COMPARATIVE COURSE STRUCTURE

I SEMESTER (0ld)

Course	Title	Hours	Marks	Credits
		/		
		Week		
MEC	Micro Economics	4	100	4
131				
		4		
MEC	Mathematical Economics		100	4
132				
MEC	Theory of Money & Banking	4	100	4
133				
MEC	Public Economics	4	100	4
134				
Elective				
S				
MEC	Security Analysis & Portfolio	3	100	3
141	Management			
MEC	Global Marketing Management	3	100	3
142				
	TOTAL	19		19

I SEMESTER (New)

Course	Title	Hours	Marks	Credits
		1		
		Week		
MEC	Micro Economics 1	4	100	4
131				
		4		
MEC	Macro Economics - 1		100	4
132				
MEC	Mathematical Methods	4	100	4
133				
MEC	Financial Accounting and	4	100	4
134	Financial Statement Analysis			
MEC	Economics of Growth	4	100	4
135				
	TOTAL	20		20

II SEMESTER (Old)

Course	Title	Hours	Marks	Credits
		/		
		Week		
MEC	Macro Economics	4	100	4
231				
MEC	Statistical Economics	4	100	4
232				
MEC	Economics of Growth &	4	100	4
233	Development			
MEC	Economics and Law	4	100	4
234				
Elective				
S				
MEC	Economics of Insurance	3	100	3
241				
MEC	Global Financial Markets &	3	100	3
242	Instruments			
	TOTAL	19		19

II SEMESTER (New)

Course	Title	Hours	Marks	Credits
		/		
		Week		
MEC	Micro Economics - 2	4	100	4
231				
MEC	Macro Economics – 2	4	100	4
232				
MEC	Statistics	4	100	4
233				
MEC	Mathematical Economics	4	100	4
234				
MEC	Economics of Development	4	100	4
235				
Electives				
MEC	Institutional Economics	3	100	3
241				
MEC	Financial Markets & Instruments	3	100	3
242				
	TOTAL	23		23

III SEMESTER (Old)

Course	Title	Hours	Marks	Credits
		/		
		Week		
MEC	Econometrics	4	100	4
331				
MEC	Research Methodology &			
332	Computer Applications	4	100	4
MEC	International Economics	4	100	4
333				
MEC	Environmental Economics	4	100	4
334				
Elective				
S				
MEC	Banking Practice	3	100	3
341				
MEC	Strategic Management	3	100	3
342				
	TOTAL	19		19

III SEMESTER (New)

Course	Title	Hours	Marks	Credits
		/		
		Week		
MEC	Public Economics	4	100	4
331				
MEC	Econometrics			
332		4	100	4
MEC	Research Methodology	4	100	4
333				
MEC	International Economics - 1	4	100	4
334				
MEC	Seminar Paper	4	100	4
335	-			
Electives				
MEC	Environmental Economics	3	100	3
341				
MEC	Security Analysis & Portfolio	3	100	3
342	Management			
	TOTAL	23		23

IV SEMESTER (Old)

Course	Title	Hours	Marks	Credits
		/		
		Week		
MEC	Health Economics	4	100	4
431				
MEC	Operations Research	4	100	4
432				
MEC	Indian Economy – policy & issues	4	100	4
433				
MEC	Dissertation	4	100	4
434				
	TOTAL	16		16

IV SEMESTER (New)

Course	Title	Hours	Marks	Credits
		/		
		Week		
MEC	Operations Research	4	100	4
431				
MEC	Indian Economy – policy & issues	4	100	4
432				
MEC	International Economics – 2	4	100	4
433				
MEC	Dissertation	4	100	4
434				
MEC	Comprehensive viva voce	4	100	4
435	-			
Electives				
MEC	Health Economics	3	100	3
441				
MEC	Derivatives	3	100	3
442				
	TOTAL	23		23

I Semester

MICRO ECONOMICS – I MEC 131/ SEMESTER I 4 Hours / Week Credits

Course Objectives:

- 1. Introduce students to both the traditional as well as modern ideas and theoretical concepts in Microeconomics.
- 2. To equip students with a rigorous and comprehensive understanding of the fundamentals in microeconomics.
- 3. To provide a fundamental understanding of the theory of price.

Module: 1 – Introduction

hours)

- a) Human behavior & scientific theories.
- b) Economic models.
- c) Problem of economic theory.
- d) Classification of markets.
- e) Basis of static & dynamic economics: method of analysis, formation of prices and equilibrium vs. disequilibrium.

Module: 2 – Theory of Demand & Consumer Behavior (25 hours)

- a) **Introduction:** value & choice: subjective value, rational choice, hedonism & marginalism.
- b) Theory of demand: (i) Cardinal utility analysis Ordinal utility analysis: indifference curve & its applications – Comparative analysis of cardinal vs. ordinal analysis – Revealed Preference Theorem of Samuelson – Hicks' Revision of the Theory of Demand – Consumer Surplus.
- c) **Theory of Demand: (ii)** Elasticity of demand Attribute Theory of Demand Intertemporal Choice Choice under Uncertainty & Risk.
- d) **Theory of Demand: (iii)** Other recent development: Constant Elasticity of Demand model, Distributed Lag Models & Linear Expenditure System Self interest vs. Altruistic Preferences Cognitive nuances of Consumer Behavior.

Module: 3 – Theory of Production & Costs hours)

4

(10

- a) **Theory of the Firm & its decisions:** Profit Maximization Hypothesis Sales Maximization Hypothesis Balance Growth Hypothesis Satisficing Hypothesis.
- b) **Theory of Production:** Returns to one variable input Returns with two variable input Returns to scale: expansion path, product lines and technical progress as well as production functions Optimum factor combination and product mix.
- c) **Theory of Costs:** Traditional theory of costs Modern theory of costs Engineering Costs Statistical Cost Curves Derivation of the cost function from production functions.

Reading List:

1. Koutsoyiannis, Modern Micro Economics, ELBS, Macmillan.

2. Lipsey, Richard G., *An Introduction to Positive Economics*, (3rd Ed), (1974), English Language Book Society & Weidfeld and Nicolson.

3. Frank, Robert H., *Microeconomics and Behavior*, (1991), McGraw Hill International Editions.

4. Watson, Donald Stevenson & Getz, Malcolm, *Price Theory and its uses*, (5th ed), (2004), AITBS Publishers and Distributors.

5. Nicholson, Walter, *Microeconomic Theory – Basic Principles and Extensions*, (1998), (2nd ed), The Dryden Press.

6. Ferguson & Kreps, Principles of Economics, Oxford & IBH Publishing Company.

7. Stonier, Alfred W. & Hague, Douglas C., *A Textbook of Economic Theory*, (4th ed) (1972), The English Language Book Society & Longman Group Ltd.

8. Stretton, Hugh, *Economics – A New Introduction*, (2000), Pluto Press.

9. Dopfer, Kurt (ed), *The Evolutionary Foundations of Economics* (2005), Cambridge University Press.

10. Dowling, John Malcolm & Fang, Yap Chin., *Modern Developments in Behavioral Economics* (2007), World Scientific.

11. Walliser, Bernard, *Cognitive Economics*, (2008), Springer Verlag, Berlin, Heidelberg. 12. Nutter, Warren G., *Political Economy & Freedom – A Collection of Essays*, ed., Jane Couch Nutter, (1983), Liberty Fund.

13. Hicks. J.R., *Value and Capital*, (2nd ed) (1964), The English Language Book Society and Oxford University Press.

14. Pigou. A.C., *The Economic of Welfare*, (4th ed), (1932), The English Language Book Society & Macmillan and Co Ltd.

15. Robinson, Joan, The Economics of Imperfect Competition.

16. Friedman, Milton, *Essays in Positive Economics*, (1953) (Reprint 1975), The University of Chicago Press.

17. Pindyck & Rubinfeld, Micro Economics, Prentice Hall India.

18. Giede & Reist, History of Economic Thought.

19. Ahuja. H. L., *Advanced Economic Theory – Micro economic Analysis*, S. Chand and Company.

I Semester

MACRO ECONOMICS - I MEC 132 / SEMESTER I

4 Hours / Week

4 Credits

Course Objectives:

a. Students will be able to identify the determinants of various macroeconomic aggregates such as output, unemployment, inflation, productivity and the major challenges associated with the measurement of these aggregates.

b. Students will be able to discuss the linkages between financial markets and the real economy, and how these linkages influence the impact of economic policies over differing time horizons.

c. Students will be able to describe the main macroeconomic theories of short term fluctuations and long term growth in the economy.

d. Students will be able to critically evaluate the consequences of basic macroeconomic policy options under differing economic conditions within a business cycle.

