



**Fergusson College (Autonomous)
Pune**

**Learning Outcomes-Based Curriculum
for**

M.A. I - Economics

With effect from June 2019

Programme Outcomes

1	Understand theoretical and analytical aspects involved with advanced economic theories and concepts.
2	Apply economic theory to real world issues.
3	Conduct economic analysis using mathematical and statistical techniques.
4	Identify research questions in Economics and conduct the research independently with the help of qualitative and quantitative methodologies.
5	Critically analyse and evaluate economic issues in the country and around the world.
6	Apply both oral and written communication skills within the discipline.

Programme Structure

Year	Course Code	Course Title	Credits
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	
	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	ECO5301	International Economics and Finance-I	4
	ECO5302	Growth & Development-I	4
	ECO5303	Modern Banking	4
	ECO5304	Demography	4
	ECO5305	World Economy	
	ECO5306	Econometrics	
	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	

FY MA Sem I
ECO4101 Micro Economics-I
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To develop a thorough understanding of the basic principles of microeconomics.	Lectures
To be familiar with the concepts of utility, demand supply mechanism, elasticity.	Reading research papers and discussion
To apply these concepts to solve and analyse various problems of economic policy	Visual aids
To comprehend the perfect competitive market framework.	Problem solving
To apply the framework and analyse microeconomic relationships	

Unit No.	Title of Unit and Contents
I	<p>Introduction</p> <p>1.1 The Basic Micro- Economic Problems of Scarcity and Choice.</p> <p>1.2 Market and Price Mechanism</p> <p>1.3 Disturbances to Equilibrium, Floor Price, Ceiling Price</p> <p>Basics of Demand and Supply</p> <p>1.4 The Market Mechanism</p> <p>1.5 Shifts in Supply and Demand</p> <p>1.6 Elasticities of Supply and Demand</p> <p>1.7 Short-Run versus Long-Run Elasticities</p> <p>1.7.1 Demand</p> <p>1.7.2 Supply</p> <p>1.8 Understanding and Predicting the Effects of Changing Market Conditions</p> <p>1.9 Effects of Government Intervention-Price Controls- (Labour market, Fuel Prices, Water shortages)</p>
II	<p>Consumer Theory</p> <p>2.1 Consumer Preferences</p> <p>2.1.1 Some Basic Assumptions</p> <p>2.1.2 Indifference Curves</p> <p>2.1.3 Ordinal versus Cardinal Rankings</p> <p>2.1.4 The Marginal Rate of Substitution</p> <p>2.1.5 Perfect Substitutes and Perfect Complements</p> <p>2.2 Budget Constraints</p> <p>2.2.1 The Budget Line</p> <p>2.2.2 The Effects of Changes in Income and Prices</p> <p>2.2.3 Consumer Choice</p> <p>2.2.4 A Corner Solution</p> <p>2.3 Revealed Preference</p> <p>2.4 The Concept of Utility</p> <p>2.4.1 Utility and Satisfaction</p> <p>2.4.2 Marginal Utility</p> <p>2.4.3 Indirect utility function and its properties</p> <p>2.4.4 Roy's identity, Expenditure function, Shephard's lemma</p>
III	<p>Individual And Market Demand</p> <p>3.1 Individual Demand</p> <p>3.1.1 Price Changes</p>

	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
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

Learning Resources

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.

Class: FY MA
ECO4102 Public Economics -I
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To investigate the role of the public sector in the economic arena.	Lectures
To become familiar with the concept and the need for government intervention in economic activities.	Reading research papers and discussion
To comprehend the recent developments in both theoretical and empirical literature through the Indian context.	Visual aids
To analyse policy challenges facing governments around the world and learn about potential solutions to these challenges as well as obstacles in implementing them.	Problem solving

