SEMESTER – I

MJC-1: INTRODUCTORY MICROECONOMICS
(Credit: 6)

Course Outcomes

After the completion of the course, the students will be able to:

CO1: Use microeconomic concepts such as saving and investment in their real life situation.

CO2: Understand the profit making techniques used by different businesses or firms

CO3: Grasp the basic concepts of Microeconomics such as Laws of Demand, Supply and Elasticity

CO4: Apply Indifference Curve Analysis in Deriving Demand Curve Income and Substitution Curve

Unit	Topics to be covered	No. of Lectures
1	**Exploring the subject matter of Economics:** Definition of Economics, Need, Scope and Methods of Economics, Nature and subject matter of Economics, Problem of scarcity and choice, Central Problems of Economy.	10
2	**Supply and Demand:** (a) Concept and types of demand, determinants of individual demand/supply; demand and demand function, theory of demand and law of demand and supply, exceptions to law of demand, demand supply schedule and demand/supply curve; demand for complementary and substitute goods, market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together, elasticity of demand and supply , determinants, measurement and application, static and dynamic demand, consumer surplus	18
	(b) The theory of Consumer Behaviour: Cardinal and Ordinal utility analysis,	07
3	**The Firm and Market Structure:** Nature of firm, organizing economic activity ina firm, Objective of a firm: Profit maximization vs. sales maximization, Introduction to basic idea of equilibrium of a firm, condition for producers' equilibrium in short run and long run for firm and industry: total and marginal approach. Basic idea of market, concept and types of cost and revenue; total, average and marginal concept, classification of market , time element in market, Characteristics of Different Market Structures along with relevant examples.	25
4	**The Markets for the Factors of Production:** Labour market: Basic concepts, derived demand, productivity of an input, marginal productivity of labour, marginal revenue product, demand for labour, backward bending supply curve of labour, tax policy and labour supply, labour force participation, determination of wage rate in a perfectly competitive labour market.	20
	Total Lectures	80

Suggested Readings:

1. Karl E. Case and Ray C. Fair, *Principles of Microeconomics*, Pearson Education Inc.
2. N. Gregory Mankiw, *Economics: Principles and Applications*, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.
3. Joseph E. Stiglitz and Carl E. Walsh, *Economics*, W.W. Norton & Company, Inc.,New York, International Student Edition, 4th Edition, 2007.
4. Hal R. Varian, *Intermediate Microeconomics, a Modern Approach*, W.W. Norton and Company/Affiliated East-West Press (India), 8th edition, 2010.
   The workbook by Varian and Bergstrom may be used for problems.
5. Snyder and W. Nicholson, *Fundamentals of Microeconomics*, Cengage Learning (India), 2010.

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SEMESTER - II

MJC-2: MATHEMATICAL METHODS IN ECONOMICS

(Credit – 6)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Apply methods of various mathematical techniques to economic theory in general.

CO2: Understand and have a clear vision, related to various economic theories bythe use of different testable propositions or formulas.

CO3: Learn Set and Set Operations.

CO4: Use Differential and Integral Calculus and its economic application

Unit	Topics to be covered	No. of Lectures
1	**Preliminaries:** Logic and proof techniques; Sets and Set Operations, Ordered pairs and Cartesian Products Functions and their Properties Number System Basic idea of Permutation and Combination Progression: Arithmetic, Geometric and Harmonic Progression.	20
2	**Functions of One Variable** a. Graphs; Elementary types of Functions: Quadratic, Polynomial, Power, Exponential and Logarithmic Functions. b. Sequences and Series: Convergence and Divergence, Algebraic Properties and Applications. c. Continuous Functions: Characteristics and Properties of Continuous Functions, Convergence and Divergence. d. Limit of a Function: Method to Evaluate the Limit of Algebraic, Logarithmic and Exponential Functions.	25
3	**Rules of Differentiation**: Differentiable Functions; Derivatives of Sum, Difference, Product and Quotient Functions; Second and higher order derivatives; **Applications** of differentiation in Economics.	20
4	**Single-Variable Optimization:** Conditions for Maxima and Minima; simple applications of maxima and minima in economics – maximization of profit/ net revenue, cost minimization.	15
	Total Lectures	80

Suggested Readings:

1. K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi,2002. ,
2. Chiang, A. C., *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York

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Semester III
MJC- 3: INTRODUCTORY MACROECONOMICS
(Credit: 5)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Develop a proper and in- depth understanding of variables dealing with the aggregate economy.

CO2: Analyse the basics of National Income Accounting, which will help them to describe andanalyze the economy in quantitative terms.

CO3: Understand the major issues and concerns of the economy such as unemployment, inflation, poverty and economic growth.

