
**Deccan Education Society's
FERGUSSON COLLEGE (AUTONOMOUS),
PUNE**

Syllabus

for

M. A. (Economics)

[Pattern 2019]

From Academic Year

2020-21

Fergusson College (Autonomous), Pune

Structure of M.A. Economics – Faculty of Arts and Humanities

Year	Semester	Course Code	Course Title	Credits
I	Sem I	ECO4101	Micro Economics-I	4
		ECO4102	Public Economics-I	4
		ECO4103	Macro Economics-I	4
		ECO4104	Statistical Techniques	4
		ECO4105	Indian Economic Policy	
		ECO4106	Economics of Labour	
	Sem II	ECO4201	Micro Economics-II	4
		ECO4202	Public Economics-II	4
		ECO4203	Macro Economics-II	4
		ECO4204	Mathematical Economics	4
		ECO4205	Agricultural Economics	
		ECO4206	Industrial Economics	
II	Sem III	ECO5301	International Economics and Finance-I	4
		ECO5302	Growth & Development-I	4
		ECO5303	Modern Banking	4
		ECO5304	Demography	4
		ECO5305	World Economy	
		ECO5306	Econometrics	
	Sem IV	ECO5401	International Economics and Finance-II	4
		ECO5402	Growth & Development-II	4
		ECO5403	Research Methodology	4
		ECO5404	Rural Development	4
		ECO5405	Economics of Environment	
		ECO5406	Economics of Finance	

F.Y. M.A. Semester I
Subject: Economics
ECO4101: Paper title: Micro Economics-I

[Credits-4]

Course Outcomes

At the end of this course, students will be able to

- CO1** To develop a thorough understanding of the basic principles of microeconomics.
CO2 To be familiar with the concepts of utility, demand supply mechanism, elasticity.
CO3 To apply these concepts to solve and analyse various problems of economic policy
CO4 To comprehend the perfect competitive market framework.
CO5 To apply the framework and analyse microeconomic relationships

Unit	Details	Lectures
I	Introduction 1.1 The Basic Micro- Economic Problems of Scarcity and Choice. 1.2 Market and Price Mechanism 1.3 Disturbances to Equilibrium, Floor Price, Ceiling Price Basics of Demand and Supply 1.4 The Market Mechanism 1.5 Shifts in Supply and Demand 1.6 Elasticities of Supply and Demand 1.7 Short-Run versus Long-Run Elasticities 1.7.1 Demand 1.7.2 Supply 1.8 Understanding and Predicting the Effects of Changing Market Conditions 1.9 Effects of Government Intervention-Price Controls- (Labour market, Fuel Prices, Water shortages)	[10]
II	Consumer Theory 2.1 Consumer Preferences 2.1.1 Some Basic Assumptions 2.1.2 Indifference Curves 2.1.3 Ordinal versus Cardinal Rankings 2.1.4 The Marginal Rate of Substitution 2.1.5 Perfect Substitutes and Perfect Complements 2.2 Budget Constraints 2.2.1 The Budget Line 2.2.2 The Effects of Changes in Income and Prices 2.2.3 Consumer Choice 2.2.4 A Corner Solution 2.3 Revealed Preference 2.4 The Concept of Utility 2.4.1 Utility and Satisfaction 2.4.2 Marginal Utility 2.4.3 Indirect utility function and its properties 2.4.4 Roy's identity, Expenditure function, Shephard's lemma	[14]
III	Individual and Market Demand 3.1 Individual Demand 3.1.1 Price Changes	[12]

	3.1.2 The Demand Curve 3.1.3 Income Changes 3.1.4 Engel Curves 3.1.5 Substitutes and Complements 3.1.6 The Income Elasticity of Demand 3.2 Income and Substitution Effects 3.2.1 Substitution Effect 3.2.2 Income Effect 3.2.3 A Special Case - The Giffen Good 3.2.4 Application of Income and Substitution Effect	
IV	Producer Theory 4.1 Introduction to Producer Theory 4.1.1 Firm's Production Functions 4.1.2 Short Run Production and Diminishing Marginal Product 4.1.3 Long Run Production and the Marginal Rate of Technical Substitution 4.1.4 Returns to Scale 4.2 Productivity and Costs 4.2.1 Productivity 4.2.2 Introduction to Costs and Short Run Costs 4.2.3 Long Run Costs 4.2.4 Long Run Expansion Path	[12]
V	Perfect Competition 5.1 Assumptions 5.2 Short-Run Equilibrium 5.2.1 Equilibrium of the Firm in the Short Run 5.2.2 The Supply Curve of the Firm and the Industry 5.2.3 Short-Run Equilibrium of the Industry 5.3 Long-Run Equilibrium 5.3.1 Equilibrium of the Firm in the Long Run 5.3.2 Equilibrium of the Industry in the Long Run 5.3.3 Optimal Resource Allocation 5.4 Dynamic Changes and Industry Equilibrium 5.4.1 Shift in the Market Demand 5.4.2 Predictions of the Perfect Competition Model when Costs Change 5.4.3 Effects of Imposition of a Tax	[12]

Books-

1. Gravelle, H. and R. Rees, Microeconomics, Pearson Edition, 2004
2. Varian, Hal R. (1992), Microeconomic Analysis, 3rd Edition, International Student Edition, W. W. Norton and Company
3. Pindyck, Robert S. and Rubinfeld, Daniel L. (1998), Microeconomics, Prentice Hall
4. Koutsoyiannis, A. (1979). *Modern Microeconomics* (2nd Edition ed.). New York: St. Martin's Press, Inc.

F.Y. M.A. Semester I
Subject: Economics
ECO4102: Paper title: Public Economics-I

[Credits-4]

Course Outcomes

At the end of this course, students will be able to

- CO1** To investigate the role of the public sector in the economic arena.
CO2 To become familiar with the concept and the need for government intervention in economic activities.
CO3 To comprehend the recent developments in both theoretical and empirical literature through the Indian context.
CO4 To analyse policy challenges facing governments around the world and learn about potential solutions to these challenges as well as obstacles in implementing them.

Unit	Details	Lectures
I	Role of Government 1.1 Introduction 1.1.1 Why is public sector required in a mixed economic system? 1.2 Role of Government in Organized Society 1.2.1 Changing perspective about the role of government 1.2.2 Fiscal functions: An overview	[12]
II	Public Policy 2.1 Rationale of public policy 2.2 Concept of public goods 2.3 Difference between public and private goods 2.4 Allocation of resources: Efficiency condition - Provision of Public Good 2.4.1 Lindahl's voluntary exchange approach 2.4.2 Samuelson's model of public goods allocation 2.4.3 Musgrave's model 2.4.4 Difference between Samuelson's approach and Musgrave's approach 2.5 Theory of public choice 2.5.1 Meaning of public choice theory 2.5.2 Voting Model 2.5.3 The Optimal Constitution 2.5.4 Log Rolling – The Buchanan Tullock Model 2.5.5 The Down's Theory of Democracy 2.5.6 Revealing social preferences	[16]
III	Principle of Public Expenditure 3.1 Introduction: Meaning and Scope, Reasons for Growth 3.2 Theoretical Analysis of Public Expenditure Growth 3.3 Wagner's Law of Increasing State Activities 3.4 Wiesman- Peacock Hypothesis 3.5 Pure Theory of Public Expenditure 3.6 Collin Clark's critical Limit Hypothesis 3.7 Evaluation of Public Expenditure 3.8 Social Cost-Benefit Analysis, Fundamentals, Meaning, Basic Postulate, Evaluation and Limitations	[16]

IV	Public Debt 4.1 Classical view of Public Debt 4.2 Compensatory aspect of Debt Policy 4.3 Sources of Public Debt; Debt through created Money 4.4 Public Borrowings and Price Level 4.5 Crowding Out of Private Investment and Activity 4.6 Principles of Debt Management and Repayment 4.7 Burden of Public Debt on Indian Economy.	[16]
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Books-**Basic Reading List**

1. Stiglitz, J.E. (1986), Economics of Public Sector, Norton, New York.
2. S.K. Singh, (2008), Public Finance in theory and Practice
3. R.A. Musgrave and P.B. Musgrave (2004), Public Finance in Theory and Practice

Additional Reading List

1. Cornes, R. and T. Sandler (1986), The Theory of Externalities, Public Goods and Club Goods, Cambridge University Press, Cambridge.
2. Duff, L. (1997), Government and Market, Orient Longman, New Delhi.
3. Herber, B.P. (1967), Modern Public Finance, Richard D. Irwin, Homewood.
4. Spulber, N. (1998), Redefining the State, Cambridge University Press, Cambridge.
5. Buchanan, J.M. (1968), The Demand and Supply of Public Goods, Rand McNally, Chicago.
6. Mueller, D.C. (1979), Public Choice, Cambridge University Press, Cambridge.
7. Spulber, N. (1998), Redefining the State, Cambridge University Press, Cambridge.
8. Dorfman, R. (Ed.) (1970), Measuring the Benefits of Government Investment, Brookings Institution, Washington.

