



Rabindra Bharati University

Department of Economics

Four Year Undergraduate Programme (FYUGP) Curriculum

Credit Framework for Undergraduate Programme (CFUP)

‘HONOURS/RESEARCH’

(Approved by the BOS Meeting held on 30.08.2024)

2024-2025 & onwards

Rabindra Bharati University
Department of Economics

The Syllabus for **B.A. Economics under the Four-Year Undergraduate Programme (FYUGP) Curriculum Credit Framework for Undergraduate Programme (CFUP) 'HONOURS/RESEARCH' under New Education Policy (NEP)** follows the UGC curriculum with minor changes to suit the present circumstances. The syllabus for B.A. Economics is divided into **Eight Semesters** as given below.

For Certificate	Semesters I and II	Total Credits = 44
For Diploma	Semesters III and IV	Total Credits = 84
3 Years Degree	Semesters V and VI	Total Credits = 120
4 Years Honours	Semesters VII and VIII	Total Credits = 160
4 Years Honours with Research	Semesters VII and VIII	Total Credits = 160

Semester	Course	Paper Code	Paper Name	Credit
Semester I	Major	MJ 1.1	Introductory Microeconomics	4
	Minor	MN 1.1	Basic Microeconomics	4
	IDC	IDC 1.1	Understanding Economics	3
	AEC	AEC 1.1		2
	SEC	SEC 1.1	Basic Statistics and Data Exploration	3
	CVAC	CVAC 1.1	Gender Economics	4
	Total Credit			20
**Those who wish to leave with a Certificate after completing the Semesters I and II will require to do an Internship with 4 credits.				

Semester	Course	Paper Code	Paper Name	Credit
Semester II	Major	MJ 2.1	Introductory Macroeconomics	4
	Minor	MN 2.1	Basic Macroeconomics	4
	IDC	IDC 2.1	Agricultural Economics	3
	AEC	AEC 2.1		2
	SEC	SEC 2.1	Indian Financial Institutions and Markets	3
	CVAC	CVAC 2.1	Indian Planning and Design of Economic Policies	4
	Total Credit			20
**Those who wish to leave with a Diploma after completing the Semesters III and IV will require to do an Internship with 4 credits.				

Semester	Course	Paper Code	Paper Name	Credit
Semester III	Major	MJ 3.1	Intermediate Microeconomics	4
		MJ 3.2	Mathematical Methods for Economics-I	4
	Minor	MN 3.1	Indian Economy since Independence	4
	IDC	IDC 3.1	Labour and Migration Theories	3
	AEC	AEC 3.1		2
	SEC	SEC 3.1	Managerial Economics	3
	Total Credit			20

Semester	Course	Paper Code	Paper Name	Credit
Semester IV	Major	MJ 4.1	Intermediate Macroeconomics	5
		MJ 4.2	Mathematical Methods for Economics-II	5
		MJ 4.3	Contemporary Issues in Indian Economy	4
	Minor	MN 4.1	Development Economics	4
	AEC	AEC 4.1		2
	Total Credit			20

Semester	Course	Paper Code	Paper Name	Credit
Semester V	Major	MJ 5.1	Mathematical Methods for Economics-III	4
		MJ 5.2	Statistical Methods for Economics-I	4
		MJ 5.3	Theory of Economic Growth	4
		MJ 5.4	Development Theories	4
	Minor	MN 5.1	International Trade and Globalisation	4
	Total Credit			20

Semester	Course	Paper Code	Paper Name	Credit
Semester VI	Major	MJ 6.1	Theory of International Trade	4
		MJ 6.2	Statistical Methods for Economics-II	4
		MJ 6.3	Public Finance	4
		MJ 6.4	Introductory Econometrics	4
	Minor	MN 6.1	Basic Statistics	4
	Total Credit			20
**Those who wish to leave after completing the Semesters V and VI will receive 3 years degree.				

Semester	Course	Paper Code	Paper Name	Credit
Semester VII-H	Major	MJH 7.1	(A) Applied Microeconomics - I	4
			(B) Econometric Theory and Applications – I	
			(C) Contemporary Development Issues and Practices – I	
			(D) Financial Economics -I	
		MJH 7.2	(A) Applied Microeconomics - II	4
			(B) Econometric Theory and Applications – II	
			(C) Contemporary Development Issues and Practices – II	
			(D) Financial Economics -II	
		MJH 7.3	Basic Data Analysis	4
		MJH 7.4	Research Methodology and Ethics	4
	Minor	MN 7.1	Money and Banking	4
	Total Credit			20

Semester	Course	Paper Code	Paper Name	Credit
Semester VIII-H	Major	MJH 8.1	(A) Applied Microeconomics - III	4
			(B) Econometric Theory and Applications – III	
			(C) Contemporary Development Issues and Practices – III	
			(D) Financial Economics -III	

		MJH 8.2	(A) Applied Microeconomics - IV	4
			(B) Econometric Theory and Applications – IV	
			(C) Contemporary Development Issues and Practices – IV	
			(D) Financial Economics -IV	
		MJH 8.3	Behavioural Economics	4
		MJH 8.4	History of Economic Thought	4
	Minor	MN 8.1	Preliminary Issues in Social Sector	4
	Total Credit			20
Those who secure 75% and above in aggregate up to Semester and like to continue as Honours with Research should opt courses in Semesters VII and VIII				

Semester	Course	Paper Code	Paper Name	Credit
Semester VII-R	Major	MJR 7.1	(A) Applied Microeconomics-I	4
			(B) Econometric Theory and Applications – I	
			(C) Contemporary Development Issues and Practices – I	
			(D) Financial Economics -I	
		MJR 7.2	(A) Applied Microeconomics-II	4
			(B) Econometric Theory and Applications – II	
			(C) Contemporary Development Issues and Practices – II	
			(D) Financial Economics -II	
		MJR 7.3	Basic Data Analysis	4
		MJR 7.4	Research Methodology and Ethics	4
	Minor	MN 7.1	Money and Banking	4
	Total Credit			20

Semester	Course	Paper Code	Paper Name	Credit
	Major	MJR 8.1	(A) Applied Microeconomics - III	4
			(B) Econometric Theory and Applications – III	

Semester VIII-R			(C) Contemporary Development Issues and Practices – III	
			(D) Financial Economics - III	
		MJR 8.2	(A) Applied Microeconomics - IV	4
			(B) Econometric Theory and Applications – IV	
			(C) Contemporary Development Issues and Practices – IV	
			(D) Financial Economics – IV	
		MJR 8.3	Project	8
	Minor	MN 8.1	Preliminary Issues in Social Sector	4
	Total Credit			20

Semester I

MJ 1.1: Introductory Microeconomics

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: The course introduces the students to the first course in Economics from the perspective of individual decision making as consumers and producers.

Outcome: The students learn some basic principles of microeconomics, interactions of supply and demand and production-cost analysis.

- **Exploring the subject matter of Economics**

Why study economics? Scope of economics - scarcity and choice, the question of what to produce, how to produce and how to distribute output - Science of economics - determination of prices and profits - incentives and information - rationing - opportunity sets.

- **Supply and Demand**

Demand / Supply: Determinants of individual demand/supply- Law of demand and Law of supply - demand/supply schedule and demand/supply curve - market versus individual demand/supply; Concept of equilibrium: static, dynamic and comparative static. Shifts in the demand/supply curve - Market Equilibrium - Existence, Uniqueness, and Stability. The concept of elasticity of demand - relation between own price elasticity and slope of the demand curve, relation between own price elasticity of demand and total expenditure, cross price elasticity and income elasticity of demand - measurement of price elasticity of demand (Revenue Method and Point Method) - Demand elasticities and classification of commodities - elasticity of supply.

- **Consumer Behaviour**

Cardinal utility theory: Law of diminishing Marginal Utility, Law of Equi-marginal utility-derivation of the Marshallian demand curve and its elasticity implications.

Axioms underlying Ordinal utility theory: Development of indifference curves; Budget constraint/line - shift of budget line; Description of preferences - representing preferences with indifference curves, properties of indifference curves, depiction of consumers' equilibrium - income and substitution effects: Hicks and Slutsky - compensating and equivalent variations - ordinary vs. compensated demand curves, normal, inferior and Giffen goods - Income consumption curve and price consumption curve; Engel's curve; Labour supply and savings decision - choice between leisure and work; Intertemporal choice; Revealed Preference approach, strong and weak axioms of revealed preference - properties of demand function.

- **Theory of Production**

Producer Theory: Technology and technological efficiency - general concept of production function - types of production function - law of diminishing returns to factors - concepts of total product, average product and marginal product - returns to scale - isoquants - economic regions of production - diminishing rate of factor substitution - isoquants and returns to scale - isocost lines - optimizing behaviour of firm - expansion path - isoclines - General concept of homogenous and homothetic production function and their properties - elasticity of substitution - some examples of technology (fixed proportion, perfect substitute - Cobb-Douglas Production Function, CES Production Function).

References:

- Pindyck, Rubinfeld and Mehta: Microeconomics, Pearson Education.
- Koutsoyiannis, Anna. *Modern Microeconomics*. Springer, 1975.
- Gould, John P., and Charles E. Ferguson. "Microeconomic theory." (*No Title*) (1980).
- Sen, Anindya. *Microeconomics*, Oxford Economic Press, India, 2006.
- N. Gregory Mankiw, *Principles of Microeconomics*, Indian Edition, Cengage Learning, 4th Edition, 2006
- Henderson, James Mitchell, and Richard E. Quandt. "Microeconomic theory: A mathematical approach." (1985).
- Cooper, Russell, and Andrew John. *Microeconomics: Theory through Applications*. Langara College, 2014.
- Krugman, Paul, and Robin Wells. *Microeconomics*. Macmillan, 2008.
- Joseph E. Stiglitz and Carl E. Walsh, *Economics*, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.
- Varian H.R: *Intermediate Microeconomics: A Modern Approach*, East West Press.

MN 1.1: Basic Microeconomics

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course is designed to expose the students to the basic principles of microeconomic theory.

Outcome: The emphasis of the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

▪ **Exploring the subject matter of Economics**

Why study economics? Scope of economics - scarcity and choice; economic systems; What to produce, how to produce, how much to produce; problem of resource allocation; Microeconomics and Macroeconomics.

▪ **Supply and Demand: Elasticity and Market**

Demand / Supply: Determinants of individual demand/supply- Law of demand and Law of supply - demand/supply schedule and demand/supply curve – market versus individual demand/supply – normal, inferior and Giffen goods – movements along and shifts in the demand/supply curve – different concepts of elasticity of demand -- elasticity of supply.

▪ **The Households**

Cardinal utility theory: Law of diminishing Marginal Utility, Law of Equi-marginal utility. Ordinal utility theory: Indifference curves and their properties - Budget constraint/ line – shifts of budget line – consumer's optimum choice – income and substitution effects.

▪ **Firm Behaviour**

Production function – properties of production function with one variable input (Labour): average product and marginal product- law of diminishing returns – Isoquants and their properties – isocost curves – optimizing behaviour of firm – returns to scale; Concepts of Total Revenue, Marginal Revenue and Average Revenue; Total Cost: Various Measures of Cost– Fixed, Variable, Average and Marginal Costs – Costs in the Short run and in the Long Run

▪ **Perfect Competition:**

Assumptions – Firm behaviour in short run – short run supply curve of the firm and the industry - Output choice and competitive equilibrium in the long run – long-run industry supply curve under constant, increasing and decreasing costs.

▪ **Imperfect Competition:**

Monopoly –characteristics – optimum output determination – Concepts of Monopolistic Competition and Oligopoly.

- **Market for Inputs:**

Postulates of Marginal Productivity Theory – Different categories of factor income: rent, wage, interest and profit - Factor pricing under perfect competition.

References:

- Lipsey, Richard, and Alec Chrystal. *Economics*. Oxford University Press, USA, 2011.
- Samuelson, Paul, and William Nordhaus. *Economics*. McGraw Hill, 2009.
- 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.
- Koutsoyiannis, Anna. *Modern Microeconomics*. Springer, 1975.

IDC 1.1: Understanding Economics

Full Marks: 50 [40 (exam) + 10 (internal assessment)]

3 Credits

Objective: This course aims at making students learn to understand the performance and functioning of government, markets and institutions in the social and the economic contexts.

Outcome: Students will learn to think critically about economic models, evaluating their assumptions and implications.

- **Defining Economics:**

Scope and Method of Economics; What is Economics: Basic Economics Questions and Concepts of Wants, Scarcity, Competing Ends and Choice; Microeconomics and Macroeconomics, Normative Economics and Positive Economics, Mainstream and Social Economics; Economics as Social Science: methods used by economists - description and measurement, analysis and interpretation of data, statement hypothesis, construction of models, prediction of behaviour.

- **Economic systems:**

Overview of major types of systems - market, planned, mixed economic systems; Features of different systems, patterns of ownership, defining characteristics; Brief history of economic systems; economic systems in practice.

- **Special issues of 21st Century: Inequality and poverty, Climate Change, Globalization**

References:

- Economics, Paul A. Samuelson and William D. Nordhaus, 2019, Introduction.
- An Introduction to Positive Economics, Richard G. Lipsey, and K.Alec Chrystal, 1995, Introduction

SEC 1.1: Basic Statistics and Data Exploration

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

3 Credits

Objective: This course involves a variety of techniques and methods aiming at teaching students fundamental statistical analysis.

Outcome: It will facilitate students to extract actionable insights from raw data, enabling

organizations to make informed choices and predictions.

- **Collection of Data: Classification and Tabulation**

Meaning of Statistics, Variable and Attribute, Primary Data and Secondary Data, Population and Sample, Census and Sample Survey, Statistical Enquiry, Law of Statistical Regularity, Statistical Unit, Statistical Error, Statistical Fallacies, Classification and its Types, Tabulation and its Types.

- **Charts and Diagrams**

Objectives of Diagrammatic Representation; Types of Charts and Diagrams – Line Diagram, Bar Diagram, Pie Diagram, Pictogram, Histogram, Frequency Polygon, Ogive.

- **Measures of Central Tendency**

Mean: Arithmetic Mean (A.M.) , Geometric Mean (G.M.) and Harmonic Mean (H.M.) – Properties, Simplified Calculation, Mean of Composite Group for A.M.; Advantages and Disadvantages of A.M., G.M. and H.M.; Relations among A.M., G.M. and H.M.
Median: Calculation, Advantages and Disadvantages.
Mode: Calculation, Advantages and Disadvantages.
Relation among Mean, Median and Mode.
Partition Values - Quartiles, Deciles, Percentiles.

- **Measures of Dispersion**

Meaning and Necessity; Range, Quartile Deviation, Mean Deviation, Standard Deviation (S.D.) – Important Properties, Calculation; S.D. of Composite Group; Relation between S.D. and Other Measures of Dispersion; Relative Measures of Dispersion; Lorenz Curve and Gini Coefficient.

References:

- N.G. Das - Statistical Methods, Combined Edition (Volumes 1 and 2), McGraw Hill Education.
- A. M. Gun, M. K. Gupta and B. Dasgupta - Fundamentals of Statistics, Volume 1, World Press.

CVAC 1.1: Gender Economics

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at working out jointly with students a systematic perception of why gender has emerged as an important factor in Economics and what are its implications and how does it enhance the boundary of the discipline.

Outcome: This course will make students familiar with theoretical concepts in the area of gender economics and methodology of gender analysis within the economic perspective.

- **Introduction:** Why gender perspective is necessary, concepts of gender lens, notions of gender inequality and equity, identifying gender-unequal realities.

- **Gender and Household Economy:** Sexual division of labour, social construction of gender roles, economic theories on household, alternate feminist theory and feminist critique, time-use survey.
- **Gender and Labour Market:** Inside-outside dichotomy and workforce participation, skill and gender wage-gap, technology and women, gender discrimination and work conditions, migration of labour, impact of globalization.
- **Gender and Development:** Selected issues on health, education, property rights, access to credit with respect to gender-based inequalities, demographic indicators and women's well-being, digital gender-divide.
- **Macroeconomics and Gender:** Policies to reduce poverty and gender- inequality, concept of inclusive growth and sustainable development, gender budgeting, investments in non-monetary welfare, gender and climate change.

References:

- Beneria, L., 2003. Gender, Development and Globalisation. Economics As If All People Mattered. New York: Routledge
- Jacobsen, J 2007. The Economics of Gender. Cambridge: Wiley Blackwell.
- Rai, S. and G. Waylen (eds). 2014. New Frontiers in Feminist Political Economy. London. Routledge.
- Kabeer, N., 1994, Reversed Realities: Gender Hierarchies in Development Thought. London Verso.
- Barker, D.K. and Feiner, S.F. 2004 Liberating Economics: Feminist Perspectives on Families, Work, and Globalization. Ann Arbor: University of Michigan Press.
- Jackson, C. and R. Pearson (eds.) 1998. Feminist Visions of Development: Gender Analysis and Policy, London and New York: Routledge.

Semester II

MJ 2.1: Introductory Macroeconomics

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course aims to introduce the students to the fundamental concepts of Macroeconomics and discusses the preliminary concepts associated with determination and measurement of aggregate macroeconomic variables.

Outcome: This course will enable students to understand the basic functioning of the economy at large.

- **National Income Accounting:**
Aggregate Income and Expenditure of an Economy; Circular Flow of Income; NI - GDP, GNP, NDP and NNP at market price and at factor cost; Real versus Nominal GDP, GDP Deflator and Price Indices.
- **Simple Keynesian Model:**
Principle of Effective Demand and Simple Keynesian Theory of Income Determination; Comparative Statics and Dynamics – Multipliers and Paradox of Thrift.
- **Introduction of Asset Market in the Keynesian Framework:**
IS-LM Model – Application of IS-LM Framework in Analysing Impacts of Monetary and Fiscal Policies.
- **Theories of Investment:**
Investment Function – Marginal Efficiency of Capital and Acceleration Principle.
- **Classical Macroeconomics:**
Say's Law, Walras Law and Quantity Theory of Money; Classical Dichotomy and its Critique; Determination of Output, Employment and Prices in a Classical Model; Wage-Price Flexibility and Full Employment.

References:

- Richard T. Froyen. Macroeconomics, Pearson Education Asia, 10th edition, 2016
- Dornbusch, Fischer and Startz. Macroeconomics, McGraw Hill, 11th edition, 2010.
- N. Gregory Mankiw. Principles of Macroeconomics, Indian Imprint of South Western by Cengage India, 6th edition, 2015.
- Andrew B. Abel and Ben S. Bernanke. Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
- Sikdar Soumyen. Principles of Macroeconomics, Oxford University Press
- Ambar Nath Ghosh and Chandana Ghosh. Macroeconomics, Prentice Hall, India

MN 2.1: Basic Macroeconomics

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course aims to introduce the students to the basic concepts of Macroeconomics and provides theoretical foundation of some issues and policies.

Outcome: This course will allow students to understand the functioning of the economy in a theoretical perspective.

- **National Income Accounting:**
Aggregate Income and Expenditure of an Economy; Circular Flow of Income; NI - GDP, GNP, NDP and NNP; Real versus Nominal GDP, GDP Deflator and Price Indices.
- **Simple Keynesian Model:**
Principle of Effective Demand and Simple Keynesian Theory of Income Determination; Comparative Statics and Dynamics – Multipliers and Paradox of Thrift.
- **Quantity Theory of Money and Banking:**
Say's Law and Quantity Theory of Money, Commercial Banks-Credit Creation, Central Bank-Functions and Policies of Credit Control.
- **Theories of Inflation:**
Theories of Inflation: Demand Pull and Cost Push – Inflation Control Policies.

References:

- Dornbusch, Fischer and Starz. Macroeconomics, McGraw Hill, 11th edition, 2010.
- N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.
- Richard T. Froyen. Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
- Oliver Blanchard. Macroeconomics, Pearson Education, Inc., 5th edition, 2009.
- Samuelson, P.A and William. D. Nordhaus. Economics, McGraw Hill Book Co. Singapore.
- Lipsey, R.G. An Introduction to Positive Economics, Weidenfeld and Nicholson, London.

IDC 2.1: Agricultural Economics

Full Marks: 50 [40 (exam) + 10 (internal assessment)]

3 Credits

Objective: This course aims at making students learn about agricultural practices in India.

Outcome: Students will be able to acquire necessary theoretical and analytical skills to optimise agricultural production and analyse the financial health of any farm for possible progress towards maximisation of profit.

- **Backwardness and Interlocking in Rural Market:**

Theory of stagnation and backwardness in rural economy, inter-locking of factor markets

- **Rural Credit Market and Different Types of Inter-linkage:**

Characteristics of rural credit market – formal and informal credit – prevalence of high interest rates in informal credit market in backward agricultural sector – lender's risk and collateral - credit rationing – credit-labour inter-linkage – credit-product inter-linkage.

- **Rural Insurance and Innovation:**

Risk and problems of innovation in agriculture - price uncertainty and crop failure.

- **Inter-linkage between Agriculture and the Rural Non-farm Economy:**

Trends and Pattern of rural farm and non-farm employment – inter-linkage between the two.