Module I: Introduction

What macroeconomics is about- Theory as model building- Prices: flexible vs. sticky-Microeconomic thinking and macroeconomic models-Measuring the value of economic activity: GDP- Real vs. Nominal GDP- GDP deflator-savings and Wealth-: Measures of Aggregate saving- The uses of private saving-Measuring the cost of living: The consumer price index- Measuring joblessness: The unemployment rate- Classical theory of output and employment- Keynesian theory of income determination

Module II: Consumption, Saving and Investment

Consumption and Saving: Keynes and the consumption function-Modigliani and the life cycle hypothesis-Milton Friedman and Absolute income hypothesis and the Permanent

(15 Hours)

(10 Hours)

income hypothesis- Robert Hall and Random Walk Hypothesis- Investment: Investment decision-Desired capital stock-Changes in interest rate-MEC and Capital Accumulation

Module III: Inflation and Unemployment

Inflation: Measures- Classical and Neo-classical theories of inflation- Keynesian and monetarist views on inflation-Unemployment: Natural rate of unemployment- Job search and frictional unemployment- Real wage rigidity and Structural unemployment- Inflation, unemployment and Phillips curve-Adaptive expectations and inflation inertiadisinflation-rational expectations

Module IV: Business Cycles Hours)

Cyclical behaviour of economic variables-leading indicators- Aggregate demand: Explaining fluctuations with the IS-LM model-IS-LM as a theory of aggregate demand-Aggregate demand in the open economy- Mundell- Fleming Model- Small open economy under floating and fixed exchange rates-Aggregate supply- Sticky wage model-imperfect information model-sticky price model

Module V: Post Keynesian Macroeconomics Hours)

Monetarism-The new classical macroeconomics-Supply side economics-Advances in business cycle theory: The theory of real business cycles-New Keynesian economicssmall menu costs- efficiency wages theory-insider-outsider model-implicit contract model-coordination failures

References:

1. N. Gregory Mankiw, Macroeconomics, Worth Publishers

2. Dornbusch, Fischer, Startz, Macroeconomics, Tata Mc Graw Hill

3. H.L. Ahuja, Macroeconomics: Theory and Policy, Advanced economic analysis, Sultan Chand Publishers.

4. D.N. Dwivedi, Macroeconomics: Theory and Policy, Mc Graw Hill.

5. Levacic and Rebman -Macro Economics-An Introduction to Keynesian and Neo-Classical Controversies

6.Brain Snowdown, Howard Vane and Peter Wynarczyk -A Modern Guide to Macro Economics: An Introduction to Competing School of Thought

7. Edward Shapiro - Macro economics

8. Ackley.G. – Macro economics

MATHEMATICAL METHODS MEC 133/ SEMESTER I

4 Hours / week

4 Credit

COURSE OBJECTIVE

(10 Hours)

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Basic concepts - Number system - Properties of real numbers - Theory of indices -Basic rules. Pareto's Law of distribution. Set Theory – Basic operations on sets – The Cartesian product. Elementary algebra - Factorization Linear and Quadratic Equations, Simultaneous Equations - Applications to Market Equilibrium Analysis. Understanding the nature of Cubic function, power function, Exponential and logarithmic functions. Interest compounding and compounding growth rates. Functions, Graphs, slopes and intercepts.

This course introduces basic mathematical tools needed for post graduate study in economics. The course aims at introducing the students to basic mathematical concepts

and methods necessary to begin with the core courses. The course will emphasize

intuition and problem-solving over rigor.

Limits - continuity- derivatives - Rules of differentiation - Higher order derivatives -Implicit differentiation - partial differentiation – Cross partial differentiation, Marginal concepts. Elasticity – Definition, Price elasticity of demand, Income elasticity, elasticity of substitution, Output elasticity and total cost elasticity. Uses of derivatives in Economics – Increasing and decreasing functions – concavity and convexity – Inflexion points.

Maxima and Minima - single and multivariable functions, constrained optimization and unconstrained optimization, Langrange Multiplier Method- Applications on consumer equilibrium, Utility Maximization Cost minimization, profit maximization.

Matrices – Addition - subtraction – Multiplication - Determinants – Inverse Matrices – solving linear equations with the inverse – Crammer's rule – Application of matrices in input-output analysis.

Integral calculus – Rules of integration, Definite Integral, Evaluation of integrals. **Economic Application -Consumer's surplus and Producer's surplus.**

Module VI

Module V

(8 Hours)

(12Hours)

(7 Hours)

(10 Hours)

(8 Hours)

Module II

Module III

Module IV

Module I

Differential equations – Solutions, non-linear differential equations of the first order and first degree – Variable and Separable case, Differential equation with homogeneous coefficients, Exact differential equations - Linear differential equations of the first order.

Module VII

(7 Hours)

Difference equations – General formula for first order linear equations – Economic applications.

Required readings

- 1. Allen, R.G.D. (1976). Mathematical Analysis for Economists, Macmillan.
- 2 Yamane, T. (1973). Mathematics for Economists, Prentice Hall, New Delhi
- 3. Edward T Dowling "Introduction to Mathematical Economics" McGraw Hill Ltd ., NewYork.
- 4. Chiang, A.C. (1974). *Fundamental Methods of Mathematical Economics*, McGraw Hill and Kogakusha, New Delhi.

Additional Reading List

- 1. Baumol, W.J. (1977). *Economic Theory and Operations Analysis*, Prentice Hall.
- 2. Lewis, J.P. (1978). Introduction to Maths for students of Economics., Macmillan, London.
- 3. Samuelson, P.A. (1967). Foundations of Economic Analysis, McGraw Hill, Tokyo
 - 4. Mehta & Madnani (1992). Mathematics for Economists, S. Chand, New Delhi.
- 5. Monga, G.S. (1972). *Mathematics and Statistics for Economists*, Vikas Publishing House, New Delhi.
- 6. Mathur, P.N. and R. Bhardwaj (eds.) (1967). *Economic Analysis in Input-Output Research*. Input-Output Research Association of India, Pune.

I Semester **FINANCIAL ACCOUNTING & FINANCIAL** STATEMENT ANALYSIS **MEC 134 / SEMESTER I** 4 Hours / Week **Objective of the course:**

This course on Financial Accounting and Financial Statement Analysis is intended to provide an introduction to the students of MA (Applied Economics) to financial accounting and to the area of financial statement analysis which would help them to appreciate the role of accounting principles, preparation of financial statements and its interpretation and analysis in the context of its important position in the area of finance in general. This is intended to be a directional course to help the students choose their electives in the subsequent semesters.

Module 1

Financial Accounting:

(Ch 1,2,3,4,7,8,9 and 12 of Problems and Solutions in Advanced Accountancy, volume 1, 6e of S N Maheshwari and S K Maheshwari)

Basic Concepts- an overview, Journalizing transactions, ledger posting and trial balance. Sub-division of journal- cash journals and goods journals. Final accounts without adjustments and with adjustments, rectification of errors, Depreciation, Provisions and Reserves. Accounts of non-trading institutions – preparation of income and expenditure account, preparation of receipts and payments account, preparation of balance sheet. Module 2

Financial Statement Analysis:

The Basics of financial statements (Ch 2 and 3 of Financial Statements Demystified by David Hey Cunningham)

The purpose of financial statements, Balance sheet, Income statement, Cash flow statement, Summary of the financial statements. Underlying accounting principles and assumptions for the accounting rules, International Accounting Standards Board, brief introduction to IFRS

4 Credits

(4 Hours)

(20 hours)

(Ch 3 of Analysis of Financial Statements by Charles Gibson) (Ch 5 to 9 of FSD by DHC) (Ch 7 and 10 of Financial Statement Analysis and Security Valuation by **Stephen H Penman**)

Assets – its components and the importance of its valuation. Liabilities – its components, Equity - its components, Retained earnings, dividends and stock splits, Profit and Loss -Income and expenses, changes in accounting policies, disclosure of revenue and expenses, profit and loss statement formats, legality of distributions of profits to stockholders

Module 3

(11 Hours)

(Ch 5 to 9 of FSD by DHC) (Ch 7 and 10 of FSA and SV by SHP)

Analysis of Profitability: distinguishing financing and operating activities and the effect of financial and operating leverage on profitability, EBIT, EBITDA, drivers of operating profitability, profit margin drivers, turnover drivers, return on net operating assets, return on assets, , debt to equity ratios, borrowing cost drivers.

