BOARD OF STUDY: M.A. ECONOMICS

FOR ACADEMIC SESSION 2025-27

Programme Description

The principal aims and objectives of the MA Economics programme are:

- To enhance a link between economic theory and rigorous data analysis in order to address the problems at the frontiers of research.
- To give students a combined theoretical rigor in core areas of economics with the flexibility to tailor the degree to explore their academic interests.
- To train in creative thinking, skills in problem solving and analysis and conducting independent research as well as enhance their employability in the corporate sector, banks and financial institutions, NGOs and or other sectors.
- To provide a comprehensive knowledge tools to analyze complex real world problems in public policy making, as well as in private business and international organizations.

Vision of Jaipur School of Economics

The Department of Economics aims at imparting theoretical and applied knowledge of economics, conducting research on socio-economic problems at regional and national level for inclusive development as well as to develop critical and behavioural skills.

The Mission of Jaipur School of Economics

• To offer innovative and analytical knowledge and skills to students by training them in the ideas of modern economics.

• To conduct both basic and applied research in economics that pushes forward the frontier of knowledge in the field.

Course Code	Course Title	L(hrs)	T(hrs)	P(hrs)	L	T	P	C
FIRST SEMESTER								
	Core							
MEC022A	MICROECONOMIC THEORY	3	0	2	3	0	1	4
MEC023A	MACROECONOMIC THEORY	3	0	2	3	0	1	4
MEC020A	ENERGY ECONOMICS	3	1	0	3	1	0	4
MSH001A	RESEARCH METHODOLOGY	2	1	0	2	0	1	3
	Open Elective:	3	0	0	3	0	0	3
	MAJOR DISCIPLINE ELECTIVE 1	3	0	0	3	0	0	4
	TOTAL							22

	SECOND SEMESTER							
Course Code	**Course Title**	**L(hrs)**	**T(hrs)**	**P(hrs)**	**L**	**T**	**P**	**C**
	Core							
MEC024A	INDIAN ECONOMY	3	1	0	3	1	0	4
MEC019A	STATISTICAL METHODS WITH ADVANCED EXCEL	0	0	4	0	0	4	4
MEC025A	PUBLIC FINANCE	3	1	0	3	1	0	4
MEC026A	ECONOMETRIC METHODS AND APPLICATIONS	3	1	0	3	1	0	4
MEC013A	BEHAVIORAL ECONOMICS	3	0	2	3	0	1	4
	TOTAL							**20**

Course Code	Course Title	L(hrs)	T(hrs)	P(hrs)	L	T	P	C
	THIRD SEMESTER							
	Core							
	MAJOR DISCIPLINE ELECTIVE 2	4	0	0	4	0	0	4
	MAJOR DISCIPLINE ELECTIVE 3	4	0	0	4	0	0	4
	MAJOR DISCIPLINE ELECTIVE 4	4	0	0	4	0	0	4
	R WITH PYTHON	0	0	4	0	0	2	2
MEC034A	DISSERTATION- I	0	0	8	0	0	4	4
	TOTAL							18

	FOURTH SEMESTER							
Course Code	**Course Title**	**L(hrs)**	**T(hrs)**	**P(hrs)**	**L**	**T**	**P**	**C**
	Core							
MEC035A	DISSERTATION II	0	0	40	0	0	20	20
	TOTAL							**20**

CREDIT SUMMARY

Semester I	**Semester II**	**Semester III**	**Semester IV**	**Total Credits**
22	20	18	20	80

SEMESTER-1

PAPER-1

MEC024A: MICRO ECONOMIC THEORY

Course Objectives

1. To introduce students to the foundational principles, scope, and analytical tools of microeconomic theory.
2. To understand consumer behaviour, production decisions, and cost structures under different market conditions.
3. To examine the theoretical models of firm behaviour, pricing strategies, and market interactions.
4. To analyse theories of distribution and the functional relationship between factors of production and income distribution.
5. To provide an understanding of welfare economics, market failures, and the conditions for economic efficiency and social justice.

UNIT I	Nature and scope of Economics and Microeconomics. Positive and normative analysis, Role of assumptions in economic analysis. Concepts of household, firm, factors of production, equilibrium – partial and general, static, comparative static and dynamic analysis, margin and slope. Elasticity – need and measures – Relationship between revenue and elasticity.Analysis of consumer behavior, demand function, law of demand – cardinal, ordinal and revealed preference approaches. Price effect, Income and substitution effect. Market demand curve; consequences of Bandwagon, Snob and Veblen effect. Concept of consumer surplus.
UNIT II	Laws of Production: short run and long run. Internal and External economies and diseconomies. Concept of cost, derivation of short and long run cost curves. Cobb-Douglas and CES production function.Features- Price and Output determination under Perfect Competition, Monopoly, Discriminating Monopoly, Monopolistic Competition, Chamberlin's Excess Capacity; Oligopoly, Non-collusive Oligopoly The Duopoly Models. Baumol's Sales Maximization model, Morris Model, Representative cost Pricing/Average Cost Pricing Models – Bain's Limit Pricing Theory.
UNIT III	Objectives of modern firm; Williamson's Model of Managerial Discretion; The Hall and Hitch Report – Full Cost Pricing Rule; Behavioral Model of the Firm-Cyert – March model.
UNIT IV	Neo-Classical Approach – Marginal Productivity Theory – Product Exhaustion Theorem; Technical Progress and Factor Shares; Theory of Distribution under Imperfect Product and Factor Markets, Macro Theories of Distribution Ricardian, Marxian and Kalecki

UNIT V	Pareto Optimal Conditions; Paretian Welfare Criterion – Value Judgment, Social Welfare Function; Compensation Principle, Inability to obtain Optimum Welfare – Imperfections Market Failure, Decreasing Costs, uncertainty and Non-Existent and Incomplete Markets; Theory of Second Best – Arrow's Impossibility Theorem, Rawl's Theory of Justice, Equity – Efficiency Trade-Off.