- **Food Production and Food Security:**

Food production and constraints; starvation and famines; issues relating to food security

- **Reforms in Indian Agricultural Sector:**

Globalization, food industry consolidation and agro-industrialisation; subsidy in agriculture; role of MNCs in Indian agriculture; debt-trap and suicide of farmers; displacement and compensation package.

References:

- Basu, K.: 'Agrarian Questions', Oxford University Press.
- Basu, K.: 'Analytical Development Economics: The Less Developed Economy Revisited', Oxford University Press.
- Ray, D.: 'Development Economics', Oxford University Press.
- Chaudhuri, S (1996): "Price Uncertainty and Credit-Product Interlinkage: A Note", Keio Economic Studies, Vol.33 No. 2, p. 103-115
- Chaudhuri, S (1999): "A Theory of Two-Tier Interlinkage in the Agricultural Credit Market: Comments", Keio Economic Studies, Vol.36 No. 1, p. 99-109.
- Misra, S.B. (2013): "Growth of Rural Non-Farm Employment in India: Pre and Post Reform Trends and Patterns", Journal of Land and Rural Studies, Vol. 1 No. 2, p. 99 – 112.
- Chattopadhyay, M and Sengupta, A. (2001): "Tenancy Inefficiency: A Study Based on West Bengal Agriculture", Economic and Political Weekly, Vol. 36 No. 5/6, pp. 497- 502.
- Ellis, F.: "Peasant Economics: Farm Households and Agrarian Development", Cambridge University Press.

- Dwivedi, H. and Rudra, A. (1973): “Economic Effects of Tenancy: Some Further Negative Results”, Economic and Political Weekly, Vol. 8 No. 29, pp. 1291- 1294.
- Bardhan, P. and Rudra, A.,(1978): “Interlinkage of Land, Labour and Credit Relations: An Analysis of Village Survey Data in East India”, Vol. 13 No. 6/7, pp. 367-38.
- Sen A., (1983) Poverty and Famines: An Essay on Entitlement and Deprivation, OUP Oxford.
- Osmani S. (1995) “The Entitlement Approach to Famine” in Basu K, Pattanaik P. and Suzumura K. (ed) Choice Welfare and Development: A Festschrift in Honour of A.K.Sen, OUP Oxford.
- Gulati A. and Narayanan S., (2003) The Subsidy Syndrome in Indian Agriculture, OUP. Balakrishnan P., (2000) “Agriculture and Economic Reforms: Growth and Welfare,” Economic and Political Weekly, Vol. 35, No. 12.
- Kaur R., (2016) Analysis of Agricultural Subsidies in India, Scholars World, New Delhi.
- Haan de A. and McDowell C., (1997) “Migration and Sustainable Livelihoods: A Critical Review of the Literature” IDS, Working Paper, No. 65.
- Breman J., (1996), Footloose Labour. Working in India’s Informal Economy, Cambridge: Cambridge University Press.
- Banerjee A. K., (2013) “Sustainable Poverty Reduction: Credit for the Poor,” in Development and Sustainability: India in a Global Perspective, Banerjee S., and Chakrabarti A. (ed.), Springer.
- OECD/ICRIER (2018), Agricultural Policies in India, Food and Agricultural Reviews, OECD Publishing, Paris. Chapter 1.
- Deshpande, R. S, (2009), “Agrarian Transitions and Farmers’ Distress in Karnataka,” in Agrarian Crisis in India, Reddy D.N and Mishra S. (ed.) OUP.
- Vaidyanathan A. (2006), “Farmers’ Suicides and the Agrarian Crisis,” Economic And Political Weekly, Vol. No. 41.
- Bhadury A. (1973), “Agricultural Backwardness Under Semifeudalism” Economic Journal, March No 329, Vol. 83.
- Bhadury A. (1983b), The Economic Structure of Backward Agriculture, Academic Press, London.
- Bardhan P. (1980), “Interlocking Factor Markets and Agrarian Development: A Review of the Essays” Oxford Economic Papers, March Vol. 32 No. 1.

SEC 2.1: Indian Financial Institutions and Markets

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

3 Credits

Objective: The purpose of this course is to provide knowledge of the organization, structure and role of Indian financial institutions and markets

Outcome: It enables the students to enhance the skill of analyzing the functioning of Indian financial sector.

- **Structure of Indian Financial System:**

The Structure of Indian Financial System; Role of Financial Institutions, Markets and Intermediaries.

- **Financial Institutions in India:**

- **Central Bank -**

Central Bank and Monetary Policy - Functions, Balance Sheet; Goals, Targets, Indicators and Instruments of Monetary Control; Current Monetary Policy of India.

- **Commercial Bank -**

Balance sheet and portfolio management, importance of a bank balance sheet in Macroeconomics; Regional Rural Banks – Microfinance SHG-MUDRA Yojna; Indian banking system: Changing role and structure; banking sector reforms

- **Co-operative Banks -**

The Structure of Co-operative Banks: State Cooperative Banks (SCBs), Central Co-operative Banks (CCBs), Primary Agricultural Credit Societies (PACs); Co-operative Banking Reforms

Development Financial Institutions:

NABARD, EXIM Bank, SIDBI

- **Indian Financial Market:**

- Money Market - Instruments: Call money, treasury bills, commercial bill, commercial paper, certificate of deposit, repo and reverse repo; Valuation, issuance process and market mechanisms
 - Capital Market – New Issue Market; Stock Market
 - Derivatives Market – Preliminary Concepts

- **Non-Bank Financial Intermediaries:**

Mutual Funds - Concept of mutual fund, types of mutual funds; role of mutual funds in Indian capital market;

Insurance Companies - Life Insurance and General Insurance Companies in India: functions.

Non-Banking Financial Companies (NBFCs) - Definition, functions, regulations of RBI over NBFCs.

References:

- Madura J. (2001): *Financial Markets and Institutions*, 5th Edition, South-Western College.
- Mier K.: *Financial Markets and Institutions*, Tata McGraw- Hill Publishing Company Ltd.
- Bharati.V. Pathak: *The Indian Financial System: Markets, Institutions and Services*, 5th edition, Pearson.
- Mukherjee, Ghose, Roy (2005): *Indian Financial System and Financial Operations*, 2nd Edition, Dey Book Concern.
- Khan, M.Y. (2005): *Indian Financial System*, Tata McGraw- Hill Publishing Company Ltd.

- Bhole, L.M. (2005): *Financial Institutions and Markets*, 4th Edition, Tata McGraw- Hill Publishing Company Ltd.
- NCFM (2010): *FIMMDA- NSE Debt Market (Basic) Module Work Book*.

CVAC 2.1: Indian Planning and Design of Economic Policies
Full Marks: 50 [40(Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at understanding growth and development, self-reliance, and social justice in India.

Outcome: This course will make students familiar with the guiding principles of Indian planning.

▪ **Some Aspects of Indian Economy**

The social, political and economic background of India, The roles of Central and State Governments – Centre-State relations; The history of planning in India – the transition from Colonialism to Independence.

▪ **Planning in India: Theory and Practice**

Rationale behind planning; Different Plan Models – Centralised, Decentralised, Indicative; Free market versus market intervention; the State and the Public; Planning Commission – Role, Structure and Functions; Planning in India – Objectives of different Five-Year Plans, success and failure; NITI Ayog – Aims and Objectives, Structure and Functions.

▪ **Economic Policy Formulation**

Purpose and Objectives; How to Design – issues and challenges in economic policy designing; Different Policies – Fiscal Policy, Monetary Policy, Trade Policy, Exchange Rate Policy, Labour Market Policies, Agricultural Policies, Industrial Policies, Policies for Social Sector Development, Policies for Natural Resource Management and Global Climate Change, Policies for Financial Sector Reform.

References:

- S. Chakravarty: *Development Planning: The Indian Experience*.
- G. Datt and B. Nag: *Datt and Sundaram's Indian Economy* (73rd edition).
- U. Kapila: *Indian Economy since Independence* (34th edition).
- Various reports of the Ministries of Government of India like Ministry of Agriculture and Farmers Welfare; Ministry of Commerce and Industry; Ministry of Skill Development and Entrepreneurship; Ministry of Micro, Small and Medium Enterprises; Ministry of Heavy Industries; Ministry of Environment, Forest and Climate Change; Ministry of New and Renewable Energy; Ministry of Mine; Ministry of Jal Shakti; Ministry of Fisheries, Animal Husbandry and Dairying Ministry; Ministry of Education; Ministry of Health and Family Welfare; Ministry of Labour and Employment; Ministry of Rural Development; Ministry of Social Justice and Empowerment; Ministry of Women and Child Development; Ministry of Housing and Urban Affairs; Ministry of Finance; Ministry of External Affairs, etc.

Semester III

MJ 3.1: Intermediate Microeconomics

Full Marks: 50 [40(Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: The course aims to deepen the students' understanding of modern microeconomics, providing them with the tools and frameworks to apply the theory to real-world problems.

Outcome: It helps students develop a microeconomic mindset when thinking about issues that are relevant in practice and for policy development.

- **Theory of Cost:**

Cost Analysis: Economic cost, Opportunity cost, Accounting cost, Sunk cost; Short run cost and long run cost; Total cost: fixed and variable cost - marginal cost - average cost - derivation of short-run cost and long-run cost functions - functional coefficient and shape of long run average cost - relation between short run and long run cost - expansion path and relation with long run total cost curve.

- **Markets and Competition:**

How prices allocate resources - controls on prices - taxes and the costs of taxation - consumer surplus, producer surplus and the efficiency of the markets.

- **Perfect Competition:**

Assumptions - economic vs. accounting profit - short-run profit maximization – short-run supply curve of the firm and the industry - Output choice and competitive equilibrium in the long run - long-run industry supply curve under constant, increasing and decreasing costs. Consumer's and producer's surplus - effects of tax and subsidy - price ceiling in a competitive industry.

- **Imperfect Competition:**

- Monopoly: characteristics - optimum output determination, monopoly power : mark-up pricing - sources of monopoly power - Measuring monopoly power - Profit maximization of a single plant monopolist - effects of tax - the multi-plant monopoly - natural monopoly - limiting market power: price regulation - taxation - antitrust laws - Different Pricing Strategies: Capturing consumer surplus - Price Discrimination : First and Second degree - two part tariff - Third degree - Bilateral monopoly. Welfare Cost of Monopoly.
- Monopolistic Competition: Assumptions – Product Differentiation and demand curve - concept of Group - equilibrium of the firm: short-run and long-run - Excess capacity and its interpretation.
- Oligopoly: strategic interaction and conjectural variation - Theories of oligopoly: Simultaneous Quantity Setting: Cournot Equilibrium - Simultaneous Price Setting: Bertrand Equilibrium - Quantity Leadership: Stackelberg Equilibrium - Price Leadership: Collusion and formation of Cartel - Price Rigidity: Sweezy equilibrium.

References:

- Varian H.R: Intermediate Microeconomics: A Modern Approach, East West Press.
- Ryan, W.J.L. and D.W. Pearce. *Price Theory*. Springer, 1977.
- Pindyck, Rubinfeld and Mehta: Microeconomics, Pearson Education.
- Koutsoyiannis, Anna. *Modern Microeconomics*. Springer, 1975.
- Gould, John P., and Charles E. Ferguson. "Microeconomic theory." Richard D. Irwin Inc. 1980.
- Sen, Anindya. *Microeconomics*, Oxford Economic Press, India, 2006.
- N. Gregory Mankiw, *Principles of Microeconomics*, Indian Edition, Cengage Learning, 4th Edition, 2006
- Henderson, James Mitchell, and Richard E. Quandt. "Microeconomic theory: A mathematical approach." (1985).
- Cooper, Russell, and Andrew John. *Microeconomics: Theory through Applications*. Langara College, 2014.
- Krugman, Paul, and Robin Wells. *Microeconomics*. Macmillan, 2008.

MJ 3.2: Mathematical Methods for Economics-I

Full Marks: 50 [40(Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to improve the mathematical skills necessary to study economics.

Outcome: The students get familiarised with various mathematical tools which can be used to understand and address various economic issues in terms of mathematical models.

▪ **Set Theory, Functions and Correspondences:**

- Definition of set, types of set - set operations - Nested sets - Cartesian product; Concept of Euclidean Space.
- Concepts of domain, co-domain, range and mapping; Concept of relation, correspondence and function; Explicit and implicit functions; Types of functions - polynomial, rational and logarithmic functions; Homogeneous and Homothetic functions; Economic applications.

▪ **Basic Calculus with applications in Economics:**

- Differential Calculus -
Concept of limit, continuity, differentiability; Rules of differentiation- partial and total differentiation, Euler's Theorem - Applications in Economics: Demand function, Elasticity of demand, Marginal revenue, Marginal Utility, Relation between average revenue and marginal revenue, slope and curvature of indifference curve, point of inflexion, returns to scale, Properties of Cobb-Douglas Production function, linear, quadratic and cubic cost functions.
- Maxima and Minima (Extrema) of Functions -
Relative (local) and absolute (global) extrema - The first derivative and the second derivative test; Convexity and Concavity of functions; Extrema of functions of several variables without and with constraints - First and second order conditions for optimization without constraints - Optimization with constraints - The method of Lagrange multiplier - Economic Applications.

- Integral Calculus -
Concept of Integration as a reverse process of differentiation - Rules of Integration -
Techniques of definite integral. Applications in Economics.

References:

- Chiang, A. : Fundamental Methods of Mathematical Economics (3rd edition)
- Hoy, M., J Livernois, C. McKenna, Ray Rees and T. Stngos.: Mathematics for Economics.
- Schaum's Outline of Introduction to Mathematical Economics.

MN 3.1: Indian Economy since Independence **Full Marks: 50 [40(Exam) + 10 (Continuous Internal Assessment)]** **4 Credits**

Objective: The objective of this course is to explore and analyse the various issues related to Indian economy since Independence.

Outcome: The students will be able to understand the scenario of Indian economy since Independence, assessment of growth and development under different policy regimes.

- **Indian Economy after Independence:**
Major features of Indian Economy; Trends in Macroeconomic Variables - Sectoral composition of GDP and per capita income, trends in saving and capital formation, saving-investment puzzle, demographic transition since independence, Trends of poverty and unemployment.
- **Issues in Indian Agricultural Sector:**
Trends in agricultural production, land size-productivity debate, Land Reforms, Green Revolution, interlocking of credit market, marketing of products and Public Distribution System, agricultural product pricing and policies for workers.
- **Issues in Industrial Sector:**
Trends in industrial production, industrial sickness and Trade Union Movements.
- **Issues in Service Sector:**
Trends in service sector development- health, education, transportation, banking and insurance.
- **Foreign Trade policy:**
EXIM policies and Balance of Payments, Foreign Exchange Regimes, Issue of convertibility – current account and capital account, FDIs and MNCs.
- **Monetary Policy:**
Development and regulatory role of RBI: credit control operations, anti-inflationary policies, reforms in monetary policy.
- **Budgetary and Fiscal Policy:**
Concept of Budgetary Deficit (Revenue and Capital Deficits, Primary Deficit, Fiscal Deficit), trends in deficit, evolution of taxation policies.

References:

- Jean Dreze and Amartya Sen: Economic Development and social opportunity, OUP
- Sukhomoy Chakraborty: Development Planning: The Indian Experience, OUP
- Uma Kapila: Indian Economy since independence, Academic Foundation
- Ahluwalia and Little (ed): India's Economic Reforms and Development, OUP
- Joshi and Little: India's Economic Reforms, OUP
- Pulapre Balakrishnan, 2007, the Recovery of India: Economic Growth in the Nehru 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.
- Himanshu, 2010, Towards New Poverty Lines for India, Economic and Political Weekly, January.

IDC 3.1: Labour and Migration Theories

Full Marks: 50 [40(Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: The objective of this course is to explore critically, and in-depth, the debates and diverse viewpoints through which migration in India is understood and represented.

Outcome: Students will gain an exposure to the theoretical frameworks and empirical knowledge on labour and migration, and will be able to critically analyze the dynamics of internal labour migration in India as a contemporary social and economic reality and develop keen interest in key development agendas from a migration lens and analyze the related policy frameworks.

- **Conceptualising Labour:**
 - Changing Concept of Work and Labour: Labour as 'Unique' Factor; 'Passive' Factor Reducible to Abstract Values; 'Reserve Army of Labour'
 - Gendered Labour: Understanding Women's Employment and Women's Work, Unpaid Work Including Unpaid Care Work
 - Labour in Informal Economy & Informal Employment: Non-Wage Employment and Informality, Rural Non-Agricultural Employment
- **Labour and Migration in India:**
 - Types of Labour Migration and Causes
 - Overview of Migration in India: Locating Migration in India's Development Story
 - Migration through the Livelihood Lens
 - State and Policy Response to Migration
- **Contemporary Debates on Labour and Migration in India:**
 - The Indian Labour Market: Labour Market Flexibility Debate, Exploring Current Debates and Introducing Datasets
 - Labour Regulations in India

References:

- Fine, Ben (2003). 'Labour Market Theory: A Constructive Reassessment', Routledge, London and New York.

- Fine, Ben (1992). 'Women's Employment and The Capitalist Family: Towards a Political Economy of Gender and Labour Markets', Routledge.
- Felipe, Jesus and Hasan, Rana (2006). 'Labour Markets in Asia: Issues and Perspectives' (eds.) Palgrave.
- Banerjee, Debdas (2005). 'Globalization, Industrial Restructuring and Labour Standards: Where India Meets the Global', Sage.
- Mathew, E.T. (2006). 'Employment and Unemployment in India: Emerging Tendencies during Post-Reform Period', Sage Publications, New Delhi.
- Ghosh, Jayati (2009) 'Never Done and Poorly Paid: Women's Work in Globalising India', Women Unlimited, New Delhi.

SEC 3.1: Managerial Economics

Full Marks: 50 [40(Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: The purpose of this course is to apply microeconomic concepts and techniques in evaluating business decisions taken by firms and to help students understand how tools of standard price theory can be employed to formulate a decision problem, evaluate alternative courses of action and finally choose among alternatives.

Outcome: It enables students to apply the knowledge of the mechanics of supply and demand to explain working of markets, describe how changes in demand and supply affect markets, understand the choices made by a rational consumer, explain relationships between production and costs and define key characteristics and consequences of different forms of markets.

- **Meaning and Scope of Managerial Economics:**
Organisational Goals - Profit maximization hypothesis, Critique of profit maximization hypothesis- alternative goals of the firm - Managerial theories - Baumol, Morris, Williamson; Behavioural Theory of the Firm.
- **Demand Analysis:**
Demand forecasting, Methods of demand forecasting: Survey Method, Statistical Methods - Trend Projection method, Regression Method, Leading Indicator Method.
- **Price Determination under Different Structures:**
Methods of price determination in practice – Mark up pricing, Limit pricing, Average cost pricing, Peak load pricing, Multiple product pricing, Transfer pricing.
- **Risk and Uncertainties in Managerial Decision Making:**
Distinction between risk and uncertainties; Measuring risk with probability distributions; Different criteria for decision making under risk; Expected utility theory; Decisions under uncertainties.
- **Real and Financial Investment decisions:**
Types of real capital investment decisions, evaluation of investment, financial investment alternatives, market for shares and bonds.

References:

- Koutsoyiannis .A: Modern Microeconomics, MacMillan.
- Hague: Managerial Economics, ELBS.
- Cyert and March: A Behavioural Theory of the Firm, Prentice Hall.
- Henderson and Quandt: Microeconomic Theory. McGraw Hill
- Baumol: Economic Theory and Operation Analysis, Prentice Hall.
- Maheswari and Varsheny: Managerial Economics, S.Chand & Co.
- Thomas. C.R., Maurice, S.C., Sarkar, S: Managerial Economics, Tata McGraw Hills.
- Peterson, C.H., Lewis, W.C, Jain, S.K: Managerial Economics, Pearson Edition.
- Mithani, D.M: Managerial Economics- Theory and Applications, Himalya Publishing House.
- Damodaran, S.: Managerial Economics, Oxford University Press., New Delhi.
- Mehta, P.L.: Managerial Economics – Analysis, Problems and Cases, S. Chand and Sons.

Semester IV

MJ 4.1: Intermediate Macroeconomics

Full Marks: 50 [40(Exam) + 10 (Continuous Internal Assessment)]
5 Credits

Objective: The purpose of this course is to provide the macro-foundations to the various aggregative concepts and discuss various alternative theories of output and employment determination.

Outcome: It enables the students to acquire knowledge about the formal modelling of a macro-economy in terms of analytical tools.

- **Complete Keynesian Model:**

Keynesian Theory of Income and Employment – Underemployment Equilibrium; Keynes versus Classics.

- **Theories of Consumption:**

Consumption Function – Ando-Modigliani's Life-cycle Hypothesis, Friedman's Permanent Income Hypothesis, Dusenberry's Relative Income Hypothesis.

- **Demand for Money:**

Regressive Expectations and Tobin's Portfolio Choice Models; Baumol's Inventory Theoretic Money Demand.

- **Supply of Money:**

Alternative Definitions of Money Supply; Asset-Liability Accounting of Central and Commercial Banks; Money Multiplier Analysis; Tools of Monetary Policy.

- **Business Cycles:**

Multiplier- Accelerator Interaction in Generating Business Cycles – Models of Hicks, Goodwin and Hawtrey.

