

Core Paper - 1

EMT 201: MICROECONOMIC THEORY- II

The microeconomic theory is to analyze how individual decision-makers, both consumers and producers, behave in a variety of economic environments. The factor prices are land, labour, capital and organization, determination of factor prices, pricing of factors; Ricardian theory of Rent, wage determination under perfect competition, classical theory of interest, theories of Profit; static and dynamic equilibrium, Walrasian System of General Equilibrium, Existence and Stability of General Equilibrium, externalities and Allocative Efficiency; Adam Smith, Bentham, Pigou, Kaldor-Hicks Compensation Criteria. The Fundamental concepts of supply and demand, rational choice, efficiency, opportunity costs, incentives, production, profits, competition, monopoly, externalities, and public goods will help you to understand the world around you.

Unit 1: Factor Markets

Factor Pricing: Marginal Productivity Theory of determination of Factor prices - Factor shares and the 'Adding up' problem - Euler's theorem - Pricing of factors under Imperfect Competition.

Unit 2: Functional Distribution

Theories of Rent: Concept of Rent – Ricardian theory of Rent – Quasi Rent, Theories of Wages: Wage determination under Perfect competition, Monopsony and Collective bargaining Bilateral Monopoly), Theories of Interest: Classical theory of interest – Loanable fund theory – Keynes liquidity preference theory of interest, Theories of Profit: Profit as dynamic surplus – innovations and profits – risk uncertainty and profits

Unit 3: Economics of Information

Basic Concepts of Economics of Information - Economic Value of information - Role of information in Economic theory – Information, a measure of risk - Bayes' Rule - Classical Paradoxes - Choice under Risk - Risk Allocation in Exchange Economies Model - Monopolist Insurer - Perfect Competition - Adverse Selection - Monopolistic Screening, Competition and Market Breakdown - Public Intervention - Brief introduction to Game theoretic approach to information use.

Unit 4: General Equilibrium

Meaning of Partial and General Equilibrium – Static and Dynamic Equilibrium – Stable and Unstable Equilibrium –Walrasian System of General Equilibrium - Existence and Stability of General Equilibrium - Externalities and Allocative Efficiency.

Unit 5: Welfare Economics

Welfare Economics – Criteria of Social Welfare – Adam Smith, Bentham, Pigou, and Cardinal school – Pareto Optimality in Consumption, Production and Distribution – Kaldor-Hicks Compensation Criteria- Bergson Social Welfare Function - Social Choice Theory, Coase and Sen.

TEXT AND REFERENCE BOOKS:

1. J.M. Henderson and R.E. Quandt (2003) *Microeconomic Theory: A Mathematical Approach*, Tata McGraw Hill publishing company Ltd.
2. Hal R. Varian (1995), *Intermediate Microeconomics: A Modern Approach*, East West Press.
3. A. Deaton and J. Muellbauer (1987) *Economics and Consumer Behaviour*, Cambridge University Press.
4. A. Koutsoyiannis, (1979), *Modern Microeconomics*, London: Macmillan.
5. Macho-Stadler, I and D. PerezCastrillo (1997): "An Introduction to the Economics of Information", Oxford University Press.
6. J. Hirshleifer and J. Riley (1992): "The Analytics of Uncertainty and Information", Cambridge University Press
7. J.-J. Laffont (1989): "The Economics of Uncertainty and Information", MIT Press
8. L. Phlips (1988): "The Economics of Imperfect Information", Cambridge University Press
9. T. Van Zandt (2006): "Introduction to the Economics of Uncertainty and Information"
10. K. Binmore (2011): "Rational Decisions", Princeton University Press
11. M. Osborne: "An Introduction to Game Theory", Oxford University Press.

Learning Outcomes

After successfully completing the course microeconomic theory the graduate is able to:

The factor prices are land, labour, capital and organization, determination of factor prices, pricing of factors; Ricardian theory of Rent, wage determination under perfect competition, classical theory of interest, theories of Profit; static and dynamic equilibrium, Walrasian System of General Equilibrium, Existence and Stability of General Equilibrium, externalities and Allocative Efficiency; Adam Smith, Bentham, Pigou, Kaldor-Hicks Compensation Criteria. Microeconomics shows conditions under which free markets lead to desirable allocations. The major goals of microeconomic policy are efficiency, equity and growth. Economic growth is often treated as a macroeconomic issue, but it is closely related to the micro-behaviour of the economy and the functioning of markets.