F.Y. M.A. Semester I**Subject: Economics****ECO4103: Paper title Macro Economics-I****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To understand and analyse basic theoretical framework underlying the field of macroeconomics
- CO2** To analyse how the economy's total output of goods and services, quantity of money employment of resources is determined and what causes these totals to fluctuate
- CO3** To apply the framework and analyse macroeconomic relationships
- CO4** To analyse the behaviours of consumption and investment
- CO5** To understand the relation between prices and output

Unit	Details	Lectures
I	History of Macroeconomic Thought 1.1 Classical School of Thought 1.2 Keynesian School of Thought	[06]

	1.3 Schools of thought in Macroeconomics after Keynes 1.4 National Income Accounting - revisited Concepts of growth and Development	
II	Behavioural foundations of Macro Economics 2.1 Consumption Function: Keynes Psychological Law and Kuznet's consumption puzzle 2.2 The Orthodox Keynesian School: The orthodox Keynesian School- the IS-LM model for a closed economy 2.3 Underemployment equilibrium in the Keynesian Model 2.4 The IS-LM model for an open economy- IS-LM-BP model of Mundell-Fleming 2.5 The Philips Curve and orthodox Keynesian economics. 2.6 Determination of output and employment – labour market. 2.7 AD-AS model.	[34]
III	Theories of Consumption 3.1 Fisher's inter-temporal Choice Model 3.2 Permanent Income Hypothesis 3.3 Life Cycle Hypothesis and Relative Income Hypothesis.	[06]
IV	Theories of Investment 4.1 Investment Function: Neo-Classical Theory of Investment, 4.2 Stock Market and Tobin's q-ratio, 4.3 Accelerator Theory of Investment (simple and flexible acceleration models)	[08]
V	The Monetarist School 5.1 The quantity theory of money approach 5.2 The expectation augmented Philips cure analysis 5.3 The orthodox monetary school and stabilization policy	[06]

Books-

1. Barro, Robert J. & Sala-i- Martin, Xavier (1995), Economic Growth, MacGrawHill.
2. Blanchard, Olivier (2000), Macroeconomics, Prentice Hall.
3. Blanchard, Olivier and Stanley, Fischer (1989), "Lectures on Macroeconomics", The MIT Press
4. Dornbusch, Rudiger, Fischer, Stanley & Startz, Richard (2004), Macroeconomics, 9th Edition, MacGraw Hill.
5. Mankiw Gregory (2002), Macroeconomics, 5th Edition, Worth Publishers
6. Romer, David (2003), Advanced Macroeconomics, 3rd Edition, Mc Grow Hill Publishers.
7. Snowdon Brian and Vane Howard R, (2005) Modern Macroeconomics: Its Origin, Development and Current State, Edward Elgar Publishing Ltd.

F.Y. M.A. Semester I**Subject: Economics****Elective Paper ECO4104: Paper title Statistical Techniques****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To understand the theoretical and conceptual foundations of Statistics
CO2 To comprehend probability theory and sampling techniques
CO3 To apply sampling methods for collecting data for analysis
CO4 To analyse economic relations with estimation methods
CO5 To analyse statistical significance of parameter estimates with testing hypothesis

Unit	Details	Lectures
I	Introduction 1.1 Set and Probability Theory 1.2 Random Variables, Probability Mass/Density Function, Cumulative Distribution Function (Univariate Model)	[10]
II	Distribution 2.1 Multiple Random Variables 2.2 Bivariate Distribution 2.3 Marginal Distribution 2.4 Conditional Distribution, Independence 2.5 Multivariate Distribution (Multivariate Model) 2.6 Expectation (Moments) 2.7 Random Variable and Random Vector Transformations (Univariate and Multivariate Models) 2.8 Special Distributions (Discrete and Continuous)	[14]
III	Probability 3.1 Probability in uncertainty 3.2 Random variables, distributions, quantiles, mean, variance 3.3 Conditional probability, Bayes' theorem, base rate fallacy 3.4 Joint distributions, covariance, correlation, independence	[12]
IV	Sampling 4.1 Random Sample 4.2 Law of Large Numbers 4.3 Central Limit Theorem	[12]
V	Estimation and Testing 5.1 Point Estimators and Point Estimation Methods 5.2 Interval Estimation and Confidence Intervals 5.3 Hypothesis Testing	[12]

Books-

1. Mode, E.B.: Elements of Statistics - Prentice Hall
2. Wilks, S.S.: Elementary Statistical Analysis - Oxford and IBH
3. Snedecor, G.W., & Cochran, W.G.: Statistical Methods, Oxford and IBH
4. Simpson and Kafka: Basic Statistics
5. Burr, I.W.: Applied Statistical Methods, Academic Press.
6. Croxton, FE. and Cowden, D.J.: Applied General Statistics, Prentice Hall

7. Ostleo, B.: Statistics in Research, Oxford & IBH.
8. Gujarati: Essentials of Econometrics.
9. Humphreys: Probability and Statistics.

F.Y. M.A. Semester I

Subject: Economics

Elective Paper ECO4105: Paper title Indian Economic Policy

[Credits-4]

Course Outcomes

At the end of this course, students will be able to

- CO1** To become familiar with the concepts and the issues and Policies in Economic Development.
- CO2** To analyze various issues of Agriculture LPG , Infrastructure, Financial and Monetary institutions, Foreign Trade and Fiscal Policy pertaining to India's economic development
- CO3** To aware the students about various Issues and policies of Infrastructural, Social and financial sector of the economy
- CO4** Critical appraisal is expected by taking cognizance of the contemporary developments in the Indian as well as International economy.

Unit	Details	Lectures
I	Framework of Indian Economy 1.1 National Income: Trends and Structure of National Income, Trends in rural- urban income disparity. 1.2 Demographic Features and Indicators of Economic Growth and Development Rural-Urban Migration and issues related to Urbanization 1.3 Unemployment-Nature, Central and State Government's policies, policy implications, Employment trends in Organized and Unorganized Sector, Gender issues in agricultural services.	[15]
II	Development Strategies in India 2.1 Agricultural- Pricing, Marketing and Financing of Primary Sector 2.2 Economic Reforms- Rationale of Economic Reforms, Liberalization, Privatization and Globalization of the Economy 2.3 Interdependence between Agriculture and industrial development. 2.4 Changing structure of India's Foreign Trade 2.5 Role of Public Sector- Redefining the role of Public Sector, Government Policy towards Public Sector, problems associated with Privatization, issues regarding Deregulation-Disinvestment and future of Economic Reforms	[15]
III	The Economic Policy and Infrastructure Development 3.1 Energy and Transport 3.2 Social Infrastructure- Education, Health and Gender related issues, Social Inclusion 3.3 Issues and policies in Financing Infrastructure Development 3.4 Indian Financial System- issues of Financial Inclusion, Financial Sector Reforms-review of Monetary Policy of R.B.I. Capital Market in India.	[15]

IV	The Economic Policy and Industrial Sector 4.1 Industrial Sector development Pre-reforms period and Post-reform period 4.2 Problems of MSMEs 4.3 Amalgamation, Mergers, Acquisition, Takeovers 4.4 Labour Market - Characteristics of Indian Labour Market, Labour efficiency and productivity, Technical change, Labour absorption.	[15]
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Books-

1. Brahmananda, P.R. and V.A. Panchmukhi. [2001], Ed. 'Development Experience in Indian Economy, Inter-state Perspective,' Book well, New Delhi.
2. Gupta, S.P. [1989], 'Planning and Development in India: A Critique,' Allied Publishers Private Limited, New Delhi.
3. Bhagwati, Jagdish. [2004], 'In Defense of Globalization,' Oxford University Press, U.K.
4. Dhingra, Ishwar //C.[2006], 'Indian Economy,' Sultan Chand and Sons, New Delhi.
5. Datt, Ruddar and Sundaram, K.P.M. [Latest edition], 'Indian Economy,' S. Chand and Co, New Delhi
6. Uma Kapila –Indian Economy
7. Pratiyogita Darpan Series
8. Ramesh Singh-Indian Economy-Tata Mcgraw Hill Publication New Delhi.