- **Theories of Inflation:**

Theories of Inflation – Demand-pull and Cost-push, Inflationary Gap Analysis; Mark-up Inflation; Philips Curve; Monetary and Fiscal Counter-inflationary and Counter-cyclical Policies.

- **Schools of Macroeconomic Thoughts:**

Classical; Keynesian; Monetarism; New-Classical; New-Keynesian.

References:

- Richard T. Froyen. Macroeconomics, Pearson Education Asia, 10th edition, 2016.
- Dornbusch, Fischer and Startz. Macroeconomics, McGraw Hill, 11th edition, 2010.
- N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.
- Sikdar Soumyen. Principles of Macroeconomics, Oxford University Press.
- Ambar Nath Ghosh and Chandana Ghosh. Macroeconomics, Prentice Hall Pub.

MJ 4.2: Mathematical Methods for Economics-II
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
5 Credits

Objective: This course aims at providing the students with the essential mathematical tools, skills and knowledge base necessary to handle various types of economic issues in terms of mathematical models.

Outcome: It enables the students to operate as practicing economists by exposing them to practical use of mathematical models in analyzing economic problems.

▪ **Linear and Non-Linear Programming:**

General Formulation of the LP Problem - Graphical Solution (Maximisation and Minimisation Problem) - Concepts of Slack and surplus variables, Basic Feasible Solution- Duality- Economic Interpretation of Duality – Non-linear Programming and Kuhn-Tucker Conditions.

▪ **Differential Equations:**

- First order and second order differential equations
- Applications in Economics.

▪ **Difference Equations:**

- First and second order difference equations
- Applications in Economics.

▪ **Elements of Matrix Algebra:**

Elementary operations, Determinants, Rank of matrix., Inverse of matrix, Hessian Determinant, Bordered Hessian Determinant, Technique of solving simultaneous equation by Cramer's rule. Applications in Economics: Partial Market Equilibrium Model, Simple National Income Determination Model. The IS-LM model and Comparative Static Analysis,

References:

- Chiang, A.: Fundamental Methods of Mathematical Economics (3rd edition)
- Hoy, M., J Livernois, C. McKenna, Ray Rees and T. Stngos.: Mathematics for Economics.
- Schaum's Outline of Introduction to Mathematical Economics.

MJ 4.3: Contemporary Issues in Indian Economy
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to develop the conceptual framework of Government policies and programmes and acquaint the students with latest data to enhance the analytical skills.

Outcome: The students will be able to understand the landscape of Indian Economy and will adopt and integrated approach to the functioning aspects of the Indian Economy, keeping in view the scope for alternative approaches.

- **Policy Orientation of Economic Development:**
Evolution of India's Development Goals and Strategies; Structural Constraints; Debates between Growth and Distribution, Public Sector vs. Private Sector, Consumer Goods vs. Capital Goods, Import Substitution vs. Export Promotion; Structural Changes, Savings and Investment Including Saving-Investment Paradox.
- **Growth and Development under Different Policy Regimes:**
Goals, Constraints, Institutions and Policy Framework; Planning Commission and NITI Aayog; Assessment of Performance - Sustainability and Regional Contrasts
- **Sectoral Developments:**
Primary, Secondary and Tertiary sectors – Growth and Challenges
- **Population and Human Development:**
Demographic trends and issues; Population policies; Education, Health and Malnutrition;
- **Growth and Distribution:**
Trends of Poverty, Inequality and Unemployment; Policies to Reduce Poverty and Inequality in Distribution including Sen's Entitlement Analysis;
- **Economic Policy Reforms in India:**
Monetary, Fiscal, Banking, Insurance and Trade Policies Reforms - Control of Inflation, Control of Credit, Direct and Indirect Taxation, Foreign Investment, EXIM, MNCs and SEZs.

References:

- Jean Dreze and Amartya Sen: Economic Development and social opportunity, OUP.
- Sukhomoy Chakraborty: Development Planning: The Indian Experience, OUP.
- Uma Kapila: Indian Economy since independence, Academic Foundation.
- Ahluwalia and Little (ed): India's Economic Reforms and Development, OUP
- Joshi and Little: India's Economic Reforms, OUP
- Pulapre Balakrishnan, 2007, the Recovery of India: Economic Growth in the Nehru 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.
- Himanshu, 2010, Towards New Poverty Lines for India, Economic and Political Weekly, January.

MN 4.1 Development Economics

Full Marks: 50 [40(Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to equip students with the understanding of concepts and approaches in Economic Development and Economic Growth.

Outcome: Students will develop keen interest in various aspects of economic development as well develop their theoretical, empirical and analytical skills.

- **Elementary Economic Development Concepts:**

Growth vs. Development; Different Concepts & Indicators of Development - Economic Development, Human Development & HDI, GDI, Sustainable Development, Inclusive Development and Participatory Development.

- **Theories of Economic Development:**

Rostow's Stage Theory, Vicious Circle of Poverty, Low level Equilibrium Trap, Critical Minimum Effort Thesis, Concept of Surplus Labour- Lewis and Harris-Todaro Models, Balanced versus Unbalanced Growth

- **Persistence & Plausible Explanations of Underdevelopment:**

Development and Underdevelopment as a Historical Process; Baran's Dependency Theory; Frank's Theory of Colonial Exploitation; Merchant Capital in Shaping Underdevelopment (Kay); Emmanuel's Theory of Unequal Exchange

- **Poverty and Inequality:**

Basic Needs Approach and PQLI; Poverty line, Absolute versus Relative Poverty; Poverty Measurements: Head Count Ratio, Income Gap Approach, HPI, MPI, Inequality Axioms; Common Measures of Inequality- Gini Index and Measures of Inequality: GII, GEM.

References:

- Debraj Ray: Development Economics, Oxford University Press, 2009.
- Kaushik Basu: Analytical Development Economics: The Less Developed Economy Revisited, MIT Press, Cambridge, MA, 1997. Hardback Edition for South Asia, Oxford University Press, 1998. Paperback reprint, Oxford University Press, 1998.
- Partha Dasgupta: Economics, A Very Short Introduction, Oxford University Press, 2007.
- Abhijit Banerjee, Roland Benabou and Dilip Mookerjee: Understanding Poverty, Oxford University Press, 2006.

Semester V

MJ 5.1: Mathematical Methods for Economics-III

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at providing the students with the advanced mathematical tools, skills and knowledge base necessary to handle various types of complex economic issues in terms of mathematical models.

Outcome: It enables the students to analyse real life economic phenomena using advanced mathematical tools and techniques.

- **Input-Output Analysis:**
Structure of an input-output model, the open model, price-output solution in an input output model, Hawkins-Simon Condition and its economic interpretation, the Solow condition, the closed input-output model.
- **Dynamic Optimisation:**
Calculus of Variations; Transversality conditions for Variable-Endpoint problems, Second Order Conditions, Infinite Planning Horizons, Constrained Problems.
- **Game Theory:**
Constituent Elements of Game; Representation of Games - Normal Form and Extensive Form; Structure of game, pay-off matrix, two persons zero sum game, non-zero sum game; Pure and Mixed strategies; Dominated and Dominant Strategies - Strict and Weak; Iterated Elimination of Strictly Dominated Strategies; Nash equilibrium; Applications - Prisoners' Dilemma, Matching Pennies, Battle of the Sexes.

References:

- Chiang, Alpha C. "Elements of dynamic optimization." *Illinois: Waveland Press Inc* (2000).
- Gibbons, Robert. "A primer in game theory." (1992).
- Osborne, Martin J. *An introduction to game theory*. Vol. 3, no. 3. New York: Oxford university press, 2004.

MJ 5.2: Statistical Method for Economics - I

Full Marks: 50[40(Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to develop an understanding of statistical tools in terms of statistical definitions, concepts, models and their applications using illustrative examples.

Outcome: The students will be able to understand and use the basic concepts of statistical measures for data exploration.

- **Descriptive Statistics:**
Presentation of Data; Frequency Distribution; Measures of Central Tendency, Dispersion, Moments, Skewness and Kurtosis; Bivariate Frequency Distribution- Correlation and Regression.
- **Elementary Probability Theory:**
Sample spaces and events; Probability axioms and properties; counting techniques: multiplication, permutation, Combinations; conditional probability and Bayes' Theorem.
- **Random Variables and Probability Distributions:**
Random variables; Probability Distributions: PDF, PMF, CDF; Expected Values of Random Variables and Functions of Random Variables; Properties of Discrete and Continuous Distribution: Binomial, Poisson, Uniform, Normal, and Exponential.
- **Jointly Distributed Random Variables:**
Density Function of Bivariate Normal Distribution and Means, Variances, Covariance and Correlation Coefficients Marginal and Condition Distribution.
- **Sampling:**
Concept of Sampling and Random Sampling; Methods of Sampling - Probabilistic and Non-probabilistic sampling - SRSWR, SRSWOR; Parameter, Statistic and its Sampling Distribution; Results Concerning Simple Random Sampling; Basic Concepts of Stratified Random Sampling, Multistage Sampling, Systematic Sampling, Purposive Sampling, Quota Sampling, VP Sampling; Sampling and non-sampling error.

References:

- Goon, A. M., Gupta, M. K. and. Dasgupta, B. (2008): *Fundamentals of Statistics*, Vols 1 & 2, The World Press Pvt. Ltd., Kolkata.
- Gupta, S.C. and Kapoor, V.K.(2002) : *Fundamentals of Mathematical Statistics*, Sultan Chand and Sons, New Delhi, 11th edition.
- Das N. G. (2008): *Statistical Methods*, Tata McGraw-Hill Publishing Company Ltd., New Delhi.
- Nagar, A.L. and Das, R.K. (1983): *Basic Statistics*, 2nd Edition, Oxford University Press, 1983.

MJ 5.3: Theory of Economic Growth

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The Objective of this course is to provide both theoretical and empirical understanding regarding how economic growth takes place in a country for the country's long-term development.

Outcome: The course will equip students with the understanding of concepts and approaches in economic development and economic growth, and develop their theoretical, empirical and analytical skills in explaining economic growth.

- **Fundamental Concepts:**
Economic Growth versus Economic Development, Factors behind Economic Growth.

- **Classical, Political, Economic Approaches to Growth:**
Smith, Ricardo and Marx.
- **Exchange-based Approaches to Growth:**
Harrod and Domar Models – Equilibrium and Stability Analyses with Economic and Social Consequences; Solow Model – Assumptions, Evolution of Inputs into Production, Dynamics of the Model, Impact of a Change in Saving Rate and Quantitative Implications, Golden Rule Level of Consumption Per Unit of Effective Labour, Convergence Theories and their Relevance, Extension of the Model Incorporating Demographic Transition Theory.
- **Cambridge Models of Economic Growth:**
Kaldor's Model of Income Distribution with Equilibrium and Stability Analysis.
- **Neutrality in Technical Progress:**
Concept of Neutrality; Hicks Neutrality, Harrod Neutrality and Solow Neutrality.
- **Various Directions in Growth Theories:**
 - One-sector versus Two-sector Growth Models, Positive versus Normative Growth Theories, Embodied versus Disembodied Technical Progress, Exogenous versus Endogenous Growth.
 - Growth Accounting.
- **Introduction to Endogenous Growth Theories:**
Learning-by-doing, AK Model.

References:

- Barro, R.J. and Sala – i- Martin, X. (2004): *Economic Growth*, 2nd Edition, Prentice Hall of India Pvt. Ltd.
- Domar, E. (1957): *Essays in the Theory of Growth*, Oxford University Press, London.
- Harrod, R.F. (1948): *Towards a Dynamic Economics*, Macmillan, London.
- Romer, D. (2001): *Advanced Macroeconomics*, McGraw-Hill International Edition.
- Solow, R.M. (2000): *Growth Theory :An Exposition*, 2nd Edition, Oxford University Press, USA.
- Domar, E.D. (1946): “Capital Expansion, Rate of Growth and Employment”, *Econometrica*, 14, 137-147.
- Kaldor, N. (1956): “Alternative Theories of Distribution”, *The Review of Economic Studies*, 23(2), 83-100.
- Kaldor, N. (1957): “A Model of Economic Growth”, *The Economic Journal*, 67(268), 591-624.
- Lucas, R.E Jr. (1988): “On the Mechanics of Economic Development”, *Journal of Monetary Economics*, 22(July), 3-42.
- Romer, P.M. (1990): “Endogenous Technological Change”, *The Journal of Political Economy*, 98(5/2): The Problem of Development: A conference of the Institute for the study of Free Enterprise Systems (Oct.), S71-S102, Chicago Journals.

MJ 5.4: Development Theories
Full Marks: 50[40(Exam) + 10 (Continuous Internal Assessment)
4 Credits

Objective: The objective of this course is to provide a rigorous introduction to the core concepts and theories of development from an economic perspective, focusing on both key theoretical contributions and empirical applications.

Outcome: Students will learn the various facets of the contemporary and classical theories of development, which will enhance their theoretical, empirical and analytical skills.

- **Fundamental Concepts**
Difference between Economic Growth and Economic Development; Sustainable Development; Inclusive Growth; Basic Needs Approach and PQLI; Capability Approach; Human Development Index; Gender Empowerment Index
- **Development and Underdevelopment as a Historical Process**
Dependency Theory of Baran; Frank's Theory of Colonial Exploitation; Merchant Capital in Shaping Underdevelopment (Kay); Emmanuel's Theory of Unequal Exchange
- **Persistence of Underdevelopment and Strategies for Development**
Characteristics and Obstacles of Underdevelopment; Vicious Circle of Poverty; Low Level Equilibrium Traps, Critical Minimum Effort Thesis and Big Push; Balanced versus Unbalanced Growth; Concept of Surplus Labour and Dual economy Models - Lewis and Harris-Todaro models, Fei-Rannis Model; Rostow's Stage Theory; Choice of Techniques; International Trade and Cumulative Causation; Export Promotion versus Import Substitution Policies
- **Population and Development**
Malthusian Theory of Population; Standard Theory of Demographic Transition; Investment on Human Capital and Economic Growth; Gender Discrimination and Implications for Economic Growth
- **Poverty and Inequality**
Poverty line, Absolute versus Relative Poverty; Poverty Measurements; Inequality Axioms and Measures of Inequality

References:

- Debraj Ray. Development Economics, Oxford University Press, 2009.
- Partha Dasgupta. Economics, a Very Short Introduction, Oxford University Press, 2007.
- Thomas Schelling. Micromotives and Macrobehavior, W. W. Norton, 1978.
- Albert O. Hirschman, Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States, Harvard University Press, 1970.
- Raghuram Rajan. Fault Lines: How Hidden Fractures Still Threaten the World Economy, 2010.

- Elinor Ostrom. Governing the Commons: The Evolution of Institutions for Collective Action, Cambridge University Press, 1990.
- Dani Rodrik. The Globalization Paradox: Why Global Markets, States and Democracy Can't Coexist, Oxford University Press, 2011.
- Michael D. Bordo, Alan M. Taylor and Jeffrey G. Williamson (ed.). Globalization in Historical Perspective, University of Chicago Press, 2003

MN 5.1: International Trade and Globalisation

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course provides an introduction to international economics, focusing on key concepts and theories of international trade, balance of payments, and the impact of trade policies and globalization.

Outcome: Students will explore the benefits and complexities of international trade, the mechanics of balance of payments, and the roles of major global financial institutions. The course aims to equip students with a comprehensive understanding of how international economic activities affect domestic and global markets.

- **Introduction:** What is international economics about? An overview of world trade. Stylized facts about international trade; Concept of Terms of Trade; Gains from Trade: Exchange gain & Specialization gain (concept only), Absolute Advantage, Comparative Advantage & Factor endowment theories of International Trade (concept only).
- **Balance of Trade and Balance of Payments:** Concepts and Components of Balance of Trade and Balance of Payments, Consequences of Disequilibrium in the BOP, Exchange Rates (Fixed and Flexible), Devaluation, Elasticity Approach, Absorption Approach, Functions of IMF, and WTO.
- **Aspects of Trade Policies & Globalization:** Theories of Tariffs and Income Distribution, the Terms of Trade and Domestic Prices, the Optimum Tariff, Quotas and Quantitative Restrictions, Tariff versus Quota; Economic Integration: Regional Trading Blocks; Custom unions (concept only with its different types and examples)
- **International Factor Movements and Globalization:** International Labour Mobility, International Borrowings and Lending, Foreign direct Investment and Foreign Portfolio Investment, Globalization of Market and Globalization of Production, Implication of the activities of MNCs for the host developing nations Multinational Firms and their role in Domestic Market; India and Globalization.

References:

- Salvatore, D. (2011). International Economics: Trade & Finance, 11th ed. Wiley Publication.
- Krugman, P., Obstfeld, M., Melitz, M. (2018). International Economics - Theory and Policy, 11th ed. Pearson Education.
- Sikdar, S. (2006). Contemporary issues in globalization: an introduction to theory and policy in India, 2nd ed. Oxford University Press.

Semester VI

MJ 6.1: Theory of International Trade

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims to introduce the fundamentals of international trade theory and examine the impact of international economic policies on both domestic and global welfare. It provides a structured presentation of models explaining the composition, direction, and consequences of international trade, as well as the determinants and effects of trade policies.

Outcome: While the course is rooted in theoretical models, students will also explore real-world examples and case studies.

- **Introduction:**

What is international economics about? An overview of world trade. Building Blocks of Trade Theory: The need for trade indifference curves, derivation of trade indifference curves, properties of trade indifference map, Offer curves and its properties; The elasticity of offer curves, the elasticity of demand for imports, the elasticity of supply of exports. International equilibrium and offer curves, terms of trade (TOT) and stability, the Marshall-Lerner condition, Gains from Trade (GFT) theorem, illustration of GFT, decomposition of GFT, substitution possibilities and magnitude of GFT.

- **Neoclassical Trade Theories:**

Adam Smith's theory of absolute advantage; Ricardian Theory: One-factor economy, relative demand and relative supply, Trade in Ricardian world, Complete specialization & GFT; Heckscher-Ohlin theory: Factor intensity Reversal, Rybczynski and Stolper-Samuelson theorems; Factor Price Equalization, Leontief Paradox; Application to Heckscher-Ohlin Theorem: Jones (1965) model for small open developing economies (Basic structure, Assumptions & Implications of Stolper-Samuelson and Rybczynski theorems, magnification effects), Specific Factor model (Basic structure, Assumptions & Implications of price magnification effect).

- **New Trade Theories:**

External Economies of Scale, Internal Economies of Scale; The Krugman model; Firm heterogeneity; international movement of factors; introduction to the theory of multinational firms.

- **Trade Policy & Balance of Payment Analysis:**

Instruments of trade policy; tariffs, quotas, export subsidies, voluntary export restraints. The economics of trade policy; political economy of trade policy; controversies in trade policy; Balance of Payment: Balance of Payment accounts in an open economy; Determination of National Income, Fixed & Flexible Exchange Rate: adjustment of demand and supply of Foreign Exchange, Effect of devaluation, Effects of exchange rate on domestic prices and ToT.

References

- Feenstra, R., Taylor, A. (2014). International economics, 3rd ed. Worth Publishers.

- B. Sodersten, and G. Reed (1994). International Economics, Macmillan, London, 3rd edition.
- Krugman, P., Obstfeld, M., Melitz, M. (2018). International Economics - Theory and Policy, 11th ed. Pearson Education.
- Acharyy, R. (2022). International Economics, 2nd ed., Oxford University Press.
- Pugel, T. (2015). International economics, 16th ed. McGraw-Hill.

MJ 6.2: Statistical Methods for Economics - II
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to develop analytical and rigorous understanding of application of statistical tools in economics.

Outcome: The course will help to understand the basic idea of methods of estimation, statistical inference and assess the accuracy of the estimation from the respective sample.

- **Normal and Derived Distribution:** Normal Distribution and Its Properties; Four Fundamental Distributions Derived from Normal: Standard Normal, Chi-Square, Student's t and F Distributions.
- **Theory of Statistical Inference:** Idea of Statistical Inference; Point Estimation: Methods of Point Estimation (Ordinary Least Squares Method, Method of Moments, Maximum-Likelihood Method), Desirable Properties of a Good Estimators- Small Sample Properties and Large Sample Properties; Concepts of Interval Estimation: Confidence Interval, Confidence Limits, Confidence Coefficient,
- **Testing of Hypotheses:** Null and Alternative Hypothesis, Simple and Composite Hypothesis, Critical Region, Type of Errors, Test, Level of Significance, power of a test; Exact Tests and Confidence Intervals: Problems Regarding a Univariate Normal Distribution, Comparisons of two Univariate normal distributions; Approximate Tests and Confidence Intervals: Tests and confidence intervals for single mean, single proportion, difference of two means, and difference of two proportions.
- **Index Number:** Concepts, Problems in constructing Index Numbers, Methods of constructing Index Numbers, Laspeyre's method, Paasche's method, Marshall-Edgeworth method and Fisher's Ideal method for Price Index and Quantity Index, Cost of Living Index and its use, Different Tests of Index Numbers, Uses of Index Numbers.
- **Vital Statistics:** Introduction, crude birth rate, specific death rate, standardized death rate, life table, crude birth rate, total fertility rate, vital index.
- **Time Series:** Concepts, components of time series, adjustment to time series data, measurement of trend, secular trend, seasonal and cyclical variation, exponential smoothing.