(Ch 7 and 10 of AFS by CG)

Statement of cash flows: Basic elements of the statement of cash flows, financial ratios and statement of cash flows preparation, drivers of free cash flow, FCFF, FCFE, importance of cash flows to valuation. Income statement consideration when determining long term debt paying ability, balance sheet consideration when determining long term debt paying ability, special items that influence a firm's long term debt paying ability

Module 4

(Ch 5 of AFS by CG) and (Ch 10 of FSD by DHC) (Ch 8 of FSA and SV by SHP)

Basics of Analysis: Ratio analysis : Ratios - Liquidity, Financing, Profitability, Market performance ratios, Du Pont ratios- Intra and Inter Company analysis, Price to Book ratios, Price Earnings ratios and growth, Payout and retention ratios of shareholders equity. Common-size analysis (Vertical and Horizontal), Year to Year change analysis, Financial statement variations by type of industry, comparisons, relative size of firms.

(Ch 12 of FSA and SV by SHP)

Analysis of growth and sustainable earnings: Analysis of changes in profitability and sustainable earnings, analysis of change in operations, analysis of changes in financing, analysis of growth in investment, analysis of sustainable growth

Module 5

(Ch 14 of FSA and SV by SHP)

Simple forecasting from book values, from earnings, from accounting rates of return and simple forecasts of growth and return on net operating assets

Module 6

(Ch 9 of AFS by CG)

For the Investor: Leverage and its effects on earnings, EPS, PE ratio, % of earnings retained, dividend payout ratio, dividend yield, BV per share, stock options.

Project work involving PROWESS data base of CMIE which is subscribed and maintained by our MCA lab should be used by the students for exercise and project work. (10 hours)

Reference Books:

(1 hour)

(3 hours)

(11 Hours)

- 1. Analysis of Financial Statements by Charles H Gibson
- 2. Financial Statements Demystified by David Hey Cunningham 4e, Viva (available in the MFM section of the library)
- 3. Financial Statement Analysis and Security Valuation by Stephen H Penman, McGraw Hill International Edition (available in the library)
- 4. Mastering Financial Modelling in Microsoft Excel by Alastair L Day, 2e
- 5. Problems and Solutions in Advanced Accountancy, Volume 1, 6e of S N Maheshwari and S K Maheshwari, Vikas.

I Semester

ECONOMICS OF GROWTH

MEC 135 / SEMESTER I

4 Hours/week

4 credits

Objective:

This course will introduce you to the field of economics of growth. It will begin by exploring the concept of growth, and go through various theories of growth that will give a strong foundation to the understanding of growth process. It would also examine the experiences of the economies which have witnessed a surge in growth.

Module I:

Historic Economic Growth Accounting and the Convergence Debate. (16 hours)

The economics of growth and development: capital accumulation, population and labour force growth, and technological progress. Kuznets' six '*stylized facts*' of modern economic growth. The historical growth experience and differing initial conditions. Conditional and unconditional convergence, catching up and falling behind.

Module II: Contemporary Theories of Growth

- I. Classical models: Smith, Ricardo, Marx;
- II. Keynesian Model;
- III. theories of capital accumulation:

the Harrod-Domar model,

(13 hours)

(16 hours)

Module III: Neoclassical theories:

a)	the growth model (Solow, Harberger);
b)	Kaldor's model of growth,
c)	Meade's model of growth,
d) theories)	endogenous technical progress and human capital (recent growth
e)	Lucas' model

Module IV: Measuring growth:

The economic development of the first, second and third world in a historical perspective. Growth experience of Singapore, Thailand, Indonesia, Long-term characteristics of capitalistic development. Patterns of growth. GDP comparisons. Human development index rankings. 15 hrs

Basic references:

- Michael Todaro, *Economic Development*, Addison-Wesley, Reading, New York & London, Seventh Edition (2000).
- Gerald Mayer, *Leading Issues in Economic Development*, Oxford University Press, Oxford (1995).
- David Colman, Frederick Nixson, *Economics of Change in Less Developed Countries*, Harvester Wheatsheaf, London, Third Edition (1994).
- Debraj Ray, *Development Economics*, Princeton University Press, Princeton, New Jersey (1998).

II Semester

MICRO ECONOMICS – II MEC 231/ SEMESTER II 4 Hours / Week

4 Credits

(15 hours)

Course Objectives:

- 1. Introduce students to both the traditional as well as modern ideas and theoretical concepts in Microeconomics as a progress or continuum from Microeconomics I course
- 2. To provide a fundamental understanding of market theory, theory of factor pricing, theory of general equilibrium and welfare economics.

Module: 1 – Market Structure and Pricing

(20

(20)

hours)

- a) The necessary & sufficient condition of firm's equilibrium & Basics of Perfect Competition.
- b) Monopolistic Competition: general and Chamberlain approaches to equilibrium, equilibrium of the firm and the group with product differentiation, selling costs and advertising, excess capacity under monopolistic competition and criticism of monopolistic competition.
- c) Oligopoly and Duopoly models: collusive and non collusive models: Cournot, Bertrand, Chamberlain, Sweezy, Stackelberg models; cartels and price leadership.
- d) Monopoly: short run and long run equilibrium, price discrimination, welfare aspects of monopoly, monopoly control and regulation.
- e) Monopsony.
- f) Basic methods & strategies of pricing.

Module: 2 – Theory of Distribution

hours)

- a) Introduction: a general view of distribution.
- b) Neoclassical approach: Marginal Productivity Theory.
- c) Factor pricing in competitive and imperfectly competitive markets.
- d) Labor Unions and collective bargaining.
- e) Other theories of distribution: Ricardo, Marx, Kalecki and Kaldor.

Module: 3 – General Equilibrium and Welfare Economics (20 hours)

a) General Equilibrium analysis in production and exchange – The Walrasian approach.

- b) Introduction to Welfare Economics and Conditions of Pareto Optimality.
- c) New Welfare Economics: Compensation Principle: Hicks, Kaldor and Scitovsky.
- d) Grand Utility Possibility Frontier and Welfare Maximization.
- e) Social Welfare Functions: Bergson and Samuelson.
- f) Arrow's Theory of Social Choice.

Reading List:

1. Koutsoyiannis, Modern Micro Economics, ELBS, Macmillan.

2. Lipsey, Richard G., *An Introduction to Positive Economics*, (3rd Ed), (1974), English Language Book Society & Weidfeld and Nicolson.

3. Frank, Robert H., *Microeconomics and Behavior*, (1991), McGraw Hill International Editions.

4. Watson, Donald Stevenson & Getz, Malcolm, *Price Theory and its uses*, (5th ed), (2004), AITBS Publishers and Distributors.

5. Nicholson, Walter, *Microeconomic Theory – Basic Principles and Extensions*, (1998), (2nd ed), The Dryden Press.

6. Ferguson & Kreps, Principles of Economics, Oxford & IBH Publishing Company.

7. Stonier, Alfred W. & Hague, Douglas C., *A Textbook of Economic Theory*, (4th ed) (1972), The English Language Book Society & Longman Group Ltd.

8. Stretton, Hugh, Economics – A New Introduction, (2000), Pluto Press.

9. Dopfer, Kurt (ed), *The Evolutionary Foundations of Economics* (2005), Cambridge University Press.

10. Dowling, John Malcolm & Fang, Yap Chin., Modern Developments in Behavioral Economics (2007), World Scientific.

11. Walliser, Bernard, *Cognitive Economics*, (2008), Springer Verlag, Berlin, Heidelberg. 12. Nutter, Warren G., *Political Economy & Freedom – A Collection of Essays*, ed., Jane

Couch Nutter, (1983), Liberty Fund.

13. Hicks. J.R., *Value and Capital*, (2nd ed) (1964), The English Language Book Society and Oxford University Press.

14. Pigou. A.C., *The Economic of Welfare*, (4th ed), (1932), The English Language Book Society & Macmillan and Co Ltd.

15. Robinson, Joan, The Economics of Imperfect Competition.

16. Friedman, Milton, *Essays in Positive Economics*, (1953) (Reprint 1975), The University of Chicago Press.

17. Pindyck & Rubinfeld, Micro Economics, Prentice Hall India.

18. Giede & Reist, History of Economic Thought.

19. Ahuja. H. L., *Advanced Economic Theory – Micro economic Analysis*, S. Chand and Company.

II Semester

MACRO ECONOMICS – II

Course Objectives:

- *a)* Students would understand the economist's concept of money and the role of the central bank in controlling the quantity of money
- *b)* Students will be able to develop an understanding of the banking system and the current trends in banking.