Course Outcomes

After completing this course, students will be able to:

1. Explain the basic concepts, scope, and analytical framework of microeconomics and its assumptions.
2. Apply theories of consumer behavior and production to analyze market demand and firm-level decisions.
3. Evaluate alternative models of firm behavior, pricing, and competition under various market structures.
4. Analyze theories of distribution to understand income allocation among factors of production.
5. Assess welfare outcomes, identify causes of market failure, and apply welfare principles to policy evaluation.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2		2							
CO2		2							2	
CO3	2		3					2		
CO4								1		
CO5	2									2

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

1. Ahuja, H. L. – *Advanced Economic Theory: Microeconomic Analysis*, S. Chand, New Delhi.
2. Koutsoyiannis, A. – *Modern Microeconomics*, Macmillan.
3. Henderson, J.M. and Quandt, R.E. – *Microeconomic Theory: A Mathematical Approach*, McGraw-Hill.
4. Varian, H. R. – *Intermediate Microeconomics: A Modern Approach*, W.W. Norton.
5. Baumol, W.J. – *Economic Theory and Operations Analysis*, Prentice Hall.
6. Sen, A.K. – *Collective Choice and Social Welfare*, Penguin Books.
7. Bilas, R.A. – *Microeconomic Theory: A Graphical Analysis*, McGraw-Hill

PAPER-2
MEC023A: MACRO ECONOMIC THEORY

Course Objectives

1. To understand the micro-foundations of macroeconomic theory and the interrelation between aggregate variables such as income, employment, and output.
2. To examine the theories of consumption and investment, including their behavioral underpinnings and policy implications.
3. To critically evaluate classical and Keynesian models of macroeconomics, along with post-Keynesian and monetarist approaches.
4. To study the role of money, expectations, and the balance of payments in shaping macroeconomic equilibrium and policy outcomes.
5. To analyze macroeconomic policies—monetary, fiscal, and income policies—and assess their effectiveness under different exchange rate regimes and theoretical frameworks.

UNIT I	Micro Foundation of Macro Economics – Goals of Macroeconomics-National Income Determination – Different Forms of National Income Accounting.
UNIT II	Theories of employment: Say's Law- Unemployment – Definition and Types – Unemployment in India – Aggregate Demand – Effective Demand – Full Employment Equation – Theory of Employment – Classical and Keynes – Walrasian General Equilibrium Model.
UNIT III	Consumption Function – Absolute Income, Relative Income, Life Cycle and Permanent Income Hypotheses – Keynes Psychological Law Investment Function – Marginal Efficiency Capital (MEC) – Accelerator and Multiplier and Super Multiplier.
UNIT IV	IS-LM Analysis for an Open Economy – Rational Expectation – Expectation and Exchange Rates- Balance of Payments Model–Critique of Classical Macro Economics. Demand for money: Classical Approach to demand for money – Quantity Theory Approach, Fishers Equation, Cambridge Quantity Theory, Keynes's Liquidity Preference Approach – Keynes's Demand for Money – Post Keynesian Approaches to demand for money – Patinkin and the Real Balance Effect – Approaches of Baumol and Tobin Friedman and the Modern Quantity theory, Crisis in Keynesian Economics and the Revival of Monetarism. Supply of Money – The 'H' Theory of Money Supply – The Multiplier Process – Determinants of the money – Multiplier – Factors affecting 'H'
UNIT V	Monetary and Fiscal policy with Fixed and Flexible exchange rates – Income Policy – Neo–Classical Policy – Austrian Policy – The Austrian Critique of Keynesian economics – Post – Keynesian Policy and the deficit – The Philips Curve – The aggregate supply curve – Short-run Phillips curve and Aggregate Supply Curve – Shifting of Short-run Philips Curve-Long-run Phillips Curve. Issues in stabilization policies: Lags in the Effects of Policy – The Role of Expectations – Uncertainty and Economic Policy– Budget deficit and inflation – the mechanics of financing the budget, – Supply side economics– The Portfolio

	Approach – Crowding out Effect – Fine tuning or Stable Policy Setting – Rational Expectation and stabilization policy – Criticism of Rational Expectation Hypothesis.

Course Outcomes

After successful completion of this course, students will be able to:

1. Demonstrate an understanding of the theoretical and policy foundations of macroeconomics, including income, output, and employment determination.
2. Explain and evaluate the behavioral foundations of consumption, investment, and money demand functions in the macroeconomic context.
3. Compare and critique classical, Keynesian, monetarist, and post-Keynesian models in explaining macroeconomic stability and disequilibrium.
4. Analyze the role of monetary, fiscal, and income policies in achieving macroeconomic objectives under different policy frameworks and market structures.
5. Assess macroeconomic stabilization policies, including the Phillips curve trade-offs, rational expectations, and supply-side reforms, in the context of real-world economies.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	1								
CO2			2							
CO3	2									
CO4					1					
CO5								1		

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

1. Ackley, G. – *Macroeconomic Theory and Policy*, Macmillan.
2. Dornbusch, R., Fischer, S., and Startz, R. – *Macroeconomics*, McGraw-Hill.
3. Mankiw, N. G. – *Macroeconomics*, Worth Publishers.
4. Snowdon, B., and Vane, H. R. – *Modern Macroeconomics: Its Origins, Development and Current State*, Edward Elgar.
5. Branson, W. H. – *Macroeconomic Theory and Policy*, Harper & Row.
6. Froyen, R. T. – *Macroeconomics: Theories and Policies*, Pearson Education.
7. Levacic, R., and Rebmann, A. – *Macroeconomics: An Introduction to Keynesian-Neoclassical Controversies*, Macmillan.