Core Paper - 2

EMT 202: MACROECONOMIC THEORY – II

Macroeconomics refers to the study of the overall performance of the economy. While microeconomics studies how individual people make decisions, macroeconomics deals with the overall aggregate effect of microeconomics. Macroeconomics is crucial for the government to understand and predict the long-term consequences of their decisions. The overarching goals of macroeconomics are to maximize the standard of living and achieve stable economic growth. The goals are supported by objectives such as minimizing unemployment, increasing productivity, controlling inflation, and more. The objectives are Full employment. Price stability. A high, but sustainable, rate of economic growth. Keeping the balance of payments in equilibrium.

OBJECTIVES :

- Macroeconomics refers to the study of the aggregate economy.
- The primary goals of macroeconomics are to achieve stable economic growth and maximize the standard of living.
- Economic indicators are a good source of information to track macroeconomic performance.
- Monetary policy and fiscal policy are tools used by the government to control economic performance and reach macroeconomic goals.

Unit 1: Demand for and Supply of Money

The Classical View- Neo-classical view-Quantity Theory of Money – Keynes and the Demand for Money - Post Keynesian theories of demand for money - Baumol , James Tobin and Friedman – Concept of Money Supply – Components of Money Supply – RBI approach to Money supply – High Power Money and Money Multiplier – Determinants of Supply of Money.

Unit – 2: Macro Theories of Distribution

Functional Versus Personal Distribution of Income - Micro versus Macro-theories of Distribution - Marxian, Ricardian, Kelecki Theories of Distribution - Alternate theories of distribution – Kaldor.

Unit 3: Trade Cycles

Meaning and Types of Trade Cycles – Different theories of Trade Cycles – Samuelson`s Model of Trade Cycle – Hicks` Theory Cycle – Kaldor`s Model of Trade Cycle – Control of Business Cycle – Monetary and Fiscal Policies.

Unit 4: Theories of Inflation

Meaning and Types of Inflation – Demand-Pull inflation – Cost-Push Inflation – The Phillips curve – The Inflation – Unemployment trade-off - The Monetarists Accelerationists` Hypothesis – Rational Expectations Hypothesis – New-classical and Real Business cycles Theorem – Post-Keynesians - Implications for Stabilization Policies.

Unit 5: Macroeconomic policies

Objectives of Macroeconomic policies – Objectives of Monetary policy – The policy of Activists arguments – The policy of Non-activists arguments - Fiscal policy – objectives and tools - Automatic stabilizers – Problems of using of Fiscal policies – Effectiveness of Monetary and Fiscal policies –The concept of Open Economy macroeconomics.

TEXT AND REFERENCE BOOKS:

1. Ackley, G. Macroeconomic theory, Macmillan
2. Edward Shapiro, Macroeconomic Analysis, 5th edition, New-Delhi Galgotia publications.
3. Branson, W.B., Macro Economic Theory and Policy.
4. Gupta, S.B., 1983, Monetary Economics, Chand and Co.
5. Hicks, J.R., Mr. Keynes and the Classics; A suggested Interpretation, Econometrics,
6. Laidler, D.E.W., Demand for money.
7. Friedman, M. (ed), The quantity theory of money – A Restatement of studies in the quantity theory of money.
8. Patinkin, Don., Money, Interest and Prices.
9. Rosalind Levacic and Alexander Rebthann, 1982, Macroeconomics; The English Language Book Society and Macmillan.
10. Rongar L. Miller and Robert Pulsinelli, Macroeconomics.

Goals of Macroeconomics

The overarching goals of macroeconomics are to maximize the standard of living and achieve stable economic growth. The goals are supported by objectives such as minimizing unemployment, increasing productivity, controlling inflation, and more. The macro economy of a country is affected by many forces, and as such, [economic indicators](#) are invaluable to assessing different aspects of performance.

Core Paper - 3

EMT 203: BASIC ECONOMETRICS

Ragnar Frisch, along with Jan Tinbergen, pioneered development of mathematical formulations of economics. He coined the term econometrics for studies in which he used statistical methods to describe economic systems. Econometrics is the use of statistical methods using quantitative data to develop theories or test existing hypotheses in economics or finance. Econometrics relies on techniques such as regression models and null hypothesis testing. Econometrics can also be used to try to forecast future economic or financial trends. By taking this introduction to econometrics you will gain an overview of what econometrics is about, and develop some “intuition” about how economic things work.

Course Objectives

The objective of this course is to provide the basic knowledge of econometrics that is essential equipment for any serious economist or social scientist, to a level where the participant would be competent to continue with the study of the subject in a Master’s programme.