Unit No.	Title of Unit and Contents
I	<p>Role of Government</p> <p>1.1 Introduction</p> <p>1.1.1 Why is public sector required in a mixed economic system?</p> <p>1.2 Role of Government in Organized Society</p> <p>1.2.1 Changing perspective about the role of government</p> <p>1.2.2 Fiscal functions: An overview</p>
II	<p>Public Policy</p> <p>2.1 Rationale of public policy</p> <p>2.2 Concept of public goods</p> <p>2.3 Difference between public and private goods</p> <p>2.4 Allocation of resources: Efficiency condition - Provision of Public Good</p> <p>2.4.1 Lindahl's voluntary exchange approach</p> <p>2.4.2 Samuelson's model of public goods allocation</p> <p>2.4.3 Musgrave's model</p> <p>2.4.4 Difference between Samuelson's approach and Musgrave's approach</p> <p>2.5 Theory of public choice</p> <p>2.5.1 Meaning of public choice theory</p> <p>2.5.2 Voting Model</p> <p>2.5.3 The Optimal Constitution</p> <p>2.5.4 Log Rolling – The Buchanan Tullock Model</p> <p>2.5.5 The Down's Theory of Democracy</p> <p>2.5.6 Revealing social preferences</p>
III	<p>Principle of Public Expenditure</p> <p>3.1 Introduction: Meaning and Scope, Reasons for Growth</p> <p>3.2 Theoretical Analysis of Public Expenditure Growth</p> <p>3.3 Wagner's Law of Increasing State Activities</p> <p>3.4 Wiesman- Peacock Hypothesis</p> <p>3.5 Pure Theory of Public Expenditure</p> <p>3.6 Collin Clark's critical Limit Hypothesis</p> <p>3.7 Evaluation of Public Expenditure</p> <p>3.8 Social Cost-Benefit Analysis, Fundamentals, Meaning, Basic Postulate, Evaluation and Limitations</p>

IV	<p>Public Debt</p> <p>4.1 Classical view of Public Debt</p> <p>4.2 Compensatory aspect of Debt Policy</p> <p>4.3 Sources of Public Debt; Debt through created Money</p> <p>4.4 Public Borrowings and Price Level</p> <p>4.5 Crowding Out of Private Investment and Activity</p> <p>4.6 Principles of Debt Management and Repayment</p> <p>4.7 Burden of Public Debt on Indian Economy.</p>
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REFERENCES:

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.

Class: MA I
ECO4103 Macro Economics-I
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To understand and analyse basic theoretical framework underlying the field of macroeconomics	Lectures
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	Reading research papers and discussion
To apply the framework and analyse macroeconomic relationships	Visual aids
To analyse the behaviours of consumption and investment	Problem solving
To understand the relation between prices and output	

Unit No.	Title of Unit and Contents
I	History of Macroeconomic Thought 1.1 Classical School of Thought 1.2 Keynesian School of Thought 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.
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.
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)
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

Learning Resources

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.

Class: FY MA
ECO4104 Statistical Techniques
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To understand the theoretical and conceptual foundations of Statistics	Lectures
To comprehend probability theory and sampling techniques	
To apply sampling methods for collecting data for analysis	Problem solving
To analyse economic relations with estimation methods	
To analyse statistical significance of parameter estimates with testing hypothesis	

Unit No.	Title of Unit and Contents
I	Introduction 1.1 Set and Probability Theory 1.2 Random Variables, Probability Mass/Density Function, Cumulative Distribution Function (Univariate Model)
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)
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
IV	Sampling 4.1 Random Sample 4.2 Law of Large Numbers 4.3 Central Limit Theorem
V	Estimation and Testing 5.1 Point Estimators and Point Estimation Methods 5.2 Interval Estimation and Confidence Intervals 5.3 Hypothesis Testing

Learning Resources

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.

Class: FY MA
ECO4105 Indian Economic Policy
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To become familiar with the concepts and the issues and Policies in Economic Development.	Lectures
To analyze various issues of Agriculture LPG , Infrastructure, Financial and Monetary institutions, Foreign Trade and Fiscal Policy pertaining to India's economic development	Group Discussion
To aware the students about Various Issues and policies of Infrastructural, Social and financial sector of the economy	Debate
Critical appraisal is expected by taking cognizance of the contemporary developments in the Indian as well as International economy.	Research papers