PAPER 3
MEC020A: ENERGY ECONOMICS

Course Objectives
1. To provide students an understanding of the economic fundamentals and principles of decision making involved in energy projects.
2. Students learn about cash flows, time value of money and evaluation of investments and projects
3. To provide students with advanced concepts of techno-economic analysis and its role in decision making in renewable energy technology.
4. The tools introduced include present worth analysis, annual cash flow, rate of return, incremental analysis, future worth analysis, and payback period.
5. To enable students to assess the economic viability and policy implications of renewable energy projects under uncertainty, emphasizing sustainability and risk analysis in investment decisions.

UNIT I	Role of engineering economics in the decision making process, Economic decisions versus design decisions, discount rate and economic equivalence, present-worth analysis, annual equivalent- worth analysis, rate-of-return analysis, depreciation, and taxation, developing project cash flows, social cost benefit analysis
UNIT II	Dynamics of fuel substitution by renewable energy systems and quantification of benefits, fiscal, financial and other incentives for promotion of renewable energy systems and their effect on financial viability, case studies on financial feasibility evaluation of renewable energy devices and systems.
UNIT III	Basic pricing principles, short run versus long run marginal cost pricing, peak load, seasonal, sectoral pricing of electricity, pricing of natural gas and petroleum products, power exchange.
UNIT IV	Energy Modelling Review of various energy sector models, energy demand analysis and forecasting, energy supply assessment and evaluation energy.
UNIT V	Origins of renewable energy project risks, sensitivity analysis, break-even analysis, expected value decisions. Technology dissemination models, volume and learning effects on costs of renewable energy systems

Course Outcomes

By the end of this course, the student will be able to:

1. Evaluate the cost effectiveness of individual renewable energy projects using the methodslearned and draw inferences for the investment decisions.
2. Compare the life cycle cost of multiple renewable energy technologies using the methodslearned and make a quantitative decision between alternate options.
3. Utilize spreadsheet functions to perform economic calculations.
4. Compare the differences in economic analysis between the private and public sectors.Recognize the limits of mathematical models for factors hard to quantify.
5. Apply techno-economic and risk analysis techniques to evaluate renewable energy investments, considering environmental sustainability, policy incentives, and financial feasibility.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2							3		
CO2			1							
CO3			2						1	
CO4						1				1
CO5										

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings:
Bhattacharyya, S C. (2011), Concepts, Issues, Markets and Governance, Springer
Kandpal T.C. & Garg, H.P. (2003), Financial Evaluation of Renewable Energy Technologies, Macmillan India
Park, C. S., Kim, G., & Choi, S. (2007). Engineering Economics. Pearson Prentice Hall, New Jersey.
Thuesen, G. J., & Fabrycky, W. J., (2002). Engineering economy. Prentice Hall of India.

Suggested readings

Belli, P., Anderson, J., Barnum, H., Dixon, J., & Tan, J. P. (1998). Handbook on economicanalysis of investment operations. The World Bank, Washington, DC.
Dahl, C. (2015). International Energy Markets: Understanding Pricing, Policies, & Profits.PennWell Books.
Desai, V. (1997). Guidelines for the economic analysis of projects. Asian Development Bank.Gittinger, J. P. (1973), Economic Analysis of Agricultural Project, The Johns Hopkins University Press.
Jebaraj, S., & Iniyan, S. (2006). A review of energy models. Renewable and Sustainable EnergyReviews, 10(4), 281-311.
Kaplan, S. (1983). Energy economics: quantitative methods for energy and environmental decisions. McGraw-Hill College

PAPER-4

MSH001A: RESEARCH METHODOLOGY AND QUANTITATIVE TECHNIQUES

Course Objective

1. To understand the importance of research in creating and extending the knowledge base in their area of research interest;

2. To develop their ability to distinguish between the strengths and limitations of different research approaches in general and in their research area specifically

3. To gain skills required to work independently, so that they can plan and carry out a small-scale research project.

4. To propose, justify and undertake a small-scale research project and to read, analyse critically, compare and evaluate peer-reviewed journal articles from social science discipline in their area of interest.

5. To equip students with quantitative and qualitative analytical tools for data interpretation, hypothesis testing, and effective research communication.

