems of Estimation – National Income Statistics of India – Consumption Function – Keynes Psychological Law of Consumption - Implications of the law – Theories of aggregate consumption: Absolute Income Hypothesis, Relative Income Hypothesis, Life Cycle Hypothesis, Permanent Income Hypothesis) – Investment – Determinants of Investment – Marginal Efficiency of Capital – Accelerator principle

Module-II: Business Cycles and Unemployment

Business Cycles – Models of Samuelson, Hicks Kaldor, Schumpeter, and Keynes – Meaning of Unemployment – Types of Unemployment – Wage-unemployment relationship, Adaptive expectations and rational expectations hypothesis.

Module-III: Inflation

Meaning of Inflation, Theories of Inflation, Demand pull or Monetary theory of inflation – Cost Push Inflation – Demand pull Vs Cost push inflation – Inflationary gap Stagflation – The Phillips Curve – The Relationship between Unemployment and Inflation Tobin’s modified Phillips Curve – Causes of inflation – Effects of inflation – Measures to Control Inflation

Module-IV: Keynesian Macroeconomic Theory

Determination of output and employment – Classical approach, Keynesian approach – Significance of the Keynesian Theory – supply side Economics – Relevance of Keynesian Economics to Underdeveloped Economies – Criticism of Keynesian Theory

Refading List

1. Ahuja H L, “Advanced Economic Theory – Microeconomic Analysis”, Sultan Chand and Co. Ltd., New Delhi, 2000.
2. Blanchard Olivier & Fischer Stanley. Lectures on Macroeconomics, MIT Press, Cambridge.
3. Hicks, J.R., The crisis in Keynesian Economics, Oxford University Press, New Delhi, 1974.
4. Lewis M. K. and P.D. Mizen, Monetary Economics, Oxford, 2000.

M.A Economics Course Structure and Syllabus as per NEP 2020 (Choice Based Credit System)

5. Levacic, R. and A. Rebman: Macroeconomics: An Introduction to Keynesian and Neo-Classical Controversies.
7. V. Ravikumar Chowdary, Macro Economics: Spectrum Competitive Series, Hyderabad
6. Mankiw, G & Romer D, "New Keynesian Economics" Vol-1 & 2, The MIT Press, Cambridge.
7. Rao, V.K.R.V., India's National Income: 1950 to 1980, Sage Publications, New Delhi, 1983.
8. Shapiro, E., Macroeconomic Analysis, Galgotia Publications, New Delhi, 1996.
9. Samuelson and Nordhaus, "Economics", Tata McGraw-Hill Pub. Co. Ltd., New Delhi, 2002.
10. Thorn, R.S. Edited, "Monetary Theory and Policy" Praeger Publishers, New York, 1976.

M.A E102- Micro Economics

Module-I: Theory of Consumer Behaviour and Production

Alfred Marshall theory of Demand – Concept of Elasticity of demand: Price, Income and Cross Elasticities – Indifference curve analysis – Revealed Preference Theory – Theory of Production: Production Function, Law of Variable Proportions, Returns to Scale – Cost Curves: Fixed and Variable costs, Total, Average and Marginal cost curves – Revenue: Total, Average, Marginal Revenue and their interrelationship.

Module-II: Market Structures and Pricing

Classification of Markets – Perfect Competition: Features, Short run and long-run equilibrium of the firm and industry – Monopoly: Short run and long-run Equilibrium of the firm - price discrimination – Monopolistic Competition: Chamberlin's Group equilibrium – Product differentiation and Selling costs – Oligopoly: Price determination under Oligopoly.

Module-III: Theory of Distribution

Ricardian theory of Rent, Quasi rent – Wage fund theory and Subsistence theory – Marginal Productivity theory of wages – Loanable fund theory and Keynes liquidity preference theory of Interest – Dynamic and Innovation theories of profit.

Module-IV: General Equilibrium and Welfare Economics

Partial equilibrium and general equilibrium - Walrasian General Equilibrium - Welfare Criteria: The Paretian Optimality - Hicks and Kaldor Compensation Criteria - Pigovian Welfare Economics

Reading List

1. Ahuja, H.L. (2000), *Advanced Economic Theory: Micro Economic Analysis*, S.Chand & Company Ltd, New Delhi.
2. Archibald G.C. (Ed.), (1971), *Theory of the Firm*, Penguin, Harmondsworth.
3. I. Narendra Kumar, *Micro Economics*, Spectrum Publishing House, Hyderabad
4. Baumol, W.J. (1982), *Economic Theory and Operations Analysis*, Prentice Hall of India, New Delhi
5. Borch, K.H. (1968), *The Economic of Uncertainty*, Princeton University Press, Princeton.
6. Dacosta, G.C (1980), *Production, Prices and Distribution*, Tata McGraw Hill, New Delhi.
7. Dimond and Rothschild (Ed), (1978), *Uncertainty in Economics*, Academic Press, New York.
8. Hirshleifer, J and Glazer (1997), *Price theory and Applications*, Prentice Hall of India, New Delhi.
9. John Von Neumann and Oskar Morgenstern, (1947), *Theory of Games and Economic Behavior*, (2nd Edition), Princeton University Press, Princeton.
10. Samuelson & Nordhaus, D.W, *Micro-economics*, McGraw-Hill/Irwin
11. Koutsoyiannis. A. (1979), *Modern Economics*, (2nd Edition), Macmillan Press, London.

M.A E103- Public Finance

Module-I: Objectives and Principles of Public Finance

Meaning, Definitions, Origin and Scope of Public Finance – Objectives of Public Finance – Functions of Modern State – Classical, Keynes and Musgrave views on the Theory of the Public Finance – Principle of Maximum Social Advantage - Ability to Pay Theory.

Module-II: Public Revenue and Principles of Taxation

Sources of Public Revenue: Tax and Non-Tax Revenue - Direct and Indirect Taxes – Merits and Demerits of Direct Taxes – Merits and Demerits of Indirect Taxes - Canons of Taxation - Characteristics of a Good Tax – Progressive, Proportional, Regressive and Digressive Taxes – Effects of Taxation.

Module-III: Public Expenditure and Public Debt

Role of Public Expenditure – Causes for the Growth of Public Expenditure – Principles of Public Expenditure - Wagner's Law of Increasing State Activities - Peacock and Wiseman Hypothesis - Public Debt: Objectives of Public Debt – Sources of Public Debt : Internal and External Sources – Economic effects of Public Debt - Public Debt in India.

Module-IV: Federal Finance and Budgets

Principles of Federal Finance – Transfer of Financial Resources from Centre to States - Finance Commission – Functions of Finance Commission - Recommendations of 15th Finance Commission (Latest) – Trends in Central finances in India - Trends in State finances in India - Analysis of the Union Budget (Latest) – Analysis of A.P. State Budget (Latest).