References:

- Goon, A. M., Gupta, M. K. and. Dasgupta, B. (2008): *Fundamentals of Statistics*, Vols 1 & 2, The World Press Pvt. Ltd., Kolkata.
- Gupta, S.C. and Kapoor, V.K. (2002): *Fundamentals of Mathematical Statistics*, Sultan Chand and Sons, New Delhi, 11th edition.
- Das, N. G. (2008): *Statistical Methods*, Tata McGraw-Hill Publishing Company Ltd., New Delhi, 2008.

MJ 6.3: Public Finance

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The Objective of this course is to study the behaviour of government towards income, expenditures, borrowing, budgets, etc.

Outcome: The course will equip students with managing public funds, economic development, eliminating inequality, retaining price stability, satisfying the nation's fundamental needs, and managing the currency value in the international market.

▪ Introduction

Meaning, objectives and scopes of Public Finance; Public versus private goods; Externalities and market failure; Model of optimal provision of public good; Free riding; Coase Theorem.

▪ Principles and Effects of Taxation

Benefit versus Ability to Pay Principles of taxation; Income versus expenditure taxes; Incidence of taxation; Excess burden of indirect tax; Progressive versus proportional taxes; Effects of taxation on savings, investments and work efforts

▪ Public Expenditure and Public Debt

Classification of public expenditures; Government budget, budget deficit and public debt; Internal versus external public debts; Burden of public debt

▪ Compensatory Fiscal Policy

Effects of changes in government expenditures and taxation - balanced budget multiplier - anti inflationary fiscal policy; Fiscal Federalism in India.

References:

- A.B. Atkinson and J.E. Stiglitz. Lectures on Public Economics, McGraw Hill Inc., US, 1980.
- C.V. Brown and P.M. Jackson. Public Sector Economics, Wiley-Blackwell; 4th Edition, 1991.
- J.F. Due and A.F. Friendlander. Government Finance- Economics of Public Sector, AITBS, Publishers and Distributors, 1994.
- J. Hindriks and G.D. Myles. Intermediate Public Economics, The MIT Press, Annotated Edition, 2006.
- R.A. Musgrave and P.B. Musgrave. Public Economics in Theory & Practice, McGraw Hill Pub., 5th Edition, 1989.
- J.E. Stiglitz. Economics of Public Sector, W.W. Norton and Co., 3rd Edition, 2000.

- A. Ghosh and C. Ghosh. Public Finance, Prentice hall India Learning Private Ltd., 2nd Revised Edition, 2014.

MJ 6.4: Introductory Econometrics

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to test economic theories in terms of their applications for policy making and forecasting.

Outcome: The course will provide a comprehensive introduction to econometrics; concepts, and application of statistical tools and techniques in practice.

- **Classical Linear Regression Model:**

Model specification, Estimation (Using OLS & ML Method), Properties of the estimators; Gauss-Markov Theorem, Analysis of variance, Hypothesis testing, Prediction with regression model.

- **K-variable CLRM:**

Model specification, OLS Estimation, Properties of the estimators; Gauss-Markov Theorem, Discussion of simple, partial, and multiple correlation coefficient, Degrees of freedom and R^2 , Analysis of variance and hypothesis testing, Concept of Multicollinearity- consequences, detection and ways out, Tests for Stability-Chow test, Source of instability- LSDV regression.

- **Violation of the Assumptions of CLRM**

- **Heteroskedasticity:**

Concept, Consequences, Detection- Likelihood ratio test- Goldfeld-Quandt test- White's test, Ways out.

- **Autocorrelation:**

Concept, Consequences- effect of AR (1) errors on OLS estimates, Detection-Durbin-Watson test, Durbin's h -test, Remedial Measures, Estimation in levels versus first differences

- **Multicollinearity:**

Concept, Consequence, Detection, Remedial Measures, Ways out.

- **Non-Normality:**

Concept, Consequence, Detection, Jarque-Bera Test, Ways out

- **Introduction to Multivariate Analysis:**

Principal Component Analysis

References:

- Johnston, J. and Dinardo, J. (1997): *Econometric Methods*, 4th Edition, McGraw Hill International Edition.
- Maddala, G.S. (2005): *Introduction to Econometrics*, 3rd Edition, John Wiley & Sons (ASIA) Pvt. Ltd.
- Wooldrige, J.M. (2009): *Introductory Econometrics: A Modern Approach*, 4th Edition, Cengage Learning India Pvt. Ltd.
- Gujarati, D.N. (2004) *Basic Econometrics*. 4th Edition, McGraw-Hill Companies.
- Greene, W. (2012) *Econometric Analysis*. 7th Edition, Prentice Hall, Upper Saddle River.

MN 6.1: Basic Statistics

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course aims at familiarising students with a variety of statistical tools and techniques.

Outcome: This course will help students understand and tabulate raw data, and analyse the various statistical characteristics of data on various economic variables.

- **Collection of Data and Diagrammatic Representation:**
Statistics as a discipline; Objectives of Diagrammatic Representation; Types of Charts and Diagrams – Line Diagram, Bar Diagram, Pie Diagram, Pictogram, Histogram, Frequency Polygon, Ogive.
- **Measures of Central Tendency**
Mean: Arithmetic Mean (A.M.), Geometric Mean (G.M.) and Harmonic Mean (H.M.); Mean of Composite Group for A.M.; Advantages and Disadvantages of and relation among A.M., G.M. and H.M.; Median and Mode: Calculation, Advantages and Disadvantages.
- Relation among Mean, Median and Mode; Partition Values - Quartiles, Deciles, Percentiles.
- **Measures of Dispersion**
Meaning and Necessity; Range, Quartile Deviation, Mean Deviation, Standard Deviation (S.D.) – Important Properties, Calculation; S.D. of Composite Group; Relation between S.D. and Other Measures of Dispersion; Relative Measures of Dispersion; Lorenz Curve and Gini Coefficient.
- **Moments, Skewness and Kurtosis:**
Raw and Central Moments; Positive and Negative Skewness; Leptokurtic, Mesokurtic and Platykurtic distributions.

References:

- N.G. Das - Statistical Methods, Combined Edition (Volumes 1 and 2), McGraw Hill Education.
- A. M. Gun, M. K. Gupta and B. Dasgupta - Fundamentals of Statistics, Volume 1, World Press.

Semester VII (Honours)

MJH 7.1: Applied Microeconomics-I (A)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course aims at familiarising students with Game Theoretic tools and techniques, along with some applications.

Outcome: This course will help students understand the strategic behaviour of various economic agents through the lens of Game Theory and also enable them to analyse real life behaviour of economic agents under various contingencies.

- Games under Different Information Structures: Complete vs. Incomplete Information
- Static non-cooperative games under complete information: Some Applications
 - Tragedy of the Commons
 - Coordination Game
 - Final Offer Arbitration
 - Hotelling's Location Game
- Dynamic non-cooperative games under complete information
 - Perfect and Imperfect Information Games
 - Backwards Induction and Subgame Perfect Nash Equilibrium
 - Games of Perfect and Imperfect Recall: Behaviour Strategy
 - Repeated games – Folk theorem
 - Applications
 - Rubinstein's Sequential Bargaining Game
 - Repeated Prisoner's Dilemma: Finite and Infinite Repetitions
 - War of Attrition
 - Bank Runs
 - Tournaments
- Games under incomplete information
 - Static games – Bayesian Nash Equilibrium – Applications
 - Dynamic games – Perfect Bayesian Equilibrium – Signaling games - Applications

References:

- Robert Gibbons: A Primer in Game Theory
- Martin J. Osborne: Game Theory
- Steven Tadelis: Game Theory - An Introduction
- Fudenberg and Tirole: Game Theory
- Osborne and Rubinstein: Game Theory

MJH 7.1: Econometric Theory and Application-I (B)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course makes an attempt to familiarise students with a variety of statistical tools and techniques to understand the specification of models.

Outcome: This course will help students to understand the specification of model and how to deal with qualitative variables (including both dependent and independent) for model building.

- **Specification of Model and Diagnostic Test:** Model selection criteria, Types of specification error, Underfitting and overfitting model, Test of specification errors, Error Measurement in the dependent and independent variables, Incorrect specification of the stochastic error term, Nested and Non-nested models. Model selection criteria.
- **Dummy Variable:** Concept, ANOVA models dummy variables, The ANCOVA models, Chow Test, Interaction effects using dummy variables, Dummy variable trap, Applications.
- **Qualitative Response Regression Models:** Concepts, Linear Probability Model, Applications of LPM, Problem of Truncation, Latent Variable Modelling: Estimation of Logit, Probit and Tobit models, Applications.

References:

- Johnston, J. and Dinardo, J. (1997): Econometric Methods, 4th Edition, McGraw Hill International Edition.
- Maddala, G.S. (2005): Introduction to Econometrics, 3rd Edition, John Wiley & Sons (ASIA) Pvt. Ltd.
- Wooldridge, J.M. (2009): Introductory Econometrics: A Modern Approach, 4th Edition, Cengage Learning India Pvt. Ltd.
- Gujarati, D.N. (2004) Basic Econometrics. 4th Edition, McGraw-Hill Companies.
- Greene, W. (2012) Econometric Analysis. 7th Edition, Prentice Hall, Upper Saddle River.

MJH 7.1: Contemporary Development Issues and Practices-I (C)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Economics of Social Sector

Objective: The objectives of this course are to provide theoretical exposition and meaningful insights into social sector issues from policy perspectives in India.

Outcome: The students will be familiarized with social sector and economic development. Students would be able to draw a broad framework of analysis in order to achieve sustainable, inclusive and participatory development.

- **Concepts of Social Sector, Social Security and Safety-Net**

Concept of Social Sector and its Role in the Economy; Concept of Social Security, Assistance, Insurance, Welfare and Well-being.

Economic Security in Labour Market: Informal Activities and Unorganised Workforce, Migrant labour, Inequality in Workforce Participation with Age, Sex, Regional Variation, Effects of Flexibility and Globalization, ILO Norms for Decent Labour.

Food Security: Nutritional Status of Rural and Urban Households, Men and Women; Public Distribution System, WTO and Food Security.

Shelter and Habitat: Distribution of Population, Nature of Accommodations, Policy Appraisals; Legal, Political and Economic Implications of Eviction, Displacement and Ownership Right over Public and Private Property.

- **Different Approaches to Development**

Basic Needs, PQLI, Human Development and HDI, Human Resource Development, Gender Empowerment Measures and GDI, Entitlement and Capability: Role of State, Review and Appraisal of Policies, Urban Bias and Discrimination among Class, Caste, Gender and Differently-abled Individuals.

- **Education and Development**

Education as Human Capital Formation; Inclusion and Exclusion from Education; Demand and Supply of Education: Private versus Public, Determinants of Demand and Supply, Private Cost versus Social cost; Educational Planning and Impact with Emphasis on India: Resource Mobilization, Pricing and Subsidies, Effects of Educational Financing and Reforms.

- **Health Economics**

Interconnection of Poverty, Malnutrition and Health Burden; Economic Dimensions of Health Care Services: Demand and Supply, Public versus Private, PPP model; Evaluation of Health Policies and Reforms; Health Insurance and Market Imperfections.

- **Social Environment and Infrastructure**

Social Environment: Drinking Water, Sanitation, Electricity, Communication and Other Services; Work Environment: Crime, Safety and Security, Industrial Disputes, Accidents and Compensations; Allocations on delivering these services and Regional Imbalances.

- **Gender and Development**

Women as a Constituency in Development, Paradigm Shifts and Critiques; Participation of Women in Productive and Unproductive Works, Formal and Informal works; Women as Paid and Unpaid labour; Gender Discrimination and Wage Differentials in Workplace; Women Empowerment: Access and Control over Resources, Microfinance and SHGs.

▪ **Policy Issues on Unemployment, Poverty and Inequality**

Trends in Unemployment, Poverty and Inequality in India; Economic and Human Poverty; Marginalisation with Respect to Income and Wealth, Gender, Caste, Tribe, Religion, Region; Poverty and Inequality Measures and Indices; Policy Issues and Management.

References:

- Parikh, K.S. and Radhakrishna, R. (2002): India Development Report, Oxford Univ. Press.
- Prabhu, K.S. (2001): A Study of Two Indian States, Economic Reforms and Social Sector Development, Sage Publication.
- Prabhu, K.S. and Chatterjee, S (1993): Social Sector Expenditures and Human Development: A Study of Indian States, Department of Economic Analysis and Policy, RBI.
- I. L. O.: Introduction to Social Security (1984): Decent Labour, (2003) Geneva.
- Jhabvala, R (ed.) (2001): The Unorganised Sector, Sage.
- Dreze, J. and A.K. Sen (1989): Hunger and Public Action, Oxford Clarendon Press.
- Visaria, L: Mortality Trends and Health Transition.
- Krishna raj, M (ed.). Gender Population and Development, Oxford University Press.
- Kabeer, N. (1994): Reversed Realities: Gender Hierarchies in Development Thought, Verso.
- The Pratichi Education Report, the Probe Report on Education in India
- India Health Report, Oxford.
- World Bank Country Study (1991): Gender and Poverty in India.

MJH 7.1: Financial Economics-I (D)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course aims at providing a comprehensive introduction to the areas of Securities Analysis and Portfolio Management and also theory of intermediation.

Outcome: This course will help students to understand the highly formalised quantitative area of Securities analysis and financial intermediaries by using real world example.

1. Introduction

Meaning of security – Types of securities – Meaning of security analysis - sources of financial information

2. Time Value of Money

Time lines and notation- Future value of a single amount-Present value of a single amount- Future value of an annuity- Present value of an annuity- Present value of a perpetuity- Intra-year compounding and discounting

3. Valuation of Bonds

Overview of fixed-income securities – Risk factors in fixed-income securities (Systematic and unsystematic) – Bond analysis – Types of bonds – Major factors in bond rating process – Bond returns – Holding period return – Bond Valuation - Concept of yield – Current yield – Yield-to-Maturity – Price-yield relationship – Bond Pricing Theorems– Duration – Immunization- Term structure of interest rates and yield curve

4. Valuation of Stocks

Preference shares, equity shares- Constant Growth model, Two-stage Growth model, The Three-Phase Model, Valuation through P/E ratio, Free Cash Flow Valuation

5. Fundamental analysis

Economic analysis, industry analysis and company analysis.

6. Technical Analysis

Meaning and Assumptions of technical analysis – Trend lines and their significance – Market indicators – The Dow theory – Market indices – Mutual fund activity – Confidence level – Price indicators – Support and Resistance levels – Gap analysis -New high-low – The most active list – Moving averages of stock prices – Volume indicators- Price-volume relationship – Short selling – Breadth of market (Advance/Decline) – Odd lot trading – Oscillators – Relative Strength Index (RSI) Rate of Change (ROC) – Charting – Types of price charts – Price patterns.

7. Efficient Market Hypothesis (EMH)

Random Walk theory – Forms of EMH: Weak, Semi-strong and Strong – EMH and empirical findings – Implication of EMH on fundamental and technical analysis – Market inefficiencies.

8. Financial Intermediation

- i. A brief discussion of theories about necessity of financial intermediation in general.
- ii. Bank Intermediary-Special role of banks, Industrial Organization approaches to banking.
- iii. Bank runs, role of deposit insurance, role of banking regulations, role of prudential norms.

References:

- Lengwiler, Y. Micro foundations of Financial Economics, Princeton University press.
- Eichberger, J. and Herper, R.I., Financial Economics, Oxford University Press
- Kevin, S: Portfolio Management –Prentice Hall India
- Xavier, F. & Rochet., Microeconomics of Banking, 3rd edition, The MIT Press.
- Bebczuk, R.N. Asymmetric Information in Financial markets Introduction and Applications. Cambridge.
- Fischer & Jordan, Security Analysis and Portfolio Management, Prentice Hall India.

MJH 7.2: Applied Microeconomics-II (A)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with the principles on which the working of industry is based.

Outcome: This course will help students understand how the industries work in terms of theoretical models at the same time enabling them to understand and analyse the behaviour of industries in real life contexts.

- Markets and Strategies Perfect vs. Imperfect Competition; Market power and concentration
- Various types of Imperfect Competition:

- Monopolistic Competition
- Natural Monopoly
- Cournot
- Bertrand
- Stackelberg
- Sweezy
- Product Differentiation
 - Horizontal differentiation: Location models – Vertical differentiation: Quality choice

References:

- Ryan and Pearce: Microeconomics
- P. Bellaflame and M. Peitz: Industrial Organization and Market Structure
- Tirole: The Theory of Industrial Organization
- O. Shy: Industrial Organization

MJH 7.2: Econometric Theory and Application-II (B)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course tries to acquaint the students with various statistical tools and techniques to understand the dependency within a specific model.

Outcome: This course will help students to understand the dependency between variables using the proper tools and techniques. The students can able to deal with the dependency and the association between or among models.

- **Distributive Lag Model:** Concepts, Role and reason of time or lag, Ad Hoc estimation, Geometric Lag Approach- Koyck Transformation, Polynomial Lag, Adaptive Expectation Model, Partial Adjustment Model, Causality in Economics, Applications.
- **Generalized Methods of Moment:** Concepts, Moment Conditions, Properties, Estimations of optimum GMM, Applications.
- **Simultaneous Equation System:** General Specification, Simultaneous bias, Identification problem: over, under and exactly identified, Rules of Identification: Structural and Reduced form Approach, Order and Rank condition, Test of Simultaneity, Estimation Methods-Single Equation Estimation and System Estimation, Methods of estimation- indirect least Squares, instrumental variable and two- stage least squares methods, Applications.

References:

- Johnston, J. and Dinardo, J. (1997): *Econometric Methods*, 4th Edition, McGraw Hill International Edition.
- Maddala, G.S. (2005): *Introduction to Econometrics*, 3rd Edition, John Wiley & Sons (ASIA) Pvt. Ltd.

- Wooldridge, J.M. (2009): *Introductory Econometrics: A Modern Approach*, 4th Edition, Cengage Learning India Pvt. Ltd.
- Gujarati, D.N. (2004) *Basic Econometrics*. 4th Edition, McGraw-Hill Companies.
- Greene, W. (2012) *Econometric Analysis*. 7th Edition, Prentice Hall, Upper Saddle River.

MJH 7.2: Contemporary Development Issues and Practices-II (C)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Environment and Development

Objective: The objectives of this course are to explore and analyze the relationship between environment and economy, and to address environmental issues from economic perspectives in order to achieve sustainable development.

Outcome: The students will be able to comprehend the complexity of various dimensions of development and environment issues. They will be able to ground them in real life experiences.

- **Environment, Ecology and Economy**

Environment-Economy Relationship; Entropy and Laws of Thermodynamics; Classical Economics and Resource Scarcity as Limits to Growth; Approaches to Environment and Environmental Ethics: Political Ecology, Ecofeminism, Marxism and Ecology, Biocentrism, Ecocentrism, Deep Ecology, Gandhian View of Ecology, Social Ecology; Ethics of Biodiversity Conservation; Religion in Environmental Conservation; Environmentalism and Environmental Movements.

- **Different Types of Environmental Pollution and their Effects**

Different Types of Pollution and their Effects – Air, Water and Land.

Environmental Kuznets Curve Hypothesis and Critiques; Population, Human Health and Environment Linkages.

- **Environmental Regulations and Pollution Control Measures**

Market and Non-Market Based Approaches: Command and Control Approach; Pareto Efficiency, Market Failure and Externalities - Pigouvian Taxes; Property Rights and Coase Theorem; Tradable Permits; Standard Setting and Abatement; Defensive Expenditure.

- **Economic Valuation of Environmental Benefits and Costs**

Total Economic Value; Objective Standard-Based Valuation (Cost-Benefit Analysis); Subjective-Preference Based Valuation (Travel Cost Method, Hedonic Price Theory); Stated Preference Method of Valuation (Contingent Valuation Method).

- **Environment and Sustainable Development**

Concept, Indicators and Approaches to Sustainable Development; Weak Sustainability versus Strong Sustainability; Alternative Sustainability Rules: a.

Hartwick Approach, b. Daly's Operational Principles, c. Safe Minimum Standard, d. London School Approach; Ecological Economics Approach (Ecological Footprint); Uncertainty and Irreversibility; Resilience and Reversibility.

Integrated Environmental and Economic Accounting.

▪ **Global Environmental Issues and Initiatives**

WTO in International Trade and Environment; International Agreements and Conferences on Global Pollution Problems; Pollution-Haven and Pollution-Halo Hypotheses; Trade and Environment (Simple treatment); Economics of Climate Change (Major Aspects and Economic Solutions).