UNIT I	Introduction : Meaning of Research – Research Process – Social Research – Objectives – Methods of Social Research: Scientific Method, Historical Method, Case study and Survey Method – Characteristics of Research. Deductive and inductive theory. Characteristics of scientific method.
UNIT II	Selection and Formulation of Research Problem
	Selection of Research Topic – Formulation of Research Problem – Objectivity in social research – sources of research problem and Review of literature. Research design: Contents or components of a research design– Measurement Issues. Exploratory Research Design – concept, types and uses, Descriptive Research Designs – concept, types and uses. Experimental Design: Concept of Independent & Dependent variables
UNIT III	Sampling and Tools for Analysis
	Objectives of Sampling – Characteristics of a good sample – Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size--Types of sampling – Random and Non-Random Sampling method – Collection of data – Primary and Secondary data – Questionnaire and Interview Schedule. Classification – Tabulation – Frequency Distribution – Measures of Central Tendency – Measures of Dispersion – Correlation and Regression – Scaling Techniques.
UNIT IV	Testing of Hypothesis
	Meaning of Hypothesis – Sources of Hypothesis – Types of Hypotheses, Characteristics of good Research Hypotheses – Null Hypothesis & Alternative Hypothesis. Procedure of Testing Hypotheses – Test of Significance for large Samples and small samples – Z-Test, 'F' test and ANOVA (Two–way), Chi-Square Test.
UNIT V	Report Writing
	The General Format – Page and Chapter Format – Use of Quotations – Footnotes Tables and Figures – References – Appendix – Commonly used abbreviations – Editing the final draft.

Course Outcomes

1. Students will be able to analyse and evaluate the concepts critically underpinning different research methodologies suitable for use within the economics and social sciences.
2. Students will be able to demonstrate in-depth knowledge of a range of research methods applicable to economics discipline and decide how to   choose a method guided by their research question.
3. Students will gain a clear understanding of the ethical considerations and the need for rigour in conducting research in social sciences.
4. Students will acquire knowledge and understanding to develop research design.
5. Students will be able to apply quantitative techniques and statistical tools to collect, analyse, and interpret data, and present research findings systematically and ethically.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	1									
CO2			3							
CO3								1		
CO4		1						2		1
CO5	2									

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings:

1 Cargan, L. (2007). Doing Social Research. Lanham, MD: Rowman & Littlefield Publishers.

2 Kothari, C. R. (2014). Research Methodology: Methods and Techniques (2nd ed.). New Delhi: New Age International Publishers.

3 Walliman, N. (2016). Social Research Method: The Essentials. London: SAGE Publications.

4 Wellington, J. &Szczerbiński, M. (2007). Research Methods for the Social Sciences. New York: Continuum International Publishing Group.

5. Andres, L. (2012). Designing & Doing Survey Research. London: SAGE Publications. Buchanan, D. A., & Bryman, A. (2009).

6. The SAGE Handbook of Organizational Research Methods. London: SAGE Publications. Gillham, B. (2000). Case Study Research Methods. London: Continuum International Pub. Group. Gillham, B. (2008).

7. Small-scale Social Survey Methods: Real World Research. London: Continuum International Publishing Group. Hammersley, M., &Traianou, A. (2012).

8.Ethics in Qualitative Research: Controversies and Contexts. London: SAGE Publications. Mustafa, A. (2008). Case Study Method: Theory and Practice: Research and Management Approaches. New Delhi: Atlantic Publishers & Distributors. Ornstein, M. D. (2013).

SEMESTER-II

MEC024A: INDIAN ECONOMY

Course Objectives

1. To understand the evolution, nature, and significance of India's economic reforms and their impact on different sectors.

2. To evaluate the changing role of the state and markets in India's post-reform development trajectory.

3. To analyze sectoral performance in agriculture, industry, services, trade, and labor within the framework of liberalization, privatization, and globalization.

4. To assess the challenges related to poverty, inequality, and unemployment in contemporary India.

5. To enable students to critically appraise structural and policy reforms for sustainable and inclusive economic growth.

UNIT I	Macro-Economic Policies and their Impact: Nature and Significance of Indian economic reforms; Performance of India's economy in the pre- reforms and post-reforms period; State intervention in the Indian Economy; Financial Sector Reforms and Performance; Recent Trends and Turns in the Indian Growth Story
UNIT II	Sectoral Analysis: Agriculture Performance of Indian Agriculture; Trends in Farm Income; Economic Reforms and Agriculture; Impact of Climate Change on Agriculture; Land Reforms; Technology Adoption; Sustainable Agriculture Practices
UNIT III	Sectoral Analysis: Industry and Services Economic Reforms in Industry and Services; Global Value Chains; Trends in Employment; Policies to address Challenges of Unemployment and Low Manufacturing Growth
UNIT IV	Sectoral Analysis: Trade and Labour Trade Policy Reforms since 1991; New Foreign Trade Policy; Evolving Role of Multilateral Organisations; Labour Laws in India; Labour Reforms in India
UNIT V	Poverty, Inequality, and Unemployment 1. Poverty and measurement of Poverty: Definition of Poverty, Tendulkar and Rangarajan Committees, debates on the poverty line, Trends of Poverty. 2. Inequality: Inequality definitions, measurement of Inequality, Inter-temporal and regional analysis. 3. Unemployment: Types, measurement (NSSO, PLFS), gender and rural-urban gaps, Employment Generation Programs-MGNREGA, PMEGP, Skill India Mission. 4. Structural Constraints: Jobless growth, informal sector, demographic dividend.