References

1. Musgrave, Richard A. and Musgrave Peggy B, *Public Finance in Theory and Practice*, McGraw-Hill, 5th Edn. 1989.
2. Dalton, Hugg, *Public Finance*
3. G. Prathap, *Public Finance*, Spectrum Publishing House, Hyderabad
4. Tyagi, B.P. *Public Finance*, Jai Prakash Nath Publications, Meerut, U.P.
5. Sundaram, K.P.M and Andley, K.K, *Public Finance -Theory and Practice*, S.Chand & Company Ltd, New Delhi.
6. Om Prakash, *Public Economics-Theory and Practice*, Vishal Publishing Company, New Delhi.
7. Amaresh Bagchi, *Readings in Public Finance*, Oxford University Press, New Delhi.
8. Mankar and Sarma, *Public Finance-Theory and Practice*, Himalaya Publishing House, New Delhi.
9. S.K.Singh, *Public Finance in Theory and Practice*, S.Chand & Company Ltd, New Delhi.
10. Ahuja, H.L., *Modern Economics*, S.Chand & Company Ltd, New Delhi.
11. Dewtt, K.K, *Modern Economic Theory*, S.Chand & Company Ltd, New Delhi.

M.A E104- History of Economic Thought

Module-I: Pre-Classical Economy

Why study the history of economics? – Nature and Scope of Economic Thought – Mercantilism: Economic Theories and Policies – Physiocracy: Natural Order, Agriculture and Product net, Social Classes.

Module-II: Classical Economy

Adam Smith: The Causes of the Wealth of Nations, Theory of Value, Laissez-faire – Karl Marx: Dynamics of social change. – Thomas Robert Malthus: Theory of Population – J.B. Say: Law & Market

Module-III: The Marginalist School

W. S. Jevons: Theory of value – Carl Menger: Theory of Goods – Leon Walras: Marginal Theory of Value and General Equilibrium Theory – Alfred Marshall: Principles of Economics

Module-IV: Indian Economic Thought

Early economic ideas: Kautilya- Modern economic ideas: Naoroji and Ranade; Dr. B.R. Ambedkar's Economic ideas.

Reading List

1. Eric Roll, A History of Economic Thought, Faber and Faber Ltd. London, 1992.
2. Steven G Medema, & Warren J. Samuels, The History of Economic Thought: A Reader, Routledge, London, 2013.
3. Haney, Lewis H: History of Economic Thought (4th Edn) Macmillan, 1949.
4. Ajit Dasgupt, A History of Indian Economic Thought, Routledge, London, 1993.
5. Bhatia, H.L., History of Economic Thought, Vikas Publishing House, New Delhi, 2009.
6. Hajela, T. N., History of Economic Thought, Ane Books Pvt. Ltd., New Delhi, 2001.
7. Edmund Whittaker, A History of Economic Ideas, Longman's Green and Company, London, 1949.
8. K. Suneetha, History of Economic Thought, Spectrum Publishing House, Hyderabad.

M.A E105- Mathematical Methods in Economics

Module-I: Sets and Algebra Functions

Theory of indices – Sets, - Operations on sets, – Types of Functions; Exponential, logarithmic, Polynomial and Homogenous Functions – Geometrical presentation of a Function – Limit

Module-II: Matrices and Determinants

Concept of a Matrix – Types of Matrices – Simple Operations on Matrices – Determinants and their Basic Properties – Rank of a Matrix – minors and co-factors – Inverse of a matrix – Solution of Simultaneous Equations – Cramer's rule.

Module-III: Economics Application

Constrained optimizing -Maxima and Minima – maxima and minima two are more variables-theory of cost and revenue – concept of a firm under perfect competition – Elasticity of Demand and Supply functions - Demand relationship Between Total Revenue, Marginal Revenue, Average Revenue - Euler's theorem.

Module-IV: Differentiation and Integration

Concept of a Derivative – Rules of Differentiation – Second order Derivatives – Partial and total differentiation Concept of Integration – basic Rules of Integration, – Consumer's Surplus and Producer's Surplus

Text Books

1. An introduction to Mathematical Economics - D. Bose
2. Textbook of mathematical methods in Economics post graduate Course, UGC

Reading List

1. Allen, R.G.D. (1957), *Mathematical Economics*, St. Martin's London.
2. Allen, R.G.D. (1972), *Mathematical Analysis for Economist*, Macmillan press and ELBS, London.
3. D. Bose, *An Introduction to mathematical Economics*, (Himalaya Publishing House), Hyd.
4. Caroline Dinwiddie, *Elementary Mathematics for Economists*, Oxford University Press, Nairobi, Kenya, 1993.
5. Dr.M. Bhupathi Naidu, *Mathematical Methods in Economics*, Spectrum Publishing House, Hyderabad.
5. **Taro Yamane:** *Mathematics for Economist* (An elementary survey), 2nd Edition Prentice Hall Of India, New Delhi.
6. B.C. Mehatha and G.K. Madnani: *Mathematics for Economist*, Sultan Chand & Sons, New Delhi.
7. **D.R Agarwal:** *Quantitative Method*, (Mathematics and Statistics), Vrinda Publications Pvt. Ltd, New Delhi.

M.A E106- Rural Development

Module-I: Nature and Scope of Rural Development

Meaning, Definition and Scope of Rural Development – Importance of Rural Development – Objectives of Rural Development – components of Rural Development – Causes of Rural Backwardness

Module-II: Approaches to Rural Development

Approaches to Rural Development: Marxian Approach – People's Participatory Approach – Target Group Approach – Integrated Approach. Rural Development-Experiences of China, Tanzania, Bangladesh, Israel.

Module-III: Rural Industrialization and Entrepreneurship

Gandhian Approach to Rural Industrialization – Entrepreneurship and Rural Industrialization – Characteristics and Types of Entrepreneurship – Agro-based Industries – Khadi and Village Industries – Problems of Rural Industries.

Module-IV: Rural Development Programmes

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), National Rural Livelihood Mission (Deendayal Antyodaya Yojana) Pradhan Manthri Gram Sadak Yojana (PMGSY). National Rural Health Mission (NRHM), Micro Units Development and Refinance Agency (MUDRA), P.M.Awas Yojana (PMAY), Pradhan Mantri Fasal Bhima Yojana (PMFBY). –

Deen Dayal Upadhyay Grameen Kaushal Yojna (DDUGKY).