Module 1 Money in Exchange Process

Money-Meaning, Functions of money, types of money-Classical Quantity Theory of money- Neutrality of money- Classical dichotomy- money, prices and inflation- Inflation and interest rates- Social costs of inflation- Keynesian theory of monetary economy-Integration of monetary and real sectors: The goods market and the IS curve-The money market and the LM curve

Module 2

Money supply and money demand

Money supply: Measures of money supply- Fractional reserve banking- Model of money supply-Portfolio allocation and the demand for assets: Expected return, risk, liquidity-Money demand: Portfolio theories of money demand- Transactions theory of money demand- Financial innovation and near money

Module 3

Money and Interest rates

Real and monetary theories of the rate of interest: liquidity preference and loanable funds theories of interest- The term structure of interest rates: Pure Expectational Theory-Pure segmentation theory.

Module 4

The Open Economy

The international flows of capital and goods: Role of net exports-international capital flows and trade balance-Saving and investment in a small open economy: Capital mobility and world interest rate-Impact of policies on trade balance- exchange rates- the real and nominal exchange rates and trade balance- Impact of policies on real exchange rate-The large open economy-policies in a large open economy

Module 5

Commercial Banking

An overview of Indian Banking Structure - Reforms in the banking system- Role of competition-Capital adequacy norms- prudential regulations and supervision- Investment policy of a commercial bank –Credit risk management- Structure of assets and liabilities

(15 hours

(15 hours)

(10 Hours)

(5 Hours)

4

(10 Hours)

 Asset liability management- growth of retail banking – interest and non-interest income sources: growth and trends— Technology initiatives in banking

Module 6

Monetary policy

(5 Hours)

Meaning and scope of monetary policy- LAF: Instruments- Transmission mechanismmoney growth targeting and inflation targeting- Monetary policy in India: limitations and effectiveness

References:

N. Gregory Mankiw, Macroeconomics, Worth Publishers

2.. Dornbusch, Fischer, Startz, Macroeconomics, Tata Mc Graw Hill

3. H.L. Ahuja, Macroeconomics: Theory and Policy, Advanced economic analysis, Sultan Chand Publishers.

4. D.N. Dwivedi, Macroeconomics: Theory and Policy, Mc Graw Hill.

II SEMESTER

STATISTICS MEC 233 / SEMESTER II

4 Hours / Week

4Credits

Course Objectives:

The main objective of this paper is to train students to grasp the use of statistical techniques and operations to analyze economic problems. This paper will initiate students into various economic concepts which are amenable to statistical treatment.

Module I: Measures of Central Tendency and Dispersion Hours) (08

Mean, Median, Mode, Geometric Mean and Harmonic Mean. Measures of Dispersion – Absolute and Relative Measures of Dispersion, Mean Deviation, Standard Deviation, Coefficient of Variation, Skewness and Kurtosis.

Module II: Correlation and Regression Hours)

Correlation - Types - Karl Pearson's Coefficient and Rank Correlation Coefficient merits and de-merits. Simple Regression Analysis - Presentation of Scatter diagram -Estimation of Regression lines in a bivariate distribution (X on Y and Y on X). Estimation of parameters by the Method of Least Squares – Standard Errors of Estimates - Interpretation of Coefficient of Correlation and Coefficient of Determination -Measuring the strength of estimated regression - Prediction on the basis of estimated regression (Illustrative examples from Economics). Multiple regression.

Module III: Probability Distributions (12 Hours)

Concept and definition of Random Variable and Probability Distributions - Discrete and Continuous Distribution, Binomial, Poisson and Normal Distributions, their properties and application in Economics.

Module IV: Statistical Inference Hours)

Sampling Distributions- small and large samples and properties -z, t, F and Chi-square. Estimation and properties of estimators, Concept of Standard Error - Point and interval estimators - Formulation and testing of hypothesis - Concepts of Level of Significance, Critical Region, Type I and Type II errors, Power of a test – Standard tests of significance (with examples from economics).

Module V: Time Series Analysis Hours)

Concept and components – Trend Projection – Moving Averages method. Index Numbers - concept - price, quantity and value relations - Laspeyer's, Paasche's and Fisher's Index Numbers. Time and factor reversal tests. Problems in construction of Index Numbers, Tests for Ideal Index Numbers.

Module VI: ANOVA and Multivariate Analysis Techniques (12 Hours)

Analysis of Variance (ANOVA) – basic principles, technique, setting up ANOVA table, two-way ANOVA. Variables in Multivariate Analysis, Important Multivariate Techniques, Important Methods Of Factor Analysis.

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Required Readings:

- 1. _Anderson, Sweeny & Williams, Statistics for Business and Economics.
- 2. Gupta. S. C and V. K. Kapoor Fundamentals of Mathematical Statistics, Sultan Chand and sons, New Delhi.
- 3. Murray S. Speigel, Statistics, Schaum Series
- 4. C.R. Khothari, *Research Methodology* Methods and Techniques,
- 5. Murray S. Speigel, Probability, Schaum Series

Recommended Readings:

- 1. Nabendu Pal & Sahadeb Sarkar, Statistics Concepts and applications
- 2. Gupta S. P Statistical Methods, Sultan Chand and sons, New Delhi.

II Semester

INSTITUTIONAL ECONOMICS

MEC 241/ II SEMESTER

3 Hours / Week

3 Credits

Objective of the Course:

The course aims at introducing the students to basic concepts of New Institutional Economics (NEI) and sensitise them to various problems relating to information asymmetry, property rights and transaction costs by bringing in cases from the real world.

Module 1: Basic Introduction to Institutional Economics

Institutional Economics as a departure from Neo-Classical and Marxian Economics, Historic development of Institutional Economics, Old and New Institutional Economics, Core issues in New Institutional Economics

Module 2: Problems of Information Asymmetry

Prisoner's dilemma and Nash equilibrium, Assurance problem, Principal-Agent Problem, Problem of Adverse Selection, Problem of Moral Hazard

Module 3: Property Rights Issues

Concepts of Property and defining Property Rights, Problems of Ill-defined Property rights, Externalities-Market failure and property rights, Issues relating to ill-defined property rights, ,

Social vis-à-vis Individual Choices, Neo-classical Maximisation vis-à-vis Methodological Individualism, Prisoner's Dilemma, Hardin's Tragedy of Commons, Collective Action, and Assurance Problem

Module 4: Transaction Costs and Bounded Rationality

Issues relating to transaction costs, Social cost vis-à-vis individual costs, Identification and measurements of transaction costs, Coase Theorem, Bounded Rationality

Module 5: Applications of NIE

In Public Policy, Insurance Sector, Market for lemons, Social issues, Ecological and Environmental Issues

References: Kasper and Streit (1998)

Nilakanthan, S

- Olson Mancur (1965), The Logic of Collective Action, Harvard University Press, Cambridge.
- Shaw, M E. (1971). Group Dynamics: The Psychology of Small Group Behaviour, McGraw Hill, New York.

II Semester

ECONOMICS OF DEVELOPMENT

MEC 235

4 Hours/week

4 credits

The objective of the course.

The aim of this course is to acquaint the students with the economic problems of developing countries along with sufficient enlightenment in development theories; to impart insight into the use of economic theory and methodology in the analysis of these problems. Special attention also goes out to a policy-oriented economic analysis of problems in developing countries.

Module I: The meaning of economic development. (10hours)

The nature and specificity of development economics. The development discourse. Development studies and economic theory. The meaning of development over time. Historical dimensions of development. The actors of development.

Module II: Contemporary Theories of Economic Development (24 hours)

IV. the linear stages theory (Rostow)

V. theories of dualistic development - structuralism

a) Lewis, b) Fei-Ranis, c) the neoclassical structural change Chenery model;

VI. the balanced-growth Nurske model; Hirshman's unbalanced growth model with backward and forward linkages, the big-push Rosenstein-Rodan model; Leibenstein's thesis;

Module III: Recent emergence in Theories of Economic Development (18 hours)

- I. the imperfect information paradigm (Stiglitz);
- II. the new institutional economic paradigm (Williamson)
- III. the international dependence models
 - a) dependence theories of underdevelopment (Frank)
 - b) dependence and neocolonialism (dos Santos, Cardoso, Nkrumah)

Module IV: Economic Inequality, income distribution, and poverty. (18 hours)

Size and functional distribution of income (Lorenz curves, Gini coefficient). Measures of inequality. Growth and income distribution. The inverted-U hypothesis. Poverty and under-nutrition. Economic characteristics of poverty. The functional impact of poverty. Entitlements, capabilities, and poverty (Sen). Poverty and nutrition. Poverty reduction strategies and policies.

Basic references:

- Michael Todaro, *Economic Development*, Addison-Wesley, Reading, New York & London, Seventh Edition (2000).
- Gerald Mayer, *Leading Issues in Economic Development*, Oxford University Press, Oxford (1995).
- David Colman, Frederick Nixson, *Economics of Change in Less Developed Countries*, Harvester Wheatsheaf, London, Third Edition (1994).
- Debraj Ray, *Development Economics*, Princeton University Press, Princeton, New Jersey (1998).