References:

- Bhattacharyya, R. N. (2001): *Environmental Economics: An Indian Perspective*, Oxford University Press.
- Hanley, N., Shroten, J. F. and White, B. (2001): *Introduction to Environmental Economics*, Oxford University Press.
- Kolstad, C. D. (2003): *Environmental Economics*, Oxford University Press.
- Pearce, D. W. and Turner, R. K. (1989): *Economics of Natural Resources and the Environment*, Johns Hopkins University Press.
- Perman, R., Ma, Y., McGilvary, J. and Common, M (1999): *Natural Resources and Environmental Economics*, 2nd Edition, Prentice Hall.
- Conrad, J. M. (1999): *Resource Economics*, Cambridge University Press.
- Conrad, J. M. and Clark, C. (1987): *Natural resource Economics: Notes and Problems*, Cambridge University Press.
- Fisher, A. (1981): *Resource and Environmental Economics*, Cambridge University Press.
- Copeland, B.R. and Taylor, M.S.: *Trade and the Environment: Theory and Evidence*, Princeton University Press.

MJH 7.2: Financial Economics-II (D)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to familiarise the students with the concepts and theories underlying financial management in a systematic way.

Outcome: This course will help students to analyse the financial decisions of the corporate sector and evaluate their implications in a comprehensive manner.

1. Introduction to Corporate Finance

What is Corporate Finance-The corporate firm-The goal of financial management

2. Analysis of Financial Statement

Basic Accounting - How to read balance sheets, profit and loss accounts and cash flow statements-Ratio Analysis

3. Fundamental Concepts

i. Risk and Return, Computation of return – Meaning and definition of risk – Types: (Systematic risk, Market risk, Purchasing power risk, Interest rate risk, Unsystematic risk, Business risk (Internal, External), Financial risk) – Minimising risk exposure; Risk measurement - Standard deviation – Meaning of Beta – Computation and interpretation – Use of beta in estimating returns

ii. Portfolio Analysis

Selection and Evaluation – Meaning of portfolio – Reasons to hold portfolio – Diversification analysis – Computation of Portfolio Return and Risk - Markowitz's Model – Assumptions – Specific model – Risk and return optimization Feasible set - Efficient frontier – Efficient portfolios – Leveraged portfolios – Corner portfolios – optimum portfolio - Sharpe's Single Index model – Portfolio evaluation measures – Sharpe's Performance Index – Treynor's Performance Index – Jensen's Performance Index.

iii. Capital Market Theory

CAPM theory: Assumptions – CAPM Model – Capital Market Line (CML) – Security Market Line (SML) – Evaluation of securities – Present validity of CAPM – Arbitrage Pricing Theory (APT) – Assumptions – APT model – two factor and multi-factor models; Principle of arbitrage, arbitrage portfolios.

iv. Capital Budgeting

Techniques of Capital budgeting- Risk analysis of capital budgeting

v. Estimation of Project Cash Flow

Elements of the cash flow stream- Basic Principles of cash flow Estimation-Cash flow illustrations-Cash flow for a replacement project-Biases in cash flow estimation-Adjustment for inflation

vi. Cost of capital

Cost of debt and preference-cost of equity-determining the proportions-weighted average cost of capital (WACC)-weighted marginal cost of capital-determining the optimal capital budget-divisional and project cost of capital-flotation cost and cost of capital- factors affecting the WACC

4. Capital Structure and Dividend Decision

i. Modigliani-Miller Hypothesis revisited; Agency Cost theories;

Theories relating to Asymmetric Information: Pecking order hypothesis and Signaling.

ii. Cash Dividends & Dividend Payments, Dividend Policy, Stock repurchase, Stock Splits & Stock Dividends

5. Working Capital Management

Net working Capital, Operating cycle & Cash Cycle, Alternative financing policies for current assets, Cash budget, Short-term borrowing, Cash & Liquidity Management

6. Corporate Valuation and Value Based Management (VBM)

Adjusted book value method, Stock and debt approach -Direct comparison approach- Discounted cashflow approach, Analyzing historical performance- Estimating the cost of capital- Forecasting performance- Guidelines for corporate valuation. Methods and key premises of VBM- Alcar approach –Stern Stewart approach-Boston- Consulting Group

approach.

7. Mergers, Acquisitions and Restructuring

Types for Transactions- Reasons for mergers- Mechanism of a merger- Cost and benefits of a merger- Exchange ratio in a merger- Purchase of a division or plant- Takeovers- Leveraged buyouts- Acquisition financing- Business alliances– Managing alliances- Managing acquisitions- Divestitures- Holding company.

References:

- Ross, S.A., R.W. Westfield & J.F. Jaffe, Corporate Finance, MacGraw Hill
- Ross, S.A., R.W. Westerfield and B.D. Jordan, Fundamentals of Corporate Finance, Tata McGraw Hill.
- Francis, J.C., Investments: Management & Analysis, McGraw-Hill
- Brearly & Myers Brealey, R.A. & S.C. Myers, Principles of Corporate Finance, Tata McGraw Hill
- Tirole, J., The Theory of Corporate Finance, Princeton University press.
- Chandra, P., Financial management theory and practice, 11th edition, Tata McGraw Hill.

MJH 7.3: Basic Data Analysis

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with a variety of statistical tools and techniques using computer applications.

Outcome: This course will help students to understand and to tabulate raw data, and analyse the various statistical characteristics of data using computer application. The students can able to analysis the data or variables for data explorations.

- **Basic Statistics:** Population census versus sample surveys, Random sampling, Frequency distribution and summary Statistics
- **Data Exploration:** Types of data, Sources of Data, Collection of Data, Data Transformation
- **Spread Sheet analysis:** Basic features of Spreadsheets; Data entry, Mathematical Functions, Financial functions, Statistical Functions, Creating simple Line, Bar and Pie charts
- **Structure of Data:** Cross sectional data, Time series data, Pooled cross section data, Panel data, Simple two variables regression, Multi-variable regression, Correlation, Multivariate analysis, cluster analysis using suitable packages.
- **Indian Official Statistics:** Various official sources of secondary data.

References:

- Goon, Gupta and Dasgupta – Basic Statistics

- Gupta and Kapoor – Fundamental of Mathematical Statistics.
- N. G. Das – Statistical Method (Part I & II)
- Goon, Gupta and Dasgupta – Fundamental of Statistics, Vol. I & II
- Data Analysis Using Microsoft Excel, STATA, EVIEWS etc
- NSS Reports
- National Family Health Survey
- RBI various publications

MJH 7.4: Research Methodology and Ethics

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The course aims to guide the students regarding research methodology, and publication ethics and misconducts.

Outcome: It is expected that the course will assist in the accomplishment of exploratory as well as result-oriented research studies.

▪ **Research Methodology**

- Philosophic View on Economic Inquiry - Methodological Approaches to Scientific Inquiry (Positivism, Phenomenological, Post-positivist), Major Paradigms of Economic Research (Individualism, Holism, Institutional individualism etc.), Ethical Considerations (Relation between Subject/Object of research).
- Research Perspectives and Approaches - Research Perspectives (Exploratory, Descriptive, Analytical, Predictive), Research Approaches (Qualitative/Quantitative; Applied/Basic; Deductive/Inductive).
- Research Process and Procedural Aspects.
- Research Design - i) Meaning, Need, Features and Important Concepts relating to Research Design (ii) Different Research Designs in cases of Exploratory Research Studies, Descriptive and Diagnostic Research Studies, Hypothesis-Testing Research Studies iii) Experimental Designs.
- Design of Sample Surveys - i) Sample Survey versus Census Survey ii) Sample Design, Sampling and Non-sampling Errors iii) Types of Sampling Design.
- Measurement and Scaling - i) Difference between Quantitative and Qualitative Data, Classification of Measurement Scales, Goodness of Measurement Scale, Sources of Error in Measurement ii) Scaling and Scale Classification Bases, Scaling Techniques.
- Collection and Preparation of Data - Procedure of Primary and Secondary Data Collection, and Data Analysis.
Functional Forms of Regression Model, Choice of Functional Forms, Structural Stability of Regression Model, Dummy Variables in Regression.
- Inequality Measures.
- Interpretation and Report Writing.

- **Research and Publication Ethics**

References:

- C. R. Kothari and G. Garg. (2023). Research Methodology: Methods and Techniques (5th edition), New Age International Publishers.
- C. Agarwal and V. Sharma (2022). Research Methodology in Economics (1st edition), Arjun Publishing House.
- A. Chiranjeev, R. Jacob and S.R. Natarajan (2013). Research Methodology in Economics, Gnanda Prakashan.

MN 7.4: Money and Banking

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to internalize the basics of money and banking.

Outcome: This course will help students understand the concept of money, its usage and the activities of the Banking system of India.

- **Money:** Barter economy; Evolution of Money; Money: Meaning and Definition; Types of Money; Monetary Systems; Functions of Money; Use of Money- Advantages and Disadvantages; Forms of Money as a means of Payment(s); Credit Money
- **Money Market:** Structure of Indian Money Market; Main Constituents; RBI and the Indian Money Market; Recent Trends Reforms in Indian Money Market
- **Indian Banking System:**
- **Central Banking and Monetary Policy:** Functions; goals, targets, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India.
- **Commercial Banks:** Main Functions; Analysis of the Balance Sheet of a Bank; Credit creation by Commercial Banks; Determinants of Total Bank Credit; Regional Rural Banks; Cooperative Banks, Changing role and structure; Banking sector reforms.

References:

- 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 Market, Oxford University Press, 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 of Compilation, 1998.
- R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).

Semester VIII (Honours)

MJH 8.1: Applied Microeconomics-III (A)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with the history of industry and the evolution of industrial policy making, at the same time highlighting the roles of advertising and information in the context of operation of industries.

Outcome: This course will help students develop a holistic understanding of how industry as an institutional structure has evolved and the corresponding evolution of the industrial policies and also understand and analyse the roles that advertising and information play in the context of designing of industrial strategies.

- **Industrialization:** The Industrial Revolution in Britain – Evolution of Indian industry – Small scale industries
- **Industrial policy post-Independence:** Policy shift; Globalization and reforms – Privatization and PSUs in India – Case study of some important industries in India: jute, textiles, iron and steel, pharmaceuticals, engineering goods and the IT sector
- **Competition Policy:** Historical perspective – Competition laws: Study of USA, EU and India – Cartels and tacit collusion – Horizontal mergers: profitability, efficiency, welfare effects – Mergers and entry – Vertical mergers- Empirical merger analysis
- Empirical analysis of product differentiation.
- **Advertising:** Price advertising decisions: Dorfman - Steiner model – Informative advertising - Persuasive advertising - Welfare effects
- **Product quality and information:** Asymmetric information problems – hidden information – hidden action – advertising and price signals – price signalling under imperfect competition

References:

- Cherunilam: Industrial Economics – An Indian Perspective
- Gokarn, Sen and Vaidya: The Structure of Indian Industry
- P. Bellaflame and M. Peitz: Industrial Organization and Market Structure

MJH 8.1: Econometric Theory and Application-III (B)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with a variety of statistical tools and techniques to deal with time series analysis.

Outcome: This course will help students to understand and analyse the various statistical characteristics based on time series analysis. The students will be able to understand the forecast of variables along with application of non-parametric approach.

- **Time Series Analysis:** Stochastic Process- Stationary and Non-Stationary Stochastic Process, Random Walk Model, Test for Stationarity- Unit Root Test, Different Statistics for Unit Root Test, Transforming nonstationary time series, Cointegration and Error Correction Mechanism, Applications
- **Forecasting:** Approach to Economic forecasting: Exponential Smoothing, Time Series Modelling: AR, MA, ARMA, ARIMA, Box-Jenkins Methodology, Vector Autoregression, Applications.
- **Introduction to Non-parametric Analysis: concepts, non-parametric test: concept,** data generation mechanism, empirical distribution, kernel estimation, bandwidth selection, estimation, nonparametric regression, Nadaraya-Watson method, inference. Applications.

References:

- Johnston, J. and Dinardo, J. (1997): *Econometric Methods*, 4th Edition, McGraw Hill International Edition.
- Maddala, G.S. (2005): *Introduction to Econometrics*, 3rd Edition, John Wiley & Sons (ASIA) Pvt. Ltd.
- Wooldridge, J.M. (2009): *Introductory Econometrics: A Modern Approach*, 4th Edition, Cengage Learning India Pvt. Ltd.
- Gujarati, D.N. (2004) *Basic Econometrics*. 4th Edition, McGraw-Hill Companies.
- Greene, W. (2012) *Econometric Analysis*. 7th Edition, Prentice Hall, Upper Saddle River.
- Enders, Walter. *Applied econometric time series*. John Wiley & Sons, 2008.

MJH 8.1: Contemporary Development Issues and Practices-III (C) **Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]** **4 Credits**

Aspects of Regional Development

Objective: The objectives of this course are to establish methodological and procedural foundations for a systematic comparison and improvement of a regional economy. The course also focuses on demography & development and trade & development for regional growth.

Outcome: Students will be acquainted with keys concepts, theories and analytical frameworks related to dynamics of labour market and causes of regional development in different socio-economic-political settings.

- **Features of Rural and Urban Economy**

Farm and Non-Farm Economy: Characteristic Features, Economic Activities, Interdependence and Linkages, Employment Opportunities and Pattern of

Employment, Entrepreneurship, Changing Patterns of Livelihood - A Structuralist Perspective; Trends in Farm and Non-Farm Employment in India.

Urban Settlements: Characteristics, Classification and Types; Trends in Urbanization in India.

Factors behind Settlement; Influence of Globalization on Urbanization in India.

- **Labour and Migration**

Changing Concept of Work and Labour: Labour in Formal Economy & Informal Economy, Gendered Labour; The Indian Labour Market: Exploring Current Debates; Labour Regulations in India; Trade Unions.

Migration and Labour Flows: Causes of Migration; Types of Migration: Internal and External, Seasonal, Circular and Step Migration; Directions of labour Flow: Rural-Rural, Rural-Urban, Urban-Rural, Urban-Urban - Cases with illustrations; Overview of Migration in India: Locating Migration in India's Development Story; State and Policy Response to Migration; Law and Ethics with Special Reference to Migration and Displacement

- **Demography and Development**

Components of Population Growth; Standard Theory of Demographic Transition; Population and Development – Malthus, Enke and Simon; Population and Resource Scarcity – Ehrlich-Commoner Model; Demographic Transition in India; Policy Approaches and Conflicts to Control Population.

Demography Techniques: Fertility, Mortality, Life Table, Methods of Population Projection

- **Location Theories and Regional Development**

Theories of Location Economics and Regional Development: Classical, Neo-Classical, New Economic Geographic Models of Regional Development; Spillovers and Regional Development; Labour Migration, Social Cohesion and Regional Development.

- **Trade and Development**

Foreign Direct Investments and Role of MNCs; Free Trade, Protectionism and Regional Trading Blocs; India in the New International Economic Order.

Trade, Labour Mobility and Changes in Wage Structure; Trade and Inequality; Welfare Implications of Trade.

▪ Governance for Regional Development

Management of Funds and Centre-State Relationship for Fund Flows; Working of Panchayats and Municipalities for Rural and Urban Development in India; NGOs in Social Development.

References

- Armstrong, Martin & Taylor, Jim. Regional Economics and Policy (3rd Edition), Wiley- Blackwell, July 2010, 448 pages, ISBN: 978-0-631-21713-8
- Azis, Iwan J. Regional Economics: Fundamental Concepts, Policies and Institutions, 184 pages, ISBN: 9789811213373
- Dore, Poornima and Narayan, Krishnan. Regional Economic Diversity: lessons from an Emergent India, 1st March 2023, Oxford Scholarship Online, 322 pages, ISBN: 978019013056
- Capello, Roberta. Regional Economics, Routledge, 2015, 344 pages
- McCann, Philip. Urban and Regional Economics, Routledge, September 8, 2011, 1544 pages, ISBN: 9780415487740
- Hoover, Edgar M. and Giarratani, Frank. An Introduction to Regional Economics, 2020, Regional Research Institute, West Virginia University
- Temple, Marion. Regional Economics, Red Globe Press London, 1994, 301 pages
- Ray, D. Development Economics, Oxford University Press, chapters 10, 14
- Sen, A. Poverty and Famines, chapters 1, 5, 6, and 10
- Visaria, P. and Basant, R. (ed.) (1994). *Non-Agricultural Employment in India: Trends and Prospects*, Sage Publications, New Delhi.
- Basant, R. (1998). "Economic Diversification in Rural Areas: An Overview" in Basant, R., Kumar, B.L. and Parthasarathy, R. (eds) *Non-Agricultural Employment in Rural India*, Rawat Publishers.
- Chambers, R. (1983). *Rural Development: Putting the last first*, Longman.
- Hye, H. A. (1986). *Integrated Approaches to Rural Development*, Sterling Publishers.
- Haggblade S., Hazell, B. R. and Reardon, T. (2007). *Transforming the Rural Nonfarm Economy*, The John Hopkins University Press.
- Rakshit, M. (1982). *The Labour Surplus Economy*, Macmillan, New Delhi and Humanities Press, New Jersey.
- Basu, K. 'Agrarian Questions', Oxford University Press.
- Basu, K. 'Analytical Development Economics: The Less Developed Economy Revisited', Oxford University Press.
- Basu, K. (1984). *The Less Developed Economy: A Critique of Contemporary Theory*, Oxford University Press.
- Ellis, F. "Peasant Economics: Farm Households and Agrarian Development", Cambridge University Press.

MJH 8.1: Financial Economics-III (D)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to equip students in understanding how to make financial derivatives theory work in practice to protect the firm from financial risk.

Outcome: This course will help students to develop the ability to provide wise financial counsel for protecting the firms from inappropriate financial risk.

1. Introduction

Derivatives – Meaning, Types, Uses, Dangers; Types of Traders - Hedger, Speculator, Arbitrageur; Derivatives Markets in India- Overview

2. Forward & amp; Futures

Forward- Types, Pricing, Settlement, Arbitrage Argument; Futures-Types, Pricing, Settlement, Hedging with Commodity Futures, Arbitrage with Index Futures; Forward vs. Future contracts

3. Option

Option Types, Option Positions, Payoffs, Trading Strategies – Covered, Combination, Spread; Properties of Stock Options- Option Pricing: Factor affecting Option Prices, Upper and Lower Bounds of Option Prices, Put-Call Parity, Effect of Dividends; Pricing- Risk Neutral Valuation, Binomial Model and Black-Scholes Model; Exotic Options.

4. Swaps

Types- Interest Rate Swap, Currency Swap and Equity Swap; Valuation; Risk Management with Swaps

5. Managing Market Risk

Greeks – Delta, Theta, Gamma, Vega, Rho, Relationship between Delta, Theta and Gamma; Value at Risk – Concepts, Methods; Portfolio Insurance

6. Credit Risk and Credit Derivatives

Concepts, Types- Credit Default Swaps (CDS) and Collateralized Debt Obligations (CDO); Credit Default Swap- Indian Scenario

7. Other Derivatives

Commodity Derivatives; Interest Rate Derivatives and Euro Dollar Derivatives

References:

- John C. Hull and S Basu, Options, Futures and Other Derivatives, Pearson (2018).
- N. R. Parasuraman, Fundamentals of Financial Derivatives, Wiley India
- S. K. Parameswaran, Fundamentals of Options, TATA McGraw Hill
- Rajiv Srivastava, Derivatives and Risk Management, Oxford University Press

MJH 8.2: Applied Microeconomics-IV (A)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with the pricing strategies, experience goods, issues related to R&D and intellectual property and also the basics of auction and mechanism design theories.

Outcome: This course will help students understand the pricing strategies of various firms, experience goods, issues related to R&D and intellectual property and also the basics of auction and mechanism design theories.

- **Pricing Strategies and Market Segmentation:** Group pricing and personalized pricing – menu pricing – monopoly menu pricing – quality and quantity-based menu pricing - bundling
- **Marketing Tools for experience goods Warranties:** Branding; Reputation and Competition
- **R&D and Intellectual Property:** Innovation and R&D – Market structure and incentive to innovate – Patents – Optimal patent length and breadth, Licensing; Intellectuals property rights – TRIPS - Patent policy in India
- **Markets with network effect:** Direct and indirect effects – switching costs
- **Introduction to Auction Theory:** Types of Auctions - Open vs. Sealed bid, Single stage vs. Sequential
- **Basics of Mechanism Design**

MJH 8.2: Econometric Theory and Application-IV (B)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with a variety of statistical tools and techniques to deal with the composition of cross section and time series data along with multivariate problems.

Outcome: This course will help students to understand and apply the various statistical tools and techniques for the analysis of the variation of cross section and time series models. The course will also help students to handle multivariate problems and index constructions.

- **Introduction to Panel Data Analysis:** Meaning and Advantages, The Constant Coefficients Model, LSDV model, The Fixed Effects Model, The Random Effects Model, Hausman Specification Test, Applications.
- **Dynamic Panel Model:** Concept, Properties, Estimations: Instrumental Variable Method, Two Stage Least Square Estimations, Applications.
- **Multivariate Analysis:** Concepts, Principal Component Analysis, Factor Analysis, Cluster Analysis. Applications.