Reading List

1. Vasant Desai, Rural Development in India, Himalaya Publishing House, Hyderabad, 2010.
2. Satya Sundaram, I., Rural Development, Himalaya Publishing House, Hyderabad, 2009.
3. Katar Singh, Rural Development: Principles, Policies and Management, Sage Publications, New Delhi, 1986.
4. Gupta & Gupta, Rural Development in India – Poverty and Development, Himalaya Publishing House, Bombay, 1988.
5. Maheshwari, R. B., Rural Development in India – A Public Policy Approach, Sage Publications, New Delhi, 1985.
6. Robert Chambers, Rural Development, Longman, London, 1983.
7. Srivastav, M and Singh, A. K., Rural Development in India, Deep & Deep Publications, New Delhi, 1988.
8. Rakesh Upadhyaya, Integrated Rural Development Programmes: A Policy Approach, Himalaya Publishing House, Bombay, 1989.
9. Tiwari, T. T. & Sinha, R. C., Rural Development and Planning in India, Deep & Deep Publications, New Delhi, 1986.
10. Dr. Shankar Chatterjee: Implementation of R.D in India-Serials publications.
11. Dr. N. T. K. Naik, Rural Development, Spectrum Publishing House, Hyderabad

M.A E201- International Economics

Module-I: Theories of Trade

Classical theory: Adam Smith, Ricardo, Heberler, J.S. Mill – Modern Theory: Heckscher-Ohlin, Stolper-Samulson – Factor Price Equalization theorem – Rybczynski theorem

Module-II: Adjustment Mechanisms in Balance of Payments

Automatic Price Adjustment under Gold Standard–Classical Theory of Balance of Payments–The Elasticity Approach–The General Theory of Balance of Payments–The Monetary approach of Balance of Payments and Foreign Trade Multiplier Trade Policy and Theory of Trade Interventions–Gains from trade and their distribution – Concepts of terms trade their uses and limitations – secular deterioration of terms of trade –The theory of interventions –Tariff – Quotas and non-tariff barriers – Economic effects of Tariffs Vs Quotas

Module-III: Foreign Exchange Market

Meaning and Determination of Foreign Exchange Rate– Theories of Foreign Exchange Rate: The Mint Parity Theory–The Purchasing Power Parity Theory–The Balance of Payments Theory–Causes of Changes in the Exchange Rate–Exchange Rate Adjustment Policies: Fixed Exchange Rate–Flexible Exchange Rate–Adjustable Peg System–Crawling Peg System–Multiple Exchange Rate System–Spot and Forward Exchange Equilibrium

Module-IV: Global Institutions

The Bretton Woods System – IMF and World Bank – Collapse of Bretton Wood System – WTO – Issues at the recent WTO Ministerial Conferences – International Development Association (IDA) – Asian Development Bank (ADB) – South Asian Association for Regional Cooperation (SAARC) – European Union – ASEAN

Reading List

1. Bo Sodersten, Geoffrey Reed (1999), International Economics, Palgrave Macmillan, New Delhi.
2. J. E. Meade, *The Theory of Economic Policy* vol.1 The balance of payments.
3. Paul R. Krugman & Maurice Obstfeld: International Economics, Pearson Education, 2005.
4. Dornbusch, Open Economy Macro Economy, Basic Books, New York, 1980.
5. G. Venkata Naidu, International Economics, Spectrum Publications, Hyderabad.
6. Caves Frankel & Jones, World Trade & Payments: An Introduction, Pearson Education, 2007.
7. James Gerber, International Economics. Pearson, 6th edition, 2013.
8. Henry Thompson, International Economics: Global Markets and Competition, Cambridge University Press, 2nd edition, 2009
9. Ltd., London Carbaugh, R. J, International Economics. 11th Edition, Thomson South Western, New Delhi, 1994.

M.A E202- Money and Banking

Module-I: Money and Theories of Demand for Money

Nature and definition of money- Evolution of money- Functions of money-Schools of economic thought: views on money-Demand for Money- Theories of Money: Fisher's Quantity Theory of Money-Cambridge Cash Balance Approach- Friedman's Theory- Keynes Liquidity Preference Theory of Money.

Module-II: Supply of Money and its Theories

Money Supply- Determinants of Money Supply- Measures of Money Supply- High Powered Money- Factors affecting High Powered Money- H theory of money supply- The Money Multiplier and its determinants- The Process of Credit creation- Theory of Bank Credit and Deposits- Interest Rates: Loanable Fund Theory.

Module-III: Introduction to Banking

Origin and Nature of Banking- Classification of banks: Commercial Banks- Regional Rural Banks (RRBs)-Co-operative Banks-Role and performance of Micro Finance in India- Bank Performance Measurement- Allocation of Institutional Credit as an Institutional Process- Financial and Non-financial Factors in allocation of Institutional Credit.

Module-IV: Monetary Policy and Central Banking

Central Bank—Role and Functioning of the Reserve Bank of India —Monetary Policy and its objectives — Quantitative and Qualitative instruments of Monetary Policy — Priority sector lending —Banking Ombudsman Scheme — Banking Sector Reforms — Chakravarthy Committee Report — Narasimhan Committee Report — Recent Developments on Financial Inclusion in India.

Reading List

1. Lewis M. K. and P.D.Mizen (2000): Monetary Economics, Oxford
2. Jadhav Narendra (2006): Monetary Policy, Financial Stability & Central Banking, Macmillan.
3. Baye and Jansen (1996): Money, Banking and Financial Markets, AITBS.
4. Gail E. Makinen (1978): Macroeconomics: Concepts, Theories and Policies, Money, The Price Level and Interest Rate, Prentice hall India Ltd.
5. David E.W.Laidler (1977): The Demand for Money: Theories & Evidence, Dun-Donnelley
6. O. P. Kotwal (1987): Theories of Inflation: A Critical Survey, Tata-McGraw-Hill Publishing Co. Ltd.
7. Ackley G, (1978): Macroeconomics: Theory & Policy, New York, Macmillan
8. Rana, K.C. & Verma K.N: Macro Economic Analysis, Vishal Publishing House, New Delhi.
9. Shekhar & Shekhar, (1998): Banking Theory & Practice, Vikash Publishing House Pvt.Ltd.
10. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi
11. K. Grace Manoja and N. S. Smitha, Money and Banking, Spectrum Publications, Hyderabad

M.A E203- Development Economics

Module-I: Concepts & Issues of Development

Economic Development and Growth – Characteristics of Developing Countries – Measurement of Economic Development – Obstacles to Economic Development – Characteristics of modern Economic Growth - Human Development Index.

Module-II: Theories of Development

Rostow's Stages of Economic Growth – Lewis' Theory of Unlimited Supplies of Labour – Rosenstein Rodan's Big Push Theory – Balanced Growth Theory - Unbalanced Growth Theory – Harvey Leibenstein's Critical Minimum Effort Thesis – Nelson's Low Level of Equilibrium Trap.

Module-III: Growth Models

Harrod-Domar Growth Model – Joan Robinson's Model of Capital Accumulation – Kaldor's Model of Growth - Solow Model Long Run Growth – Meade's Growth Model.

Module-IV: Factors and Models of Indian Economic Development

Mahalanobis Model – Vakil and P.R. Brahmananda Model- Factors of Economic Development in India – Capital Formation and Economic Development – Agriculture and Economic Development - Industry and Economic Development- Technology and Economic Development – Human Resources and Economic Development.