II Semester

FINANCIAL MARKETS & INSTRUMENTS

MEC: 242 / SEMESTER II

3 Hours / Week Credits 3

Course objective:

This course introduces students to the conceptual and practical operations of the capital market and its institutional framework in Indian context. The course is intended to provide an in-depth understanding of the operational issues of the capital market and the security analyzing criteria.

Module 1: Introduction to Financial Market Hours)

The structure of financial system -Role of financial intermediation- financial intermediaries -financial markets- money vs. capital markets- primary vs. secondary markets- financial instruments - money market instruments- capital market instruments -Markets and their functions- equilibrium in financial markets -financial system and economic development

Module 2: Regulatory Framework (05 Hours)

Institutional framework of money and capital markets – RBI norms – SEBI and Capital market reforms - regulations governing stock exchanges, merchant bankers and brokers.

Module 3: Discount Market and Factoring	(4
Hours)		
Bill market- call money market- financial services		
Module 4 New Issue Market	(05
Hours)		
Issue management - Private vs. Public placement- IPO and Book building proce of stocks and bonds – debenture markets	ess — 1	types
Module 5 Secondary Market		(05

Depository system and trading practices – OTC market – participants in trading - Listing norms – types of margin- stock quotations- stock indexes

Module 6 Derivative Security Market Hours)

Options and futures- forward and future contracts- commodity derivatives- foreign exchange derivatives - hedging - arbitrage in foreign exchange futures market.

Module 7 International Financial Markets (10Hours)

Nature – organization and participants – exchange rate risks and exposures – hedging against risk – instruments in international financial market – interest rate swaps – LIBOR - capital account convertibility

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Compulsory Reading:

- 1. Jeff Madura, Financial Markets and Institutions, Fifth Edition, South Western college Publishing, Thomson Learning, 2001.
- 2. John C Hull, Fundamentals of Futures and Options Markets, Pearsons

Recommended Readings:

- 1. Robert C Radcliffe, Investment Concepts, Analysis and Strategies.
- 2. Donald E Fisher, Roland J Jordan, Security Analysis and Portfolio management, Eastern Economy Edition.
- 3. Doglas Hearth ad jannis K ziama, Conemporary investment: Security and {Portfolio Analyis, The Dryden Press.
- 4. William f Sharpe and Gordon J Alexander, Investments, prentice hall, India
- 5. J L. Farrell, Portfolio management, Mc Grawhill
- 6. Reghu Palat, Fundamental Analysis.
- 7. Jay Shanken, the Arbitrage pricing Theory: is it testable? Journal of Finance; 37:5
- 8. Sadhak H, Mutual Funds in India- Marketing Strategies and Investment Practices, Sage publications, New Delhi, 1997.
- 9. Securities and Exchange Board of India, Indian Securities Markets- Agenda for development and Reforms, Sept. 1991, Mumbai.

III Semester

10. L.M Bhole, Financial Institutions and Markets

PUBLIC ECONOMICS

MEC 331 / SEMESTER I

4 Hours / Week Credits

4

Course Objectives:

(10 Hours)

Role of Government: Public sector in the economy- functions- allocation – distribution – stability public goods, private goods and merit goods.

The role of functions of governments have been the focus of policy formulation and execution and has stimulated debates in areas like tax systems, expenditure programmes, budgetary support etc. This paper takes up advanced theoretical literature for study of

Market failure – Information asymmetry-theory of second best.-market signaling Externalities- basic analyses and the Coase theorem- pigovian taxes

Module 2

Rationale of public policies : Allocation of resources - voluntary exchange models impossibility of decentralized provisions of public goods (Samuelson's contribution) Tiebout model - the theory of club goods - correcting distributional inequalities and regional imbalances.

Module 3

Public Choice : Private and public mechanism of allocating resources – problems of preference revelation and aggregation – voting systems – Arrow's impossibility theorem - Economic theory of bureaucracy - rent seeking

Taxation : Taxes – types and canons – approaches to equity principle in taxation – benefit principle – ability to pay principle – trade off between equity and efficiency – modern theory of incidence - tax reforms in India - Chelliah Committee Report - VAT

Module 5

Public Expenditure : Theories of public expenditure – Wagner's law – Peacock-Wisemen hypothesis - social cost-benefit analysis - criteria for public investment - project valuation - reforms in budgetary performance - PPBS and zero based budgeting economic reforms and control of public expenditure in India.

Module 6

Public Debt : Modern theory of public debt and intergeneration equity – Buchanan thesis - analytical concepts of public debt - burden of debt servicing in India - interest as social

Module 4

(10 Hours)

(10 Hours)

(10 Hours)

(5 Hours)

(5 Hours)

Module 1

areas connected with the above.

cost – principles of debt management and repayment – fiscal and monetary reforms in debt management in India.

Module 7

(10 Hours)

Fiscal federalism : fiscal imbalance and inter government transfers – efficiency basis – equity arrangements – vertical and horizontal imbalances – finance commission and planning commission – distribution of resources and grants – problems of state resources and indebtness – economic reforms and centre-state relations in India.

Required Readings:

- 1. R.A. Musgrave, Theory of Public Finance
- 2. R.A. Musgrave and P.B. Musgrave, Public Finance in Theory and Practice
- 3. R.K. Lekhi, Public Finance.
- 4. Dalton, Public Finance.
- 5. Bernard Herber, Modern Public Finance

Recommended Readings:

- 1. J.M. Buchanan, Public Finances
- 2. Cullis and Jones, Public Finance and Public Choice
- 3. Atkinson A and Joseph Stiglitz, Lectures in Public Economics
- 4. B.P. Tyagi ,Public Finance
- 5. H.L. Bhatia, Public Finance
- 6. Shoup C.S., Public Finance

III SEMESTER

ECONOMETRICS

MEC 332 / SEMSTER III

4 Hours / Week

4 Credits

Course Objectives:

The course is designed to impart the learning of principles of econometric methods and tools. This is expected to improve student's ability to understand of econometrics in the study of economics.

Module-I: Introduction Hours)

Nature, meaning and scope and methodology of Econometrics-The simple Linear Regression Model-The ordinary least squares method(OLS) and its assumptions..Properties of least squares estimates.Guass-Markow Theorem,R²,Adjusted \mathbb{R}^2 .

Module-II: Econometric Problems (15 Hours)

Violations of basic assumptions of OLS- nature, test, consequences and remedies, the problems of Specification error. Functional forms of regression models- Log-Linear, semi log model, reciprocal models, and polynomial models (brief outline only).

Module-III: Dummy variables, Dynamic Economic Models (15 Hours)

Dummy variable technique, Uses of Dummy variables, dummy variable trap, regression on dummy dependent variable-The LPM Model, Logit Model, Probit Model, Tobit model-features and estimation.

Auto regressive and distributed lag models-The Koyck model, partial adjustment model, adaptive expectation model, The Almon approach to distributed lag models.

Module-IV: Simultaneous Equation Models and Methods (12)Hours)

The simultaneous equation bias and inconsistencies of OLS estimation - identification the identification problem - under identification - exact identification and over identification- Rules of identification, derivation of order and rank condition.

Indirect least squares (ILS), the method of instrumental variables (IV), Two stage least squares (2SLS), Three stage least squares (3SLS), 'K' Class estimators, Limited information, maximum likelihood estimation (Concepts only).

Module-V: Time Series Econometrics Hours)

An Autoregressive(AR) Process, A Moving Average(MA) Process, An Autoregressive and Moving Average (ARMA) Process, An Autoregressive Integrated Moving Average (ARIMA) Process.

Required Readings:

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- 1. Damodar Gujarati Basic Econometrics. ,McGraw Hill, 2007.
- 2. A.Koutsoyiannis Theory of Econometrics.
- 3. William .H. Greene -Econometric Analysis.

Recommended Readings:

1. Lawrence Klein. - An Introduction to Econometrics. Prentice Hall Inc., Englewood Cliffs. New Jersy.

- 2. A.A.Walters An Introduction to Econometrics.
- 3. R.S. Pindyck and D.L.Rubinfeld -Econometric Models and Econometric Forecasts.
- 4. J.Johnston -Econometric Methods. McGraw Hill Book Company, New York, 1972.
- 5. G.S.Maddala -Econometrics., McGraw Hill, New York, 1977.
- 6. A.S. Goldberger Econometric Theory.
- 7. Michael D. Intriligator, *Econometric Models, Techniques* and Applications, Prentice Hall of India, New Delhi, 1980.