CO4: Describe Functions of Money and Determination of Money Supply and Demand

Unit	Topics to be covered	No. of Lectures
1	**Introduction to Macroeconomics and National Income Accounting** The Origin and Roots of Macroeconomics, Need and relevance of Macroeconomics, Scope of the Subject, Macroeconomic concerns and issues ,the Role of Government in Macroeconomics ,the components of Macroeconomics ,methodology to macroeconomics, Circular flow of Income, The Concepts of National income: GDP, GNP, NNP, NNP at factor cost, Personal income, private income and personaldisposable income, approaches to calculating GDP, Nominal and real GDP, Green GDP, concept of social accounting, limitations of GDP as a measure of social welfare, difficulties in measuring national income in developing economies ,GDP and black economy ,concept of base year and GDP index	20
2	**Money and Banking** Functions of money; quantity theory of money; fundamental equations; Keynesian theory of money and prices, determination of money supply and demand; Centralbanking: history, objectives, functions, relevance, performance, tools of monetary policy; Concept and history of commercial banking - functions, distribution of assets and credit creation.	20
3	**The Closed Economy in the Short Run** Classical and Keynesian systems; simple classical system of output and employment, Keynesian model of income determination , Aggregate supply and demand , fiscal and monetary multipliers, limitation and Relevance of Keynesian economics to developing economy	20
	TOTAL	60

Suggested Readings:

Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11th edition, 2010.

N. Gregory Mankiw. *Macroeconomics,* Worth Publishers, 7th edition, 2010.

Olivier Blanchard, *Macroeconomics*, Pearson Education, Inc., 5th edition, 2009.

Richard T. Froyen, *Macroeconomics*, Pearson Education Asia, 2nd edition, 2005.

Andrew B. Abel and Ben S. Bernanke, *Macroeconomics*, Pearson Education, Inc., 7th edition,2011.

SEMESTER - III
MJC- 4: STATISTICAL METHODS IN ECONOMICS
(Credit: 4)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Learn the Basic Concepts of statistics and its application

CO2: Understand Bayes Theorem, Normal Distribution, Poisson Distribution

CO3: Understand Elementary Probability Theory including Probability Distribution

CO4: Apply the methods of calculating covariance and also the concept of correlation coefficient and regression analysis

Unit	Topics to be covered	No. of Lectures
1	**Basic Statistics** Measures of Central Tendency: Mean, Median Mode, Geometric Mean, Harmonic Mean; Measures of Dispersion: Mean Deviation, Quartile Deviation, Standard Deviation;Moments, Skewness, Kurtosis, Gini coefficient , Lorenz Curve, Bivariate Frequency Distribution: Simple Correlation and Linear Regression Analysis	20
2	**Index Number** Concept of Index Number, Laspeyre's Paasche's and Fisher's Ideal Index Number, Tests for Ideal Index Number, Problems in Construction of Index Number, Applications: Cost of living index Number	10
3	**Concept of Probability and Probability Distribution: Sample space and events;** probability axioms and properties; Concept of random variable, Addition and Multiplication Theorem, Conditional Probability and Bayes Theorem Probability Distributions: Binomial, Poisson and Normal Distribution-properties, mean and variance.	15
4	**Sampling Theory and Estimation** Concept of Sampling, Methods of Sampling, Types of Sampling, Concept and properties of an estimator, Point and Interval Estimation.	5
	TOTAL	50

Suggested Readings:

Jay L. Devore, Probability and Statistics for Engineers, Cengage Learning, 2010.

John E. Freund, Mathematical Statistics, Prentice Hall, 1992.

Gupta S.P, Statistical Methods, S.Chand & Sons, New Delhi.

Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics and itsApplications, Prentice Hall, 2011.

Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics and itsApplications, Prentice Hall, 2011.

SEMESTER- IV
MJC- 5: INTERMEDIATE MICROECONOMICS 1
(Credit: 5)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Frame their budget according to their income and price constraint.

CO2: Develop knowledge about how the prices are determined in different forms of market.

CO3: Apply Demand and Supply Analysis to Market.

CO4: Deal with the concept of Consumer Behavior.