Reading List

1. Amartya Sen, *Development as Freedom*, OUP, New Delhi, 1999.
2. Ghatak, S., *An Introduction to Development of Economics*, Allen and Unwin, London, 1986.
3. G. Venkata Naidu, *Development Economics*, Seven Hills International Publishers, Hyderabad.
4. Higgins, B., *Economic Development*, W.W. Norton, New York, 1959.
5. Kindleberger, C.P., *Economic Development*, McGraw Hill, New York, 1977.
6. Myint, H., *Economic Theory and Underdeveloped Countries*, Oxford University Press, New York, 1971.
7. Thirwal, A.P., *Economic Development*, Longman, New Delhi, 1999.
8. Solow, R.M., *Growth Theory: An Exposition*, Oxford University Press, New Delhi, 2000.
9. Michael P. Todaro and Stephen C. Smith, *Economic Development*, Pearson Education, New Delhi, 2004.
10. Ahuja, H. L., *Development Economics*, S. Chand & Company Pvt. Ltd., New Delhi, 2016.
11. Kaushik Basu, *Analytical Development Economics*, OUP, New Delhi, 1997.

M.A E204- Statistical Methods in Economics

Module-I: Fundamentals of Statistics

Origin, Meaning, Importance and Scope of Statistics – Collection of Data: Primary and Secondary Data- Methods of Collecting Primary Data – Sources of Secondary Data – Editing Primary and Secondary Data – Types of Classification – Frequency Distribution – Tabulation of Data: Role of Tabulation – General rules of tabulation – Type of Table - Diagrammatic and Graphic Presentation: Significance of Diagrams and Graphs.

Module-II: Measures of Central Tendency

Meaning and Objectives of Average – Requisites of a Good Average – Arithmetic Mean: Merits, Demerits and Uses – Calculation of Arithmetic Mean – Median: Merits, Demerits and Uses – Calculation of Median – Mode: Merits, Demerits and Uses – Calculation of Mode – Geometric Mean: Merits, Demerits and Uses – Calculation of Geometric Mean – Harmonic Mean: Merits, Demerits and Uses – Calculation of Harmonic Mean.

Module-III: Measures of Dispersion

Significance of Measures of Dispersion – Characteristics of a Good Measure of Dispersion – Range: Merits, Demerits and Uses of Range – Calculation of Range – Quartile Deviation: Merits, Demerits and Uses of Quartile Deviation – Calculation of Quartile Deviation - Mean Deviation: Merits, Demerits and Uses of Mean Deviation – Calculation of Mean Deviation - Standard Deviation: Merits, Demerits and Uses of Standard Deviation – Calculation of Standard Deviation – Coefficient of Variation – Variance – Lorenz Curve – Importance and measure of Skewness and Kurtosis.

Module-IV: Correlation and Regression

Definition – Types of Correlation – Methods of Correlation; Scatter diagram, Graphic Method, Karl Pearson's method, Spearman's Rank Correlation- Probable error and Standard error – Regression analysis – Method of the Least Squares – Regression Equations – Regression Lines – Standard Error of estimate – Properties of Regression coefficients.

Text books

1. Introduction to Statistical Methods - S. P. Gupta
2. Fundamentals of Statistics - D.B. Gupta

Reading List

1. Gupta, D.B: *Fundamentals of Statistics*, Himalaya Publications, Hyderabad.

2. Gupta, S.P: *Introduction to Statistical Methods*, Sultan Chand and Sons, New Delhi.
3. Gupta, S.B: *Fundamentals of Statistics*, Himalaya Publications, Hyderabad.
4. Dr. M. Bhupathi Naidu and M. Thejomoorthy, *Statistical Methods in Economics*, Spectrum Publications, Hyderabad.
5. John E. Freund: *Mathematical Statistics*, Prentice-Hall of India Pvt. Ltd, New Delhi.
6. Medhi, J: *Statistical Methods – An Introductory Text*, New Age International (P) Ltd. New Delhi.
7. Gupta, S.C: *Fundamentals of Statistics*, Himalaya Publications, Hyderabad.
8. Gupta, S.C, & Kapoor, V.K: *Fundamentals of Mathematical Statistics*, Sultan Chand and Sons, New Delhi.
9. Arora P.N, Arora .S, and Arora Sumeet, *Comprehensive Statistical Methods*, S. Chand & Co., New Delhi.
10. Hary Frank & Steven, C, Althoen; '*Statistics- Concepts and Applications*, CUP, Cambridge.

M.A E205- Indian Financial System

Unit-I: Nature and Role of Financial System

Definition and Meaning of the Financial System – Components of the financial System: Institutions, Instruments, Markets, and Services – Functions and Role of financial system – Financial System and Economic Development

Unit-II: Money Market

Structure of Indian Money Market: Call Money Market – Treasury Bills Market – Commercial Bills Market – Commercial Papers – Certificate of Deposits, Recent Development in Indian Money Market.

Unit-III: Capital Market

Capital Market: Structure of the Indian Capital Market – Derivative Markets: Futures and Options - equity shares- preference shares-debentures – convertible and non-convertible – zero interest debentures- Functions of the Stock Market- Listing of Securities - Stock Market Index - Stock Exchanges in India. – NSE-BSE.

Unit-IV: Financial Regulator

Reserve Bank of India (RBI)-Stock Exchange Board of India (SEBI)-Insurance Regulatory Development Authority (IRDA)-Pension Fund Regulatory & Development Authority (PFRDA)

Suggested Books

1. Khan, M. Y. .Indian Financial System.Tata McGraw Hill, New Delhi.
2. Machiraju, M. R. (1999), Indian Financial System. Vikas Publishing House, New Delhi
3. Kohn, Meir. Financial Institutions and Markets. Tata McGraw Hill & Co., New Delhi
4. Economic Surveys, Ministry of Finance, GOI, New Delhi.
5. Bhole, L. M. (2002), Financial Institutions and Markets. Tata McGraw Hill & Co., New Delhi.
6. Miskin, F. (2003), The Economics of Money: Banking and Financial Markets, Wesley.
7. Report on Financial Sector Reforms (2001), Tax Foundation of India, New Delhi.
8. Dr. M. Sailaja, Indian Financial System, Spectrum Publishing House, Hyderabad.
9. RBI Bulletins - Various Issues.
10. Reddy. Y. V. (2001), Monetary and Financial Sector Reforms in India. UBS Publishers and Distributors Ltd., New Delhi.
11. Desai, V. (1997), The Indian financial System, Himalaya Publishing House, Mumbai.