III Semester

RESEARCH METHODOLOGY MEC 333/ SEMESTER III 4 Hours / Week

4 Credits

Objectives of the Course

 Understanding of the importance of research in creating and extending the knowledgebase of their subject area
Ability to distinguish between the strengths and limitations of different research approaches regarding their subject/research area
Knowledge of the range of qualitative and quantitative research methods potentially available to them.

4. The ability to differentiate between the role of practitioners and the role of researchers.

5. An understanding of and begin to critically reflect upon issues of ethics and role of the researcher.

6. The skills to work independently, to plan and to carry out a small-scale research project.

Module 1: Introduction

1. Introduction to research & research methods: The course

2. Ways of knowing and understanding the world and the research process

3. The nature of knowledge and theory

4. Philosophy of Social Science Research

5. Relevance of Social Science Research

6. Objectivity and Values in Social Sciences

Module 2:

7. Logic of Scientific Investigation
8. Theory Construction in Social Science Research
9. Approaches to Social Science and Managerial Research, Theoretical, Applied and
Action Research
10. Ethical Issues in Research on Human or Social Subjects
11 Non-sexist approach in Social Sciences

Module 3:

12. Research Design
13. Review of Literature
14. Identification of Research Gaps and Research Needs
15. Identification, selection and formulation of research problem
16. Formulating Hypotheses/Propositions/Issues, conceptualizing research problem

Module 4:

17.	Overview	of Social Science N	Aethodology
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18. Uni-disciplinary, inter-disciplinary, multi-disciplinary methodologies

19. Quantitative Research Methods: An Overview

20. Qualitative Research Methods: An Overview

- 21. Historical Method
- 22. Case Study Method
- 23. Action Research
- 24. Monitoring and Evaluation
- 25. Triangulation (including/mixing Qualitative and Quantitative) Methods

Module 5:

26 Information needs and use in social sciences: Secondary Sources of Information: Using and Integrating secondary and primary information

27 Quantitative Data: Kinds and quality of Data, demography, labour force, agriculture, industry

28 Quantitative Data: Human resources, education, health, housing, employment, banking, rural data base

29 Quantitative Data: Survey Reports, Research Studies, Historical Data Tools

30 Statistical Systems – International, National and Local: Objectivity, Reliability and Validity of Data

31 Surveys and Questionnaires: Questionnaire, Schedule Design and Construction, Sample Surveys, Survey Administration

32 Observation – Structured and unstructured, Recording and Interpretation of Observations, Ethnography

33 Interviews: Nature of the Interview Process

34 Structured and Unstructured Interviews, Focus Groups, Group Discussions

Module 6:

35 Analysis of Quantitative Data

36 Analysis of Qualitative Data

37 Choice of Statistical and Processing Techniques

38 Interpretative Narrative Methods

39 Theory of the Testing of Hypotheses

40 Presentation of Research Findings, Products of Research, Thesis Writing

41 Factors conducive to research utilisation

References:

- Bell, J. (1993) <u>Doing your research project: a guide for first-time researchers in</u> <u>Education and Social Science</u>, Buckingham, UK: The Open University.
- Borg, W.R., & Gall, M.D. (1983). <u>Educational Research: An Introduction</u> (Fourth ed.). New York: Longman Inc.
- Brinberg, D. and McGrath, J.E. (1985) <u>Validity and the research process</u>, Newbury Park, CA: Sage Publications, Inc.
- Erickson, F. (1986). Qualitative methods on research on teaching. in M.C. Wittrock (ed.), <u>Handbook of research on teaching</u> (3rd ed., pp. 119 - 161). New York: MacMillan.
- Fitz-Gibbon, C. T. and L. L. Morris (1987) <u>How to Analyse Data</u>, Newbury Park: Sage Publications, Inc.
- Foddy, W (1993) <u>Constructing Questions for Interviews and Questionnaires: Theory and</u> <u>Practice in Social Research</u>, Cambridge: Cambridge University Press.

- Isaac, S., and Michael, W.B. (1981). <u>Handbook in research and evaluation: A collection</u> of principles, methods, and strategies useful in the planning, design, and <u>evaluation of studies in education and the behavioral sciences</u> (2nd ed.). San Diego: EdITS.
- Yin, R.K. (1994). <u>Case Study Research</u> (Second Edition, Vol. 5). Thousand Oaks, CA: Sage Publications, Inc.

Statistical Texts

Andreski, S. Social Sciences as Sorcery. New York: St. Martin's Press, 1973.

- Blalock, H. M. Social Statistics, Rev. 2nd ed. New York: McGraw-Hill, 1979.
- Duncan, O. Introduction to Structural Equation Models.
- Guilford, J. P. and B. Fruchter. Fundamental Statistics in Psychology and Education, 6th ed. New York: McGraw-Hill, 1978.
- Keppel, G., W. H. Saufley, Jr., and Howard Tokunaga. Introduction to Design and Analysis: A Student's Handbook, 2nd ed. New York: W. H. Freman, 1992.
- Matlack, W. F. Statistics for Public Managers, 1993. Itasca, II: F. E. Peacock, 1993.
- Meier, Kenneth J. and J. L. Brudney. Applied Statistics for Public Administration, 3rd ed. Belmont, CA: 1993.
- Phillips, J. L. Statistical Thinking: A Structural Approach, 2nd ed. San Francisco: W. Hl. Freeman, 1982.
- Renner, Tari. Statistics Unraveled: A Practical Guide to Using Statistics in Decision-Making. Washington, DC: International City Management Association, 1988.
- Reynolds, H. T. Analysis of Nominal Data, 2nd ed. Beverly Hills, CA: Sage, 1984.
- Welch, S. and J. Comer. Quantitative Methods for Public Administration: Techniques and Applications, 2nd ed. Chicago, II: Dorsey Press, 1988.
- White, Michael J., et al. Managing Public Systems: Analytic Techniques for Public Administration. Lanham: University Press of America, 1985.
- Winkler, R. L. and W. T. Hayes. Statistics: Probability, Inference, and Decision, 2nd ed. New York: Holt, Rinehart and Winston, 1975.

Statistical Programs

- Mystat. Course Technology, Inc., One Main Street, Cambridge, Massachusetts 02142.
- SAS, Statistical Analysis System. SAS Institute, Inc., Box 8000, Cary NC 27511.
- SPSS-X, Statistical Package for the Social Sciences. SPSS, Inc., Suite 300, 444 North Michigan Avenue, Chicago II 60601.
- STATA. Stata Corporation, 702 University Drive East, College Station, Texas 77840.

INTERNATIONAL ECONOMICS I

MEC 334/ SEMESTER III

4 Hours/ week

Objectives of the course:

The goal of the course is to help the student to understand the basic principles of international trade and their impact on the world's economy and to learn the operational mechanism of trade. The course objective is to expose the student to the basic elements of international trade in the challenging global economy of the 21st century. The course aims to provide a framework for consistent reasoning about international flows of goods, factors of production, and financial assets, and their implications for the national economy, as well as to give a sense of the main findings of empirical work in these areas.

Module I

a) Introduction

- b) Law of comparative advantage
- c) The standard Theory
- d) Demand and supply, Offer curve, and the terms of trade

Module II

- a) Factor endowments and Heckscher-Ohlin Theory
- b) Economies of scale, imperfect competition and international trade
- c) Economic growth and international trade

Module III

- a) Trade restriction: tariffs
- b) Nontariff barriers and the new protectionism
- c) Economic integration: customs union and free trade areas

Module IV

- a) International trade and economic development
- b) International resource movement and MNCs

III Semester

ENVIRONMENTAL ECONOMICS

MEC 341/ SEMESTER III

3 Hours / Week

Objective of the Course:

4 credits

(15 Hours)

(15 Hours)

(15 Hours)

(15 Hours)

3 Credits

The course aims at introducing the students to basic concepts of Environment and Resource Economics and sensitise them to various problems relating to environmental and natural resource issues by bringing in cases from the real world. Besides, the paper would also emphasize alternative valuation methods in the absence or failure of markets.

Module 1: Introduction to Environment and Resource Economics

Environment and Resources as factors of production, environmental problems and externalities, <u>Departure from</u> conventional economic<u>theor</u>ies. Introduction to Resource Economics: <u>Hotellings' Theory</u>, <u>Hicks' Principle of Taxation and Coase Theorem</u>

Module 2: Environmental Values beyond use value

Environmental <u>Resources and Market Failure</u>, Why environmental Resources fail to give Market Signal?