Course Outcomes:

Upon completion of the course, the student would be able to:

1. Identify and describe key features of the Indian economy and their implications for economic development
2. Analyze and compare the performance of the Indian economy with other major economies
3. Categorize and differentiate the major challenges facing the Indian economy and predict their implications for future economic development
4. Design and construct policy solutions to address the challenges facing the Indian economy, drawing on the tools of economics and policy analysis
5. Justify the effectiveness of different policy solutions to promote economic development and social welfare in India, based on evidence from recent research and policy debates

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2									
CO2		3								
CO3	2							2		
CO4		2							2	
CO5	2									1

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

- Arvind Subramanian and Josh Felman (2021) India's Stalled Rise-How the State Has Stifled Growth, published in foreign affairs on 14.12. 2021

- Dev, M. (2018) Transformation of Indian Agriculture? Growth, Inclusiveness and Sustainability. Working paper 2018-026, Indira Gandhi Institute of Development Research, Mumbai.
- Ramesh Chand, Raka Saxena, Simmi Rana (2015) Estimates and Analysis of Farm Income in India, 1983–84 to 2011–12, Economic & Political Weekly May 30, 2015 Vol. l No 22
- Acharya, S., & Mehrotra, S. (2020). The Agricultural Market Reforms: Is there a tradeoff between efficiency and equality? working paper series, Institute of human development.
- Roy, SD. (2017). Economic reforms and agricultural growth in India, vol.52, special article, 4th. Economic & Political Weekly
- Chatterjee, S., Kapur, D. (2017). Six puzzles in Indian agriculture. India Policy Forum

2016, Vol. 17.

- Ministry of Finance. (2017). Climate, climate change and agriculture. Ch. 6 in Economic Survey

- Nagaraj, R. (2017). Economic Reforms and Manufacturing Sector Growth. Economic and Political Weekly.
- Chakraborty J. Nagaraj, R. (2020). Has India Deindustrialised Prematurely? A Disaggregated Analysis. Economic and Political Weekly.
- Mukherjee, Deeparghya (2021) Is India Moving Up the Global Value Chain? A Sectoral Study of Indian Exports. Economic and Political Weekly, 56(20), 12-15
- Achin Chakraborty, 2015, Reforming Labour Markets in States: Revisiting the Futility Thesis, Economic and Political Weekly, May 16, 20
- Thomas, J.J. (2018). Economic Growth without Employment: The story of Indian Manufacturing in Hill and Patil (eds.), Employment Policy in Emerging Economies. Routledge, London and New York.
- Chanda, R. (2019). India's Services Sector; trends, opportunities and challenges, in Uma Kapila(ed.), Indian economy-2; Macroeconomic policies, Sectoral Developments and Performance. (Chp.29)
- Sen, K., Das, D. (2015). Where have all the workers gone? The puzzle of declining labour intensity in organised Indian manufacturing. Economic and Political Weekly, 50(23), 108-115.
- Roy, S. (2016). Faltering Manufacturing Growth and Employment: Is 'Making' the Answer?. Economic & Political Weekly, 51(13), 35-42.
- Babu, Suresh & Podikkalathil, Jithin. (2020). Reviving Industrial Growth — Need to Address Demand Constraint. Economic and Political Weekly, 55(30), 16-20
- Dipak Mazumdar and Sandip Sarkar (2009) "The Employment Problem in India and the Phenomenon of the 'Missing Middle' The Indian Journal of Labour Economics, Vol. 52, No. 1, 2009

- New Foreign Trade Policy (https://www.dgft.gov.in/CP/?opt=ft-policy)

- Trade Policy Review (prepared by secretariat/govt, WTO 2020) chapter 2: Trade and Investment Regimes
- Harsh Vardhan Singh – Trade Policy Reforms since 1991, working paper 02, Brookings India
- Bhagwati and Panagariya, 2012, A Multitude of Labour Laws and their Reforms in India's Tryst with Destiny, Collins Business, Noida, Ch. 8.
- Roy Choudhury Anamitra, and Kingshuk Sarkar. "Labour reforms in a neo-liberal setting: Lessons from India." Global Labour Journal 12, no. 1 (2021).

PAPER 6

MEC019A: STATISTICAL METHODS WITH ADVANCED EXCEL

Course Objectives

1. To introduce the foundational concepts of descriptive and inferential statistics relevant to economic data analysis.
2. To develop the ability to organize, summarize, and present statistical data effectively using tabular and graphical techniques.
3. To equip students with knowledge of correlation and regression analysis for understanding relationships between economic variables.
4. To introduce students to the theory of attributes and measures of association for qualitative data analysis.
5. To provide conceptual and practical understanding of hypothesis testing and non-parametric methods for empirical economic research.

UNIT I	Introduction: Definition and scope of Statistics, concepts of statistical population and sample. Data: quantitative and qualitative, attributes, variables, scales of measurement - nominal, ordinal, interval and ratio. Presentation: tabular and graphic, including histogram and ogives.
UNIT II	Measures of Central Tendency: mathematical and positional. Measures of Dispersion: range, quartile deviation, mean deviation, standard deviation, coefficient of variation, moments, skewness and kurtosis.
UNIT III	Bivariate data: Definition, scatter diagram, simple, partial and multiple correlation (3 variables only), rank correlation. Simple linear regression, principle of least squares and fitting of polynomials and exponential curves.
UNIT IV	Theory of attributes, consistency of data, independence and association of attributes, measures of association and contingency.
UNIT V	Parameter and statistic; sampling distributions, confidence intervals and margin of error, hypothesis testing; non-parametric inference: non-parametric tests: Mann-Whitney U test, Kruskal-Wallis test, Spearman's rank correlation coefficient.