Unit No.	Title of Unit and Contents
I	<p>Framework of Indian Economy</p> <p>1.1. National Income: Trends and Structure of National Income, Trends in rural- urban income disparity.</p> <p>1.2. Demographic Features and Indicators of Economic Growth and Development Rural-Urban Migration and issues related to Urbanization</p> <p>1.3. Unemployment-Nature, Central and State Government's policies, policy implications, Employment trends in Organized and Unorganized Sector, Gender issues in agricultural services.</p>
II	<p>Development Strategies in India</p> <p>2.1. Agricultural- Pricing, Marketing and Financing of Primary Sector</p> <p>2.2. Economic Reforms- Rationale of Economic Reforms, Liberalization, Privatization and Globalization of the Economy,</p> <p>2.3 . Interdependence between Agriculture and industrial development.</p> <p>2.4 . Changing structure of India's Foreign Trade</p> <p>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</p>
III	<p>The Economic Policy and Infrastructure Development</p> <p>3.1. Energy and Transport</p> <p>3.2. Social Infrastructure- Education, Health and Gender related issues, Social Inclusion</p> <p>3.3. Issues and policies in Financing Infrastructure Development</p> <p>3.4. Indian Financial System- issues of Financial Inclusion, Financial Sector Reforms-review of Monetary Policy of R.B.I. Capital Market in India.</p>

IV	<p style="text-align: center;">The Economic Policy and Industrial Sector</p> <p style="text-align: center;">4.1. Industrial Sector development Pre-reforms period and Post-reform period</p> <p style="text-align: center;">4.2. Problems of MSMEs .</p> <p style="text-align: center;">4.3 Amalgamation ,Mergers, Acquisition, Takeovers.</p> <p style="text-align: center;">4.4. Labour Market - Characteristics of Indian Labour Market, Labour efficiency and productivity, Technical change, Labour absorption.</p>
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Basic Reading List --

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.

FY MA Sem II
ECO4201 Micro Economics-II
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To develop a thorough understanding of the basic principles of microeconomics.	Lectures
To comprehend the Monopolistic market framework, and apply it to microeconomic situations	Reading research papers and discussion
To understand the features of a Oligopolistic market	Visual aids
To comprehend the nuances of welfare economics.	Problem solving
To apply these concepts to solve and analyse various problems of economic policy	

Unit No.	Title of Unit and Contents
I	<p>Monopoly</p> <p>1.1 Definition</p> <p>1.2 Demand and Revenue</p> <p>1.3 Costs</p> <p>1.4 Equilibrium of the Monopolist</p> <p>1.4.1 Short-Run Equilibrium</p> <p>1.4.2 Long-Run Equilibrium</p> <p>1.5 Predictions in Dynamic Changes</p> <p>1.5.1 Shift in the Market Demand</p> <p>1.5.2 An Increase in the Costs of the Monopolist</p> <p>1.5.3 Imposition of a Tax</p> <p>1.6 Comparison of Pure Competition and Monopoly</p> <p>1.7 The Multiplant Firm</p> <p>1.8 Bilateral Monopoly</p>
II	<p>Price Discrimination</p> <p>2.1 Effects of Price Discrimination</p> <p>2.2 Price Discrimination and Elasticity of Demand</p> <p>2.2.1 First-Degree Price Discrimination</p> <p>2.2.2 Second-Degree Price Discrimination</p> <p>2.2.3 Third-Degree Price Discrimination</p> <p>2.3 Government-Regulated Monopoly</p> <p>2.3.1 Price Regulation</p> <p>2.3.2 Contestable Market: The Airline Industry</p> <p>Monopsony</p> <p>2.4 Monopsony and Monopoly Compared</p> <p>2.4.1 Monopsony Power</p> <p>2.4.2 Sources of Monopsony Power</p> <p>2.4.3 The Social Costs of Monopsony Power</p>
III	<p>Oligopoly</p> <p>3.1 Non-Collusive Oligopoly</p> <p>3.1.1 Cournot's Duopoly Model</p> <p>3.1.2 Bertrand's Duopoly Model</p> <p>3.1.3 Chamberlin's Oligopoly Model</p> <p>3.1.4 The 'Kinked-Demand' Model</p>