Unit	Topics to be covered	No. of Lectures
1	**Ordinal Utility Analysis:** Concept, Assumptions, Tools: Indifference curve and Budget line, income effect, substitution effect and price effect for normal and inferior goods, Slutsky equation and Hicksian Substitution effect; Revealed preference theory,deriving demand theorem from the Revealed Preference Hypothesis and critical appraisal of Revealed Preference Hypothesis. Revision of Demand Theory: weak and strong ordering, Recent development in Demand Theory.	20
2	**Production, Costs and Revenue Analysis** Production with one and more variable inputs; law of variable proportion, returns to scale, optimum factor combination, Production possibility curve, elasticity of substitution Traditional and Modern approaches to cost Behaviour of Cost and Revenue curves under different market conditions , Internal and external economies and diseconomies of scale, Concept, assumptions, characteristics and types of Production function with examples, estimation and their applications: Homogeneous, Linear Homogenous and Cobb-Douglas Production Function, Production function and technological change.	20
3	**Perfect Competition and Monopoly** Review of perfect competition: features, price and output determination under perfect competition in short and long run, total and marginal approach. Monopoly: features, conditions for existence of monopoly, price and output determination under monopoly, measurement of the degree of monopoly power, pricing with market power; price discrimination; government policies towards monopoly and competition	20
	TOTAL	60

Suggested Readings:

Hal R. Varian, *Intermediate Microeconomics, a Modern Approach*, W.W. Norton and Company/Affiliated East-West Press (India), 8th edition, 2010. The workbook by Varian and Bergstrom may be used for problems.

C. Snyder and W. Nicholson, *Fundamentals of Microeconomics*, Cengage Learning (India), 2010.

B. Douglas Bernheim and Michael D. Whinston, *Microeconomics*, Tata McGraw- Hill (India), 2009

SEMESTER - IV
MJC-6: INTERMEDIATE MACROECONOMICS
(Credit – 5)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Develop a proper and in-depth understanding of variables dealing with the Macroeconomics.

CO2: Understand the basics of closed and open economy models.

CO3: Understand issues and concerns of the economy such as unemployment and inflation.

CO4: Understand the concept and function of Money and Determination of Money supply and demand.

Unit	Topics to be covered	No. of Lectures
1	**The Closed Economy in the Short Run** Classical Macroeconomics: Money, prices and interest, Keynesian system: money, interest and income, IS-LM model, policy effects, Analysis of Business cycle: phases of business cycle, theories of business cycle: Hawtrey, Keynes, Samuelson, and Hicks.	20
2	**Inflation, Unemployment and Expectations** Inflation its types and causes; cost of inflation, the Fisher effect, unemployment: concept, types, measurement and effect on different sections of society, Philips curve, Adaptive and Rational expectation hypothesis, policy implications.	20
3	**Open Economy Models** Short-run open economy models; Mundell-Fleming Model; exchange rate determination; Purchasing Power Parity; Asset market approach; Dornbusch's Overshooting Model; monetary approach to balance ofpayments; international financial markets.	20
	TOTAL	60

Suggested Readings:

Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11th edition, 2010.

N. Gregory Mankiw. *Macroeconomics,* Worth Publishers, 7th edition, 2010.

Olivier Blanchard, *Macroeconomics*, Pearson Education, Inc., 5th edition, 2009.

Steven M. Sheffrin, *Rational Expectations*, Cambridge University Press, 2nd edition, 1996.

Andrew B. Abel and Ben S. Bernanke, *Macroeconomics*, Pearson Education, Inc.,7th Edition,2011.

Errol D'Souza, *Macroeconomics*, Pearson Education, 2009

Paul R. Krugman, Maurice Obstfeld and Marc Melitz, *International Economics*, PearsonEducation Asia, 9th edition, 2012.

SEMESTER - IV
MJC - 7: INDIAN ECONOMY
(Credit - 5)

Course Outcomes

After the completion of the course, the student will be able to:
CO1: Examine sector-specific policies and their impact in shaping trends in key economic indicators in India.
CO2: Evaluate the Indian Empirical evidence
CO3: Analyze the rapid Economic changes taking place in the economy
CO4: Learn about the role of agriculture and industry in Economic development and their performancein Indian perspective.

Unit	Topics to be covered	No. of Lectures
1	**Economic Development since Independence** Characteristics of Indian Economy, Main features of the economy at independence; Structural change, growth and developmentunder different policy regimes—goals, constraints, institutions and policyframework; an assessment of sectoral performance, sustainability and regional contrasts; structural change, trends of savings and investment.	10
2	**Indian Agriculture:** Importance of Agriculture in Indian economy, Problems in Indian Agriculture and their possible solutions, Efforts by the Government for upliftment of Indian Agriculture, Trends in Agricultural growth and Productivity; Land Reforms; Green and Rainbow Revolution; Agricultural Marketing; Agricultural Price Policy; Food Security in India, status , prospect and problem of food processing in India	15
3	**Indian Industry and Services Sector** Industrial policies in India since independence, Importance of small scale industries in India, problems, remedies, industrial sickness in India, labour issues and social security, Services Sector: growth and present state of IT, hospitality and financial sector inIndia, Fiscal and Financial Sector Reforms in India. Foreign Trade in India - Composition and Direction.	15
4	**Bihar Economy:** General features of the economy, performance, major challenges and causes of backwardness in different sectors. Human ResourceDevelopment- Concept and Emerging Issues, Polices for unemployment, Migration- Dimension and its impact. Policies and Programmes of the State Government for development of different sectors.	20
	TOTAL	60