Course Outcomes

After successful completion of this course, students will be able to:

1. Understand and apply basic statistical concepts, data types, and measurement scales relevant to economics.
2. Compute and interpret measures of central tendency, dispersion, and moments to describe economic data.
3. Apply correlation and regression techniques to examine relationships among economic variables.
4. Analyse qualitative data through the theory of attributes and assess the association between categorical variables.
5. Conduct hypothesis testing and apply non-parametric statistical tools for empirical economic analysis.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	1								
CO2			2							
CO3	2									
CO4		2								
CO5										

3 = Highly Related; 2 = Medium; 1 = Low

SUGGESTED READINGS:

1. Goon, A.M., Gupta, M.K. and Dasgupta, B. (2002). *Fundamentals of Statistics*, 8th Ed. Vol. I & II, The World Press, Kolkata.

2. Miller, I. and Miller, M. (2006). *John E. Freund's Mathematical Statistics with Applications*, 7th Ed., Pearson Education, Asia.

3. Mood, A.M. Graybill, F.A. and Boes, D.C. (2007). *Introduction to the Theory of Statistics,* 3rd Ed., (Reprint), Tata McGraw-Hill Pub. Co. Ltd.

PRACTICAL/ LAB WORK

List of Practical:

1. Graphical representation of data.
2. Problems based on measures of central tendency.
3. Problems based on measures of dispersion.
4. Problems based on combined mean and variance and coefficient of variation.
5. Problems based on moments, skewness and kurtosis.
6. Fitting of polynomials, exponential curves.
7. Karl Pearson correlation coefficient.

8. Partial and multiple correlations.
9. Spearman rank correlation with and without ties.
10. Correlation coefficient for a bivariate frequency distribution.
11. Lines of regression, angle between lines and estimated values of variables.
12. Checking consistency of data and finding association among attributes.

PAPER-7

MEC025A: PUBLIC FINANCE

Course Objectives

1. To provide students with a comprehensive understanding of the scope and nature of public finance and its importance in economic policy.
2. To enable students to understand theories of public revenue, taxation, and their implications on economic equity and efficiency.
3. To develop the ability to analyse public debt, its burden, and management in a developing economy.
4. To equip students with the skills to interpret and evaluate budgetary processes, deficit financing, and fiscal federalism.
5. To critically assess the role of public finance in achieving macroeconomic stability, inclusive growth, and sustainable development.

UNIT I	**Introduction to Public Finance**: Nature, Scope and its Importance. Theory of Social Goods, Theory of Public Finance
UNIT II	**Theory of Public Revenue**: Theories of Taxation-Benefits, Principles: Cost of Service Principle, Ability to pay. Theory, Principle of Equity. Effects of Taxation. Analysis of major taxes: income tax, expenditure tax, (GST) corporation tax, custom duties. Theories of tax shifting; concepts of incidence, measurement of incidence.
UNIT III	**Public Debt**: Its Types and Role. Burden and Methods of Redemption of Public Debt. Debt Management. Budgetary Policies: Functional and Economic
UNIT IV	**Budget:** Classification of budgets and their uses. Balanced and unbalanced budgets, Performance budgets, Budgets as an instrument of mobilisation and channelization of resources and redistribution of income and wealth
UNIT V	**Deficit Financing**: Objectives and Limitations. Fiscal Federalism: Principles of Federal Finance. **Development Finance**: Functional Finance vs. Development Finance. Development Financial Institution Effectiveness of fiscal policy in periods of inflation and deflation.

Course Outcomes

After completing this course, students will be able to:

1. Explain the nature, scope, and significance of public finance in economic governance.
2. Analyse the principles of taxation and assess the impact of taxes on income distribution and welfare.
3. Understand the dynamics of public debt and evaluate its implications for fiscal stability.
4. Examine budgetary processes and fiscal management practices for effective economic policy formulation.
5. Critically evaluate deficit financing, fiscal federalism, and the role of public finance in promoting inclusive and sustainable development.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2							2		
CO2						2				
CO3		2							2	
CO4				2						
CO5										2

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

A.R. Musgrave and P.B.Musgrave : Public Finance in Theory and Practice, McGraw Hill,

International Student's Edition, 1976.

H. Dalton : Principles of Public Finance, London, Routeledge and Kegan Paul, 1936.

John Cullis and Philip Jones, Public Finance and Public Choice, Oxford University Press, 1st

edition, 1998.

Ulbrich, H. (2003), Pubic Finance in Theory and Practice. Thomson.

Aronson,J.R. (1985). Public Finance. New York: McGraw-Hill International.

Houghton, R. W. (1973). Public finance. London: Penguin Education.

PAPER-8

MEC026A: ECONOMETRIC METHODS AND APPLICATIONS

Course Objectives

1. To introduce students to the fundamental concepts, scope, and methods of econometric analysis.
2. To provide a strong foundation in the theory and application of the Classical Linear Regression Model (CLRM).
3. To familiarize students with violations of CLRM assumptions and techniques for identifying and correcting them.
4. To equip students with an understanding of dynamic and qualitative response models for real-world economic analysis.
5. To develop competence in handling simultaneous equation models and applying appropriate estimation methods for policy and research applications.

UNIT I	Fundamentals of econometrics: Meaning, scope and methodology of Econometrics - Sample Regression Function and Population Regression Function - Simple linear Regression Model – Assumptions, Estimation through Ordinary Least Squares (OLS) Approach - Gauss Markov Theorem – Multiple Regression Model - Testing the Significance of Regression – t-test, F and the concept of R^2 and adjusted R^2
UNIT II	violations of clrm assumptions: Auto-correlation, Heteroscedasticity, Multicollinearity, Specification Errors, Errors of Measurement - Nature, Consequences, Tests and Remedial measures. Dummy variables: Dummy Variable Technique and its Applications and Analysis of variance (ANOVA).
UNIT III	Dynamic econometric models – Kyock, adaptive expectation and partial adjustment, Almon distributed lag models – panel models.
UNIT IV	Qualitative response models – estimation of LPM, probit, logit and tobit models
UNIT V	Simultaneous regression models – indirect least squares, two-stage least Squares – instrumental variable methods.