- ✓ This course is designed to define Econometrics, Steps in Empirical Economic Analysis, Different types of data involved in econometric Analysis.
- ✓ The courses involved Simple and Multiple Linear regression model and Functional forms of Non-Linear Regression models.
- ✓ Basic concept of Auto regressive distributed lag model (ARDL) developed which will be helpful for future research work with time series data.

Unit 1: Nature of Econometrics and Economic Data

Definition of Econometrics – Steps in Empirical Economic Analysis - Econometric Model – The Role of Measurement in Economics – The Structure of Economic Data: Cross-Sectional data, Time Series data, Pooled Cross Section data, Panel Data.

Unit 2: Simple Regression Model

Two Variable Linear Regression Model: Assumptions, Estimation of Parameters, Tests of Significance and Properties of Estimators – Functional forms of Regression models – Log-linear models, Semi log- models and Reciprocal models – Choice of Functional Form.

Unit 3: The General Linear Model

Review of Assumptions, Estimation and Properties of Estimators: Un-biasness, BLUEs and Tests of significance of estimates – Analysis of Variance - **Dummy variables** - Nature of Dummy variables – Use of Dummy Variables – Errors in Variables and its consequences.

Unit 4: Auto-regressive and Distributed Lag Models

Introduction – Types of Lag schemes - Koyck’s lag model, Almon’s Lag scheme, Partial Adjustment and Expectations models - Causality in Economics – The Granger Causality Test.

Unit 5: Simultaneous Equation Models

Specification – Simultaneous Bias – Inconsistency of OLS Estimators - The concept of Identification, Rank and Order conditions for Identification – Indirect Least Squares - Two stage Least Squares (without proof), Problems.

TEXT AND REFERENCE BOOKS:

- 1) Johnston, J: *Econometric Methods*, McGraw-Hill Book Co., New York.
- 2) Maddala, G.S: *Econometrics*, McGraw-Hill Book Co., New York, 3rd Ed.
- 3) Gujarathi, D.N: *Basic Econometrics*, Fourth Edition, Tata McGraw-Hill, New Delhi.
- 4) Tintner, G: *Econometrics*, John Wiley & Sons, New York.
- 5) Wooldridge, Jeffery M: *Econometrics*, Cengage Learning India Pvt. Ltd, New Delhi.

Learning Outcomes

After successfully completing the course Basic Econometrics the graduate is able to:

At the end of the programme, the students will have adequate competency in the frontier areas of economic theory and methods. Formulation and estimation of a multiple regression model. Decision about the statistical significance of individual explanatory variable and also over all models. Impacts for the violation of one of the important assumptions for application of OLS regression. The students will acquire additional specialization topics are estimation of system of equations, estimation of panel data models, generalized method of moments, discrete response models, censored regression models and estimation of average treatment effects.

Core Paper - 4

EMT 204 PRACTICAL – II BASIC ECONOMETRICS AND MATHEMATICAL ECONOMICS

Econometrics is a set of research tools used to estimate and test economic relationships. The aim of this course is to provide you with the practical skills helpful in filling the gap between being “a student of economics” and being “a practicing economist.” The emphasis of this course will be on understanding the tools of econometrics and applying them in practice. Graduates are well prepared for the further study of contemporary economic theory based on advanced quantitative methods.

Course Objectives

This course explores Practical approach of the Mathematical and Econometric methods for economics. The main objectives of the course follow;

- The course designed about Practical knowledge of mathematical concepts specially related to Input-output analysis and Linear Programming which are most important in economic decisions.
- This course covered Practical knowledge of OLS Method.
- The course involved practical approach of Multiple Linear Regression Model.
- Identify, Inconsistency of OLS Estimators.

This course is extension of practical practices of Basic Econometrics and Mathematical Economics what we mentioned in the courses of EMT 203 and EMT 205

Concepts are covered in this Practical Approach follows;

- Constrained Optimization with Lagrange Multipliers
- Input-Output analysis
- Linear Programming: Graphical method, Simplex method
- Simple Linear Regression Analysis.
- Multiple Linear Regression model.
- Identification, Rank and Order conditions for Identification, Indirect Least Squares method and Two stage Least Squares method.

Learning Outcomes

After successfully completing the course the graduate is able to:

Students who successfully complete EMT 204 should be comfortable with practical knowledge of Basic Econometrics and Mathematical Economics. Students can Identify Inter industrial relationships using Input-output analysis, also analyse maximization of profits and minimization of costs can evaluate using Linear Programming, which are covered in Mathematical Economics. Moreover, the student can gain knowledge of Different types of data, and analyse relationship of economic variables using simple and multiple regression models which are covered in basic Econometrics. who successfully completes this course will be able to

estimate and interpret linear regression models and be able to distinguish between economic and statistical importance? They should be able to critique reported regression results in applied academic papers and interpret the results for someone who is not trained as an economist.