Signals of Natural Resource Depletion/ Scarcity (Direct and Indirect <u>Approaches and their Limitations</u>):______

Module 3: Approaches to Environmental Valuation

<u>Cost-Benefit/ Social Cost-Benefit Analysis</u>, Health <u>Ceost_Approach</u>, <u>Travel Cost_Approach</u>, <u>Amenities and Hedonic Pricing</u>,

Contingent Valuation Methods: Revealed and Stated preferences, Willingness to pay and Willingness to Accept

Module 4: Environmental Economics and Environmental Economic Goals

Equity, Efficiency and Sustainability

Definition and understanding of Sustainability.

Understanding Sustainable Development

Module 5: Application of Environmental Economics in Public Policy and Natural Resource management

Forest, Water, Fisheries and Pollution Management: key issues and options

References:

Basic Texts:

- Kerr, John M., Dinesh K. Marothia, Katar Singh, C. Ramasamy, William R. Bentley (Ed.) (1997), Natural Resource Economic: Theory and Application in India, Oxford and IBH Publishing Company Ltd., New Delhi.
- Marothia Dinesh (Ed.) (2002), Institutionalising Common Pool Resources, Concept Publishing Company, New Delhi.

Markandya, Anil and Julie Richardson (1997), Environmental Economics, Earthscan Publications, London.

Hartwick, John M., and Nancy D. Olewiler (1998), The Economics of Natural Resource Use, Addison-Wesley Educational Publications, Inc.

References:

- Bromley, Daniel W. (1992). (edited) *Making the Commons Work: Theory, Practice and Policy*, Institute for Contemporary Studies, California.
- Dinesh Marothia (2002) (ed.) Institutionalising Common Pool Resources, Concept-Publisher, New Delhi.
- Hotelling, Harold (1931), The Economics of Exhaustible Resources, Journal of Political Economy, April, 39, 137-75
- Dasgupta, Partha (1992), Population, Resources and Poverty, Ambio, 21 (1) Febraury, 95-101.
- Ostrom, Elinor (1990), Governing the Commons; The Evolution of Institutions for Collective Action, Cambridge University Press, New York.
- Singh, Katar (1994), Managing Common Pool Resources: Principles and Case Studies, Oxford University Press, New Delhi
- Hardin, Garret (1980), 'The Tragedy of Commons' in Herman Daly (ed.) *Economics, Ecology, Ethics*, W H Freeman and Co., New York
- Olson Mancur (1965), The Logic of Collective Action, Harvard University Press, Cambridge.
- Ostrom, E (1992), Crafting Institutions for Self Governing Irrigation System, ICS Press, San Francisco.
- Shaw, M E. (1971). Group Dynamics: The Psychology of Small Group Behaviour, McGraw Hill, New York.

Watershed Development

- Chopra, Kanchan (1998), Watershed Management Programmes: An Evaluation of Alternative Institutional and Technological Options, Institute of Economic Growth, Delhi.
- Chopra, Kanchan, Gopal K Kadekodi and M N Murthy (1988), Sukhomajri and Dhamala Watersheds in Haryana: A Participatory Approach to Management, Institute of Economic Growth, Delhi.
- Cohen, John M and Norman T Uphoff(1980), Participation's Place in Rural Development: Seeking Clarity through Specificity, World Development, Vol 8 No. 2.

- Deshpande, R S and G Thimmaiah (1999). Watershed Development Approach and Experiences of National Watershed Development Programmes in the Country. *Journal of Rural Development*, Vol. 18, No. 3
- Deshpande, R S and V Ratna Reddy (1992). Participatory Process in Watershed Management: A Case Study of Maharashtra", Asian Economic Review, Vol No
- Farrington, J and Crispino Lobo (1997), Scaling up the Participatory Watershed development in India: Lesons from the Indo-German Watershed Development Programme, Natural Resource Perspectives, Overseas Development Institute, London.
- Joshi, P C and M C S Bantilan (1997). Vertisol Watershed Research in Semi-Arid Tropics: Directions for Impact Assessment, Arthavijanana, Vol. XXXIX, No 3, September.
- Kolavalli, Shashi and John Kerr (2002). Scaling Up Participatory Watershed Development in India, *Development Change*, Vol. 33, No. 2.
- Shah, Amita (2000), Watershed Development Programme in India: Emerging Issues for Environmental Development Perspectives, Economic and Political Weekly, Vol 33 No 26.

Protected Area and Joint Forest Management

- Chopra, Kanchan (2002), "Shared Management of Protected Areas: Possibilities and Constraints in Keoladeo National Park, Bharatpur" in Dinesh Marothia (ed.) *Institutionalising Common Pool Resources*, Concept Publishing Company, New Delhi.
- Gadgil, Madhav and Ramachandra Guha (1987). Forestry and Social Conflict in British India: A Study in the Ecological Bases of Agrarian Protest, Unpublished Draft paper.

Iyengar, Sudarshan (undated draft), Conservation versus Development: A Case Study of Shoolpaneshwar Wildlife Sanctuary in Western India, GIDR, Ahmedabad.

- Jodha, Narpat S (1995), "Common Property Resources and the Environmental Context: Role of Biophysical versus Social Stresses" *Economic and Political Weekly*, 30 (51)
- Murty, M N (1996), "Contractual Arrangements for Sharing Benefits from Preservation: Joint Management of Wildlife" in A. Kothari, N. Singh and S. Suri (eds.) People and Protected Areas: Towards Participatory Conservation in India, Sage Publication, New Delhi.
- Nadkarni M V with Syed Ajmal Pasha and L S Prabhakar (1989), *Political Economy of Forest Use and Management*, Sage Publication, New Delhi.
- Pimbert, Michel P and Jules N. Pretty (1995), Parks, People and Professionals: Putting "Participation" into Protected Area Management, Discussion Paper no. 57, United Nations Research Institute for Social Development.

Rangarajan, Mahesh (1995), "Wildlife-human Conflicts", in Seminar, no. 426.

Shah, Amita (2002b) Conservation of Gir Eco System: Assessment of Benefits and Costs Under Alternative Management Systems, Report Submitted to EERC, IGIDR, Mumbai. Shah, Amita, Aeshita Mukherjee and Hasmukh Joshi (2002a), *Eco-Development Project in Gir Protected Area*, Report, Gujarat Institute of Development Research, Ahmedabad.

Fisheries Management

- Bennet, G.W., 1970. Management of lakes and ponds. *New York Van Nostrand Reinhold Co.*, pp 375.
- Sinha, M and Pradeep K Katiha (2002) "Management of Inland Fisheries Resources under Different Property Regimes" in Dinesh Marothia (ed.) *Institutionalising Common Pool Resources,* Concept Publishing Company, New Delhi. Sunil and Smita (1996), "Alternative Forms of Management in Reservoir Fisheries:

Comparative Case Studies from Madhya Pradesh.

- Toufique, K. A. (1998) "Institutions and Externalities in the Inland Fisheries", Land Economics, Vol. 74, No. 3, August, pp. 409-21.
- Toufique, K. A. (1997) "Some Observations on Power and Property Rights in the Inland Fisheries of Bangladesh", World Development, Vol. 25, No. 3, March. pp. 457-476.
- Vikas (2001): 'State and People's Initiatives: Experience of Tawa Matsya Sangh', *Economic and Political Weekly*, December 8, 4527 30.

III Semester

SECURITY ANALYSIS & PORTFOLIO MANAGEMENT

MEC 342/ SEMESTER III

3 Hours / Week

3 Credits

Objective of the course:

This course on Security Analysis and Portfolio Management is provided as an elective subject to the students of MA(Applied Economics) course and is intended to provide deeper insights into the function of markets, its valuation techniques, the concepts of portfolio management with the techniques of risk diversification. This would help the students to further their interests in the area of Financial Economics which has emerged as an area for both Academic Research and also for Corporate career prospects.

Module 1

Basics of Risk and Return including its measures (Ch1 of Reilly & Brown) -Measures of Return and Risk: Computing mean historical returns, calculating expected rates of return, measuring the risk of expected rates of return and the risk measures for historical returns. Determinants of required rates of return: Risk free rate, risk premium,

(07Hours)

fundamental risk vs systemic risk. Relationship between Risk and Return : Security Market Line (SML), movements along SML and changes in the slope of SML.

Module 2

Efficient Capital Markets (Ch6 of R&B)- Efficient Market Hypothesis- Weak form, Semistrong form and Strong form- its tests and results, Efficient Markets and Technical analysis, Efficient Markets and Fundamental analysis, Efficient Markets and Portfolio Management.