M.A E206- Fundamentals of Economics

Module-I: Introduction

Origin and Meaning of Economics-Concepts of Economics – Definitions of Economics: Adam Smith, Alfred Marshall, Lionel Robbins, Paul Samuelson and Jacob Viner – Scope and Subject matter of Micro and Macro Economics

Module-II: Economic Systems

Meaning: Capitalist or Free enterprise Economy-Socialist Economy and Mixed Economy –Characteristics of Under developing and Developed Countries – Human Development Index – Gender Development Index – Contribution of Education and Health to Economic Growth and Development

Module-III: National Income

National Income: Meaning, Definitions: National Income, GNP & NNP, GDP & NDP, Personal Income (PI), Disposable Income (DI), Per Capita Income (PCI), Real National Income (RNI) – Methods of Estimation of National Income (NI) – Importance of National Income and problems in estimation of National Income three methods of measuring national income; constituents of national income in its three phases, viz., Production, Income and Expenditure;

Module-IV: Public Finance

Meaning, Importance and Scope of Public Finance – Sources of Public Revenue: Direct and Indirect Taxes – Finance Commission in India – Recommendations of 15th Finance Commission – Budget – Types of Budgets – Analysis of the Union Budget (Latest) – Trends in Revenue and Expenditures of the Government of India – Types Deficit Budget – Causes and Problems of Deficit Budget

Reading List

1. Ahuja, H.L. (2000), *Advanced Economic Theory: Micro Economic Analysis*, S.Chand&Company Ltd, New Delhi.
2. Archibald G.C. (Ed.), (1971), *Theory of the Firm*, Penguin, Harmondsworth.
3. G. Raj Kumar Chowdary, *Fundamentals of Economics*, Spectrum Publications, Hyderabad.
4. Baumol, W.J. (1982), *Economic Theory and Operations Analysis*, Prentice Hall of India, New Delhi.
5. M.L.Jhinghan, *Micro economic theory*, Vrinda publications, New Delhi.
6. Tyagi, B.P., *Public Finance*, Jai Prakash Nath Publications, Meerut, U.P.
7. Ahuja, H.L., *Modern Economics*, S.Chand&Company Ltd, New Delhi.
8. Dewtt, K.K, *Modern Economic Theory*, S.Chand& Company Ltd, New Delhi.
9. Sundaram, K.P.M and Andley, K.K, *Public Finance (Theory and Practice)*, S.Chand& Company Ltd, New Delhi.
10. Bramhananda, P.R. and V.R.Panchamucki (Eds) (1987) *The Development Process of Indian Economy* – Himalaya Publishing House, New Delhi.
10. Economic Survey (Annual Report), Ministry of Finance, GOI, New Delhi.

M.A E301 - INDIAN ECONOMY

Course Objectives

The objective of this paper is to help a student to understand Indian economic issues and problems in the light of relevant economic theories and in a comparative perspective. Enable the students to appreciate the evolution of Indian economy, its institutional framework, planning policy.

Course Outcomes

Develop ideas of the basic characteristics of Indian economy, its potential on natural resources. Understand the importance, causes and impact of population growth and its distribution, translate and relate them with economic development.

Course Outline:

Module – I: Structure of the Indian Economy:

Characteristics of the Indian Economy – Human Development : Components and Construction of Human development Index – India's Population : Size and Growth Trends – Causes of the Rapid Growth of Population and Remedies for population Explosion - Sex and Age Composition of Population – Demographic Dividend and its Advantages - Trends in Rural and Urban Population – Migration and Urbanisation Process and Challenges .

Module – II: Poverty, Labour Force and Unemployment in India:

Concept of Poverty –Types of Poverty –Measurement of Poverty –Incidence of Poverty in India –Causes and problems of poverty in India – Strategy of Poverty Alleviation and Poverty Alleviation Programmes in India– Income Inequalities in India and its Causes and Remedies - Labour Force Growth in India – Occupational Structure and Distribution of Labour Force in India – Unemployment in India – Types of Unemployment in India - Measurement of Unemployment – Causes and Problems of Unemployment in India - Government policy for removing Unemployment – Major Employment Programmes in India with special reference to MGNREGP.

Module – III: Indian Economic Planning

The Rational for Planning - Objectives of Economic Planning in India - Development Strategy of Indian Planning: Mahalnobis Strategy of Indian Planning– New Development Strategy - (Tenth to Twelfth Five Year Plans) – Resource Allocation and Investment Pattern in Indian Plans - Achievements and Failures of Planning in India – NithiAayoghand its Performance.

Module – IV: Public and Private Sectors and Economic Reforms

Role, Performance and Problems of Public Sector in India – Disinvestment Policy in Public Sector Enterprises in India- Role, Performance and Problems of Private Sector in India -

Economic Reforms in India and its Impact on Indian Economy- Black Money and Factors Responsible for Black Money in India - Impact of Black Money on Indian Economy .

Reading List:

1. Datt, Ruddra and K.M.M. Sundaram (Current Edition) Indian Economy S.Chand & Co., New Delhi.
2. Misra and Puri (Current Edn.) *Indian Economy*, Himalaya Publishing House, New Delhi.
3. Ahluwalia I.J. and IMD Litter (Ed) (1999) *India's Economic Reforms and Development*, Oxford University Press, New Delhi.
4. Bardhan, P.K. (1999), *The Political Economy of Development in India*, Oxford University Press, New Delhi.
5. Bramhananda, P.R. and V.R.Panchamucki (Eds) (1987) *The Development Process of Indian Economy* – Himalaya Publishing House, New Delhi.
6. Government of India, Economic Survey (Various Years).
7. Government of India, Planning Commission Reports (Various Plans)

M.A E302 - LABOUR ECONOMICS

Course Outline:

Module-I: Labour Markets

Nature and Characteristics of Labour Markets in India – Types of Labour Markets – Urban-Rural- Formal- Informal – Selected models to labour migration as Nation building – Arthur Lewis surplus Model – Ranis and Fei Dualistic Model of development.

Module-II: Employment

Unemployment - Concept, Types and causes of unemployment- Sectoral distribution of Workforce in India- Impact of technological change on employment – labour Migration- Educated unemployment- Rural Employment.

Module-III: Wage Determination

Marginal Productivity Theory – Theory of Collective Bargaining – Modern Theory of Wages – Minimum Wage and Fair Wage – Wage Determination in Organized and Unorganized Sector – Wage Boards in India - National wage policy.

Module-IV: State and Labour Welfare

Role of state in determination of Labour issues – Labour welfare policies of the Government in the past and present - various social security schemes- Importance Labour legislations in India and their implications – Role of ILO.

Reading list:

1. George.J.Borjas, (2018), Labour Economics, McGraw Hill, 8th Edition, London.
2. Hyclak, Jones, Thornton, (2018) 2nd Edition, Fundamentals of Labour Economics, Cengage Learning Inc., London.
3. Esrafil Ali, Labour Economics, (2013), 1st Edition, Everest Publishing House, New Delhi.
4. M.V.Joshi, (2015), Labour Economics and Labour Problems, Atlantic Publishers and Distributors, New Delhi.