References:

- Johnston, J. and Dinardo, J. (1997): *Econometric Methods*, 4th Edition, McGraw Hill International Edition.
- Maddala, G.S. (2005): *Introduction to Econometrics*, 3rd Edition, John Wiley & Sons (ASIA) Pvt. Ltd.
- Wooldrige, J.M. (2009): *Introductory Econometrics: A Modern Approach*, 4th Edition, Cengage Learning India Pvt. Ltd.
- Gujarati, D.N. (2004) *Basic Econometrics*. 4th Edition, McGraw-Hill Companies.
- Greene, W. (2012) *Econometric Analysis*. 7th Edition, Prentice Hall, Upper Saddle River.

MJH 8.2: Contemporary Development Issues and Practices-IV (C) **Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]** **4 Credits**

Management of Natural Resources

Objective: The objectives of this course are to develop a rigorous understanding of the concepts and theories of natural resource management, and an analytical mind for sustaining ecological diversity so as to offer resources for upcoming generations.

Outcome: Students will gain an overview of key concepts, theories and analytical frameworks related to natural resource governance. They will be able to critically evaluate governance approaches in different ecological contexts from a variety of perspectives.

- **Fundamental Concepts**

Private, Common Property and Open Access Resources; Renewable versus Non-Renewable Resources; Resource Taxonomy; Carrying Capacity; Optimal Extraction of Exhaustible and Renewable Resources; Backstop Technology.

- **Degradation of Natural Resources and its Effects**

Degradation of Land Resources, Water Resources (Groundwater and Surface Water), Forests, Fisheries and Marine Resources, Mineral Resources, and their Effects; Environmental Impacts of Various Forms of Energy Use; Environmental Hazards like Flood, Drought, Earthquake, Storms.

Common Pool Resources and Property Rights; Tragedy of Commons; Climate Change and Migration; Inequality in Resource Availability and Vulnerability; Climate Change, Vulnerability and Unsustainable Livelihoods.

- **Displacement, Dispossession and Development Debates:** (Case Study Based at National and International Levels).

▪ **Sustainability of Economic Development**

Demographic Expansion and Loss of Biodiversity; Concept of Island Biogeography; Concept of Co-evolution; Protecting Biodiversity and Problem of Noah's Ark; Biodiversity Valuation; Importance of Biodiversity Conservation.

Evolution of the Concept of Sustainable Development; Common Property Resources, Developing Countries and Sustainable Development; Environmental Education and Sustainable Development; Role of Information in the Health of Environment; Local Knowledge in the Environment-Development Discourse (Case Study).

Millennium Development Goals and Sustainable Development Goals.

▪ **Economics of Natural Resource Management Policies**

Designing, Monitoring and Enforcement at State Level (Indian Examples); Community-Based Natural Resource Management.

Negative International Externalities and Global Concerns: Climate Change and Mitigation, Climate Change and Adaptation; Climate Finance and Carbon Finance; Green Growth and Green Jobs.

▪ **Circular Economy Approach in Resource Management**

Introduction to Waste and Circular Economy; Difference between Linear Economic Approach and Circular Economic Approach; Sources of Wastes; Institutional and Organisational Considerations around Waste Management; Waste Prevention and 7Rs Principle; Circular Economy and Economic Benefits; Circular Economy and Social Benefits.

References:

- Bhattacharyya, R. N. (Ed.) (2001): *Environmental Economics: An Indian Perspective*, Oxford University Press.
- Vaidyanathan, A. (2006): *India's Water Resources: Contemporary Issues on Irrigation*, Oxford University Press.
- Conrad, J. M. (1999): *Resource Economics*, Cambridge University Press.
- Conrad, J. M. and Clark, C. (1987): *Natural resource Economics: Notes and Problems*, Cambridge University Press.
- Fisher, A. C. (1981): *Resource and Environmental Economics*, Cambridge University Press.
- Chiang, A. C. (1992): *Elements of Dynamic Optimization*, McGraw-Hill.
- Hanley, N., Shogren, J. F. and White, B. (2001): *Introduction to Environmental Economics*, Oxford University Press.
- Hanley, N., Shogren, J. F. and White, B. (2007): *Environmental Economics: In Theory and Practice*, Palgrave Macmillan.
- Brears, R. C. (2018): *Natural resource Management and the Circular Economy*, Palgrave Macmillan Cham.

- Ewijk, S. V. and Stegemann, J. (2023): An Introduction to Waste Management and Circular Economy, UCL Press.
- Dasgupta, P. (1996): The economics of the environment. *Environment and Development Economics*, 1(4), pp. 387-428.
- Chopra, K. and Dasgupta, P. (2008): Nature of household dependence on common pool resources: An empirical study. *Economic and Political Weekly*, 43(8), pp. 58-66.
- Jodha, N. S. (1986): Common property resources and rural poor in dry regions of India. *Economic and Political Weekly*, 21(27), July, pp. 1169-1181.
- Adhikari, B. (2005): Poverty, property rights and collective action: understanding the distributive aspects of common property resource management. *Environment and Development Economics*, 10(1), pp. 7-31.
- Ashley, C. and Carney, D. (1999): *Sustainable Livelihoods: Lessons from Early Experience*. London: Department for International Development (DFID).
- Agarwal, B. (1990): Social security and the family: Coping with seasonality and calamity in rural India. *Journal of Peasant Studies*, 17(3), pp. 341-412.
- Ellis, F. (2000): The Determinants of Rural Livelihood Diversification in Developing Countries. *Journal of Agricultural Economics*, 51(2), pp. 289-302.
- Ellis, F. (1998): Household strategies and rural livelihood diversification. *The Journal of Development Studies*. 35(1): 1-38.
- Adhikari, B., Salvatore, D. F. and Lovett, J. C. (2004): Household characteristics and forest dependency: evidence from common property forest management in Nepal. *Ecological Economics*, 48(2), pp. 245-257.
- India State of Forest Reports. Forest Survey of India, Ministry of Environment, Forest and Climate Change, GoI.
- National Fisheries Policy. Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, GoI.
- National Mineral Policies. Ministry of Mines, GoI.
- National Forest Policies. Ministry of Environment, Forest and Climate Change, GoI.
- Policies and Acts of Ministry of Rural Development, GoI.
- Reports of the Ministry of New and Renewable Energy, GoI.
- Reports of the Ministry of Jal Shakti, GoI.

MJH 8.2: Financial Economics-IV (D)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course aims at familiarising students with the knowledge of international financial development on an overall macroeconomic level.

Outcome: This course will help students understand and analyse the international financial activities and management.

1. International Monetary and Financial System:

History of Monetary System—Gold standard, Gold exchange standard, Bretton woods system and Post Bretton woods system, IMF and the World Bank; European monetary

system – Meaning and scope, recent developments

2. Balance of Payments and International Linkages:

Balance of payments and its components; International flow of goods, services and capital; Coping with current account deficit

3. Exchange Rate Mechanism:

Definition of Foreign Exchange; Exchange Rate Quotation: Two Way Quote; Buying/Selling (Bid/Offer or Ask) Quotes and Spread; Direct and Indirect Quotes; Inverse Quote; Inter Bank and Merchant Rates; TT, Bill, TC, Cash/Currency Rates; Value/Settlement Date; Cash/TOD, TOM; Cross Rates; 2 Point and 3 Point Arbitrage; Exchange Arithmetic Nominal, Real and Effective Exchange Rates; Determination of Exchange Rate in Spot market and Forward Market; Factors Influencing Exchange Rate; Fundamentals of Central Bank Intervention; Demand and Supply of Foreign Exchange; Purchasing Power Parity; Effect of Inflation; Fisher's Equation; Interest Rate Parity; Covered Interest Arbitrage

4. Foreign Exchange Market:

Foreign Exchange Market – Features, Participants, Cash, Spot and Forward Market; OTC Market

5. Foreign Exchange Risk Management:

Transaction exposure, Translation exposure and Operating exposure; Management of Exposure: Hedging of Transaction, Translation and Operating Exposure

6. Hedging and Speculation:

Hedging and Speculation via Forward market, Futures Market and Option Market

7. International Financial Market:

Eurodollar and Eurocurrency Markets and Instruments

8. International Investment Decisions:

Foreign Direct Investment, International Capital Budgeting, International Portfolio Investment

References:

- Eikeman, Stonehill & Moffett, Multinational Business Finance by Tata McGraw Hill
- Alan C. Shaprio, Multinational Financial Management, Wiley
- V. Sharan, International Financial Management, PHI
- Prakash G. Apte, , Tata McGraw Hill
- V. K. Bhalla, International Financial Management, Anmol publication, New Delhi.
- Siddaiah, International Financial Management, Pearson
- Jeff Madura, International Financial Management by. Asian Books Pvt Ltd, New Delhi.

MJH 8.3: Behavioural Economics
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course makes an attempt to introduce students to key experiments in economics, highlighting their implications for economic theory and real-world data, equip the students with skills to design and conduct economic experiments with real incentives, effective control groups, and ethical standard and develop students' ability to critically evaluate recent experimental economics research.

Outcome: The students will understand and learn to explain foundational experiments in experimental and behavioural economics, design and propose a rigorous economic experiment with justified significance and methodology and critically assess contemporary experimental economics research and its relevance to economic theory.

- **Introduction to Experimental Economics**
 - Overview of Experimental and Behavioral Economics
 - Historical Context and Evolution
 - Key Experiments and Findings in Various Fields of Economics
- **Basics of Experimental Design**
 - Principles of Experimental Design
 - Real Incentives and Control Groups
 - Random Assignment and Ethical Considerations
- **Experimental Design – Practical Session**
 - Developing Hypotheses and Experimental Procedures
 - Writing Sample Subject Instructions
 - Designing an Experiment – Workshop
- **Behavioral Game Theory – Introduction**
 - Basic Concepts in Game Theory
 - Behavioral Insights in Game Theory
 - Key Behavioral Experiments in Game Theory
- **Classic Experiments in Behavioral Economics**
 - Ultimatum Game and Dictator Game
 - Public Goods Game and Trust Game
 - Coordination Games and Market Games
- **Experimental Methods and Applications**
 - Laboratory vs. Field Experiments
 - Case Studies of Experimental Applications
 - Designing Field Experiments

- **Prospect Theory and Decision Making**
 - Fundamentals of Prospect Theory
 - Experimental Evidence for Prospect Theory
 - Applications and Implications
- **Social Preferences and Experiments**
 - Altruism, Fairness, and Reciprocity
 - Experimental Methods for Studying Social Preferences
 - Social Dilemmas and Public Goods
- **Time Preferences and Intertemporal Choice**
 - Time Discounting and Present Bias
 - Experimental Evidence on Time Preferences
 - Implications for Economic Behaviour
- **Risk Preferences and Uncertainty**
 - Ambiguity Aversion and Ellsberg Paradox
 - Allais Paradox and Experimental Findings
 - Risk Preferences in Economic Decision Making
- **Market Experiments**
 - Experimental Economics in Market Settings
 - Auction Experiments
 - Market Design and Experimental Insights
- **Nudge Theory and Behavioral Interventions**
 - Introduction to Nudge Theory
 - Designing Behavioral Interventions
 - Case Studies and Applications

References:

- Camerer (2003), Behavioral Game Theory, Princeton University Press.
- Dharm (2016), The Foundations of Behavioural Economic Analysis, Oxford University Press.
- Holt (2019), Markets, Games and Strategic Behavior: An Introduction to Experimental Economics, Princeton University Press. (Holt; Undergraduate text)
- Capra, Croson, Rigdon and Rosenblat ed. (2020), Handbook of Experimental Game Theory, Edward Elgar Publishing.
- Kagel and Roth, ed. (1995/2016), Handbook of Experimental Economics, Vol. 1 and Handbook of Experimental Economics, Vol. 2, Princeton University Press (HEE1/2).
- Thaler, R. H. (2015). *Misbehaving: the making of behavioral economics*. First edition. New York, W.W. Norton & Company.
- Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.

MJH 8.4: History of Economic Thought
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to define critically the development of economic ideas, searching into their origins, interrelations, and, in some cases, their results.

Outcome: The students will be able to understand the ebb and flow in dominant paradigms. A deeper understanding of recent research activity can be created.

▪ **Introduction to the History of Economic Ideas**

History of Economic Thought: Introduction; Methodological Approach; Aim, Objectives.

▪ **Mercantilism**

Power vs. Plenty in Mercantilism; Mercantilist as Protectionist and Monetary System; Theory of Growth and Employment; Mercantilist and Underdeveloped Nations

▪ **Physiocracy**

Social Philosophy; Economic Analysis; Quesnay's Tableau Economies; Economic Growth and Economic Policy; Physiocrats and Underdeveloped Nations

▪ **Classical Economics**

Overview; Classical Theory of Growth and Underdeveloped Countries; Adam Smith: As Father of Economics; The Philosophy of Naturalism and Optimism and its Practical Implications; The Doctrine of Laissez-faire; The Theory of Distribution; T. R. Malthus; The Principle of Population; David Ricardo: The Economic Method; The Theory of Distribution; Profits and the Fundamental Theorem of Distribution; The Theory of Value- Search for an Invariable Measure; on Economic Policy; J.S. Mill: The Economic Method; Political Philosophy and Economic Policy- Utilitarianism, Economic Role of Government; The Principles of Political Economy- Laws of Production and Distribution; Mill and Underdeveloped Countries; Karl Marx: Marxian philosophy- Dialectical Materialism; Historical Materialism; Mode of Production; The Labour Theory of Value-Determination of Exchange Value; The Theory of Surplus Value- Rate of Surplus Value; The Theory of Prices of the Transformation Problem; The Theory of Development; Immiserization of Proletariat and Wage Theory; The Falling Rate of Profit; The Reproduction Schema

References:

- Backhaus, J. G. (2011). Handbook of The History of Economic Thought, Springer.
- Blaug, M. (1997). Economic Theory in Retrospect. Cambridge University Press.
- Ekelund. Jr. R.B. and Hérbert. R. F. (2013). "A History of Economic Theory and Method" Wavelength Press. Guide, C. and Rist, C., A History of Economic Doctrine.
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- Heilbronn, R.L. (2011). The Worldly Philosophers: The lives, times and ideas of the great economic thinkers, Simon and Schuster.
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- Screpanti, E., & Zamagni, S. (2005). An outline of the history of economic thought, OUP Oxford.
- Schumpeter, J. A. (2006). "History of Economic Analysis", Routledge.
- Roll, Eric. (1962). A History of Economic Thought, Faber and Faber Ltd.

MN 8.1: Preliminary Issues in Social Sector

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The prime objective of this course is to familiarize students with the Economics of Social Sector.

Outcome: The students will be able to understand the interplay between social processes and economic activities within a society at the end of this course.

▪ **Introduction to the Social Sector**

Concept of social sector and its role in the economy; Importance of economy-society interface; Issues on economic growth and development; Different Approaches to development; social security and safety net (economic security with respect to food and nutrition, shelter and habitat).

▪ **Education and Development**

Role of education in development; Some basic concepts like literacy rate, enrolment ratio, rate of school dropouts, etc; Structure and role of private and public educational institutions; Class and gender gap in education with reference to the Indian scenario.

▪ **Health Economics**

Notion and impact of health burden; Basic health indices like life expectancy at birth, maternal mortality, infant mortality, etc. and their outcomes; Infrastructure of private and public health care sectors; Issues on availability and affordability of health care services in the Indian context.

- **Issues on Unemployment, Poverty and Inequality**
Notions of formal and informal sector; The unorganized working poor; Concept of decent labour; Rising trends of unemployment, inequality in income and asset distributions, and poverty in India.
- **Population and Development**
Standard theory of demographic transition; population growth versus economic development in India.
- **Gender and Social Identities**
Gender Discrimination and Wage Differentials in Workplace; Women Empowerment: Access and Control over Resources, Microfinance and SHGs.

References:

- Parikh, K.S. and Radhakrishna, R. (2002). India Development Report, Oxford Univ. Press.
- Prabhu, K.S. (2001). A Study of Two Indian States, Economic Reforms and Social Sector Development, Sage Publication.
- Prabhu, K.S. and Chatterjee, S (1993). Social Sector Expenditures and Human Development: A Study of Indian States, Department of Economic Analysis and Policy, RBI.
- I. L. O. Introduction to Social Security (1984). Decent Labour, (2003) Geneva.
- Jhabvala, R (ed.) (2001). The Unorganised Sector, Sage.
- Dreze, J. and A.K. Sen (1989). Hunger and Public Action, Oxford Clarendon Press.
- Visaria, L. Mortality Trends and Health Transition.
- Krishna raj, M (ed.). Gender Population and Development, Oxford University Press.
- Kabeer, N. (1994). Reversed Realities: Gender Hierarchies in Development Thought, Verso.
- The Pratichi Education Report, the Probe Report on Education in India
- India Health Report, Oxford.
- World Bank Country Study (1991). Gender and Poverty in India.

Semester VII (Research)

MJR 7.1: Applied Microeconomics-I (A)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course aims at familiarising students with Game Theoretic tools and techniques, along with some applications.

Outcome: This course will help students understand the strategic behaviour of various economic agents through the lens of Game Theory and also enable them to analyse real life behaviour of economic agents under various contingencies.

- Games under Different Information Structures: Complete vs. Incomplete Information
- Static non-cooperative games under complete information: Some Applications
 - Tragedy of the Commons
 - Coordination Game
 - Final Offer Arbitration
 - Hotelling's Location Game
- Dynamic non-cooperative games under complete information
 - Perfect and Imperfect Information Games
 - Backwards Induction and Subgame Perfect Nash Equilibrium
 - Games of Perfect and Imperfect Recall: Behaviour Strategy
 - Repeated games – Folk theorem
 - Applications
 - Rubinstein's Sequential Bargaining Game
 - Repeated Prisoner's Dilemma: Finite and Infinite Repetitions
 - War of Attrition
 - Bank Runs
 - Tournaments
- Games under incomplete information
 - Static games – Bayesian Nash Equilibrium – Applications
 - Dynamic games – Perfect Bayesian Equilibrium – Signaling games - Applications

References:

- Robert Gibbons: A Primer in Game Theory
- Martin J. Osborne: Game Theory
- Steven Tadelis: Game Theory - An Introduction
- Fudenberg and Tirole: Game Theory
- Osborne and Rubinstein: Game Theory

MJR 7.1: Econometric Theory and Application-I (B)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]

4 Credits

Objective: This course makes an attempt to familiarise students with a variety of statistical tools and techniques to understand the specification of models.

Outcome: This course will help students to understand the specification of model and how to deal with qualitative variables (including both dependent and independent) for model building.

- **Specification of Model and Diagnostic Test:** Model selection criteria, Types of specification error, Underfitting and overfitting model, Test of specification errors, Error Measurement in the dependent and independent variables, Incorrect specification of the stochastic error term, Nested and Non-nested models. Model selection criteria.
- **Dummy Variable:** Concept, ANOVA models dummy variables, The ANCOVA models, Chow Test, Interaction effects using dummy variables, Dummy variable trap, Applications.
- **Qualitative Response Regression Models:** Concepts, Linear Probability Model, Applications of LPM, Problem of Truncation, Latent Variable Modelling: Estimation of Logit, Probit and Tobit models, Applications.

References:

- Johnston, J. and Dinardo, J. (1997): Econometric Methods, 4th Edition, McGraw Hill International Edition.
- Maddala, G.S. (2005): Introduction to Econometrics, 3rd Edition, John Wiley & Sons (ASIA) Pvt. Ltd.
- Wooldridge, J.M. (2009): Introductory Econometrics: A Modern Approach, 4th Edition, Cengage Learning India Pvt. Ltd.
- Gujarati, D.N. (2004) Basic Econometrics. 4th Edition, McGraw-Hill Companies.
- Greene, W. (2012) Econometric Analysis. 7th Edition, Prentice Hall, Upper Saddle River.

MJR 7.1: Contemporary Development Issues and Practices-I (C)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Economics of Social Sector

Objective: The objectives of this course are to provide theoretical exposition and meaningful insights into social sector issues from policy perspectives in India.

Outcome: The students will be familiarized with social sector and economic development. Students would be able to draw a broad framework of analysis in order to achieve sustainable, inclusive and participatory development.

- **Concepts of Social sector, Social Security and Safety-Net**

Concept of Social Sector and its Role in the Economy; Concept of Social Security, Assistance, Insurance, Welfare and Well-being.

Economic Security in Labour Market: Informal Activities and Unorganised Workforce, Migrant labour, Inequality in Workforce Participation with Age, Sex, Regional Variation, Effects of Flexibility and Globalization, ILO Norms for Decent Labour.

Food Security: Nutritional Status of Rural and Urban Households, Men and Women; Public Distribution System, WTO and Food Security.

Shelter and Habitat: Distribution of Population, Nature of Accommodations, Policy Appraisals; Legal, Political and Economic Implications of Eviction, Displacement and Ownership Right over Public and Private Property.

- **Different Approaches to Development**

Basic Needs, PQLI, Human Development and HDI, Human Resource Development, Gender Empowerment Measures and GDI, Entitlement and Capability: Role of State, Review and Appraisal of Policies, Urban Bias and Discrimination among Class, Caste, Gender and Differently-abled Individuals.

- **Education and Development**

Education as Human Capital Formation; Inclusion and Exclusion from Education; Demand and Supply of Education: Private versus Public, Determinants of Demand and Supply, Private Cost versus Social cost; Educational Planning and Impact with Emphasis on India: Resource Mobilization, Pricing and Subsidies, Effects of Educational Financing and Reforms.