F.Y. M.A. Semester II**Subject: Economics****ECO4201: Paper title Micro Economics-II****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To develop a thorough understanding of the basic principles of microeconomics.
CO2 To comprehend the Monopolistic market framework, and apply it to microeconomic situations
CO3 To understand the features of a Oligopolistic market
CO4 To comprehend the nuances of welfare economics.
CO5 To apply these concepts to solve and analyse various problems of economic policy

Unit	Details	Lectures
I	Monopoly 1.1 Definition 1.2 Demand and Revenue 1.3 Costs 1.4 Equilibrium of the Monopolist 1.4.1 Short-Run Equilibrium 1.4.2 Long-Run Equilibrium 1.5 Predictions in Dynamic Changes	[15]

	1.5.1 Shift in the Market Demand 1.5.2 An Increase in the Costs of the Monopolist 1.5.3 Imposition of a Tax 1.6 Comparison of Pure Competition and Monopoly 1.7 The Multiplant Firm 1.8 Bilateral Monopoly	
II	Price Discrimination 2.1 Effects of Price Discrimination 2.2 Price Discrimination and Elasticity of Demand 2.2.1 First-Degree Price Discrimination 2.2.2 Second-Degree Price Discrimination 2.2.3 Third-Degree Price Discrimination 2.3 Government-Regulated Monopoly 2.3.1 Price Regulation 2.3.2 Contestable Market: The Airline Industry Monopsony 2.4 Monopsony and Monopoly Compared 2.4.1 Monopsony Power 2.4.2 Sources of Monopsony Power 2.4.3 The Social Costs of Monopsony Power	[15]
III	Oligopoly 3.1 Non-Collusive Oligopoly 3.1.1 Cournot's Duopoly Model 3.1.2 Bertrand's Duopoly Model 3.1.3 Chamberlin's Oligopoly Model 3.1.4 The 'Kinked-Demand' Model 3.1.5 Stackelberg's Duopoly Model Collusive Oligopoly 3.2 Cartels 3.2.1 Cartels aiming at Joint Profit Maximisation 3.2.2 Market-Sharing Cartels 3.3 Game Theory 3.3.1 Game Theory and the Prisoner's Dilemma 3.3.2 Repeated Games 3.3.3 Non-cooperative Versus Cooperative Games 3.3.4 Dominant Strategies 3.4 The Nash Equilibrium 3.4.1 Maximin Strategies 3.4.2 Mixed Strategies	[15]
IV	Equity and Efficiency Welfare Economics 4.1 Market Consumer Surplus 4.2 Producer Surplus 4.3 Social Welfare and Dead Weight Loss 4.4 Impact of Government Interference on Social Welfare 4.5 Social Welfare Criteria 4.5.1 Growth of GNP as a Welfare Criterion 4.5.2 Bentham's Criterion 4.5.3 A 'Cardinalist' Criterion 4.5.4 The Pareto-Optimality Criterion	[15]

4.5.5 The Kaldor-Hicks 'Compensation Criterion'	
4.5.6 The Bergson Criterion 'Social Welfare Function'	
4.6 Overview of the Equity-Efficiency Trade-off	
4.7 Social Welfare Functions: Utilitarian, Rawlsian, Nozickian, Commodity Egalitarian	

Books-

1. Gravelle, H. and R. Rees, Microeconomics, Pearson Edition, 2004
2. Varian, Hal R. (1992), Microeconomic Analysis, 3rd Edition, International Student Edition, W. W. Norton and Company
3. Pindyck, Robert S. and Rubinfeld, Daniel L. (1998), Microeconomics, Prentice Hall
4. Koutsoyiannis, A. (1979). *Modern Microeconomics* (2nd Edition ed.). New York: St. Martin's Press, Inc.

F.Y. M.A. Semester II**Subject: Economics****ECO4202: Paper title Public Economics-II****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To investigate the role of the public sector in the economic arena.
- CO2** To comprehend the recent developments in both theoretical and empirical literature through the Indian context.
- CO3** To examine the recent developments in Indian fiscal scenario
- CO4** To understand the importance of international fiscal coordination in public finance.

Unit	Details	Lectures
I	Fiscal Policy 1.1 Objectives of Fiscal Policy, Interdependence of Fiscal and Monetary Policies 1.2 Fiscal Policy for Stabilization - Automatic vs. Discretionary Stabilization. 1.3 Budget – Meaning and Components: Preparation, Presentation and Execution of Budget 1.4 Economic Classification of Budget. 1.5 Budget Deficits and Their Implications. 1.6 Balanced Budget Multiplier.	[15]
II	Indian Fiscal Federalism 2.1 Fiscal Federalism 2.1.1 Concept of Federal Finance 2.1.2 Principles of Federal Finance 2.1.3 The Salient Problems Federal Finance 2.1.4 Fiscal Imbalance : Vertical and Horizontal Imbalance 2.2 Fiscal Federalism in India 2.2.1 Centre - State Financial relations 2.2.2 Major Problems in Centre State Financial Relation 2.2.3 Constitutional provisions: Finance Commission and Planning Commission	[15]

	2.2.4 NITI Aayog. 2.3 Problems of States' Resources and Indebtedness 2.4 Transfer of resources from Union and States to Local Bodies.	
III	Taxation 3.1 Introduction 3.1.1 Characteristics of a Good Tax System 3.1.2 Modern View of Sound Tax System 3.1.3 Musgrave's View 3.2 Distribution of Tax Burden 3.2.1 Principle of Equity- Horizontal, vertical 3.2.2 The cost of Service Principle 3.2.3 The Benefit Principle- Classical Version, Modern View (Voluntary Exchange Approach, Lindahl and Bowen Solutions) 3.2.4 The Ability to Pay Approach 3.2.5 The Concept of Optimal Taxation 3.3 Shifting and Incidence of Tax 3.3.1 Theories of Tax System – Concentration Theory, Diffusion Theory and Demand and Supply Theory 3.3.2 Fiscal Incidence and Its measurements: Musgrave's Approach 3.3.3 Tax Reforms: Committee Recommendations	[15]
IV	International Fiscal Coordination 4.1 Introduction to Tax Coordination 4.2 Coordination of Income and Profit Taxes 4.3 Coordination of Product Taxes 4.4 Expenditure Coordination 4.5 Coordination of Stabilization Policies	[15]

Books-

1. Hugh Dalton: Principles of Public Finance, 11th Impression Routledge publications
2. C F Bastable: Public Finance, London: Macmillan and Co., Limited, 3rd Edition
3. Ursula Hicks: Public Finance
4. Shome, P. (Ed.) (1995), Tax Policy: Handbook, Tax Division, Fiscal Affairs Department, International Monetary Fund, Washington D.C.
5. Tripathy R.N. Public Finance in Underdeveloped Countries.
6. Rajesh K. Jha (2012) Public Finance. Pearson Publication New Delhi
7. Dr. Joshi P.L. Zero Base Budgeting Technology in Government, Dhruv and Deep Books, Bombay.
8. Dr. Tyagi B.P., Public Finance, Jai Prakash Nath Pub. Meerat (UP).
9. Mithani D.M. Principles of Public Finance and Fiscal Policy Himalaya Publishing House, New Delhi.
10. Ruddar Datt and K.P.M. Sundharam (2006), Indian Economy, S.C. Chand and Company Ltd, New Delhi.
11. Ashutosh Raravikar, Fiscal Deficit and Inflation in India, Macmillan India Ltd. New Delhi
12. Richard Musgrave and Peggy Musgrave Public Finance theory and Practice.

F.Y. M.A. Semester II**Subject: Economics****ECO4203: Paper title: Macro Economics-II****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To understand the micro-foundations of macroeconomics
CO2 To analyse the existence of unemployment
CO3 To understand expectations formation
CO4 To analyse the cyclical movement of output
CO5 To comprehend and analyse movements of money
CO6 To understand how monetary policy interest rate is determined

Unit	Details	Lectures
I	Micro Foundations of real and nominal rigidities-I 1.1 New Keynesian School: Imperfect competition and price setting 1.2 Real rigidity- Co-ordination failure models 1.3 Real Non Walrasian Theories 1.4 Small Menu Cost model and Staggering of prices 1.5 Implicit wage contract theory- efficiency wage theory 1.6 Insider- Outsider model.	[12]
II	Micro Foundations of real and nominal rigidities-II 2.1 New Classical School: Perfect Information Rational expectations hypothesis 2.2 Lucas critique-Imperfect and asymmetric information 2.3 Barro-Ricardo equivalence and fiscal policy	[12]
III	Business Cycle 3.1 Real Business Cycle, 3.2 Multiplier-Accelerator Interaction 3.3 Samuelson's Oscillation Model	[12]
IV	Monetary Theories 4.1 Liquidity theory Gurley and Shaw Hypothesis 4.2 The quantity and components of money stock in India and broad trend in them 4.3 Base money, money multipliers and role of financial intermediaries 4.4 Balance sheet of Reserve Bank of India 4.5 Demand for money Keynesian theory of demand for money 4.6 Baumol-Tobin theory, Tobin's Portfolio Theory 4.7 Issues regarding endogenous and exogenous supply of money.	[12]
V	Theories of Interest Rate 5.1 Real and monetary theories of the interest rate Keynesian theory 5.1.1 Wicksellian theory 5.1.2 Fisher's theory 5.1.3 Hicksian theory 5.2 Interest rate parity 5.3 Backward and forward looking models	[12]

Books-

1. Blanchard, Olivier and Stanley, Fischer (1989), "Lectures on Macroeconomics", The MIT Press
2. Dornbusch, Rudiger, Fischer, Stanley & Startz, Richard (2004), Macroeconomics, 9th Edition, MacGraw Hill.
3. Mankiw Gregory (2002), Macroeconomics, 5th Edition, Worth Publishers
4. Romer, David (2003), Advanced Macroeconomics, 3rd Edition, McGraw Hill Publishers.
5. Snowdon Brian and Vane Howard R, (2005) Modern Macroeconomics: Its Origin, Development and Current State, Edward Elgar Publishing Ltd.
6. Mishkin Frederic (2007), The Economics of Money Banking and Financial Markets, 8th ed Addison Wesley Longman Publishers.
7. Bain, Keith & Howells, Peter (2009), Monetary Economics: Policy and Its Theoretical Basis, Palgrave.
8. Friedman, Ben & Hahn F.H. (Eds.), (1990), Handbook of Monetary Economics, Vols. 1, 2, & 3, North Holland Publishers.
9. Blinder Alan (1998), Central Banking in Theory and Practice, The MIT Press
10. Langdana Farrokh (2009), Macroeconomic Policy: Demystifying Monetary and Fiscal Policy, 2nd Edition, Springer.