Course Outcomes

Upon successful completion of this course, students will be able to:

1. Understand the meaning, scope, and theoretical foundation of econometric analysis.
2. Apply and interpret the Classical Linear Regression Model and related statistical tests.
3. Detect and correct violations of CLRM assumptions using appropriate econometric techniques.
4. Analyze and estimate dynamic, qualitative response, and panel data models in applied economic research.
5. Formulate and estimate simultaneous equation systems and interpret results for evidence-based economic policymaking.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2									
CO2			2	2						
CO3						2				
CO4								2		
CO5									2	

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

D.N. Gujarathi: Basic Econometrics, Tata – McGraw Hill.

A.Deaton and John Muellbauer: Economics and Consumer Behaviour, Cambridge University Press,

Julia Hebden: Applications of Econometrics, Heritage Publishers.

R.F.Wynn and K. Holden: An Introduction to Applied Analysis, Macmillan Press.

M.Upender: Applied Econometrics, Vrinda Publications.

PAPER-9

MEC013A: BEHAVIOURAL ECONOMICS

Course Objectives

1. To introduce students to the origins, evolution, and theoretical foundations of behavioural economics and its distinction from classical economic theory.

2. To understand how individuals actually make choices under risk and uncertainty using behavioural models such as prospect theory and reference-dependent preferences.

3. To examine inter-temporal choices and time-inconsistent behaviour through frameworks like hyperbolic discounting and projection bias.

4. To analyse strategic interactions in games and social contexts using behavioural game theory and models of limited rationality.

5. To evaluate the applications of behavioural insights in public policy, especially through nudges, welfare programs, and happiness economics.

UNIT I	Introduction to behavioural economics - History and evolution- relation with other disciplines objectives, and scope- themes and methodology of behavioural economics (theory, evidence, consilience) – application. Anticipation and information avoidance as introductory example.
UNIT II	Making Choices Under Risk: Prospect Theory Values, preferences and choice-believes- heuristic and biases- state dependent preferences (such as habit formation and addiction)- mis-prediction and projection bias-anticipation and information avoidance-decision making under risk and uncertainty- prospect theory- the role of reference- dependent preference in both risky (loss aversion) and risk free (endowment) choices-mental accounting- applications. How do people care about those around them? Both distributional social preferences (altruism, inequality aversion) and intentions-based social preferences (reciprocity, fairness). The possibility of self-deception.
UNIT III	Inter temporal choice The discounted utility model (origin, features, methodology, anomalies with discounted utility models)- alternative inter temporal choice models (time preferences, time inconsistent preferences- hyperbolic discounting- modifying the instantaneous functions)- applications. How do people make predictions about their own future utility. State-dependent preferences (e.g. habit-formation and addiction) and projection bias.

UNIT IV	Strategic interaction Behavioural game theory (nature, equilibrium, mixed strategies, bargaining, iterated games, signalling, learning)- application Modelling of social preferences –nature and factors affecting social preferences distributional social preferences based on altruism, inequality aversion models- reciprocity models, evidence and policy implications. How do people make predictions about their opponents in strategic interactions? Models of limited social inference (level-k reasoning, cursedness).
UNIT V	Nudges, Policy and Happiness Nudges, Policy, and Happiness- the application. How and when should governments intervene if people are "behavioural"? The theory of nudges, and happiness as an outcome.

Course Outcomes

After successful completion of this course, students will be able to:

1.Comprehend the methodological foundations, evolution, and key themes of behavioural economics.

2. Apply models of bounded rationality, heuristics, and prospect theory to explain real-world decision-making under risk and uncertainty.

3. Analyse inter-temporal decision-making problems, such as saving, addiction, and self-control, using alternative behavioural models.

4. Evaluate strategic and social behaviour through behavioural game theory and social preference models like altruism and reciprocity.

5. Design and assess behavioural interventions ("nudges") and policies to improve individual and collective well-being and social outcomes.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2									
CO2		2								
CO3	2					2				
CO4										
CO5								2		

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

Camerer, C., Loewenstein, G., & Rabin, M. (2004). *Advances in Behavioral Economics.* Princeton University Press.

Kahneman, D. (2011). *Thinking, Fast and Slow.* Penguin Books.

Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving Decisions about Health, Wealth, and Happiness.* Yale University Press.

Mullainathan, S., & Shafir, E. (2013). *Scarcity: The New Science of Having Less and How It Defines Our Lives.* Penguin.

Dhami, S. (2016). *The Foundations of Behavioral Economic Analysis.* Oxford University Press.

Ariely, D. (2008). *Predictably Irrational: The Hidden Forces That Shape Our Decisions.* HarperCollins.

DellaVigna, S. (2009). *Psychology and Economics: Evidence from the Field. Journal of Economic Literature,* 47(2), 315–372.

Camerer, C. F. (2003). *Behavioral Game Theory: Experiments in Strategic Interaction.* Princeton University Press.

Rabin, M. (1998). *Psychology and Economics. Journal of Economic Literature,* 36(1), 11–46.