Suggested Readings:
Shankar Acharya, 2010, -Macroeconomic Performance and Policies 2000-8,‖ in Shankar Acharya and Rakesh Mohan, editors, *India's Economy: Performances and Challenges: Development andParticipation*, Oxford University Press.
Rakesh Mohan, 2010, -India's Financial Sector and Monetary Policy Reforms, in Shankar Acharya and Rakesh Mohan, editors, *India's Economy: Performances and Challenges: Development and Participation*, Oxford University Press.
Pulapre Balakrishnan, Ramesh Golait and Pankaj Kumar, 2008, -Agricultural Growth in India Since 1991, *RBI DEAP Study no. 27*.
Kunal Sen, 2010, -Trade, Foreign Direct Investment and Industrial Transformation in India, in Premachandra Athukorala, editor, *The Rise of Asia*, Routledge

SEMESTER - V
MJC 8: INTERMEDIATE MICROECONOMICS 2
(Credit - 5)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Differentiate between Partial and General Equilibrium
CO2: Analyse the behavior patterns of different economic agents and market situations
CO3: Understand Imperfect Competition and Distribution theory
CO4: Learn about Externalities and Market Failure

Unit	Topics to be covered	No. of Lectures
1	**Imperfect Markets** Imperfect markets :common features, price and outputdetermination in monopolistic competition, concept of excess capacity, non price competition: selling cost and advertising, cost plus(mark up)pricing theory, various approaches to price and output determination under Oligopoly-classical models of oligopoly: duopoly Cournot model, collusive oligopoly: cartel and price leadership, basic idea of kinked demand curve.	20
2	**Distribution Theory (Pricing of Factors)** Concepts of factor productivity, Marginal Revenue Product (MRP) and Value of Marginal Product (VMP), pricing of factors in perfect and imperfect market, Marginal productivity theory of distribution, Euler's theorem and product exhaustion problem, technological progress and factorshares in income, some major theories of distribution: Ricardian theory of rent, modern concept of rent, quasi rent, Classical andKeynesian theory of interest, Innovation theory of profit, Knight's theory of profit.	10
3	**Market Failure** Concept and causes of market failure, correction of market failure,,market failure and market imperfections, market failure vs. government failure, Externalities in production and consumption, Coase Theorem, public goods, semipublic goods, private goods, merit and demerit goods , markets with asymmetric information.	15
4	**General Equilibrium, Efficiency and Welfare** Concept of Partial and General Equilibrium, Welfare concept, Walrasian General Equilibrium, concept and conditions of Pareto Optimality, perfect competition and Pareto Optimality, perfect market asefficient market: existence and stability of equilibrium under perfect competition,	15
	TOTAL	60

Suggested Readings:

Hal R. Varian, Intermediate Microeconomics, a Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8th edition, 2010. The workbook by Varian and Bergstrom may be used for problems.
C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.
B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata McGraw- Hill (India), 2009.
A. Ahsan, C. Pages and T. Roy, 2008, –Legislation, Enforcement and Adjudication in Indian Labour Markets: Origins, Consequences and the Way Forward, in D. Mazumdar and S. Sarkar,editors, Globalization, Labour Marketsand

Inequality in India, Routledge.
Dipak Mazumdar and Sandeep Sarkar, 2009, -The Employment Problem in India and the Phenomenon of the Missing Middle, Indian Journal of Labour Economics.
J. Dennis Rajakumar, 2011, -Size and Growth of Private Corporate Sector in Indian Manufacturing, Economic and Political Weekly, April.

SEMESTER - V
MJC – 9: PUBLIC FINANCE
(Credit - 5)

Course Outcomes
After the completion of the course, the student will be able to:
CO1: Understand the importance of Public finance
CO2: To understand the implications of fiscal policy
CO3: To analyse the trends and composition of public expenditure in India
CO 4: To understand the importance of Fiscal Federalism

Unit	Topics to be covered	No. of Lectures
1.	**Introduction to Public Finance** Public Finance: Meaning, Nature, Scope and Importance; difference between Private and Public Finance; Principle of Maximum Social Advantage; Role of State in Public Finance. Fiscal functions of State: Allocation, Distribution, Economic Growth and Stabilisation.	20
2.	**Sources of Revenue** Taxes, loans, grants and aid – meaning and types, canons/ principles of taxation, problem of justice in taxes, incidence of taxation, taxable capacity; Impact of taxation & tax evasion characteristics of Indian tax system, defects & steps of reform.	14
3.	**Public Expenditure and Debt** Principle of Public Expenditure; Principle of Public Debt and its Methods of Redemption; Effects of Public Expenditure on Production and Distribution; Public Debt in India.	14
4.	**Public Finance in India** Sources of Revenue of Central Government ,State Government and Local Bodies; Concept and Types of Budget, Fiscal Deficit, Deficit Financing and Deficit Budget, Financial relation between Central and State; Finance commission; Fiscal Policy.	12
	TOTAL	60