F.Y. M.A. Semester II**Subject: Economics****Elective Paper ECO4204: Paper title: Mathematical Economics****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To comprehend mathematical formulations necessary to understand Economics.
CO2 To analyse static mathematical framework
CO3 To analyse comparative static mathematical framework
CO4 To understand dynamic mathematical framework
CO5 Apply the above three frameworks in Economics and analyze economic problems
CO6 To understand Economics from programming and game theoretic approach

Unit	Details	Lectures
I	Static Analysis 1.1 Relations and functions; Economic equilibrium analysis Linear model: Matrix algebra: Matrix operations; Commutative, associative, distributive laws Transposes; Determinants; Non-singularity; Eigen Value; Leontief 1.2 Cayley-Hamilton Theorem; Matrix inversion; Cramer's rule; Applications in Economics; Input-output model.	[15]
II	Comparative Statics 2.1 The derivative; Limit; Continuity; differentiability; Rules of differentiation;	[15]

	<p>2.2 Partial differentiation; Total differentials; Total derivatives; Implicit functions;</p> <p>2.3 Applications in Economics</p> <p>2.4 Optimization: First and second derivative tests; Exponential function; Derivatives;</p> <p>2.5 Logarithmic function: Derivatives; Applications in Economics.</p> <p>2.6 Functions of two or more variables: Second order partial derivatives and total differentials</p> <p>2.7 Finding maximum/minimum: Unconstrained optimization; Quadratic forms;</p> <p>2.8 Characteristic roots; Concavity and convexity; Applications in Economics.</p> <p>2.9 Constrained optimization: Classical Programming; Lagrange multiplier; Second order condition; Homogeneous functions; Homotheticity; Euler's theorem; Cobb-Douglas function; CES function; Translog Function; Applications in Economics.</p>	
III	<p>Dynamics</p> <p>3.1 Rules of integration; Indefinite integrals; Definite integrals; Improper integrals;</p> <p>3.2 Applications in Economics; Domar Growth model.</p> <p>3.3 First order difference equations: Dynamic stability of equilibrium; Applications in Economics: Cobweb model; Harrod model.</p> <p>3.4 Second order difference equations: Applications in Economics: Samuelson trade cycle model.</p> <p>3.5 Dynamic Optimization: Discrete Time and Continuous Time.</p>	[15]
IV	<p>Mathematical programming and Game theory</p> <p>4.1 Linear Programming; Simplex method; Duality; Non-linear programming;</p> <p>4.2 Kuhn-Tucker conditions; Applications in Economics. Game theory; the rectangular game as a linear program; duality.</p>	[15]

Books-

1. Chiang A.C. and K. Wainwright, Fundamental Methods of Mathematical Economics, 4th Edition, McGraw-Hill, New York, 2005.(cw)
2. Dowling E.T, Introduction to Mathematical Economics, 2nd Edition, Schaum's Series, McGraw-Hill, New York, 2003(ETD)
3. R.G.D Allen, Mathematical Economics
4. Mehta and Madnani, Mathematics for Economics
5. Joshi and Agarwal, Mathematics for Economics
6. Taro Yamane, Mathematics for Economics

F.Y. M.A. Semester II**Subject: Economics****Elective Paper ECO4205: Paper title: Agricultural Economics****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To investigate the role of the Agriculture sector in the economic arena.
- CO2** To familiarize students with policy issues that are relevant to Indian agricultural economics
- CO3** To examine the recent developments in Indian as well as international Agriculture sector.
- CO4** To enable them to analyze the issues, using basic economics concepts.

Unit	Details	Lectures
I	Introduction 1.1 Place of Agriculture in Indian economy 1.2 Trends, Agriculture Productivity 1.3 Agricultural Development under Five Year Plans. 1.4 Agricultural Management- Concept, Recent trends and Problems.	[15]
II	Agriculture Labour and Efficiency 2.1 Problems of Agriculture Labour 2.2 Impact of Mechanization on Agriculture Labour 2.3 Unemployment in Agriculture Labour. 2.4 Different types of land Law	[15]
III	Agricultural credit 3.1 Financial needs of Indian Agriculture. 3.2 Co-operative Credit Structure 3.3 Role of NABARD 3.4 Role of Commercial Banks. 3.5 Private Money Lenders 3.6 Crop loans and Crop insurance.	[15]
IV	Sustainable Agriculture and Agricultural Policy 4.1 Technological Changes and Options in agriculture- Organic Farming- Present status and Future 4.2 Food Policy in India. 4.3 EXIM Policy and Agriculture. 4.4 Tourism and Agriculture.	[15]

Books-

1. Datt R. & K.P.M Sundharm (2007) Indian Economy, S. Chand & Co. Ltd. Delhi.
2. Misra S.K. & V. K. Puri (2007) Indian Economy – Himalaya Publication house Mumbai
3. Gopal Ji & SumanBhakari 'Indian Economy (2012) Performance and Policies Pearson Publication Delhi
4. Agrawal A.N. Indian Economy Problem of Development and Planning 06.
5. Kapila Uma (ed) Indian Economy Since Independence, Academic Foundation (2003)
6. Dewett Kewal : Indian Economy C.Chand & Co.Ltd, New Delhi 2005.
7. B.N.P singh : Indian Economy Today Changing Contours. Deep and Deep pub. 05.

8. Mamoria C.B. Agricultural Problems of India Kitab Mahal Pub. 2005.
9. M.P. Singh- Indian Economy Today- Problems Planning and Development. (2004) Deep and Deep Publication.
10. Singh Acharya, Sagar – Sustainable Agricultural Poverty and Food Securities (2002) Rawat Publication Jaypur Vol- I & II
11. Ajit Singh and Tabatabai – Economic crisis and Third world Agriculture, Combries University Press.
12. Gulati & Kelley – Trade Liberalization of Indian Agriculture, (1999), Oxerpert University press.
13. C.S. Prasad – Sixty years of Indian Agriculture – New Delhi 2006.
14. Hansra Parumal and Chandrakarn – Modernization of Indian Agriculture in 21st century challenges, opportunity and strategies, Concept Publication Co. New Delhi.
15. Norton and Allwinding – The Introduction to Economic and Agricultural Development Mac Graw Hill Co. Publication, New Delhi.
16. Wakatash – Development Agricultural Technology, Rawat Publications.

S.Y. M.A. Semester III

Subject: Economics

ECO5301: Paper title: International Economics and Finance-I

[Credits-4]

Course Outcomes

At the end of this course, students will be able to

- CO1** To understand advanced level of theoretical and factual nuances of trade and finance
- CO2** To analyse export and import management
- CO3** To comprehend international economy and financial management in an open economy
- CO4** To analyse trade and investment patterns
- CO5** To analyse foreign trade production, finance and foreign trade accounting
- CO6** To comprehend basic functions of trade and finance transactions

Unit	Details	Lectures
I	International Economy and Globalization 1.1 Overview of International Economics and Globalization 1.2 Concepts of Gains from Trade, Pattern of Trade and terms of trade, Foreign Trade Multiplier 1.3 Meaning and different shapes of Production Possibility Frontier	[15]
II	International Trade Theories: Orthodox and New 2.1 Historical Development of Modern Trade Theory 2.2 Mercantilism 2.3 Adam Smith's Absolute Cost Advantage 2.4 David Ricardo's Principle of Comparative Advantage 2.5 The Factor-Endowments Theory (Heckscher and Ohlin Theory) 2.6 Factor-Price Equalization 2.7 Is International Trade a Substitute for Migration? 2.8 Who Gains and Losses From Trade? The Stolper-Samuelson Theorem 2.9 Specific Factors: Trade and the Distribution of Income in the Short Run 2.10 Concept of Immiserizing growth 2.11 Metzler Paradox	[15]