5. Hajala P.D. (1998) Labour Restructuring in India, A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
6. Jhabbala. R. and R.K. Subrahmanya (Eds.) (2000) The unorganized Sector- Work Security and Social Protection, Sage Publications, New Delhi
7. McConnell C.R. and Brue S.L. (2007), Contemporary Labour Economics, McGraw-Hill, New Delhi.
8. Agarwala Ramgopal et al, (2004), Reforms, Labour Markets and Social Security, OUP, New Delhi.
9. Jhabvala, R. and R.K. Subrahmanya (Eds.) (2000), The Unorganised Sector : Work Security and Social Protection, Sage Publications, New Delhi
10. Seth M. (2000), Women and Development: The Indian Experience, Sage, New Delhi

M.A E303 ADVANCED STATISTICAL TECHNIQUES

Module-I: Sampling

Sampling: Census Versus Sampling – Merits and Limitations of Sampling – Probability (Random) Sampling Methods: Simple Random Sampling and its Merits and Demerits – Stratified Random Sampling and its Merits and Demerits – Systematic Sampling and its Merits and Demerits – Cluster Sampling and its Merits and Demerits – Multistage Sampling and its Merits and Demerits – Non-Probability (Non-Random) Sampling Methods – Sampling and Non-Sampling Errors – Remedial measures – Biased and Unbiased Errors

Module II: Index Numbers

Importance and Uses of Index Numbers – Types of Index Numbers – Methods of Constructing Index Numbers: Simple (un weighted) Aggregate Method – Weighted Aggregate Method – (Laspeyre's Method, Pasche's Method, Fisher's Ideal Index, Dorbish and Bowley's Method and Marshall-Edgeworth Method) – Tests of Adequacy of Index Numbers: (Unit Test, Time Reversal Test, Factor Reversal Test and Circular Test) - Chain Index Numbers

Module-III: Time Series Analysis and Forecasting

Importance and Uses of Time Series Analysis – Components of Time Series (Trend, Seasonal Variations, Cyclical Variations and Irregular Variations) – Measurement of Trend and Its Methods and their Merits and Demerits – Measurement of Seasonal Variation and Its Methods and their Merits and Demerits – Measurement of Cyclical Variations and Its Methods and their Merits and Demerits – Measurement of Irregular Variations – Meaning and Importance of Forecasting- Types of Forecasting – Forecasting Methods using Time Series

Module-IV: Tests of Hypothesis (t, z, F and X^2 Tests)

Formulation of Statistical Hypothesis – Null and Alternative Hypothesis – level of significance – Critical Region – Z Test its application- One-Tailed and Two-Tailed Tests – Type-I and Type-II errors – Properties of t-distribution – F-Test – Features of F distribution – Concept of X^2 test and Goodness of fit – Uses of X^2 Test and Limitations on the Use of X^2 Test.

Reading List:

1. Gupta, D.B: *Fundamentals of Statistics*, Himalaya Publications, HYD.
2. Gupta, S.P: *Introduction to Statistical Methods*, Sultan Chand and Sons, New Delhi.
3. Gupta, S.B: *Fundamentals of Statistics*, Himalaya Publications, HYD.
4. John E. Freund: *Mathematical Statistics*, Prentice-Hall of India Pvt. Ltd. New Delhi.
5. Medhi, J: *Statistical Methods – An Introductory Text*, New Age International (P) Ltd. New Delhi.
6. Gupta, S.C: *Fundamentals of Statistics*, Himalaya Publications, Hyderabad.
7. Gupta, S.C, & Kapoor, V.K: *Fundamentals of Mathematical Statistics*, Sultan Chand and Sons Publications, Daryaganj, New Delhi.

M.A E304 -COMPUTER APPLICATIONS IN ECONOMICS

Module – I: INTRODUCTION TO COMPUTER

Introduction to computers: Definition, Characteristics and limitations of computers - Elements of Computers - Hardware - CPU - Primary and Secondary memory - Input and Output devices.

Operating System: Meaning, Definition, Functions and Types of Operating Systems - Booting process - Windows operating system - Desktop, Start menu, Control panel, Windows accessories.

Module – II: Basics of Word Processing:

Word Processing: Meaning and features of Word processing – Advantages and applications of word processing - Parts of MS Word application window – Toolbars – Creating, Saving and closing a document – Opening and editing a document - Moving and copying text – Text and paragraph formatting, applying Bullets and Numbering – Find and Replace. Date and Time, Headers, Footers and Page Breaks – Auto Correct – Spelling and Grammar checking – Graphics – Mail merge - Working with Tables.

Module – III:

Basics of Spread Sheet / Worksheet:

Workbook, cell, cell pointer, cell address etc., - Parts of MS Excel window – Saving, Opening and Closing workbook – Insertion and deletion of worksheet – Formatting – Auto Fill – Formulas and its advantages - different types of functions available in Excel – Templates – Charts – Graphs.

Module – IV: Power Point

Basics of Presentation Software - MS PowerPoint: Features, advantages and application of MS Power point – Internet – Features of Internet – Types – WWW – E-Mail – Advantages and Disadvantages.

Reading list:

1. Fundamentals of IT for Business by RemaThareja, 2015 Oxford University Press
2. Fundamentals of Computers, by V.Rajaraman, PHI, Fifth Edition, April 2010
3. Dennis P. Curtin, Information Technology, McGraw Hill International
4. AtulKahate, Fundamentals of Computers, Tata McGraw Hill
5. Fundamentals of Computers: V. Srinivas, Kalyani Publications
6. E-Commerce: CSV Murthy, Himayalaya Publishing House
7. Raymond Green Law: Fundamentals of the Internet, Tata McGraw Hill
8. EfraimTurban :Electronic Commerce, Pearson Education
9. E-Commerce,E-Business :C.S.Rayudu ,Himalaya Publishing House
10. Morley, Understanding Computers, Cengage

M.A E305 - HEALTH ECONOMICS

Course Outline:

MODULE: 1 Introductory Health Economics

Health Economics- Nature and scope of health economics, fields of health economics- Determinants of Health Status- Role of Health in Economic Development-special characteristics of health care-Demand and supply of health care financing of Health Care and Resource Constraints

MODULE: II The National and International health scene:

Health indicators of India and some other countries - Health indicators such as infant mortality, life expectancy at birth, death rate, cause specific morbidity and mortality rates etc. – sources of health statistics and a critical appraisal of their usefulness and limitation –Methods for Calculating QALYs and DALYs, Sen's Capability Approach and QALYs.

MODULE: III Resource allocations in the health Sector:

Resource allocation problems in private and government hospitals – Resource allocation problems facing a private practitioner –The problem of multiple services of a hospital – Pricing of these services and the choice of the mix of services. – The provision of health services by the government – Organization of healthcare delivery in India - General Issues concerning health care delivery in India.

MODULE: IV Nutrition and Health

Nutrition and Health-Nutritional Status in India-Determinants of Nutritional Status- Health Care Delivery of Mother and Child- Health for All and Health Policy in India

Reading List:

- 1 .Dasgupta, P.S. and G.M. Heal (1958), Economic theory and exhaustible resources, Cambridge University Press, Cambridge.
- 2 .Chopra, K. and S.C Gulati (2000), Migration and Management of Common property resources: A Study in Western India, Sage, New Delhi.
- 3.Padmanabhan, C.B. (1984), Financial Management in Education Select books, New Delhi.
- 4.Wood hall, M. (1992), Cost- Benefits Analysis in Educational Planning, UNESCO, Paris.
- 5.Panchamukhi, P.R. (1980), Economics of Health: a Trend Report in ICSSR A Survey of Research in Economics, Vol.VI, Infrastructure, Allied, New Delhi.