Suggested Readings:
J. Hindriks, G. Myles: Intermediate Public Economics, MIT Press, 2006.
H. Rosen, T. Gayer: Public Finance, 9th edition, McGraw-Hill/Irwin, 2009.
Joseph E. Stiglitz, Economics of the Public Sector, W.W. Norton & Company, 3rd edition, 2000
R.A. Musgrave and P.B. Musgrave, Public Finance in Theory & Practice, McGraw Hill Publications, 5th edition, 1989
Harvey Rosen, Public Finance, McGraw Hill Publications, 7th edition, 2005.
A. Ghosh and C. Ghosh: Public Finance, PHI Learning, 2014.

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Shankar Acharya, 2005 – Thirty Years of Tax Reform in India, Economic and Political Weekly, May14-20.
Report of the 14th Finance Commission, 2015-20.
Economic Survey, Government of India (Latest).
State Finances: A Study of Budgets, Reserve Bank of India (Latest).

SEMESTER - VI
MJC - 10: INTERNATIONAL ECONOMICS
(Credits - 4)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Analyze the issues related to BoP, exchange rates and direction of trade.
CO2: Describe micro-foundations of the various aggregates of International Economics
CO3: Explain different International trade theories
CO4: Learn about different International Institutions and their relevance for Indian Economy.

Unit	Topics to be covered	No. of Lectures
1	**Introduction:** Nature and scope of International Economics, trade surpluses and deficits, the economic basis of trade, terms of trade, Gains from trade, Instruments of trade policy and their impact on international trade, trade barriers (quantitative and qualitative): tariffs, subsidies and quotas, free trade vs. protection: case for free trade, case for protection.	15
2	**Theories of International Trade:** Absolute and Comparative advantage, Opportunity cost theory, Ricardian and Heckscher-Ohlin Model, Leontief's Paradox, Immiserising Growth and the Transfer Problem.	10
3	**Exchange rate and BoP:** Concept and types of Exchange rate, Theories of Exchange rate determination, fixed vs. flexible exchange rate,factors affecting exchange rate, impact of exchange rate on economy, market for foreign exchange, Review of Balance of Payment (BoP) accounting, components of BoP: current and capital account, Disequilibrium of BoP: causes and methods of correction, Adjustment mechanisms, Internal and external balance, Elasticity, Absorption and Monetary Approach to BoP.	18
4	**International Institutions:** WTO, IMF, World Bank, ADB, New Development Bank: Objectives, principles and functions.	7
	TOTAL	50

Suggested Readings:

1. Paul Krugman, Maurice Obstfeld, and Marc Melitz, *International Economics: Theory and Policy*,Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
2. Dominick Salvatore, *International Economics: Trade and Finance*, John WileyInternational Student Edition, 10th edition, 2011.

SEMESTER - VI
MJC - 11: Contemporary Issues in Indian Economy
(Credits - 5)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Demonstrate the Paradigm shift in policy and economic indicators in the post independent India

CO2: Analyse the rapid changes taking place in India in terms of plan period, human development, Education and Health

CO3: Grasp the Concept of poverty and unemployment in Indian perspective

CO4: Analyse the composition volume and direction of foreign trade

Unit	Topics to be covered	No. of Lectures
1	**Dimensions of Economic Development:** Growth distribution and structural change with respect to gender and regional contrast MDG, SDG, Sustainable development, Inclusive growth and Financial Inclusion Capital formation and technological development.	20
2	**Issues in Indian Economic Policy:** Human resource development: Education and Health. Population growth and Economic development, Demographic trends and issues, Demographic dividend; Unemployment, Poverty and Inequality. Macroeconomic stabilization: Trade, Fiscal and Monetary policy Infrastructure development in India Environmental issues in India	25
3	**India's Foreign Trade:** Volume and Trend of Foreign Trade in India, EXIM Policy assessment, India's balance of payment, Globalisation and its impact on Indian Economy, WTO and India.	15
	TOTAL	60

Suggested Readings:

Jean Dreze and Amartya Sen, 2013. An Uncertain Glory: India and its Contradictions, PrincetonUniversity Press.

Pulapre Balakrishnan, 2007, The Recovery of India: Economic Growth in theNehru Era, Economic and Political Weekly, November.

Rakesh Mohan, 2008, -Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, Economic and Political Weekly, May.