	<p>2.12 New trade theories: Skill as a Source of Comparative Advantage</p> <p>2.13 Increasing Returns to Scale and Comparative Advantage</p> <p>2.14 External Economies of Scale and Comparative Advantage</p> <p>2.15 Linder Hypothesis</p> <p>2.16 Intra-industry Trade, Gruber-Lloyd Index</p> <p>2.17 Product Life Cycle Theory – Vernon</p> <p>2.18 Government Regulatory Policies and Comparative Advantage</p> <p>Transportation Costs and Comparative Advantage</p>	
III	<p>Tariffs & Nontariff Trade Barriers</p> <p>3.1 The Tariff Concept</p> <p>3.2 Types of Tariffs</p> <p>3.3 Effective Rate of Protection</p> <p>3.4 Tariff Escalation</p> <p>3.5 Dodging Import Tariffs: Tariff Avoidance and Tariff Evasion</p> <p>3.6 Postponing Import Tariffs: Bonded Warehouse and Foreign-Trade Zone</p> <p>3.7 Tariff Effects: An Overview</p> <p>3.8 Tariff Welfare Effects: Consumer Surplus and Producer Surplus</p> <p>3.9 Tariff Welfare Effects: Small-Nation Model</p> <p>3.10 Tariff Welfare Effects: Large-Nation Model</p> <p>3.11 How a Tariff Burdens Exporters</p> <p>3.12 Tariffs and the Poor</p> <p>3.13 Arguments for Trade Restrictions, Import Quota, Types of Quotas, Quotas Versus Tariffs, Tariff-Rate Quota: A Two-Tier Tariff, Export Quotas, Domestic Content Requirements, Subsidies, Dumping, Antidumping Regulations</p>	[15]
IV	<p>Trade Regulations and Industrial Policy</p> <p>4.1 General Agreement on Tariffs and Trade</p> <p>4.2 World Trade Organization</p> <p>4.3 Protection From Imports</p> <p>4.4 Countervailing Duties: Protection Against Foreign Export Subsidies</p> <p>4.5 Antidumping Duties: Protection Against Foreign Dumping</p> <p>4.6 Protection Against Unfair Trading Practices</p> <p>4.7 Protection of Intellectual Property Rights</p> <p>4.8 India's Tariff Policy, Foreign Trade policy of India</p> <p>4.9 Strategic Trade Policy</p> <p>4.10 Economic Sanctions</p> <p>4.11 Developing-Nation Trade Characteristics</p> <p>4.12 Trade Problems of the Developing Nations</p> <p>4.13 The OPEC Oil Cartel</p>	[15]

Books-

1. Paul R. Krugman & Maurice Obstfeld (2009) International Economics Theory and Policy. Pearson Education Publication New Delhi
2. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N.J., New York.
3. Robert J. Carbaugh, International Economics
4. James Gerber (2012) International Economics Pearson Publication. New Delhi
5. Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan.
6. Kindleberger, C.P. International Economics, R.D. Irwin, Homewood.
7. Soderston, Bo (2005), International Economics, The Macmillan Press Ltd., London.

S.Y. M.A. Semester III**Subject: Economics****ECO5302: Paper title: Growth and Development-I****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** The main objective of the course is to familiarise students with the concepts of growth and development in LDC's and developing countries. To discuss the issues of economic development
- CO2** To be familiar students with the evolution of growth models as well as important concepts such as poverty, inequality and population dynamics in the context of developing countries.
- CO3** To examine the theory of demographic transition, rural urban migration, problems in urban and rural areas.
- CO4** To discuss issues of urbanization

Unit	Details	Lectures
I	Development and Underdevelopment: An Overview 1.1 Concepts of growth and Development 1.2 Problems in defining economic development 1.3 Characteristics of LDCs – structural view of underdevelopment 1.4 The world distribution of income and Development gap 1.5 Per capita income as an index of development 1.6 Alternative measures of development gap – HDI, PCI, HPI, PQLI 1.7 Background and beginnings of 'Development Economics': –post-war world economic order and end of formal colonialism	[15]
II	Poverty and inequality 2.1 Defining poverty and problems of measurement 2.2 Income distribution - Income inequality, measurements of inequality, understanding inequality in developed and underdeveloped worlds; Vicious circle of poverty 2.3 Impact of inequality on the process of development 2.4 Debate on poverty in India	[15]
III	Theories of Economic Growth and Development: 3.1 The Harrod Domar growth model and its application to LDCs 3.2 Solow model of economic growth 3.3 The Cobb Douglas Production Function 3.4 Karl Marx and Schumpeter – surplus labour 3.5 Big push (Rosenstein–Rodan) 3.6 Balanced growth: (Nurkse) & Unbalanced growth (Hirschman) 3.7 The Sen –Bhagwati Debate 3.8 Dual-economy models – broad policy implications -Lewis, Ranis-Fei, Jorgenson models and limitations 3.9 The process of cumulative causation (Myrdal) 3.10 The centre and periphery hypothesis – the dependency school 3.11 Endogenous growth theory-A.K Model	[15]
IV	Population growth and economic development	[15]

	4.1 Population and Economic development in India 4.2 Population– the theory of demographic transition 4.3 Age structures of population and Sex ratio Rural-urban migration and urban unemployment (Harris-Todaro model and extensions) 4.4 Problems of urbanization – Sanitation, Transportation, Housing, Employment markets - formal, informal 4.5 Rural-urban wage-gap (Labour turnover model and wage-efficiency model – their extensions and limitations)	
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Books-

1. Todaro & Smith, Economic Development, Pearson
2. Debraj Ray Development Economics, Oxford
3. Behrman, S. and T.N. Srinivasan (1995), Handbook of Development Economics, Vol. 3, Elsevier, Amsterdam.
4. Thirwal, A.P. (1999), (6th Edition), Growth and Development, Macmillan, U.K.
5. Brown, M. (1966), On the Theory and Measurement of Technical Change, Cambridge University Press, Cambridge, Mass.
6. Chenery, H. and T.N. Srinivasan (Eds.) (1989), Handbook of Development Economics, Vols.1 & 2, Elsevier, Amsterdam.
7. Dasgupta, P. (1993), An Enquiry into Well-being and Destitution, Clarendon Press, Oxford.
8. Gillis, M., D.H. Perkins, M. Romer and D.R. Snodgrass (1992), Economics of Development, (3rd Edition), W.W. Norton, New York.
9. Kindleberger, C.P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York Economics
10. Meier, G.M. (1995), Leading Issues in Economic Development, (6th Edition), Oxford University Press, New Delhi.
11. Todaro, M.P. (1996), (6th Edition), Economic Development, Longman, London.
12. Meier G.M. leading Issues in Development Economics

S.Y. M.A. Semester III**Subject: Economics****ECO5303: Paper title: Modern Banking****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To be able to understand the role of Financial system in economic development.
- CO2** To be able to understand how bank works for their liquidity, safety & profitability & make balance sheet
- CO3** To be able to suggest solutions to the problems ahead to banking sector.
- CO4** To be able to understand the whole structure of NBFCs in India.
- CO5** To be able to understand the role & nature of Foreign Exchange markets & its impacts on Indian Economy.
- CO6** To be able to understand the forms of foreign capital & regulation to it.
- CO7** To be able to understand the Working and role of IMF, IBRD, IDA, IFC.
- CO8** To be able to understand the impacts of Global Financial Crisis 2008 on developed & developing countries.

Unit	Details	Lectures
I	Introduction 1.1 Nature, Structure and Role of Financial System in Economic Development 1.2 Functions of Financial System 1.3 Theory of Financial Development: Multiple Credit Creation Theory 1.4 Investment Policy of a Bank - Liquidity, Safety and Profitability. 1.5 Balance Sheet of a Commercial Bank.	[16]
II	Modern Banking in India 2.1 Evolution, Role and Functions of Modern Banks in India 2.2 Role of RBI in Modern Banking 2.3 Indian Money Market - Characteristics and Functions 2.4 Indian Capital Market - Characteristics and Functions 2.5 Reforms of Indian Money and Capital Market after 1991 2.6 Changing Trends in Banking Sector since 1991 2.7 Comments on the Present Status of Cooperative Banks and RRB 2.8 Foreign Banks in India and Their Impact on Indian Banking Sector 2.9 Capital Adequacy - Basel 2 & 3 2.10 Bank Holding Companies: Public and Private (EXIM Bank, SPB, ICICI & IDBI) 2.11 Current Challenges Faced by Banking Sector – Mergers and Amalgamations 2.12 Introduction to Financial Inclusion, and Benefits of Financial Inclusion 2.13 Other Topics: Microfinance, SHGs, and Chit Funds	[28]
III	Non-Banking Financial Institutions in India 3.1 Nature, Types and Significance of NBFIs in India 3.2 Growth of NBFCs & Overview of Regulation of NBFCs in Current Scenario.	[16]

Books-

1. Bhole, L. M. [2000] 'Indian Financial System,' Chugh Publications, Allahabad.
2. Bhole, L. M. [2012]. 'Financial Institutions and Markets,' Tata McGraw Hill Co. Ltd. New Delhi.
3. Pathak, Bharati. [2009] 'The Indian Financial System,' Pearson Education Publication, New Delhi.
4. Harker, P.T. and S. A. Zenios.[2000]Ed. 'Performance of Financial Institutions, CUP, UK.
5. Prasad, K.N.[2001] 'Development of India's Financial System,' Sarup and Sons, New Delhi.
6. D. Muralidharan.[2009]'Modern Banking Theory and Practice,' PHI Learning Pvt. Ltd. New Delhi.
7. Sharma, K.C.[2007]'Modern Banking in India,' Deep and Deep Pub. New Delhi.
8. Uppal,R.K. [2009]' Modern Banking in India – Dimensions and Risk' New Century Pub. New Delhi.
9. Shiller, Robert J.[2008 'The Sub-Prime Solutions- How Today's Global Financial Crisis happened and what to do about it.'
10. International Banking' Ed. MacMillan Pvt. Ltd. 2011. Indian Institution of Banking and Finance, New Delhi.