	<p>3.1.5 Stackelberg's Duopoly Model</p> <p>Collusive Oligopoly</p> <p>3.2 Cartels</p> <p>3.2.1 Cartels aiming at Joint Profit Maximisation</p> <p>3.2.2 Market-Sharing Cartels</p> <p>3.3 Game Theory</p> <p>3.3.1 Game Theory and the Prisoner's Dilemma</p> <p>3.3.2 Repeated Games</p> <p>3.3.3 Non-cooperative Versus Cooperative Games</p> <p>3.3.4 Dominant Strategies</p> <p>3.4 The Nash Equilibrium</p> <p>3.4.1 Maximin Strategies</p> <p>3.4.2 Mixed Strategies</p>
IV	<p>Equity And Efficiency - Welfare Economics</p> <p>4.1 Market Consumer Surplus</p> <p>4.2 Producer Surplus</p> <p>4.3 Social Welfare and Dead Weight Loss</p> <p>4.4 Impact of Government Interference on Social Welfare</p> <p>4.5 Social Welfare Criteria</p> <p>4.5.1 Growth of GNP as a Welfare Criterion</p> <p>4.5.2 Bentham's Criterion</p> <p>4.5.3 A 'Cardinalist' Criterion</p> <p>4.5.4 The Pareto-Optimality Criterion</p> <p>4.5.5 The Kaldor-Hicks 'Compensation Criterion'</p> <p>4.5.6 The Bergson Criterion 'Social Welfare Function'</p> <p>4.6 Overview of the Equity-Efficiency Trade-off</p> <p>4.7 Social Welfare Functions: Utilitarian, Rawlsian, Nozickian, Commodity Egalitarian</p>

Learning Resources

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.

Class: FY MA
ECO4202 Public Economics -II
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To investigate the role of the public sector in the economic arena.	Lectures
To comprehend the recent developments in both theoretical and empirical literature through the Indian context.	Reading research papers and discussion
To examine the recent developments in Indian fiscal scenario	Visual aids
To understand the importance of international fiscal coordination in public finance.	Problem solving

Unit No.	Title of Unit and Contents
I	<p>Fiscal Policy</p> <p>1.1 Objectives of Fiscal Policy, Interdependence of Fiscal and Monetary Policies</p> <p>1.2 Fiscal Policy for Stabilization - Automatic vs. Discretionary Stabilization.</p> <p>1.3 Budget – Meaning and Components: Preparation, Presentation and Execution of Budget</p> <p>1.4 Economic Classification of Budget.</p> <p>1.5 Budget Deficits and Their Implications.</p> <p>1.6 Balanced Budget Multiplier.</p>
II	<p>Indian Fiscal Federalism</p> <p>2.1 Fiscal Federalism</p> <p>2.1.1 Concept of Federal Finance</p> <p>2.1.2 Principles of Federal Finance</p> <p>2.1.3 The Salient Problems Federal Finance</p> <p>2.1.4 Fiscal Imbalance : Vertical and Horizontal Imbalance</p> <p>2.2 Fiscal Federalism in India</p> <p>2.2.1 Centre - State Financial relations</p> <p>2.2.2 Major Problems in Centre State Financial Relation</p> <p>2.2.3 Constitutional provisions: Finance Commission and Planning Commission</p> <p>2.2.4 NITI Aayog.</p> <p>2.3 Problems of States' Resources and Indebtedness</p> <p>2.4 Transfer of resources from Union and States to Local Bodies.</p>
III	<p>Taxation</p> <p>3.1 Introduction</p> <p>3.1.1 Characteristics of a Good Tax System</p> <p>3.1.2 Modern View of Sound Tax System</p> <p>3.1.3 Musgrave's View</p> <p>3.2 Distribution of Tax Burden</p> <p>3.2.1 Principle of Equity- Horizontal, vertical</p> <p>3.2.2 The cost of Service Principle</p> <p>3.2.3 The Benefit Principle- Classical Version, Modern View (Voluntary Exchange Approach, Lindahl and Bowen Solutions)</p> <p>3.2.4 The Ability to Pay Approach</p> <p>3.2.5 The Concept of Optimal Taxation</p> <p>3.3 Shifting and Incidence of Tax</p>