Compulsory Foundation
EMT 205: MATHEMATICAL ECONOMICS

Mathematics Economics helps economists to perform quantifiable experiments and create models for predicting future economic growth. Advances in computing power, large-data techniques, and other advanced mathematical technologies have played a major role in making quantitative methods a fundamental aspect of economics. All of these elements are supported by scientific methods which advance the study of economics. The course is designed for the M.A. Econometrics. This course is the second part of a compulsory two-course sequence. This part is to be taught in Semester II following the first part in Semester I. The objective of this sequence is;

Course Objectives

The M.A in Econometrics includes two courses in basic mathematics – one in each semester of I and II semester. This is the second of these two courses.

- This course also introduces the Mathematical tools such as Differential Calculus and Economic Applications (Two or More Variables), Differential Equations and Economic Applications.
- This course explores Input-output analysis and Linear programming which is most important in the area of Inter industrial dependency and maximization of the profits and minimization of the cost of the firms.

Unit 1: Differential Calculus and Economic Applications (Two or More Variables)

Differential Calculus: Functions of two or more variables and Partial Derivatives – Rules of Partial Differentiation – Second-Order Partial Derivatives – Optimization of Multivariable Functions – Constrained Optimization with Lagrange Multipliers – Significance of Lagrange Multiplier – Differentials – Total and Partial Differentials – Homogeneous Functions – Euler’s Theorem – Partial Elasticities; **Economic Applications:** Maximization of Utility – Minimization of Cost – Maximization of Cost, Profit – Elasticity of Substitution

Unit 2: Differential Equations and Economic Applications

Definitions and Concepts – Linear Differential Equations of the First and Second Order with constant coefficient – Non-linear Differential equations of First-Order and First Degree – Variable Separable Case, Differential Equations with homogeneous equations - Economic Applications of Differential Equations – Dynamic Multiplier – Harrod-Domar Model.

Unit 3: Difference Equations and Economic Applications

Definitions and Concepts – Homogeneous Linear Difference Equations with Constant Coefficients – Particular Solution of Non-homogeneous Linear Equations – Linear First Order and Second Order Difference Equations with constant coefficients – Cobweb Model –Market model with Stocks – Dynamic Multiplier – Multiplier Acceleration Model : Harrod Domar Model – Multiplier’s Accelerator Interaction Model of Samuelson.

Unit 4: Input-Output Analysis

Assumptions - Technological Co-efficient Matrix – Closed and open Model – Solution of Open Model – Hawkins-Simon Conditions – Dynamic Input-Output Model – Production Function Approach to Input Output Model.

Unit 5: Linear Programming

Basic Concepts – Formulation of LPP – Basic and Feasible Solutions – Graphical Solution - Simplex Method – Duality in Linear Programming – Elements of Data envelop Analysis and its Applications.

TEXT AND REFERENCE BOOKS

- 1) Allen, RGD: Mathematical Analysis for Economists.
- 2) Mehta, BC and Madanani GMK: Mathematics for Economists, Sultan Chand and Sons, Delhi.
- 3) Taro Yamane: Mathematics for Economists (An Elementary Survey), Prentice Hall of India Private Ltd, New Delhi.
- 4) Alpha C. Chang: Fundamental Methods for Mathematical Economics.
- 5) Barry Bressler: A Unified introduction of Mathematical Economics
- 6) Dowing, Edward T: Introduction to Mathematical Economics, (2/ed.), Schaum's Outlines, McGraw Hill, 1980.
- 7) Bose, D: An Introduction to Mathematical Economics, Himalaya Publishing Company, Delhi.

Learning Outcomes

After successfully completing the Mathematical Economics the graduate is able to:

Students can deal Mathematical calculation of static optimization, Application of Lagrange's method and also student can evaluate Differential Equations and with Economic Applications. who successfully complete this course will be able to estimate and interpret Inter industrial relationships using Input-output analysis, also analyse maximization of profits and minimization of costs of the firms using Linear Programming method.