11. Practice of Law and Banking- G.S. Gill

Other Readings-

1. RBI Annual Reports and web site
2. Reports on Currency and Finance
3. Basel Committee Report on Banking Supervision, 2001.
4. RBI Bulletins, Economic and Political Weekly issues, Prajnan [NIBM] Daily, The Economic Times etc.

S.Y. M.A. Semester III

Subject: Economics

Elective Paper ECO5305: Paper title: World Economy

[Credits-4]

Course Outcomes

At the end of this course, students will be able to

- CO1** To examine the state of the world economy in the 21st Century.
- CO2** To analyse common issues faced by the world e. g. world recession, inflationary trends, impact of fluctuating prices of crude oil, gold etc.
- CO3** To understand these global economy issues in the light of India's development efforts.
- CO4** To examine the development of the world economy over the years.
- CO5** To identify the role played by various Economic organizations and Regional Trading Blocs.

Unit	Details	Lectures
I	Introduction to Global Economy 1.1. Meaning of Global Economy and its History 1.2. Structure and Components of Global Economy 1.3. Role of MNC's in World Economic Development 1.4. Effects of Globalization on Indian Economy	[10]
II	Regional Trade Blocs in the developed and developing economies Objectives and Role of: 2.1. OECD - Organization for Economic Cooperation and Development 2.2. OPEC - Organization of Petroleum Exporting Countries 2.3. EU - European Union and Creation of Euro 2.4. ASEAN - Association of South East Asian Nations 2.5. SAARC - South Asian Association for Regional Cooperation 2.6. BRICS – Brazil, Russia, India, China and South Africa	[20]
III	Introduction to transition economies. 3.1 Eastern Europe 3.2 Disintegration of the Soviet Union. What has been its impact on the region, Instability in the Balkans, Integration of former Soviet Bloc countries in the EU. 3.3 China: The emergence of China in world trade and industry, growth reforms. 3.4 Africa: Composition of the industry and trade, Possibilities and limitations. 3.5 Latin America: Debt crises. Brazil. Argentina. Mexico.	[18]
IV	Major World Economic Issues and its impact on India	[12]

	4.1. Issues in South East Asia – The flying geese model 4.2. The Japanese bubble in real estate 4.3. U.S. Debt Crisis and its impact on India 4.4. Euro zone Crisis and its impact on India	
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Books-

1. Francis Cherunilam .International Economics– The McGraw Hill Education Private limited, New Delhi
2. KenchandKeswani, International relations in Modern World, Himalaya Publication
3. P. V. Patwardhan ,World Economy 1914-1964, , Rajas Publication
4. Johnson Harry, World Economy at the crossroads, Oxford University Press
5. World Development Report
6. Shariieff Afzal, World Political Geography Sarip Book Publication
7. Mishra and Puri , Indian Economy, Himalaya Publication
8. Bimal Jalan (2002) India's Economy in the New Millenium Bimal Jalan (2005) The Future of India : Politics, Economics and Governance

S.Y. M.A. Semester III**Subject: Economics****Elective Paper ECO5306: Paper title: Econometrics****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To understand statistical techniques to analyse Economic data and relations
CO2 To understand regression models
CO3 To analyse economic relationships with regression model
CO4 To understand testing hypothesis
CO5 To apply testing and analyse statistical significance of relationships
CO6 To use appropriate statistical models
CO7 To understand and apply modelling with simultaneous equations, qualitative data and time series data.

Unit	Details	Lectures
I	Introduction to Econometrics 1.1 Introduction 1.2 Uses of econometrics, 1.3 Specification of mathematical model and econometric model. 1.4 Types of Econometrics, Types of data	[06]
II	Single-Equation Regression Models 2.1 Two-Variable Regression Model -The Classical Linear Regression Model 2.2 The Assumptions Underlying The Method Of Least Squares Estimation - The Method Of Ordinary Least Squares Properties Of Least-Squares Estimators: 2.3 The Gauss-Markov Theorem; 2.4 The Coefficient Of Determination R^2 : A Measure Of "Goodness Of Fit"	[20]

	2.5 Classical Normal Linear Regression Model (CNLRM), 2.6 Properties of OLS estimators under the normality assumption, the method of maximum likelihood (ML)	
III	Interval estimation and hypothesis testing 3.1 Confidence intervals for regression coefficients 3.2 Hypothesis testing: confidence interval approach - two-sided test, one-sided test 3.3 Hypothesis testing: the test of significance approach	[12]
IV	Multiple regression analysis 4.1 Three variable model; notation, assumption, interpretation 4.2 The multiple coefficient of determination R^2 and the Multiple coefficient of correlation R 4.3 Regression with Dummy Variables (ANOVA) 4.4 Testing for Structural Stability 4.5 Interaction Effects. 4.6 Use of Dummy variables in Seasonal Analysis, use of dummy variables in Combining Time series and Cross Sectional Data	[12]
V	Violations of Assumptions 5.1 Heteroskedasticity 5.2 Autocorrelation 5.3 Multicollinearity 5.4 Specification Bias	[06]
VI	Advanced topics in Econometrics 6.1 Simultaneous Equations Model – Identification problem, Order and Rank Conditions, ILS, 2-SLS 6.2 Qualitative Response Variable Models – LOGIT, TOBIT & PROBIT 6.3 Time Series – Random Walk Models, Unit Root Processes, Tests for Stationarity	[04]

Books-

1. Damodar Gujarati: Basic Econometrics
2. A. H. Studenmund: Using Econometrics: A Practical Guide
3. Christopher Dougherty: Introduction to Econometrics
4. D. M. Nachane: Econometrics - Theoretical Foundations and Empirical Perspectives
5. Jeffrey Wooldridge: Introductory Econometrics: A Modern Approach
6. Koutsoyinnis: Theory of Econometrics
7. G. S. Maddala: Introduction to Econometrics
8. G. S. Maddala: Econometric Methods
9. Hamilton: Time Series Econometrics

S.Y. M.A. Semester IV**Subject: Economics****ECO5401 : Paper title: International Economics and Finance II****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To understand advanced level of theoretical and factual nuances of trade and finance
- CO2** To analyse export and import management
- CO3** To comprehend international economy and financial management in an open economy
- CO4** To analyse trade and investment patterns
- CO5** To analyse foreign trade production, finance and foreign trade accounting
- CO6** To make students aware of various trade finance instruments via experiential learning

Unit	Details	Lectures
I	Regional Trading Arrangements and Economic Integration & The International Trade Accounting: The Balance of Payments 1.1 Regional Integration Versus Multilateralism 1.2 Types of Regional Trading Arrangements 1.3 Impetus for Regionalism 1.4 Effects of a Regional Trading Arrangement 1.5 The European Union 1.6 Economic Costs and Benefits of a Common Currency: The European Monetary Union 1.7 Transition Economies: 1.8 The Transition Toward a Market-Oriented Economy 1.9 The Multinational Enterprise 1.10 Motives for Foreign Direct Investment 1.11 Supplying Products to Foreign Buyers: Whether to Produce Domestically or Abroad 1.12 Country Risk Analysis 1.13 International Trade Theory and Multinational Enterprise 1.14 International Joint Ventures 1.15 Multinational Enterprises as a Source of Conflict 1.16 International Labor Mobility: Migration	[10]
II	The Balance of Payments and Foreign Exchange 2.1 Double-Entry Accounting 2.2 International Payments Process 2.3 Lucas Paradox 2.4 What Does a Current Account Deficit (Surplus) Mean? 2.5 Balance of International Indebtedness 2.6 Foreign-Exchange Market 2.7 Types of Foreign-Exchange Transactions 2.8 Interbank Trading 2.9 Reading Foreign-Exchange Quotations 2.10 Forward and Futures Markets 2.11 Foreign-Currency Options 2.12 Exchange-Rate Determination	[11]