6. Berman P. and M.E. Khan (1993), *Paying for India's Health care*, Sage Publications, New Delhi.
7. Baru, R.V. (1998), *Private Health-care in India: Social Characteristics and Trends*, Sage Publications, New Delhi.
8. Government of India, *National Health Policy*, New Delhi.
9. World Bank (1993), *The World Development Report, 1993: Investing in Health*, Oxford University Press, New York.
10. Krishna Kumar, T. and K.K. Rao (1987) *Financing of Health Services in India*.
11. **Wagstaff A (1986)**, The demand for health: some new empirical evidence. *Journal of Health Economics* 5(3):195--233.
12. David Wonderling, Reinhold Gruen and Nick Black., *Introduction to Health Economics*, Open University Press
13. Sherman Folland, Allen Goodman and Miron Stano., *Economics of Health and Health Care*, Pearson/ Prentice Hall
14. Donaldson, C. and Gerard, K., *Economics of Health Care Financing*, Macmillan Press
15. Phillips, C., *Health Economics: An Introduction for Health Professionals*, Blackwell Publishers.

M.A E401 - AGRICULTURAL ECONOMICS

Course Outcomes

- i. India is predominantly an agriculture economy. Students have to know the performance of agriculture at gross root level.

Module I: Agricultural Production & Productivity

Nature and Scope of Agricultural Economics – interrelationship between agriculture and industry – Traditional and Modern Agriculture – Role of Agriculture in Economic Development - Theories of agricultural development (Lewis, Schultz, Mellor) – Economics of Agricultural Production – Resource use efficiency – Factor combination – Cropping pattern shifts – Farm planning, budgeting, and programming

Module II Agricultural Growth

Role of agricultural growth since Independence – Institutional aspects-Land reforms – Green revolution – Policy initiatives – Diversification – Regional disparities in Indian agriculture Agricultural Labour in India – Technical change, labor absorption and gender issues in agricultural services – Capital formation in the rural sector-Savings, assets and credits

Module III: Agricultural Marketing and Prices

Marketing and State Policy – Agricultural markets and marketing efficiency – Regulated markets – Marketed and marketable surplus – Behaviour of agricultural Prices – State policy with respect to agricultural marketing – Warehousing; prices – Taxation and Crop Insurance – Cooperative movement in India-Organization – Structure and development of different types of cooperatives in India

Module IV: Sustainable Agricultural Development and Food Security and Globalization

Emerging issues in Organic farming and issues in GM crops – Natural Farming – Population and food supply – Food security and public distribution system in India – WTO and Agreement on Agriculture (AOA) – Impact of World Trade Organization on Indian agriculture.

Reading List:

1. *R. N. Soni (2010): Leading Issues in Agricultural Economics, Vishal Publishing Co., New Delhi.*
2. *RuddarDatt & KPM Sundaram (2017): India Economy, Deep & Deep Publications, New Delhi.*
3. *Bhaduri, A (1984): The Economic Structure of Backward Agriculture, Macmillan, New Delhi.*
4. *Bhalla, G.S (1994): Economic Liberalization and Indian Agriculture, Institute for Studies in Industrial Development, New Delhi.*
5. *Bilgrami, S.A.R. (1996): Agricultural Economics, Himalaya Publishing House, New Delhi.*
6. *Dantwala, M.L. et al (1991): Indian Agricultural Development Independence, Oxford & IBH, New Delhi.*
7. *Government of India (1976): Report of the National Commission on Agriculture, New Delhi.*
8. *Gulati, A and T. Kelly (1999): Trade liberalization and Indian Agriculture, OUP, New Delhi.*
9. *Schultz, T.W.: Transforming Traditional Agriculture.*

M.A E402- ENVIRONMENTAL ECONOMICS

Course Outcomes:

On successful completion of the course, students will be able to

- apply economic principles for applied environmental issues; and
- select and apply appropriate economic techniques to solve environmental problems and measure value of environmental goods.

Module-I: Environmental Economics – An Introduction

Environmental Economics— meaning, scope and rationale; Environment and the economy— inter-linkages and trade-off; Market failure and environmental degradation—public goods, externalities and Common property resources – Tragedy of Commons.

Module-III: Environmental Pollution

Types of pollution and economic effects of pollution: Air Pollution, water pollution, Soil Pollution, Noise pollution. Solid Waste Management: Types of Solid waste, Factors affecting the solid waste generation, Impact of solid wastes, Recycling and reuse.

Module II: Environmental Regulation

Environmental Pollution as a Public Bad, Externality (Pigou), Property Rights (Coase), Pollution Control Alternative market based & non market based Instruments: command and control mechanism, taxes, subsidies, quotas, Tradable permits, Abatement Cost.

Module-IV: Global Environmental Issues

Global Environmental Issues: Climate Change: Causes, Impacts on India & World-Acid Rain – Global Warming – Ozone layer depletion – Global actions against climate change—Montreal protocol, Rio Declaration on environment and development, Kyoto protocol. Paris Agreement, National Action Plan on Climate Change.

Reading List

1. A.M. Hussain, (1999); Principals of Environmental Economics, Rutledge, London.
2. N. Hanley et al, (1999); Environmental Economics in theory and Practice, Macmillan India Ltd, New Delhi
3. C.D. Kolstad, (1999), Environmental Economics, Oxford University Press, New Delhi.
4. R. Acharya, (2013); Trade and Environment, Oxford University Press, New Delhi
5. R.N. Batacharya, (2001); Environmental Economics—An Indian Perspective, Oxford University Press, New Delhi.
6. Dr. B. R. Ambedkar Open University, A Text book of Environmental Science, Hyderabad.
7. Barry C. F. and Martha K. F., Environmental Economics, McGraw Hills, Irwin.
8. Hussain A. M., Principals of Environmental Economics, Rutledge London, 1999.
9. Kolstad, C.D., Environmental Economics, Oxford University Press, New Delhi, 1999.
10. Sankar, U., Environmental Economics, Oxford University Press, New Delhi, 1999.

M.A E403 - ECONOMETRICS

Course Outcomes: At the end of this course students will be able to:

- i. Conduct independent econometric and statistical analysis of data in an applied research setting
- ii. Use econometric software for data management and statistical analysis
- iii. Demonstrate their understanding of applied econometric analysis models/ methods with respect to choice of model, estimation method and interpretation of results.

UNIT – I: FUNDAMENTALS OF ECONOMETRICS:

Nature, and scope of Econometrics – Definitions – Objectives – Uses and Limitations. Variables: Dependent, Independent, exogenous, endogenous, Predetermined, Discretionary and Non-discretionary exogenous variables. Relation between Econometrics, Mathematical Economics and Statistics. Types of data: Time Series data – Cross section data – Pooled data with suitable examples.

UNIT – II: TWO VARIABLE REGRESSION MODEL:

A simple econometric model – Reasons for introducing disturbance term – Specification of the model – Basic assumptions – Ordinary least squares estimators – Variance of the estimators – OLS estimators are BLUE. R^2 – Statistical inference in OLS model – Analysis of Variance. Maximum likelihood estimation. Multiple regression equation (with two independent variables) Estimation.