	<p>3.3.1 Theories of Tax System – Concentration Theory, Diffusion Theory and Demand and Supply Theory</p> <p>3.3.2 Fiscal Incidence and Its measurements : Musgrave’s Approach</p> <p>3.4 Tax Reforms: Committee Recommendations</p>
IV	<p>International Fiscal Coordination</p> <p>4.1 Introduction to Tax Coordination</p> <p>4.2 Coordination of Income and Profit Taxes</p> <p>4.3 Coordination of Product Taxes</p> <p>4.4 Expenditure Coordination</p> <p>4.5 Coordination of Stabilization Policies</p>

REFERENCE:

Basic Reading List

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 PublishingHouse, New Delhi.
10. RuddarDatt 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.

Class: MA Economics I
ECO4203 Macro Economics-II
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To understand the micro-foundations of macroeconomics	Lectures
To analyse the existence of unemployment	Reading research papers and discussion
To understand expectations formation	
To analyse the cyclical movement of output	
To comprehend and analyse movements of money	Visual aids
To understand how monetary policy interest rate is determined	

Unit No.	Title of Unit and Contents
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.
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
III	Business Cycle 3.1 Real Business Cycle, 3.2 Multiplier-Accelerator Interaction 3.3 Samuelson's Oscillation Model
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.
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

Learning Resources

1. Blanchard, Olivier and Stanley, Fischer (1989), "Lectures on Macroeconomics", The MIT Press
2. Dornbusch, Rudiger ,Fischer,Stanley&Startz,Richard (2004), Macroeconomics, 9 th Edition, MacGrow Hill.
3. Mankiw Gregory (2002), Macroeconomics, 5 th Edition, Worth Publishers
4. Romer, David (2003), Advanced Macroeconomics, 3rd Edition, Mc Grow 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.

Class: MA Economics I
ECO4204 Mathematical Economics
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To comprehend mathematical formulations necessary to understand Economics.	Lectures
To analyse static mathematical framework	
To analyse comparative static mathematical framework	Problem Solving
To understand dynamic mathematical framework	
Apply the above three frameworks in Economics and analyze economic problems	Visual aids
To understand Economics from programming and game theoretic approach	

Unit No.	Title of Unit and Contents
I	<p>Static Analysis</p> <p>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</p> <p>1.2 Cayley-Hamilton Theorem; Matrix inversion; Cramer's rule; Applications in Economics; Input-output model.</p>
II	<p>Comparative Statics</p> <p>2.1 The derivative; Limit; Continuity; differentiability; Rules of differentiation;</p> <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>

	3.4 <i>Second order difference equations:</i> Applications in Economics: Samuelson trade cycle model.
	3.5 <i>Dynamic Optimization:</i> Discrete Time and Continuous Time.
IV	Mathematical programming and Game theory 4.1 Linear Programming; Simplex method; Duality; Non-linear programming; 4.2 Kuhn-Tucker conditions; Applications in Economics. Game theory; the rectangular game as a linear program; duality.

Learning Resources

1. Chiang A.C. and K. Wainwright, Fundamental Methods of Mathematical Economics, 4 th 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

Class: FY MA
ECO4205 Agricultural Economics
Credits: 4

Learning Outcomes	Suggested Pedagogical Processes
To investigate the role of the Agriculture sector in the economic arena.	Lectures
To familiarize students with policy issues that are relevant to Indian agricultural economics	Field visit & survey
To examine the recent developments in Indian as well as international Agriculture sector.	Reading research papers and discussion
To enable them to analyze the issues, using basic economics concepts.	Debate

Unit No.	Title of Unit and Contents
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.
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
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.
IV	Sustainable Agriculture And Agricultural Policy. 5.1 Technological Changes and Options in agriculture- Organic Farming- Present status and Future 5.3 Food Policy in India. 5.4 EXIM Policy and Agriculture. 5.5 Tourism and Agriculture.

Reference 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, Cambridge University Press.
12. Gulati & Kelley – Trade Liberalization of Indian Agriculture, (1999), Oxford 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 Allwending – The Introduction to Economic and Agricultural Development Mac Graw Hill Co. Publication, New Delhi.
16. Wakatash – Development Agricultural Technology, Rawat Publications