	<p>2.13 Indexes of the Foreign-Exchange Value of the Dollar: Nominal and Real Exchange Rates</p> <p>2.14 Arbitrage, Hedging, Speculation</p> <p>2.15 Exchange-Rate Risk: The Hazard of Investing Abroad</p> <p>2.16 Interest Arbitrage</p> <p>2.17 Foreign Exchange Theories – Mint Parity, PPP – Gustav Cassel, Theories of Optimum Currency Area-Mundell, Mckinnon, Kennen, Magnifico.</p>	
III	<p>Exchange-Rate Determination and Mechanisms of International Adjustment</p> <p>3.1 What Determines Exchange Rates?</p> <p>3.2 Determining Long-Term Exchange Rates</p> <p>3.3 Inflation Rates, Purchasing Power Parity, and Long-Term Exchange Rates</p> <p>3.4 Determining Short-Term Exchange Rates: The Asset-Market Approach</p> <p>3.5 International Comparisons of GDP: Purchasing Power Parity</p> <p>3.6 Price Adjustments</p>	[6]
IV	<p>Exchange-Rate Adjustments and the Balance of Payments & Exchange-Rate Systems and Currency Crises</p> <p>4.1 Effects of Exchange-Rate Changes on Costs and Price</p> <p>4.2 Cost-Cutting Strategies of Manufacturers in Response to Currency Appreciation</p> <p>4.3 Will Currency Depreciation Reduce a Trade Deficit? The Elasticity Approach</p> <p>4.4 J-Curve Effect: Time Path of Depreciation</p> <p>4.5 Exchange Rate Pass-Through</p> <p>4.6 Exchange-Rate Practices</p> <p>4.7 Choosing an Exchange Rate System: Constraints Imposed by Free Capital Flows</p> <p>4.8 Fixed Exchange-Rate System, Floating Exchange Rates, Managed Floating Rates</p> <p>4.9 The Crawling Peg</p> <p>4.10 Currency Crises</p> <p>4.11 Capital Controls</p> <p>4.12 Increasing the Credibility of Fixed Exchange Rates</p>	[11]
V	<p>Macroeconomic Policy in an Open Economy</p> <p>5.1 Economic Objectives of Nations</p> <p>5.2 Policy Instruments</p> <p>5.3 Aggregate Demand and Aggregate Supply: A Brief Review</p> <p>5.4 Monetary and Fiscal Policy Respond to Financial Turmoil in the Economy</p> <p>5.5 Monetary and Fiscal Policy in a Closed Economy</p> <p>5.6 Monetary and Fiscal Policy in an Open Economy</p> <p>5.7 Does Crowding Occur in an Open Economy?</p> <p>5.8 Macroeconomic Stability and the Current Account: Policy Agreement Versus Policy Conflict</p> <p>5.9 Inflation with Unemployment</p>	[11]
VI	<p>International Banking: Reserves, Debt, and Risk</p> <p>6.1 Nature of International Reserves</p> <p>6.2 Demand for International Reserves</p> <p>6.3 Supply of International Reserves</p>	[11]

	6.4 Foreign Currencies 6.5 Gold 6.6 Special Drawing Rights 6.7 Facilities for Borrowing Reserves 6.8 International Lending Risk 6.9 The Problem of International Debt 6.10 Reducing Bank Exposure to Developing Nation Debt 6.11 Debt Reduction and Debt Forgiveness 6.12 The Eurodollar Market 6.13 Financing of Foreign Trade: Export/Import Finance: Pre-shipment/Post-shipment finance, Instruments: Letter of credit, Packaging credit, Bill of Lading, Factoring, Forfaiting, Buyer's credit, Suppliers' credit, Overdraft, etc.	
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Books -

1. Heller, Robert H., NJ: International Monetary Economics Prentice Hall, Englewood Cliffs
2. Kindleberger, Charls P., D.B. International Economics, Taraporewala and Sons, Mumbai
3. Rugel, Thomas A. International Economics, McGraw Hill, New Delhi.
4. Ellsworth P.T. and Clark J. Leith, The International Economy New York Macmillan Publishing Co.
5. RBI, Report ON Currency and Finance (annul).
6. Gowda, Venkatagiri K., Eurodollar Flows and International Monetary Stability, Geetha Book House, Mysore.
7. Verghese, S.K., Foreign Exchange and Financing of Foreign Trade, Vikas Publishing House, New Delhi.
8. Heller, Robert, H., International Monetary Economics Prentice Hall, Cliffs.
9. Salvatore, Dominick, International Economics Macmillan, New York Publishing Co. New York
10. International Trade Finance, Indian Institute of Banking and Finance, India.
11. Tarsem Bhogal; Arun Trivedi, International Trade and Finance, Palgrave Publication, New Delhi

S.Y. M.A. Semester IV**Subject: Economics****ECO5402: Paper title: Growth & Development-II****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** The main objective of the course is to familiarise students with the problems of growth and development in developing and developed countries
- CO2** To be familiar with the role of agriculture and industrial sector in the development process of developing countries.
- CO3** To examine the various development models pertaining to financing development in developing countries.
- CO4** To discuss issues affecting economic development in the modern world, concerning gender equality, forms of governance, political stability etc. And to study strategies relating to the same.

CO5 To analyze the role of the government in the process of development and growth of a economy.

Unit	Details	Lectures
I	The role of agriculture and Industry in development 1.1 Role of Agriculture in development ‘Market surplus’ Size of holding, Price policy-FPC 1.2 Disguised unemployment 1.3 Role of industry – Major reasons for industrialization in LDCs 1.4 The Role of Infrastructure – social and physical infrastructure – education and health infrastructure	[15]
II	Policy Environment for growth and development- 2.1 The infant industry argument – The employment argument Policy Environment 2.2 Ease of doing business India 2.3 Monetary Policy – trade policy 2.4 Trade as an engine of growth - foreign borrowing - Savings – Investment gap – The foreign exchange gap 2.5 Foreign borrowing and debt – servicing problem	[15]
III	Financing Development 3.1 Prior Savings approach 3.2 Fiscal Policy and Taxation 3.3 Tax Reform in Developing Countries 3.3.1 Inflation, Saving and Growth 3.3.2 Foreign Direct Investment 3.4 The Keynesian Approach to the Financing of Development 3.5 The Quantity Theory Approach to the Financing of Development 3.6 The Dangers of Inflation	[15]
IV	The role of the government 4.1 Market failures, government failures, role and emergence of institutions, role of state in economic development 4.2 Disinvestment Policy 4.3 Corruption - sources of corruption, channels through which it impacts economic development directly and indirectly, critical analysis of potential strategies to tackle corruption 4.4 Major Indian Policy reforms for growth and Development 4.5 Recent issues in Gender Development	[15]

Books-

1. Thirlwall, A.P. (1999), (6th Edition), Growth and Development, Macmillan, U.K.
2. Ray, D. (1998). *Development Economics*. Princeton University Press.
3. Todaro, M. P., & Smith, S. C. *Economic Development*. Addison-Wesley.
4. Chenery, H. and T.N. Srinivasan (Eds.) (1989), Handbook of Development Economics, Vols.1 & 2, Elsevier, Amsterdam.
5. Dasgupta, P. (1993), An Enquiry into Well-being and Destitution, Clarendon Press, Oxford.
6. Gillis, M., D.H. Perkins, M. Romer and D.R. Snodgrass (1992), Economics of Development, (3rd Edition), W.W. Norton, New York.
7. Kindleberger, C.P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York

8. Meier, G.M. (1995), Leading Issues in Economic Development, (6th Edition), Oxford University Press, New Delhi.
9. Todaro, M.P. (1996), (6th Edition), Economic Development, Longman, London.
10. NIPFP An autonomous research institute under the Ministry of Finance.
11. Economic and Political Weekly.

S.Y. M.A. Semester IV

Subject: Economics

ECO5403: Paper title: Research Methodology

[Credits-4]

Course Outcomes

At the end of this course, students will be able to

- CO1** To be able to use advance statistical techniques like ANOVA, regression using SPSS etc.
- CO2** To be able to formulate a research problem hypothesis & research design
- CO3** To be to do analysis of the collected data by classification & tabulation and by using graphs & diagrams.
- CO4** To understand the information systems or sources of Internet.
- CO5** To be able to write a research report by understanding stages & types of report writing.