S.L. Shetty, 2007, -India's Savings Performance since the Advent of Planning, in K.L. Krishna and A. Vaidyanathan, editors, Institutions and Markets in India'sDevelopment.

Himanshu, 2010, -Towards New Poverty Lines for India, Economic and Political Weekly, January.

Jean Dreze and Angus Deaton, 2009, -Food and Nutrition in India: Facts and Intepretations, Economic and Political Weekly, February.

Himanshu. 2011, -Employment Trends in India: A Re-examination, Economic and Political Weekly, September.

Rama Baru et al, 2010, -Inequities in Access to Health Services in India: Caste, Class and Region, Economic and Political Weekly, September.

Geeta G. Kingdon, 2007, The Progress of School Education in India, Oxford Review of Economic Policy.

J.B.G. Tilak, 2007, -Post Elementary Education, Poverty and Development in India, International Journal of Educational Development.

T. Dyson, 2008, -India's Demographic Transition and its Consequences for Development in Uma Kapila, editor, Indian Economy Since Independence, 19th edition, Academic Foundation.

Kaushik Basu, 2009, -China and India: Idiosyncratic Paths to High Growth, Economic and Political Weekly, September.

K. James, 2008, -Glorifying Malthus: Current Debate on Demographic Dividend in India, Economic and Political

Weekly, June.
Reetika Khera, 2011, -India's Public Distribution System: Utilisation and Impact Journal of Development Studies.
Aniruddha Krishna and Devendra Bajpai, 2011, -Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, Economic and Political Weekly, September.
Kaushik Basu and A. Maertens, eds, 2013, Oxford Companion to Economics, OxfordUniversity Press.

SEMESTER - VI
MJC -12: DEVELOPMENT ECONOMICS
(Credit- 5)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Understand the different concepts of development and evaluate the gross national growth experience.

CO2: Analyze the connection between growth and inequality and identify the role of state in economic development

CO3: Learn about the concept of poverty and its measurement and the connection between inequality and poverty

CO4: Understand development in global perspective.

Unit	Topics to be covered	No. of Lectures
1	**Growth and Development:** Concept of Economic Growth, Economic Development, Economic Progress and Economic Welfare, Measurement of Economic Growth, Factors of Growth Historical experience of development (Stages of Growth; late industrialization; structural analysis),Poverty and inequality (conceptual issues and measurement; capabilities and entitlements, policies for poverty reduction) State and the market (market failure; government failure; conflict versus complementarity)	20
2	**Determinants of Development** Capital and technical progress (role of capital, capital output ratio; resource allocation; level and pattern of capital formation; pattern of technical progress; technology and unemployment; obsolescence, choice of techniques) Labour and employment issue (population growth; demographic transition; human resource development, surplus labour, open and disguised unemployment, informal sector; rural-urban migration). The Environment and Sustainable development; Non-Renewable resources	20
3	**Theories of Growth and Development:** Balanced and Unbalanced Growth, Big Push Theory, Harrod-Domar Model, Kaldor's Model of Growth	20
	TOTAL	60

Suggested Readings:

Michael P. Todaro, Economic Development, International Student (Sixth) Edition, Addition -Wesley
Debraj Ray, Development Economics, OUP
Gerald M. Meir, Leading Issues in Economic Development, Sixth Edition, OUP

A.P. Thirlwall, Economics of Development, Palgrave Macmillan, 9th Edition.
M. L. Taneja & R.M. Myer, Economics of Development & Planning, Vishal Publishing Co. Jalandhar-Delhi.

SEMESTER - VII
MJC -13: ADVANCED QUANTITATIVE METHODS
(Credit - 5)

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Develop analytical and organizational skills.
CO2: Use mathematical techniques to analyze the economic problems and their effects.
CO3: Use Differential and Different Equations in Economics.
CO4: Use multi-Variable Optimization.