UNIT – III: SINGLE EQUATION MODELS:

Autocorrelation: Causes of Autocorrelation – Coefficient of Autocorrelation – The first order Autoregressive scheme – Effects of Autocorrelation – Detection of Autocorrelation – Remedial Measure. Multicollinearity: Reasons – Consequences – Detection of Multicollinearity – Remedial measures. Heteroscedasticity: Reasons – Consequences – Tests – Remedial measures. Errors in variables: Problem – Causes – Consequences – Remedial measures.

UNIT – IV SIMULTANEOUS EQUATION MODELS:

Dummy variables: Uses – Features – Dummy dependent variables. Lags: Uses of lags in Economics – Reasons – Autoregressive model – Distributed lags models. Almon's approach – Koyck approach – Adaptive Expectation model – Partial Adjustment model. Simultaneous Equations: Definition – Bias – Consequences. Identification: Rules of Identification – Reduced form. Estimation Methods: Indirect Least Squares (ILS) – Two Stage Least Squares (2SLS) – K class estimators – Instrumental variable method.

Reading List:

1. Gujarati. D.N. (2007) Basic Econometrics, (4th Edn.) McGraw Hill, New Delhi .
2. Intrilligator, M.D. (1978) Economics Methods, Techniques and Applications Prentice Hall, New York.
3. Johnston, J. (1991) Econometrics, McGraw Hill, London.
4. Koutsoyiannis A (2001) Theory of Econometrics Palgrave, New York.
5. Krishna K.L (1997) Econometric Applications in India, Oxford University Press, New Delhi.
6. Theili H, (1981) Introduction to Econometrics, Prentice Hall, New Delhi.
7. Madanani, G.M.K. (1994), Introduction to Economics, Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
8. Mehatha B.C & Kranti Kapoor (2010) Fundamentals of Econometrics, Himalaya Publishing House, Mumbai.
9. Shyamala, Navadeep Kuar and Arul Pragasam. T (2010) A text book of Econometrics, Vishal Publishing Co; Jalandhar.
10. Pindyck, S. Robert, Rubinfeld L. Daniel :(1984) Econometric models and Economic Forecasts, McGraw Hill, New Delhi.

M.A E404 - RESEARCH METHODOLOGY

Module-I: Introduction to Research Methodology

Meaning of Research, Objectives of Research, Types of Research, Research Approaches: Inductive research approach - Deductive research approach, Research Design: Exploratory Research Design – Descriptive Research Designs

Module-II: Research Plan

Analysis of Literature Review - Identification of Research Gaps - Identification, selection and formulation of research problem - Formulating Hypotheses - Sample design - Sampling techniques - Sample size.

Module-III: Data Collection and Analysis

Sources of Data – Primary, Secondary and Tertiary – Types of Data – Categorical, Nominal & Ordinal. Methods of Collecting Data: Observation, Field Investigations, Direct Studies – Reports, Records or Experimental observations.

Module-IV: Interpretation and Report Writing: Meaning of Interpretation, Technique of Interpretation, Precaution in Interpretation, Significance of Report Writing, Different Steps in Research Proposal writing, Footnotes and Bibliography.

References

1. Sriwastava, S. C. : Foundation of Social Research and Economics Techniques, Himalaya Publishing House, 1990.
2. Bell, J.(1993). *Doing your research project: a guide for first-time researchers in Education and Social Science*, Buckingham, UK: The Open University.
3. Borg, W.R., & Gall, M.D.(1983). *Educational Research: An Introduction* (Fourth ed.) New York: Longman Inc.
4. Brinberg, D. and McGrath, J.E.(1985). *Validity and the research process*, Newbury Park, CA: Sage Publications, Inc.
5. Erickson, F.(1986). *Qualitative methods on research on teaching*. in M.C. Wittrock (ed.), *Handbook of research on teaching* (3rd ed., pp. 119 - 161). New York: MacMillan.
6. Krishnaswami O.R. : *Methodology of Research in Social Sciences*, Himalaya Publishing House, 1993.
7. Kothari, C.R, *Research Methodology: Methods and Techniques*, New Age International Publishers, 2010 , 2010
8. Bryman, A, *Social Research Methods*, Oxford University Press , 2012
9. Gupta, S. C. and Kapoor, V. K, *Fundamentals of Mathematical Statistics*, Sultan Chand and Sons, New Delhi. , 2010
10. Bruce E. Wampold and Difford J. Drew, *Theory and Application of Statistics*, McGraw-Hill International Editions. , 2010

M.A E405- ECONOMICS OF ANDHRA PRADESH

Course Outcomes:

1. To be able to equip the students with the theoretical, empirical and policy issues relating to the society, polity and economy of Andhra Pradesh. Further the course is to improve the general awareness knowledge for provide competitive exams.

Course Outline:

Module-I: Land Reforms in Andhra Pradesh

Land reforms Act in AP – Abolition of Intermediaries – Tenancy reforms – Land Ceiling Acts, Escheats Act, A.P. Assigned Land Act, A.P. Urban Land Act, Land grabbing control Act – Computerization of land records – Problems and Recommendations of Koneru Rangarao Committee

Module-II: Regional Disparities in A.P. Economy

Structure of A. P. Economy – Income and Employment Pattern in Andhra Pradesh – Magnitude of poverty (rural and urban) and Illiteracy – Causes and measures – Demographic features in A.P – Sex ratio, MMR, IMR, Density, Age composition – Social, Political and Economic Empowerment of Women, Sustainable Development Goals of Andhra Pradesh.

Module-III: Planning in Andhra Pradesh

Five plans of A.P. – Objectives, outlays of public sector plans. Aims, objectives and resources allocation pattern in the recent five year plan, Current Budget policy – Tax structure: Direct and Indirect taxes – Allocation for different sectors – Public debt of AP- Public Distribution System in A.P

Module-IV: Sectoral Economy

Agricultural sector – Green revolution, changes in Agri-Technology. – Procurement price, Administered price and Support price, - Growth and Structure of industries in AP: Weaknesses and problems – Service sector of AP with special reference to Transport and Communications, Tourism and Information technology

Reading List:

1. R.S.Rao, Fifty years of A.P. 1956-2006, CDR and communications, Himayat Nagar, Hydarebad.
2. V.H.Rao, A.P. at fifty, CDR and communications, Himayat Nagar, Hyderabad.
3. C.H. HanumanthaRao and MahendraDev, A.P. development, Economic Reforms and Challenges ahead, CESS, Begumpet, Hyderabad.
4. Y.V.KrishnaRao and S.Subramanyam, Development of A.P. 1956-2001 – A Study of Regional disparities, NER Research Central, Vishalandhra Publishers, Hyderabad.
5. Statistical Abstract of A.P.
6. Socio-Economic Survey of A.P., Govt. of A.P.
7. Govt. of A.P., Human Development Report, A.P. CESS, Hyderabad.
8. J.C.Dhingra, Indian Economy: Environmental policy, Sulthan Chand, New Delhi.
9. Dutt and Sundaram, Indian Economy, Sulthan Chand, New Delhi, 2017.
10. Economics Surveys, Ministry of Finance, GOI, New Delhi.