Unit	Details	Lectures
I	Introduction to Research Methodology 1.1 Social Science Research – Objectives, Nature, Importance, Utility, Limitations and Difficulties 1.2 Types of Research 1.3 Meaning & Need for Research Design, and Stages Involved in Designing of Research 1.4 Research Eco System – Funding Models 1.5 Research Ethics – Intellectual Property Rights (IPR) 1.6 Research Process – Criteria of Good Research 1.7 Problems Encountered by Researchers in India	[15]
II	Sources of Data & Research Techniques 2.1 Data Collection - Sources of Data: Big Data and Technology 2.2 Primary - Interviews, Questionnaire, Observation, and Schedule 2.3 Collection of Secondary Data 2.4 Case Studies & Historical Methods, and Experiments & Surveys 2.5 Hypothesis - Definition, Formulation and Role 2.6 Sampling Technique – Need for Sampling, Fundamental Definitions, Types of Samples: Non-Probability Samples & Probability Samples, and Size of Samples	[15]
III	Research – Qualitative and Quantitative 3.1 Classification and Tabulation, Coding, Editing, and Questionnaire Checking 3.2 Graphs and Diagrams. 3.3 Measures of Central Tendencies: Mean, Median, and Mode 3.4 Dispersion & Correlation 3.5 Percentage & Bi-Variate Presentation	[15]

	3.6 Hypothesis Testing, T-Test, and Chi Square Test 3.7 Application – Analysis of Data with Excel	
IV	Information Systems & Visual Analytics 4.1 Information Systems, and Knowledge Management. 4.2 Global Information - Internet Surfing, Downloading, Blogs, and Mails. 4.3 Stages of Report Writing- Significance of Report Writing, and Types of Reports 4.4 Presentation - Power Point	[15]

Books-

1. Wilkinson and Bhandarkar - Methodology and Techniques of Social research - Pauline, Young - Scientific Social Surveys and Research
2. Goode and Hatt - Methods in Social Surveys and Research
3. Krishnaswamy K.N. and Appa Iyer Sivakumar (2009): Management Research Methodology, Pearson Education Publication, N.Delhi
4. Sharma Prasad and Satyanarayana (ed) Research Methods in Social Sciences
5. Moser and Kalton - Survey Methods in Social Investigations
6. Sadhu and Singh - Research Methodology in Social Sciences
7. Kurein C. T. A guide to research in Economics.
8. Devendra Thakur - Research Methodology in Social Sciences
9. Basotia G.R. Sharma K.K.- Research Methodology.
10. Dr. Pushpa Ranade - Research Methodology & Techniques (Marathi Edition), Diamond Publications

Additional Reading List

1. Acoff. Russel L.(1961) The Design of Social Research, Chicago, Uni. of Chicago,
2. Allen, T. Harrell (1978) New Methods in Social Science Research. New York;Praeges Publishes.
3. Berdie, Douglas R. & Andesson, John F. (1974) Questionnaires, Design and use Metuchen N.J. the sear escrow press Inc.
4. Ghosh B.N. (1982) Scientific Methods & Social Research New Delhi, Sterling Publishers Pvt. Ltd.
5. Goode, William J. & Hatt, Paul K. (1952) Methods in Social Research, New York McGraw Hill.
6. Wilkinson and Bhandarkar – Methodology and Techniques of Social Research.
7. Pauline Young : Scientific Social survey and Research
8. Moser and Kalton : Survey methods in Social Investigations.
9. Kothari C.R. Research methodology New era Publication

S.Y. M.A. Semester IV**Subject: Economics****ECO5405: Paper title: Economics of Environment****[Credits-4]****Course Outcomes**

At the end of this course, students will be able to

- CO1** To understand the key issues regarding sustainability, environmental degradation and economic growth.
- CO2** To understand the analytical framework adapted by the discipline of Economics to include the environmental concerns in its analysis.
- CO3** To understand different techniques of valuation and cost benefit analysis that goes into decision making in environmental Economics
- CO4** To understand important phenomenon in the context of environmental resource management.
- CO5** To understand the environmental policy in place and the rationale behind it.

Unit	Details	Lectures
I	Introduction to Economics of Environment: 1.1 What is environmental economics 1.2 Review of micro economics and welfare economics- concepts 1.3 Interlinkages between the economy and environment; 1.4 Fundamental Issues in the economic approach to resource and environmental issue	[15]
II	Efficiency and market failure 2.1 Pareto Optimality and market failure in the presence of externalities 2.2 Tragedy of commons; Property Rights and Coase Theorem 2.3 Public Goods and market failure.	[15]
III	Environmental Valuation and Cost Benefit Analysis 3.1 Introduction to valuation methods - Stated preference methods, revealed preference method. 3.2 Environment Management Techniques: Cost Benefit Analysis 3.3 Pigouvian Fees- single polluter, multiple polluter, fees vs subsidies. 3.4 Concept of willingness to pay (WTP), Willingness to accept compensation (WTAC), difference between two concepts 3.5 Direct and Indirect methods of valuation- contingent valuation, hedonic pricing.	[15]
IV	International Environmental Problems and Policy 4.1 Transboundary Pollution- as a problem of international externalities, Basic theory of tradable pollution permits. 4.2 International trade and environment- pollution havens 4.3 Regulating pollution- using Economic Incentives 4.4 International Environment agreements - Kyoto protocol, Paris agreement discussions - Indian context	[15]

Books-

1. Hanley N, Shogren J.F. & White B. *Environmental Economics in Theory and Practice*, Macmillan

2. Kolstad C, *Environmental Economics*, OUP
3. Hanley N, Shogren J.F. & White B. *Environmental Economics in Theory and Practice*, Macmillan
4. Roger Perman, Yue Ma, James McGilvray and Michael Common, *Natural Resource and Environmental Economics*, Pearson Education/Addison Wesley, 3rd edition, 2003.
5. Maureen L. Cropper and Wallace E. Oates, 1992, —Environmental Economics: A Survey, *Journal of Economic Literature*, Volume 30:675-740.

S.Y. M.A. Semester IV

Subject: Economics

Elective Paper ECO5406: Paper title: Economics of Finance

[Credits-4]

Course Outcomes

At the end of this course, students will be able to

- CO1** To identify the role played by financial institutions in the growth and development of an economy.
- CO2** To examine the structure and functions of the various participants of the financial sector.
- CO3** To identify how security prices are determined in the Capital Asset Pricing Model, and the role played by the assumptions in the model.
- CO4** To understand the mechanism and importance of derivative instruments in the functioning of the financial sector.
- CO5** To understand the role played by time, uncertainty, information and inflation in evaluating financial instruments.
- CO6** To utilise the different tools of capital budgeting for making investment decisions.

Unit	Details	Lectures
I	Financial Sector and Economy 1.1 Role of Financial sector in an economy - a broad view 1.2 Structure of Financial system in India 1.3 Participants in Financial Sector 1.4 Regulation of Financial System 1.5 Corporate Finance, Corporate Firm and its goals, Risk Vs. Reward Considerations. 1.6 Role of Rate of Interest, present value and future value of income. Internal Rate of Return, Net Present Value, Payback Period, ARR – its application as an evaluation criterion.	[10]
II	Financial Markets and Financial Institution 2.1 Functions of Financial Markets 2.2 Structure of Financial Market in India 2.3 Debt Markets, Equity Markets, Financial Service Markets 2.4 Financial Institutions – Depository Institutions and Non-depository Institutions 2.5 Investment Intermediaries 2.6 Financial Instruments- Money Market Instruments, Capital Market Instruments and International Financial Instruments	[10]
III	Portfolio Theory	[20]

	3.1 Asset Returns- random variables and random returns 3.2 Mean-Variance Model 3.3 Capital Asset Pricing Model 3.4 Validity of CAPM (Capital Asset Pricing Model) 3.5 Arbitrage Pricing Theory 3.6 Modern Portfolio Theory	
IV	Derivatives Markets 4.1 Derivatives- Meaning and Types 4.2 Futures Markets – History, Hedgers, Speculators, Arbitrageurs 4.3 Financial futures and Commodity futures – forward contracts. 4.4 Swaps – Mechanics and Types 4.5 Options Markets – Mechanics and types 4.6 Trading Strategies – Exchange traded Funds, stock options and the pay-offs from buying and selling options.	[20]

Books -

1. Bailey, R. E. (2009). *The Economics of Financial Markets*. Cambridge Univ. Press.
2. Baye, M. R., & Jansen, D. W. (1995). *Money, banking, and financial markets: an economics approach*. Houghton Mifflin.
3. Bodie, Z., Merton, R. C., & Cleeton, D. L. (2009). *Financial economics*. Pearson Prentice Hall.
4. Chandra, P. (2015). *Financial Management* (9th ed.). McGraw Hill.
5. Houthakker, H. S., & Williamson, P. J. (1996). *The Economics of Financial Markets*. New York: Oxford University Press.
6. Hull, J., & Basu, S. (2018). *Options, futures, and other derivatives*. Pearson.
7. LeRoy, S. F., & Werner, J. (2014). *Principles of Financial Economics*. Cambridge University Press.
8. Luenberger, D. G. (2014). *Investment science*. Oxford University Press.
9. Mishkin, F. S. (2016). *The Economics of Money, Banking, and Financial Markets*. Pearson.
10. Pathak, B. V. (2018). *Indian Financial System* (5e ed.). Pearson.
11. Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2019). *Fundamentals of corporate finance*. McGraw-Hill Education.
12. Smith, P. F. (1978). *Money and Financial Intermediation: the theory and structure of financial systems*. Prentice-Hall.