Elective Foundation

EMT 206: HUMAN VALUES AND PROFESSIONAL ETHICS – II

Human values are the virtues that guide us to take into account the human element when we interact with other human beings. ... It is with those human values that one becomes truly able to put into practice his/her ethical values, such as justice, integrity, and refusal of violence and ban to kill – even in a crisis situation. To create awareness on Management Ethics and Human Values. To inspire Moral and Social Values and Loyalty. To appreciate the rights of others. The prime objective of the Professional Ethics is to develop ability to deal effectively with moral complexity in students. To understand the moral values that ought to guide the Engineering profession, (b) To resolve the moral issues in the profession, and (c) To justify the moral judgment concerning the profession.

Course Objectives

This course explores of the Human values and professional ethics for economics. The main objectives of the course is the value Education, concept of human values, self-introspection, self-esteem, family values and responsibilities of family, threats of family life - status of women in family and society; The medical ethics, responsibility of medical practitioners. ethical issues; business ethics immoral and illegal practices, ethical abuses and work ethics; environmental ethics, ecological crisis; social ethics and ethics of media.

Unit-I: Value Education- Definition - relevance to present day - Concept of Human Values - self introspection – Self-esteem - Family values-Components, structure and responsibilities of family- Neutralization of anger - Adjustability - Threats of family life - Status of women in family and society - Caring for needy and elderly - Time allotment for sharing ideas and concerns.

Unit-II: Medical ethics- Views of Charaka, Sushruta and Hippocrates on moral responsibility of medical practitioners. Code of ethics for medical and healthcare professionals. Euthanasia, Ethical obligation to animals, Ethical issues in relation to health care professionals and patients. Social justice in health care, human cloning, problems of abortion. Ethical issues in genetic engineering and Ethical issues raised by new biological technology or knowledge.

Unit-III: Business ethics- Ethical standards of business-Immoral and illegal practices and their solutions.Characterics of ethical problems in management, ethical theories, causes of unethical behavior, ethical abuses and work ethics.

Unit-IV: Environmental ethics- Ethical theory, man and nature- Ecological crisis, Pest control, Pollution and waste, Climate change, Energy and population, Justice and environmental health.

Unit-V: Social ethics- Organ trade.Human trafficking.Human rights violation and social disparities, Feminist ethics.Surrogacy/pregnancy. Ethics of media- Impact of Newspapers, Television, Movies and Internet.

REFERENCES:

1. John S Mackenjie: A manual of ethics.
2. "The Ethics of Management" by Larue Tone Hosmer. Richard D. Irwin Inc.
3. "Management Ethics' integrity at work' by Joseph A. Petrick and John F. Quinn. Response Books: New Delhi.
4. "Ethics in Management" by S.A. Sherlekar, Himalaya Publishing House.
5. Manu: Manava Dharma Sastra or the Institute of Manu: Comprising the Indian System of Duties: Religious and Civil (ed.) G.C.Halighton.
6. SusrptaSamhita: Tr.KavirajKunjanlal, KunjalalBrishagratha. Chowkarnba Sanskrit series. VolLII and III, Varnasi, Vol I 00,16'20,21-32 and 74-77 only.
7. CarakaSamhita :Tr.Dr. Ram Karan Sarma and VaidyaBhagavan Dash, Chowkambha Sanskrit Series office. Varanasi I, 11.111 VolIIPP 183-191.
8. Ethics, Theory and Contemporary Issues. Barbara Mackinnon Wadsworth/Thomson Learning, 2001.
9. Analyzing Moral.Issues, Judith A. Boss. May Field Publishing Company - 1999.
10. An Introduction to Applied Ethics (Ed.) John H.Piet and Ayodhya Prasad. Cosmo Publications
11. Text Book for Intermediate First Year Ethics and Human Values. Board of Intermediate Education- Telugu ~ Akademi, Hyderabad.
12. I.C Sharma Ethical Philosophy of India. Nagin& co Julundhar

Learning Outcomes

After successfully completing the Human values and professional ethics the graduate is able to:

The value Education, concept of human values, self-introspection, self-esteem, family values and responsibilities of family, threats of family life - status of women in family and society; The medical ethics, responsibility of medical practitioners. ethical issues; business ethics immoral and illegal practices, ethical abuses and work ethics; environmental ethics, ecological crisis; and social ethics, ethics of media. Honesty, open disclosure and sincerity are all characteristics of ethical behaviour. Many organizations include a commitment to ethical behaviour in their code of conduct. Professionals can adopt a personal code of conduct and make the same commitment on an individual basis. Professional ethics are accepted standards of personal and business behaviour, values and guiding principles. Codes of professional ethics are established by professional organizations to help to guide members in performing their job

functions according to sound and consistent ethical principles. The principles are beneficence, non-maleficence, autonomy, justice; truth-telling and promise-keeping.