Unit	Topics to be covered	No. of Lectures
1.	**Integration:** Concept and Methods of Integration – Integration by Substitution, Integration by Transformation & Integration by Parts; Application of Integration in Economics.	10
2	**Functions of Several real Variables:** a. Technique of Partial Differentiation; Second Order Partial Derivatives; Cross Partial Derivatives; Applications of Partial Derivatives in Demand, Utility andProduction Analysis. b. Technique of Total Differentials; Second order Total Differentials; Derivativesof Implicit Functions	6
3	**Multi-Variable Optimization:** a. Maxima and Minima of a Function of two or more than two Variables – Hessian Determinants. b. Unconstrained Optimization and Constrained Optimization with EqualityConstraints – Use of Lagrange Multiplier. c. Applications of Unconstrained and Constrained Optimization in Economics – Equilibrium of Firm under Pure Competition.	8
4	**Linear Algebra:** Basic Concepts of Vector, Types of Vector, Addition of Vectors, ScalarProduct of Two Vectors. Matrix and Determinants: Types of Matrices, Addition and Subtraction of Matrices, Multiplication of two Matrices, Transpose and Inverse of a Matrix, Rank of a matrix, Determinant and its Properties, Solution of Simultaneous Equation Models.	8
5	**Linear Programming, Input Output Model and Game Theory-** Introduction to linear programming, formulation of linear programming problem, concept of duality, solution of linear programming trough graphical method. Input-output analysis- meaning and basic concept Game theory- concepts, strategies- dominant strategy, saddle point, zero-sum game.	16
6.	**Correlation, Regression and Time Series Analysis** a. Partial and Multiple Correlation b. Partial and Multiple Regression c. Time Series Analysis: Components of Time Series and Measurement of Trends	12
	Total	60

Suggested Readings:
Jay L. Devore, Probability and Statistics for Engineers, Cengage Learning, 2010.
John E. Freund, Mathematical Statistics, Prentice Hall, 1992.
Gupta S.P, Statistical Methods, S.Chand & Sons, New Delhi.
Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics and itsApplications, Prentice Hall, 2011.
K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, PearsonEducational Asia:Delhi, 2002.
Monga, G.S. (1972), Mathematics and Statistics for Economists, Vikas Publishing House, NewDelhi.
Chiang. A.C. (1988), Fundamental Methods of Mathematical Economics, Mac Graw Hill, New York.
Allen, R.G.D. (1974), Mathematical Analysis for Economists, Mac Millian Press and ELBS, London.
Dowling, E.T. (1992), Mathematical Economics 2nd Edition, Mac Graw Hill, New York.
Yamune, Taro (1975) Mathematics for Economists,Prentice Hall of India, New Delhi.

SEMESTER - VII
MJC -15: BANKING AND FINANCIAL INSTITUTIONS
(Credit - 6)

Course Outcomes

After the completion of the course, the student will be able to:
CO1: Analyse the different concepts of Money
CO2: understand the working of financial markets
CO3: Differentiate between capital and money market
CO4: Explain the working of banking system

Unit	Topics to be covered	No. of hours
1	**Money** Money: Kinds, Functions and Significance, Monetary Standards: Metallic Standard, Gold Standard and Paper Standard, Value of money, Measurement of changes in the value of money, Demand for Money: The Classical Approach, Keynesian Approach. Supply of Money: Definitions—Determinants of Money Supply—High Powered Money and Money Multiplier—Indian Currency system.	20
2	**Financial Institutions, Markets, Instruments and FinancialInnovations** Role of financial markets and institutions; problem of asymmetric information – adverse selection and moral hazard; financial crises. Money and capital markets: organization, structure and reforms in India; role of financial derivatives and other innovations.	15
3	**Interest Rates** Determination; sources of interest rate differentials; theories of term structure of interest rates; interest rates in India.	10
4	**Banking System** Commercial banking: Nature; structure; functions: The process of credit creation-purpose and limitations, Pre-requisites of a sound commercial banking system; Liabilities and assets of Banks.ATM - Internet Banking - Core banking; A Critical Appraisal of the Progress of Commercial Banking after Nationalization; Recent Reforms in Banking Sector in India.	15

5	**Central Banking and Monetary Policy** Role of central banks in developed and developing countries; Functions of a central bank; Role and functions of the Reserve Bank of India; methods of credit control: Quantitative- bank rate, repo rate, open market operations, variable reserve ratio and selective methods; Objectives and limitations of monetary policy; NPA's , Recent changes in monetary policy of India.	20
	TOTAL	80

Suggested Readings:

F. S. Mishkin and S. G. Eakins, *Financial Markets and Institutions*, PearsonEducation, 6th edition, 2009.
F. J. Fabozzi, F. Modigliani, F. J. Jones, M. G. Ferri, *Foundations of FinancialMarkets andInstitutions*, Pearson Education, 3rd edition, 2009.
M. R. Baye and D. W. Jansen, *Money, Banking and Financial Markets*, AITBS,1996.
Rakesh Mohan, *Growth with Financial Stability- Central Banking in an Emerging*L. M. Bholeand J. Mahukud, *Financial Institutions and Markets*, Tata McGrawHill, 5th edition, 2011.
M. Y. Khan, *Indian Financial System*, Tata McGraw Hill, 7th edition, 2011.
N. Jadhav, *Monetary Policy, Financial Stability and Central Banking in India*, Macmillan, 2006.
R.B.I. – *Report of the Working Group: Money Supply Analytics and Methodology ofCompilation*, 1998.
R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).