- **Health Economics**

Interconnection of Poverty, Malnutrition and Health Burden; Economic Dimensions of Health Care Services: Demand and Supply, Public versus Private, PPP model; Evaluation of Health Policies and Reforms; Health Insurance and Market Imperfections.

- **Social Environment and Infrastructure**

Social Environment: Drinking Water, Sanitation, Electricity, Communication and Other Services; Work Environment: Crime, Safety and Security, Industrial Disputes, Accidents and Compensations; Allocations on delivering these services and Regional Imbalances.

- **Gender and Development**

Women as a Constituency in Development, Paradigm Shifts and Critiques; Participation of Women in Productive and Unproductive Works, Formal and Informal works; Women as Paid and Unpaid labour; Gender Discrimination and Wage Differentials in Workplace; Women Empowerment: Access and Control over Resources, Microfinance and SHGs.

- **Policy Issues on Unemployment, Poverty and Inequality**

Trends in Unemployment, Poverty and Inequality in India; Economic and Human Poverty; Marginalisation with Respect to Income and Wealth, Gender, Caste, Tribe, Religion, Region; Poverty and Inequality Measures and Indices; Policy Issues and Management.

References:

- Parikh, K.S. and Radhakrishna, R. (2002): India Development Report, Oxford Univ. Press.
- Prabhu, K.S. (2001): A Study of Two Indian States, Economic Reforms and Social Sector Development, Sage Publication.
- Prabhu, K.S. and Chatterjee, S (1993): Social Sector Expenditures and Human Development: A Study of Indian States, Department of Economic Analysis and Policy, RBI.
- I. L. O.: Introduction to Social Security (1984): Decent Labour, (2003) Geneva.
- Jhabvala, R (ed.) (2001): The Unorganised Sector, Sage.
- Dreze, J. and A.K. Sen (1989): Hunger and Public Action, Oxford Clarendon Press.
- Visaria, L: Mortality Trends and Health Transition.
- Krishna raj, M (ed.). Gender Population and Development, Oxford University Press.
- Kabeer, N. (1994): Reversed Realities: Gender Hierarchies in Development Thought, Verso.
- The Pratichi Education Report, the Probe Report on Education in India

- India Health Report, Oxford.
- World Bank Country Study (1991): Gender and Poverty in India.

MJR 7.1: Financial Economics-I (D)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at providing a comprehensive introduction to the areas of Securities Analysis and Portfolio Management and also theory of intermediation.

Outcome: This course will help students to understand the highly formalised quantitative area of Securities analysis and financial intermediaries by using real world example.

1. Introduction

Meaning of security – Types of securities – Meaning of security analysis - sources of financial information

2. Time Value of Money

Time lines and notation- Future value of a single amount-Present value of a single amount- Future value of an annuity- Present value of an annuity- Present value of a perpetuity- Intra-year compounding and discounting

3. Valuation of Bonds

Overview of fixed-income securities – Risk factors in fixed-income securities (Systematic and unsystematic) – Bond analysis – Types of bonds – Major factors in bond rating process – Bond returns – Holding period return – Bond Valuation - Concept of yield – Current yield – Yield-to-Maturity – Price-yield relationship – Bond Pricing Theorems– Duration – Immunization- Term structure of interest rates and yield curve

4. Valuation of Stocks

Preference shares, equity shares- Constant Growth model, Two-stage Growth model, The Three-Phase Model, Valuation through P/E ratio, Free Cash Flow Valuation

5. Fundamental analysis

Economic analysis, industry analysis and company analysis.

6. Technical Analysis

Meaning and Assumptions of technical analysis – Trend lines and their significance – Market indicators – The Dow theory – Market indices – Mutual fund activity – Confidence level – Price indicators – Support and Resistance levels – Gap analysis -New high-low – The most active list – Moving averages of stock prices – Volume indicators- Price-volume relationship – Short selling – Breadth of market (Advance/Decline) – Odd lot trading – Oscillators – Relative Strength Index (RSI) Rate of Change (ROC) – Charting – Types of price charts – Price patterns.

7. Efficient Market Hypothesis (EMH)

Random Walk theory – Forms of EMH: Weak, Semi-strong and Strong – EMH and empirical findings – Implication of EMH on fundamental and technical analysis – Market inefficiencies.

8. Financial Intermediation

- i. A brief discussion of theories about necessity of financial intermediation in general.
- ii. Bank Intermediary-Special role of banks, Industrial Organization approaches to banking.
- iii. Bank runs, role of deposit insurance, role of banking regulations, role of prudential norms.

References:

- Lengwiler, Y. Micro foundations of Financial Economics, Princeton University press.
- Eichberger, J. and Herper, R.I., Financial Economics, Oxford University Press
- Kevin, S: Portfolio Management –Prentice Hall India
- Xavier, F. & Rochet., Microeconomics of Banking, 3rd edition, The MIT Press.
- Bebczuk, R.N. Asymmetric Information in Financial markets Introduction and Applications. Cambridge.
- Fischer & Jordan, Security Analysis and Portfolio Management, Prentice Hall India.

MJR 7.2: Applied Microeconomics-II (A)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with the principles on which the working of industry is based.

Outcome: This course will help students understand how the industries work in terms of theoretical models at the same time enabling them to understand and analyse the behaviour of industries in real life contexts.

- Markets and Strategies Perfect vs. Imperfect Competition; Market power and concentration
- Various types of Imperfect Competition:
 - Monopolistic Competition
 - Natural Monopoly
 - Cournot
 - Bertrand
 - Stackelberg
 - Sweezy
- Product Differentiation
 - Horizontal differentiation: Location models – Vertical differentiation: Quality choice

References:

- Ryan and Pearce: Microeconomics
- P. Bellaflame and M. Peitz: Industrial Organization and Market Structure
- Tirole: The Theory of Industrial Organization
- O. Shy: Industrial Organization

MJR 7.2: Econometric Theory and Application-II (B)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course tries to acquaint the students with various statistical tools and techniques to understand the dependency within a specific model.

Outcome: This course will help students to understand the dependency between variables using the proper tools and techniques. The students can able to deal with the dependency and the association between or among models.

- **Distributive Lag Model:** Concepts, Role and reason of time or lag, Ad Hoc estimation, Geometric Lag Approach- Koyck Transformation, Polynomial Lag, Adaptive Expectation Model, Partial Adjustment Model, Causality in Economics, Applications.
- **Generalized Methods of Moment:** Concepts, Moment Conditions, Properties, Estimations of optimum GMM, Applications.
- **Simultaneous Equation System:** General Specification, Simultaneous bias, Identification problem: over, under and exactly identified, Rules of Identification: Structural and Reduced form Approach, Order and Rank condition, Test of Simultaneity, Estimation Methods-Single Equation Estimation and System Estimation, Methods of estimation- indirect least Squares, instrumental variable and two- stage least squares methods, Applications.

References:

- Johnston, J. and Dinardo, J. (1997): Econometric Methods, 4th Edition, McGraw Hill International Edition.
- Maddala, G.S. (2005): Introduction to Econometrics, 3rd Edition, John Wiley & Sons (ASIA) Pvt. Ltd.
- Wooldrige, J.M. (2009): Introductory Econometrics: A Modern Approach, 4th Edition, Cengage Learning India Pvt. Ltd.
- Gujarati, D.N. (2004) Basic Econometrics. 4th Edition, McGraw-Hill Companies.
- Greene, W. (2012) Econometric Analysis. 7th Edition, Prentice Hall, Upper Saddle River.

MJR 7.2: Contemporary Development Issues and Practices-II (C)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Environment and Development

Objective: The objectives of this course are to explore and analyze the relationship between environment and economy, and to address environmental issues from economic perspectives in order to achieve sustainable development.

Outcome: The students will be able to comprehend the complexity of various dimensions of development and environment issues. They will be able to ground them in real life experiences.

- **Environment, Ecology and Economy**

Environment-Economy Relationship; Entropy and Laws of Thermodynamics; Classical Economics and Resource Scarcity as Limits to Growth; Approaches to Environment and Environmental Ethics: Political Ecology, Ecofeminism, Marxism and Ecology, Biocentrism, Ecocentrism, Deep Ecology, Gandhian View of Ecology, Social Ecology; Ethics of Biodiversity Conservation; Religion in Environmental Conservation; Environmentalism and Environmental Movements.

- **Different Types of Environmental Pollution and their Effects**

Different Types of Pollution and their Effects – Air, Water and Land.

Environmental Kuznets Curve Hypothesis and Critiques; Population, Human Health and Environment Linkages.

- **Environmental Regulations and Pollution Control Measures**

Market and Non-Market Based Approaches: Command and Control Approach; Pareto Efficiency, Market Failure and Externalities - Pigouvian Taxes; Property Rights and Coase Theorem; Tradable Permits; Standard Setting and Abatement; Defensive Expenditure.

- **Economic Valuation of Environmental Benefits and Costs**

Total Economic Value; Objective Standard-Based Valuation (Cost-Benefit Analysis); Subjective-Preference Based Valuation (Travel Cost Method, Hedonic Price Theory); Stated Preference Method of Valuation (Contingent Valuation Method).

- **Environment and Sustainable Development**

Concept, Indicators and Approaches to Sustainable Development; Weak Sustainability versus Strong Sustainability; Alternative Sustainability Rules: a. Hartwick Approach, b. Daly's Operational Principles, c. Safe Minimum Standard, d.

London School Approach; Ecological Economics Approach (Ecological Footprint); Uncertainty and Irreversibility; Resilience and Reversibility.

Integrated Environmental and Economic Accounting.

▪ **Global Environmental Issues and Initiatives**

WTO in International Trade and Environment; International Agreements and Conferences on Global Pollution Problems; Pollution-Haven and Pollution-Halo Hypotheses; Trade and Environment (Simple Treatment); Economics of Climate Change (Major Aspects and Economic Solutions).

References:

- Bhattacharyya, R. N. (2001): *Environmental Economics: An Indian Perspective*, Oxford University Press.
- Hanley, N., Shrogen, J. F. and White, B. (2001): *Introduction to Environmental Economics*, Oxford University Press.
- Kolstad, C. D. (2003): *Environmental Economics*, Oxford University Press.
- Pearce, D. W. and Turner, R. K. (1989): *Economics of Natural Resources and the Environment*, Johns Hopkins University Press.
- Perman, R., Ma, Y., McGilvary, J. and Common, M (1999): *Natural Resources and Environmental Economics*, 2nd Edition, Prentice Hall.
- Conrad, J. M. (1999): *Resource Economics*, Cambridge University Press.
- Conrad, J. M. and Clark, C. (1987): *Natural resource Economics: Notes and Problems*, Cambridge University Press.
- Fisher, A. (1981): *Resource and Environmental Economics*, Cambridge University Press.
- Copeland, B.R. and Taylor, M.S.: *Trade and the Environment: Theory and Evidence*, Princeton University Press.

MJR 7.2: Financial Economics-II (D)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to familiarise the students with the concepts and theories underlying financial management in a systematic way.

Outcome: This course will help students to analyse the financial decisions of the corporate sector and evaluate their implications in a comprehensive manner.

1. Introduction to Corporate Finance

What is Corporate Finance-The corporate firm-The goal of financial management

2. Analysis of Financial Statement

Basic Accounting - How to read balance sheets, profit and loss accounts and cash flow statements-Ratio Analysis

3. Fundamental Concepts

i. Risk and Return, Computation of return – Meaning and definition of risk – Types: (Systematic risk, Market risk, Purchasing power risk, Interest rate risk, Unsystematic risk, Business risk (Internal, External), Financial risk) – Minimising risk exposure; Risk measurement - Standard deviation – Meaning of Beta – Computation and interpretation – Use of beta in estimating returns

ii. Portfolio Analysis

Selection and Evaluation – Meaning of portfolio – Reasons to hold portfolio – Diversification analysis – Computation of Portfolio Return and Risk - Markowitz's Model – Assumptions – Specific model – Risk and return optimization Feasible set - Efficient frontier – Efficient portfolios –Leveraged portfolios – Corner portfolios – optimum portfolio - Sharpe's Single Index model – Portfolio evaluation measures – Sharpe's Performance Index – Treynor's Performance Index – Jensen's Performance Index.

iii. Capital Market Theory

CAPM theory: Assumptions – CAPM Model – Capital Market Line (CML) – Security Market Line (SML) – Evaluation of securities – Present validity of CAPM – Arbitrage Pricing Theory (APT) – Assumptions – APT model – two factor and multi-factor models; Principle of arbitrage, arbitrage portfolios.

iv. Capital Budgeting

Techniques of Capital budgeting- Risk analysis of capital budgeting

v. Estimation of Project Cash Flow

Elements of the cash flow stream- Basic Principles of cash flow Estimation-Cash flow illustrations-Cash flow for a replacement project-Biases in cash flow estimation-Adjustment for inflation

vi. Cost of capital

Cost of debt and preference-cost of equity-determining the proportions-weighted average cost of capital(WACC)-weighted marginal cost of capital-determining the optimal capital budget-divisional and project cost of capital-flotation cost and cost of capital- factors affecting the WACC

4. Capital Structure and Dividend Decision

i. Modigliani-Miller Hypothesis revisited; Agency Cost theories;

Theories relating to Asymmetric Information: Pecking order hypothesis and Signaling.

ii. Cash Dividends & Dividend Payments, Dividend Policy, Stock repurchase, Stock Splits & Stock Dividends

5. Working Capital Management

Net working Capital, Operating cycle & Cash Cycle, Alternative financing policies for current assets, Cash budget, Short-term borrowing, Cash & Liquidity Management

6. Corporate Valuation and Value Based Management (VBM)

Adjusted book value method, Stock and debt approach -Direct comparison approach-

Discounted cashflow approach, Analyzing historical performance- Estimating the cost of capital- Forecasting performance- Guidelines for corporate valuation. Methods and key premises of VBM- Alcar approach –Stern Stewart approach-Boston- Consulting Group approach.

7. Mergers, Acquisitions and Restructuring

Types for Transactions- Reasons for mergers- Mechanism of a merger- Cost and benefits of a merger- Exchange ratio in a merger- Purchase of a division or plant- Takeovers- Leveraged buyouts- Acquisition financing- Business alliances– Managing alliances- Managing acquisitions- Divestitures- Holding company.

References:

- Ross, S.A., R.W.Westefield & J.F. Jaffe, Corporate Finance, MacGraw Hill
- Ross, S.A., R.W.Westerfield and B.D. Jordan, Fundamentals of Corporate Finance, Tata Mcgraw Hill.
- Francis, J.C., Investments: Management & Analysis, McGraw-Hill
- Brearly & Myers Brealey, R.A. & S.C. Myers, Principles of Corporate Finance, Tata McGraw Hill
- Tirole,J., The Theory of Corporate Finance, Princeton University press.
- Chandra,P., Financial management theory and practice, 11 th edition, Tata Mc.Graw Hill.

MJR 7.3: Basic Data Analysis

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with a variety of statistical tools and techniques.

Outcome: This course will help students understand and tabulate raw data, and analyse the various statistical characteristics of data on various economic variables.

- **Basic Statistics:** Population census versus sample surveys, Random sampling, Frequency distribution and summary Statistics
- **Data Exploration:** Types of data, Sources of Data, Collection of Data, Data Transformation
- **Spread Sheet analysis:** Basic features of Spreadsheets; Data entry, Mathematical Functions, Financial functions, Statistical Functions, Creating simple Line, Bar and Pie charts.
- **Structure of Data:** Cross sectional data, Time series data, Pooled cross section data, Panel data.
- **Regression:** Simple two variables regression, Multi-variable regression, Correlation, Multivariate analysis, cluster analysis using suitable packages.

References:

- Goon, Gupta and Dasgupta – Basic Statistics
- Gupta and Kapoor – Fundamental of Mathematical Statistics.
- N. G. Das – Statistical Method (Part I & II)
- Goon, Gupta and Dasgupta – Fundamental of Statistics, Vol. I & II
- Data Analysis Using Microsoft Excel, STATA, EVIEWS etc

MJR 7.4: Research Methodology and Ethics

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The course aims to guide the students regarding research methodology, and publication ethics and misconducts.

Outcome: It is expected that the course will assist in the accomplishment of exploratory as well as result-oriented research studies.

▪ **Research Methodology**

- Philosophic View on Economic Inquiry - Methodological Approaches to Scientific Inquiry (Positivism, Phenomenological, Post-positivist), Major Paradigms of Economic Research (Individualism, Holism, Institutional individualism etc.), Ethical Considerations (Relation between Subject/Object of research).
- Research Perspectives and Approaches - Research Perspectives (Exploratory, Descriptive, Analytical, Predictive), Research Approaches (Qualitative/Quantitative; Applied/Basic; Deductive/Inductive).
- Research Process and Procedural Aspects.
- Research Design - i) Meaning, Need, Features and Important Concepts relating to Research Design (ii) Different Research Designs in cases of Exploratory Research Studies, Descriptive and Diagnostic Research Studies, Hypothesis-Testing Research Studies iii) Experimental Designs.
- Design of Sample Surveys - i) Sample Survey versus Census Survey ii) Sample Design, Sampling and Non-sampling Errors iii) Types of Sampling Design.
- Measurement and Scaling - i) Difference between Quantitative and Qualitative Data, Classification of Measurement Scales, Goodness of Measurement Scale, Sources of Error in Measurement ii) Scaling and Scale Classification Bases, Scaling Techniques.
- Collection and Preparation of Data - Procedure of Primary and Secondary Data Collection, and Data Analysis.
Functional Forms of Regression Model, Choice of Functional Forms, Structural Stability of Regression Model, Dummy Variables in Regression.
- Inequality Measures.
- Interpretation and Report Writing.

- **Research and Publication Ethics**

References:

- C. R. Kothari and G. Garg. (2023). Research Methodology: Methods and Techniques (5th edition), New Age International Publishers.
- C. Agarwal and V. Sharma (2022). Research Methodology in Economics (1st edition), Arjun Publishing House.
- A. Chiranjeev, R. Jacob and S.R. Natarajan (2013). Research Methodology in Economics, Gnanda Prakashan.

MN 7.4: Money and Banking

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to internalize the basics of money and banking.

Outcome: This course will help students understand the concept of money, its usage and the activities of the Banking system of India.

- **Money:** Barter economy; Evolution of Money; Money: Meaning and Definition; Types of Money; Monetary Systems; Functions of Money; Use of Money- Advantages and Disadvantages; Forms of Money as a means of Payment(s); Credit Money
- **Money Market:** Structure of Indian Money Market; Main Constituents; RBI and the Indian Money Market; Recent Trends; Reforms in Indian Money Market
- **Indian Banking System:**
- **Central Banking and Monetary Policy:** Functions; goals, targets, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India.
- **Commercial Banks:** Main Functions; Analysis of the Balance Sheet of a Bank; Credit creation by Commercial Banks; Determinants of Total Bank Credit; Regional Rural Banks; Cooperative Banks
- Changing role and structure; Banking sector reforms.

References:

- 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 Market, Oxford University Press, 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 of Compilation, 1998.
- R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).

Semester VIII (Research)

MJR 8.1: Applied Microeconomics-III (A)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with the history of industry and the evolution of industrial policy making, at the same time highlighting the roles of advertising and information in the context of operation of industries.

Outcome: This course will help students develop a holistic understanding of how industry as an institutional structure has evolved and the corresponding evolution of the industrial policies and also understand and analyse the roles that advertising and information play in the context of designing of industrial strategies.

- Industrialization: The Industrial Revolution in Britain – Evolution of Indian industry – Small scale industries
- Industrial policy post-Independence – Policy shift: Globalization and reforms – Privatization and PSUs in India – Case study of some important industries in India: jute, textiles, iron and steel, pharmaceuticals, engineering goods and the IT sector
- Competition Policy: Historical perspective – Competition laws: Study of USA, EU and India – Cartels and tacit collusion – Horizontal mergers: profitability, efficiency, welfare effects – Mergers and entry – Vertical mergers- Empirical merger analysis
- Empirical analysis of product differentiation.
- Advertising: Price advertising decisions: Dorfman - Steiner model – Informative advertising - Persuasive advertising - Welfare effects
- Product quality and information: Asymmetric information problems – hidden information – hidden action – advertising and price signals – price signalling under imperfect competition

References:

- Cherunilam: Industrial Economics – An Indian Perspective
- Gokarn, Sen and Vaidya: The Structure of Indian Industry
- P. Bellaflame and M. Peitz: Industrial Organization and Market Structure

MJR 8.1: Econometric Theory and Application-III (B)

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with a variety of statistical tools and techniques to deal with time series analysis.

Outcome: This course will help students to understand and analyse the various statistical characteristics based on time series analysis. The students will be able to understand the forecast

of variables along with application of non-parametric approach.

- **Time Series Analysis:** Stochastic Process- Stationary and Non-Stationary Stochastic Process, Random Walk Model, Test for Stationarity- Unit Root Test, Different Statistics for Unit Root Test, Transforming nonstationary time series, Cointegration and Error Correction Mechanism, Applications
- **Forecasting:** Approach to Economic forecasting: Exponential Smoothing, Time Series Modelling: AR, MA, ARMA, ARIMA, Box-Jenkins Methodology, Vector Autoregression, Applications.
- **Introduction to Non-parametric Analysis: concepts, non-parametric test: concept,** data generation mechanism, empirical distribution, kernel estimation, bandwidth selection, estimation, nonparametric regression, Nadaraya-Watson method, inference. Applications.