Module 3

(09Hours)

Fundamental Analysis (Ch12 of R&B)

Economic factors - monetary variables – interest rates- inflation- exchange rate- fiscal measures- GDP- other economic factors

Industry Analysis (Ch13 of R&B) -Why industry analysis, the business cycle and industry analysis - evaluating the industry life cycle

(04Hours)

Company Analysis (Ch14 of R&B) - Company analysis versus the valuation of stock, Competition- growth of sales- earnings – dividend policy – restructuring policy – capital gearing- mergers and acquisition- earning surprise. SWOT analysis - Tenets of Warren Buffet. Analysis of Growth companies

Market Related Factors

January effect- noise trading- trends Economics, Industry and Structural links to Company analysis, Firm competitive -

Module 4

(05Hours)

Technical Analysis (Ch15 of R&B) - Underlying assumptions of technical analysis, advantages, challenges, Technical trading rules and indicators.

Module 5

Security Valuation: (ch 11 of R&B) - Theory of valuation- stream of expected cash flows, required rate of return, investment decision process- comparison of estimated values and market prices. Valuation of alternative investments- valuation of bonds, approaches to valuation of equity – why and when to use discounted cash flow valuation approach, why and when to use the relative valuation techniques, discounted cash flow valuation techniques, Infinite period DDM and growth companies, valuation with temporary supernormal growth, Present value of Operating free cash flows, Present value of free cash flows to equity. Relative valuation techniques: Earnings Multiplier model, Price/Cash flow ratio, Price/Book value, Price/Sales ratio.

Module 6

(08Hours)

Portfolio Management (Ch7 of R&B) - Risk aversion, definition of risk, Markowitz Portfolio Theory-alternative measures of risk, expected rates of return, variance of returns for individual investment and for a portfolio, Standard deviation of a portfolio, a three asset portfolio, Efficient frontier. Capital Market Theory – background and assumptions for Capital Market Theory, Risk free asset, The Market Portfolio, CAPM, SML, relaxing assumptions for CMT, Arbitrage Pricing Theory- empirical test for APT, Multifactor Models.

(05Hours)

Equity Portfolio Management Strategies (Ch16 of R&B) - Passive vs Active Management, Index portfolio construction techniques, tracking error, methods of index portfolio investing, an overview of active equity portfolio management strategies-fundamental strategies and technical strategies, anomalies and attributes.

Evaluation of Portfolio performance (Ch25 of R&B) - What is required of a portfolio manager, Treynor Portfolio Performance measure, Sharpe Portfolio Performance measure, Jensen Portfolio Performance measure, The information ratio performance measure, application of portfolio performance measures

Module 8

Asset Management (Ch24 of R&B) - Organization and Management of Asset Management Companies, Characteristics of Hedge Funds, its strategies and performance.

Reference Books:

- 1. Investment Analysis and Portfolio Management by Reilly / Brown, 8e, Thomson
- 2. Investments by Bodie, Kane & Mohanty, 6e, TMH
- 3. Investments Analysis and Management by Charles P Jones, Wiley

IV Semester

OPERATIONS RESEARCH

MEC 431 / SEMESTER IV

4 Hours / Week

Course objective:

This course introduces students to the theoretical framework of operations research models. The course is intended to provide an in-depth understanding of the methodology of OR and its applications in diverse fields in making effective decision making.

Module 1: Introduction to OR

Brief history- stages of development- definitions- OR tools.

Module2: Linear Programming

(10 Hours)

(03 Hours)

(04Hours)

4 Credits

(03Hours)

Fundamentals of L P models - Graphic solutions of LP models – feasible solutionsinfeasible solutions- unbounded solutions- Maximization of Objective Functions -Minimization of Objective Functions - Simplex Method with two variables- Simplex Method with more than two variables.

Module 3: Transportation Problems Hours)

Transportation algorithm- Basic feasible solution of TP- North West Corner Rule- Least Cost method- Vogel's Approximation Method – Optimality test- Stepping Stone method – Modi method

Module 4: Assignment Model Hours)

Assignment problem structure and solution- maximization in assignment problem crew assignment problem

Module 5: Net Work Models Hours)

PERT/ CPM Determination of Earliest Expected and Latest Allowable Times -Determination of Critical path – PERT Cost- Scheduling of a project- Application of PERT- Critical Path Method- Problems

Module 6: Waiting Lines

Structure of Queuing models- Waiting Line models (05 Hours)

Module 7: Inventory Management Models

Basic Features of inventory decisions- EOQ- Quantity discounts- EPQ models- ABC Analysis

Module 7: Game Theory

Basic concepts-definition- managerial applications- two-person's zero-sum games.

Required Readings:

- 1. C. R. Kothari, Quantitative Techniques, Vikas Publications, New Delhi.
- 2. W.J. Baumol, Economic Theory and Operation Analysis, Englewood Cliff, Prentice Hall, NJ.

(05 Hours)

(05 Hours)

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3. Ackoff R L and Saienni M W, Fundamentals of Operation Research, Wiley, New York.

Recommended Readings:

- 1. Hadley, G. Linear programming, Addison Wiley, Massachusetts.
- 2. Morse P M, Queeing, Inventory and maintenance, Wiley, New York.
- 3. Srivastava U.K, Shenoy G.V, and Sharma S C, Quantitative Techniques for Management Decisions, Wiley Eastern, New Delhi.

IV Semester

INTERNATIONAL ECONOMICS II

MEC 433 / SEMESTER IV

4 Hours/week

4 credits

Objectives of the course:

The purpose of this course is to direct student's interest towards international economics and to help students understand the basics of international trade and finance, and the effects of various international economic policies on domestic and world welfare.

Module I

- a) Balance of payments
- b) Foreign exchange markets and exchange rates
- c) Exchange rate determination

Module II

- a) price exchange mechanism with flexible and fixed exchange rates
- b) The income adjustment mechanism and synthesis of automatic adjustments

Module III

- a) Open-economy macroeconomics: Adjustment policies
- b) Prices and output in an open economy: aggregate demand and aggregate supply

Module IV

- a) Flexible versus fixed exchange rates, the European monetary system, and the macroeconomic coordination
- b) The international monetary system: past, present and the future

IV Semester

HEALTH ECONOMICS

MES 441/ SEMESTER IV

3 Hours/ Week credits

Module I

The economics of health care

Introduction- definition of health, life expectancy and mortality rates, morbidity – important aspects of health care economics: Government intervention, uncertainty, asymmetric knowledge, externalities- health as a durable good- production of health-lifestyle and health- epidemiology- inter-relation of markets in medical care and health insurance.

Module II

Productivity of medical care

Marginal and average productivity- productivity changes on the extensive and intensive margin- measurement of health improvements- Randomized controlled trial data (RCTs), QUALYs, standard gamble and time trade off approaches- medical practice variations on the extensive margin, Economic appraisal of health care: cost benefit approach-principles of cost benefit approach-process of cost benefit approach

Module III

The Demand for Medical Care

Indifference curves for health and other goods- effects of increase in income- demand for medical care- demand curve and illness events- insurance and demand for medical care: co-payments, coinsurance rates, indemnity insurance, deductibles- time costs and travel costs- patients beliefs- role of quality in health care.

Module IV

Supply of health care

The firm- inputs, output and cost- hospital as a supplier of medical care- residual claimant- utility function of a not-for-profit hospital: political theory model- hospital costs- long run verses short run costs- hospital cost curves- hospitals in the market place-interaction between hospitals and patients- a model of equilibrium quality and price-Other hospital's quality and output changes- interaction between doctors and hospitals.

Module V

Health Insurance

The demand for health insurance- the risk averse decision maker- choosing the insurance policy- medical care demand elasticity and demand for health insurance: moral hazard-supply of health insurance- stability of insurance market- selection and self-identification: problem of adverse selection- group insurance- economies of scale- importance of health insurance in developing countries- problems and challenges.

Module VI

Role of health care institutions

International and national health care organizations, Role of public and private health care institutions in provision of health care.

Required Readings

- 1. Charles E. Phelps, Health Economics, Routledge Publishers.
- 2. Alistair Mc Guire, John Henderson and Gravin Mooney, The economics of health care, Routledge Publishers.

Recommended Reading

- 1. William Jack, Principles of Health Economics for Developing Countries, WBI Development Studies.
- 2. Karman H.E., Economics of Health
- 3. Van Der Gaag and M. Perlman, Health, Economics and Health Economics
- 4. M. Perlman, Economics of Health and Medical Care
- 5. M. Grossman, The Demand for Health, A theoretical and empirical investigation
- 6. Allen C. Goodman and Miron Stano, The Economics of Health and Health Care
- 7. Schultz T.W., Investment in Human Capital
- 8. Phelps C.E., Health Economics
- 9. Folland S, Goodman A.C., Miron Stano, The Economics of Health and Health Care
- 10. Dreze and Sen, India : Economic Development and Social Opportunity