SEMESTER - VIII
MJC -16: ECONOMICS OF HEALTH AND EDUCATION
(Credit - 4)

Course Outcomes

After the completion of the course, the student will be able to:
C01: Understand the relevance of health and education in human development
C02: Analyse the microeconomic foundations of health and educational economics
C03: Evaluate the progress of health sector in the country
C04: Assess the issues of Human Resource Development in India

Unit	Topics to be covered	No. of Lectures
1	**Role of Health, Hygiene and Education in Human Resource Development** Importance inpoverty alleviation; health and education outcomes and their relationshipwith macroeconomic performance, Importance of Hygiene	10
2	**Microeconomic Foundations of Health Economics** Demand for health; uncertainty and health insurance market; alternative insurance mechanisms; market failure and rationale forpublic intervention; equity and inequality. Costing, cost effectiveness and cost-benefit analysis; burden of disease.	15
3	**Health Sector in India: An Overview** Health outcomes; health systems; health financing, Mental Health in India: Concept and issues.	10

4	**Education Sector in India: An Overview** Literacy rates, school participation, school quality measures. Rate of return to education: private and social; quality of education;signaling or human capital; theories of discrimination	15
	TOTAL	50

Suggested Readings:

William, Jack, *Principles of Health Economics for Developing Countries*, WorldBank Institute Development Studies, 1999.

World Development Report, *Investing in Health,* the World Bank, 1993.

Ronald G., Ehrenberg and Robert S., Smith, *Modern Labor Economics: Theory and PublicPolicy,* Addison Wesley, 2005.

Semester VII

MJC 14- Research Methodology (Social Sciences& Humanities)

Course credit- 05, Full marks- 100

Course Objectives:

CO1: The course intends to familiarize the students of the fundamentals and process of research.

CO2: to acquaint the students with research aptitude in knowledge seeking.

CO3: to enable students to scientifically assess the reliability and validity of facts.

CO4: To empower students to conduct a factual estimate of socially relevant issues in a scientific manner.

Course Outcomes

On completion of the Course, the students can undertake independent research with following Outcomes:

LOC 1: Students will gain skills of scientific analysis.

LOC 2: Students will gain contemporary and interdisciplinary knowledge.

LOC 3: Students will have global understanding of nuances of Research.

Anoja 18.09.2023

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Unit	Topics to be covered	No. of lectures
I	Research- Meaning, Purpose, Significance, Types, Stages of Research, Review of Literature, Ethical issues in Research, Plagiarism.	08
II	Research Design- Meaning and types, Identification of Research Problems and Types of variables. Hypothesis- Nature, Types, Sources, Importance, Characteristics of a good hypothesis.	10
III	Method and Tools of Data Collection Sources of Data- Primary and Secondary, Comparative method, Observation, Interview, Questionnaire, and Schedule Sampling Method- Concept, Types, Purpose, and Rationale	12
IV	Analysis and Processing of Data, Classification, and Tabulation of Data Measures of Central Tendency and Variability, Graphic representation Use of Internet and Computer technologies in Research- MS Word, MS Excel, Power point Presentation, SPSS	10
V	Report Writing and Thesis writing- Objective, Content, Layout, Research proposal/ Synopsis. Referencing- Endnote, Footnote, In-text citation, Index, Diacritical work, Bibliography (MLA and APA formats), Webliography	10
Tutorial		10
Total		60

Suggested readings

1. Ackoff, R.L., (1953),“ Design of social research” The University of Chicago Press, Chicago.
2. Goode, W. and Hatt, P.K., (1952), “Methods in Social Research” MC Gracw-Hill.
3. Sharma, V.P. (2013), “ Research Methodology” PanchsheelPrakashan, Jaipur.
4. Singh, A.K., “Test Measurements and Research Methods in Behavioural Sciences” Bharti Bhavan Publication.
5. मिश्रा , जयदेव : ऐतिहासिक अनुसन्धान, काशी प्रसाद जायसवाल शोध संस्थान , पटना।
6. आहूजा, राम: सामाजिक अनुसन्धान, रावत प्रकाशन, जयपुर।
7. राणा सुनील कुमार सिंह - सामाजिक शोध की पद्धति।
8. सावित्री सिन्हा: अनुसन्धान का स्वरुप, नेशनल पब्लिशिंग हाउस , दिल्ली।
9. विनय मोहन शर्मा: शोध प्रविधि , नेशनल पब्लिशिंग हाउस , दिल्ली।
10. सावित्री सिन्हा: अनुसन्धान की प्रक्रिया , विजयेंद्र स्नातक, हिंदी अनुवाद परिषद्।

Akojha 18.09.2023 19/09/2023 19/09/2023 19/09/2023 19.09.2023 19.09.23 19/09/2023 19.09.2023 19/09/2023