References:

- Johnston, J. and Dinardo, J. (1997): Econometric Methods, 4th Edition, McGraw Hill International Edition.
- Maddala, G.S. (2005): Introduction to Econometrics, 3rd Edition, John Wiley & Sons (ASIA) Pvt. Ltd.
- Wooldridge, J.M. (2009): Introductory Econometrics: A Modern Approach, 4th Edition, Cengage Learning India Pvt. Ltd.
- Gujarati, D.N. (2004) Basic Econometrics. 4th Edition, McGraw-Hill Companies.
- Greene, W. (2012) Econometric Analysis. 7th Edition, Prentice Hall, Upper Saddle River.

MJR 8.1: Contemporary Development Issues and Practices-III (C) **Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]** **4 Credits**

Aspects of Regional Development

Objective: The objectives of this course are to establish methodological and procedural foundations for a systematic comparison and improvement of a regional economy. The course also focuses on demography & development and trade & development for regional growth.

Outcome: Students will be acquainted with keys concepts, theories and analytical frameworks related to dynamics of labour market and causes of regional development in different socio-economic-political settings.

- **Features of Rural and Urban Economy**

Farm and Non-Farm Economy: Characteristic Features, Economic Activities, Interdependence and Linkages, Employment Opportunities and Pattern of

Employment, Entrepreneurship, Changing Patterns of Livelihood - A Structuralist Perspective; Trends in Farm and Non-Farm Employment in India.

Urban Settlements: Characteristics, Classification and Types; Trends in Urbanization in India.

Factors behind Settlement; Influence of Globalization on Urbanization in India.

- **Labour and Migration**

Changing Concept of Work and Labour: Labour in Formal Economy & Informal Economy, Gendered Labour; The Indian Labour Market: Exploring Current Debates; Labour Regulations in India; Trade Unions.

Migration and Labour Flows: Causes of Migration; Types of Migration: Internal and External, Seasonal, Circular and Step Migration; Directions of labour Flow: Rural-Rural, Rural-Urban, Urban-Rural, Urban-Urban - Cases with illustrations; Overview of Migration in India: Locating Migration in India's Development Story; State and Policy Response to Migration; Law and Ethics with Special Reference to Migration and Displacement

- **Demography and Development**

Components of Population Growth; Standard Theory of Demographic Transition; Population and Development – Malthus, Enke and Simon; Population and Resource Scarcity – Ehrlich-Commoner Model; Demographic Transition in India; Policy Approaches and Conflicts to Control Population.

Demography Techniques: Fertility, Mortality, Life Table, Methods of Population Projection

- **Location Theories and Regional Development**

Theories of Location Economics and Regional Development: Classical, Neo-Classical, New Economic Geographic Models of Regional Development; Spillovers and Regional Development; Labour Migration, Social Cohesion and Regional Development.

- **Trade and Development**

Foreign Direct Investments and Role of MNCs; Free Trade, Protectionism and Regional Trading Blocs; India in the New International Economic Order.

Trade, Labour Mobility and Changes in Wage Structure; Trade and Inequality; Welfare Implications of Trade.

- **Governance for Regional Development**

Management of Funds and Centre-State Relationship for Fund Flows; Working of Panchayats and Municipalities for Rural and Urban Development in India; NGOs in Social Development.

References:

- Armstrong, Martin & Taylor, Jim. *Regional Economics and Policy* (3rd Edition), Wiley- Blackwell, July 2010, 448 pages, ISBN: 978-0-631-21713-8
- Azis, Iwan J. *Regional Economics: Fundamental Concepts, Policies and Institutions*, 184 pages, ISBN: 9789811213373
- Dore, Poornima and Narayan, Krishnan. *Regional Economic Diversity: lessons from an Emergent India*, 1st March 2023, Oxford Scholarship Online, 322 pages, ISBN: 978019013056
- Capello, Roberta. *Regional Economics*, Routledge, 2015, 344 pages
- McCann, Philip. *Urban and Regional Economics*, Routledge, September 8, 2011, 1544 pages, ISBN: 9780415487740
- Hoover, Edgar M. and Giarratani, Frank. *An Introduction to Regional Economics*, 2020, Regional Research Institute, West Virginia University
- Temple, Marion. *Regional Economics*, Red Globe Press London, 1994, 301 pages
- Ray, D. *Development Economics*, Oxford University Press, chapters 10, 14
- Sen, A. *Poverty and Famines*, chapters 1, 5, 6, and 10
- Visaria, P. and Basant, R. (ed.) (1994). *Non-Agricultural Employment in India: Trends and Prospects*, Sage Publications, New Delhi.
- Basant, R. (1998). "Economic Diversification in Rural Areas: An Overview" in Basant, R., Kumar, B.L. and Parthasarathy, R. (eds) *Non-Agricultural Employment in Rural India*, Rawat Publishers.
- Chambers, R. (1983). *Rural Development: Putting the last first*, Longman.
- Hye, H. A. (1986). *Integrated Approaches to Rural Development*, Sterling Publishers.
- Haggblade S., Hazell, B. R. and Reardon, T. (2007). *'Transforming the Rural Nonfarm Economy'*, The John Hopkins University Press.
- Rakshit, M. (1982). *The Labour Surplus Economy*, Macmillan, New Delhi and Humanities Press, New Jersey.
- Basu, K. *'Agrarian Questions'*, Oxford University Press.
- Basu, K. *'Analytical Development Economics: The Less Developed Economy Revisited'*, Oxford University Press.
- Basu, K. (1984). *The Less Developed Economy: A Critique of Contemporary Theory*, Oxford University Press.
- Ellis, F. "Peasant Economics: Farm Households and Agrarian Development", Cambridge University Press.

MJR 8.1: Financial Economics-III (D)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The objective of this course is to equip students in understanding how to make financial derivatives theory work in practice to protect the firm from financial risk.

Outcome: This course will help students to develop the ability to provide wise financial counsel for protecting the firms from inappropriate financial risk.

1. Introduction

Derivatives – Meaning, Types, Uses, Dangers; Types of Traders - Hedger, Speculator, Arbitrageur; Derivatives Markets in India- Overview

2. Forward & Futures

Forward- Types, Pricing, Settlement, Arbitrage Argument; Futures-Types, Pricing, Settlement, Hedging with Commodity Futures, Arbitrage with Index Futures; Forward vs. Future contracts

3. Option

Option Types, Option Positions, Payoffs, Trading Strategies – Covered, Combination, Spread; Properties of Stock Options- Option Pricing: Factor affecting Option Prices, Upper and Lower Bounds of Option Prices, Put-Call Parity, Effect of Dividends; Pricing- Risk Neutral Valuation, Binomial Model and Black-Scholes Model; Exotic Options.

4. Swaps

Types- Interest Rate Swap, Currency Swap and Equity Swap; Valuation; Risk Management with Swaps

5. Managing Market Risk

Greeks – Delta, Theta, Gamma, Vega, Rho, Relationship between Delta, Theta and Gamma; Value at Risk – Concepts, Methods; Portfolio Insurance

6. Credit Risk and Credit Derivatives

Concepts, Types- Credit Default Swaps (CDS) and Collateralized Debt Obligations (CDO); Credit Default Swap- Indian Scenario

7. Other Derivatives

Commodity Derivatives; Interest Rate Derivatives and Euro Dollar Derivatives

References:

- John C. Hull and S Basu, Options, Futures and Other Derivatives, Pearson (2018).
- N. R. Parasuraman, Fundamentals of Financial Derivatives, Wiley India
- S. K. Parameswaran, Fundamentals of Options, TATA McGraw Hill
- Rajiv Srivastava, Derivatives and Risk Management, Oxford University Press.

MJR 8.2: Applied Microeconomics-IV (A)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with the pricing strategies, experience goods, issues related to R&D and intellectual property and also the basics of auction and mechanism design theories.

Outcome: This course will help students understand the pricing strategies of various firms, experience goods, issues related to R&D and intellectual property and also the basics of auction and mechanism design theories.

- **Pricing Strategies and Market Segmentation:** Group pricing and personalized pricing – menu pricing – monopoly menu pricing – quality and quantity-based menu pricing - bundling
- **Marketing Tools for experience goods Warranties:** Branding; Reputation and Competition
- **R&D and Intellectual Property:** Innovation and R&D – Market structure and incentive to innovate – Patents – Optimal patent length and breadth, Licensing; Intellectuals property rights – TRIPS - Patent policy in India
- **Markets with network effect:** Direct and indirect effects – switching costs
- **Introduction to Auction Theory:** Types of Auctions - Open vs. Sealed bid, Single stage vs. Sequential
- **Basics of Mechanism Design**

References:

- Jehiel and Reny: Microeconomic Theory
- P. Bellaflame and M. Peitz: Industrial Organization and Market Structure
- Tirole: The Theory of Industrial Organization
- O. Shy: Industrial Organization
- Auction Theory: Vijay Krishna
- Salant, David J.: A primer on auction design, management, and strategy. MIT Press, 2014.
- Mochón, Asunción, and Yago Sáez.: Understanding auctions. Cham: Springer International Publishing, 2015.

MJR 8.2: Econometric Theory and Application-IV (B)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with a variety of statistical tools and techniques to deal with the composition of cross section and time series data along with multivariate problems.

Outcome: This course will help students to understand and apply the various statistical tools and techniques for the analysis of the variation of cross section and time series models. The course will also help students to handle multivariate problems and index constructions.

- **Introduction to Panel Data Analysis:** Meaning and Advantages, The Constant Coefficients Model, LSDV model, The Fixed Effects Model, The Random Effects Model, Hausman Specification Test, Applications.
- **Multivariate Analysis:** Concept, Properties, Estimation: Instrumental Variable Method, Two Stage Least Square Estimations, Applications.

References:

- Johnston, J. and Dinardo, J. (1997): Econometric Methods, 4th Edition, McGraw Hill International Edition.
- Maddala, G.S. (2005): Introduction to Econometrics, 3rd Edition, John Wiley & Sons (ASIA) Pvt. Ltd.
- Wooldrige, J.M. (2009): Introductory Econometrics: A Modern Approach, 4th Edition, Cengage Learning India Pvt. Ltd.
- Gujarati, D.N. (2004) Basic Econometrics. 4th Edition, McGraw-Hill Companies.
- Greene, W. (2012) Econometric Analysis. 7th Edition, Prentice Hall, Upper Saddle River.

MJR 8.2: Contemporary Development Issues and Practices-IV (C) **Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]** **4 Credits**

Management of Natural Resources

Objective: The objectives of this course are to develop a rigorous understanding of the concepts and theories of natural resource management, and an analytical mind for sustaining ecological diversity so as to offer resources for upcoming generations.

Outcome: Students will gain an overview of key concepts, theories and analytical frameworks related to natural resource governance. They will be able to critically evaluate governance approaches in different ecological contexts from a variety of perspectives.

- **Fundamental Concepts**

Private, Common Property and Open Access Resources; Renewable versus Non-Renewable Resources; Resource Taxonomy; Carrying Capacity; Optimal Extraction of Exhaustible and Renewable Resources; Backstop Technology.

- **Degradation of Natural Resources and its Effects**

Degradation of Land Resources, Water Resources (Groundwater and Surface Water), Forests, Fisheries and Marine Resources, Mineral Resources, and their Effects;

Environmental Impacts of Various Forms of Energy Use; Environmental Hazards like Flood, Drought, Earthquake, Storms.

Common Pool Resources and Property Rights; Tragedy of Commons; Climate Change and Migration; Inequality in Resource Availability and Vulnerability; Climate Change, Vulnerability and Unsustainable Livelihoods.

- **Displacement, Dispossession and Development Debates:** (Case Study Based at National and International Levels).

- **Sustainability of Economic Development**

Demographic Expansion and Loss of Biodiversity; Concept of Island Biogeography; Concept of Co-evolution; Protecting Biodiversity and Problem of Noah's Ark; Biodiversity Valuation; Importance of Biodiversity Conservation.

Evolution of the Concept of Sustainable Development; Common Property Resources, Developing Countries and Sustainable Development; Environmental Education and Sustainable Development; Role of Information in the Health of Environment; Local Knowledge in the Environment-Development Discourse (Case Study).

Millennium Development Goals and Sustainable Development Goals.

- **Economics of Natural Resource Management Policies**

Designing, Monitoring and Enforcement at State Level (Indian Examples); Community-Based Natural Resource Management.

Negative International Externalities and Global Concerns: Climate Change and Mitigation, Climate Change and Adaptation; Climate Finance and Carbon Finance, Green Growth and Green Jobs.

- **Circular Economy Approach in Resource Management**

Introduction to Waste and Circular Economy; Difference between Linear Economic Approach and Circular Economic Approach; Sources of Wastes; Institutional and Organisational Considerations around Waste Management; Waste Prevention and 7Rs Principle; Circular Economy and Economic Benefits; Circular Economy and Social Benefits.

References:

- Bhattacharyya, R. N. (Ed.) (2001): *Environmental Economics: An Indian Perspective*, Oxford University Press.
- Vaidyanathan, A. (2006): *India's Water Resources: Contemporary Issues on Irrigation*, Oxford University Press.
- Conrad, J. M. (1999): *Resource Economics*, Cambridge University Press.
- Conrad, J. M. and Clark, C. (1987): *Natural resource Economics: Notes and Problems*, Cambridge University Press.

- Fisher, A. C. (1981): *Resource and Environmental Economics*, Cambridge University Press.
- Chiang, A. C. (1992): *Elements of Dynamic Optimization*, McGraw-Hill.
- Hanley, N., Shogren, J. F. and White, B. (2001): *Introduction to Environmental Economics*, Oxford University Press.
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- Brears, R. C. (2018): *Natural resource Management and the Circular Economy*, Palgrave Macmillan Cham.
- Ewijk, S. V. and Stegemann, J. (2023): *An Introduction to Waste Management and Circular Economy*, UCL Press.
- Dasgupta, P. (1996): The economics of the environment. *Environment and Development Economics*, 1(4), pp. 387-428.
- Chopra, K. and Dasgupta, P. (2008): Nature of household dependence on common pool resources: An empirical study. *Economic and Political Weekly*, 43(8), pp. 58-66.
- Jodha, N. S. (1986): Common property resources and rural poor in dry regions of India. *Economic and Political Weekly*, 21(27), July, pp. 1169-1181.
- Adhikari, B. (2005): Poverty, property rights and collective action: understanding the distributive aspects of common property resource management. *Environment and Development Economics*, 10(1), pp. 7-31.
- Ashley, C. and Carney, D. (1999): *Sustainable Livelihoods: Lessons from Early Experience*. London: Department for International Development (DFID).
- Agarwal, B. (1990): Social security and the family: Coping with seasonality and calamity in rural India. *Journal of Peasant Studies*, 17(3), pp. 341-412.
- Ellis, F. (2000): The Determinants of Rural Livelihood Diversification in Developing Countries. *Journal of Agricultural Economics*, 51(2), pp. 289-302.
- Ellis, F. (1998): Household strategies and rural livelihood diversification. *The Journal of Development Studies*. 35(1): 1-38.
- Adhikari, B., Salvatore, D. F. and Lovett, J. C. (2004): Household characteristics and forest dependency: evidence from common property forest management in Nepal. *Ecological Economics*, 48(2), pp. 245-257.
- India State of Forest Reports. Forest Survey of India, Ministry of Environment, Forest and Climate Change, GoI.
- National Fisheries Policy. Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, GoI.
- National Mineral Policies. Ministry of Mines, GoI.
- National Forest Policies. Ministry of Environment, Forest and Climate Change, GoI.
- Policies and Acts of Ministry of Rural Development, GoI.
- Reports of the Ministry of New and Renewable Energy, GoI.
- Reports of the Ministry of Jal Shakti, GoI.

MJR 8.2: Financial Economics-IV (D)
Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: This course aims at familiarising students with the knowledge of international financial development on an overall macroeconomic level.

Outcome: This course will help students understand and analyse the international financial activities and management.

1. International Monetary and Financial System:

History of Monetary System—Gold standard, Gold exchange standard, Bretton woods system and Post Bretton woods system, IMF and the World Bank; European monetary system – Meaning and scope, recent developments

2. Balance of Payments and International Linkages:

Balance of payments and its components; International flow of goods, services and capital; Coping with current account deficit

3. Exchange Rate Mechanism:

Definition of Foreign Exchange; Exchange Rate Quotation: Two Way Quote; Buying/Selling (Bid/Offer or Ask) Quotes and Spread; Direct and Indirect Quotes; Inverse Quote; Inter Bank and Merchant Rates; TT, Bill, TC, Cash/Currency Rates; Value/Settlement Date; Cash/TOD, TOM; Cross Rates; 2 Point and 3 Point Arbitrage; Exchange Arithmetic Nominal, Real and Effective Exchange Rates; Determination of Exchange Rate in Spot market and Forward Market; Factors Influencing Exchange Rate; Fundamentals of Central Bank Intervention; Demand and Supply of Foreign Exchange; Purchasing Power Parity; Effect of Inflation; Fisher's Equation; Interest Rate Parity; Covered Interest Arbitrage

4. Foreign Exchange Market:

Foreign Exchange Market – Features, Participants, Cash, Spot and Forward Market; OTC Market

5. Foreign Exchange Risk Management:

Transaction exposure, Translation exposure and Operating exposure; Management of Exposure: Hedging of Transaction, Translation and Operating Exposure

6. Hedging and Speculation:

Hedging and Speculation via Forward market, Futures Market and Option Market

7. International Financial Market:

Eurodollar and Eurocurrency Markets and Instruments

8. International Investment Decisions:

Foreign Direct Investment, International Capital Budgeting, International Portfolio Investment

References:

- Eikeman, Stonehill & Moffett, Multinational Business Finance by Tata McGraw Hill
- Alan C. Shapiro, Multinational Financial Management, Wiley
- V. Sharan, International Financial Management, PHI
- Prakash G. Apte, , Tata McGraw Hill
- V. K. Bhalla, International Financial Management, Anmol publication, New Delhi.
- Siddaiah, International Financial Management, Pearson
- Jeff Madura, International Financial Management by. Asian Books Pvt Ltd, New Delhi.

MJR 8.3: Project

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
8 Credits

Objective: This course aims at familiarising students with a variety of statistical tools and techniques.

Outcome: This course will help students understand and tabulate raw data, and analyse the various statistical characteristics of data on various economic variables.

MN 8.1: Preliminary Issues in Social Sector

Full Marks: 50 [40 (Exam) + 10 (Continuous Internal Assessment)]
4 Credits

Objective: The prime objective of this course is to familiarize students with the Economics of Social Sector.

Outcome: The students will be able to understand the interplay between social processes and economic activities within a society at the end of this course.

- **Introduction to the Social Sector**

Concept of social sector and its role in the economy; Importance of economy-society interface; Issues on economic growth and development; Different Approaches to development; social security and safety net (economic security with respect to food and nutrition, shelter and habitat).

- **Education and Development**

Role of education in development; Some basic concepts like literacy rate, enrolment ratio, rate of school dropouts, etc; Structure and role of private and public educational institutions; Class and gender gap in education with reference to the Indian scenario.

- **Health Economics**

Notion and impact of health burden; Basic health indices like life expectancy at birth, maternal mortality, infant mortality, etc. and their outcomes; Infrastructure of private and public health care sectors; Issues on availability and affordability of health care services in the Indian context.

- **Issues on Unemployment, Poverty and Inequality**
Notions of formal and informal sector; The unorganized working poor; Concept of decent labour; Rising trends of unemployment, inequality in income and asset distributions, and poverty in India.
- **Population and Development**
Standard theory of demographic transition; population growth versus economic development in India.
- **Gender and Social Identities**
Gender Discrimination and Wage Differentials in Workplace; Women Empowerment: Access and Control over Resources, Microfinance and SHGs.

References:

- Parikh, K.S. and Radhakrishna, R. (2002). India Development Report, Oxford Univ. Press.
- Prabhu, K.S. (2001). A Study of Two Indian States, Economic Reforms and Social Sector Development, Sage Publication.
- Prabhu, K.S. and Chatterjee, S (1993). Social Sector Expenditures and Human Development: A Study of Indian States, Department of Economic Analysis and Policy, RBI.
- I. L. O. Introduction to Social Security (1984). Decent Labour, (2003) Geneva.
- Jhabvala, R (ed.) (2001). The Unorganised Sector, Sage.
- Dreze, J. and A.K. Sen (1989). Hunger and Public Action, Oxford Clarendon Press.
- Visaria, L. Mortality Trends and Health Transition.
- Krishna raj, M (ed.). Gender Population and Development, Oxford University Press.
- Kabeer, N. (1994). Reversed Realities: Gender Hierarchies in Development Thought, Verso.
- The Pratichi Education Report, the Probe Report on Education in India
- India Health Report, Oxford.
- World Bank Country Study (1991). Gender and Poverty in India.