Loewenstein, G., & Prelec, D. (1992). *Anomalies in Intertemporal Choice: Evidence and an Interpretation. Quarterly Journal of Economics,* 107(2), 573–597.

SEMESTER-III

PAPER 10

MEC034A: DISSERTATIONS-1

Course Objectives

1. To inculcate in students the rigour of research work.

2. To imbibe in students the spirit of inquiry.

3. To encourage students to-do academic reading of journal articles

4. To be informed about new developments in the field of economics research.

5. To enable students to apply theoretical knowledge to real-world problems through systematic data collection, analysis, and interpretation.

Dissertation Description

One of the requirements of Economics Honours students is the ability to conducted independent research under the guidance of a faculty. This course enables students to demonstrate an understanding of how to apply theoretical knowledge to practice by investigating and careful evaluation of real life problems.

The dissertation should be a minimum of 10,000 words in length (or approximately 35-60 pages). The word count includes the text, table, quotations, footnotes, title, table of content, and appendices. Abstract is excluded from the word count.

Each dissertation will involve:

- Selection of a research topic and formulation of a research question.
- Comprehensive review of literature and theoretical framing.
- Data collection (quantitative, qualitative, or mixed-methods).
- Analysis using appropriate tools and techniques.
- Derivation of conclusions and policy recommendations.

Course Outcome

By the completion of this course the learner will:
1. Identify research topics/areas and design and conduct an original and ethical research.
2. Be able to formulate a research problem statement and identify the sources and types of reference materials
3. Learn researches like empirical data based (qualitative, quantitative, or mixed methods.
4. Be able to do critical review of research and theory. Students will suggest recommendations and policies for solving the problems studied.
5. Develop coherent conclusions and suggest informed policy recommendations based on data-driven analysis.

SEMESTER-IV

PAPER 11

MEC035A: DISSERTATIONS-II

Course Objectives

1. To inculcate in students the rigour of research work.

2. To imbibe in students the spirit of inquiry.

3. To encourage students to-do academic reading of journal articles

4. To be informed about new developments in the field of economics research.

5. To enable students to apply theoretical knowledge to real-world problems through systematic data collection, analysis, and interpretation.

Dissertation Description

One of the requirements of Economics Honours students is the ability to conducted independent research under the guidance of a faculty. This course enables students to demonstrate an understanding of how to apply theoretical knowledge to practice by investigating and careful evaluation of real life problems.

The dissertation should be a minimum of 10,000 words in length (or approximately 35-60 pages). The word count includes the text, table, quotations, footnotes, title, table of content, and appendices. Abstract is excluded from the word count.

Each dissertation will involve:

- Selection of a research topic and formulation of a research question.
- Comprehensive review of literature and theoretical framing.
- Data collection (quantitative, qualitative, or mixed-methods).
- Analysis using appropriate tools and techniques.
- Derivation of conclusions and policy recommendations.

Course Outcome

By the completion of this course the learner will:

1. Identify research topics/areas and design and conduct an original and ethical research.

2. Be able to formulate a research problem statement and identify the sources and types of reference materials

3. Learn researches like empirical data based (qualitative, quantitative, or mixed methods.

4. Be able to do critical review of research and theory. Students will suggest recommendations and policies for solving the problems studied.

5. Develop coherent conclusions and suggest informed policy recommendations based on data-driven analysis.

TRACKS

TRACK 1: FINANCE, MARKET, AND QUANTITATIVE ECONOMICS

PAPER-1
MEC021A: FINANCIAL ECONOMICS AND INSTITUTIONS

Course Objectives
1. To introduce the theoretical foundations of financial economics with emphasis on investment theory, interest rate structures, and asset pricing models.

2. To develop quantitative and analytical skills for evaluating investment projects, constructing portfolios, and pricing financial assets and derivatives.

3. To provide a rigorous understanding of financial institutions and intermediation, highlighting the role of information, risk, and regulation in shaping financial markets.

4. To enable critical assessment of monetary policy, financial crises, and contemporary issues such as fintech, digital finance, and financial globalization

5. To analyse the role of central banking, monetary policy, and financial crises, along with emerging issues such as fintech, digital currencies, and climate finance.

UNIT I	Investment Theory and Structure of Interest rates: Introduction to financial economics, Time Value of Money: Future Value, Present Value, Future value of an annuity, Present value of annuity, Present rate of perpetuity. Investment Criteria: Net Present Value, Benefit Cost Ratio, Internal Rate of Return, Modified Internal Rate of Return.
UNIT II	Portfolio Theory and Asset Pricing: Risk and Return: Measurement of risk, covariance, correlation, Efficient Frontier and Markowitz Portfolio Selection, Capital Market Line (CML) and Security Market Line (SML), Capital Asset Pricing Model (CAPM): assumptions, derivation, empirical issues, Arbitrage Pricing Theory (APT): factor models and arbitrage, Efficient Market Hypothesis (weak, semi-strong, strong) and critiques.
UNIT III	Indian Financial System: Structure of Indian Financial System: An overview of the Indian financial system, major reforms in the last decade: Introduction to Financial Markets in India: Role and Importance of Financial Markets, Types of Financial Markets: Money Market; Capital Market; Factors affecting Financial Markets, Linkages Between Economy and Financial Markets, Financial services, its types, classifications.
UNIT IV	Financial Instrument: Financial Instruments -its types, classification, features, Primary Market for Corporate Securities in India: Issue of Corporate Securities, Market for Government/Debt Securities in India, Secondary market for government/debt securities. Government securities issued by State Governments, Municipal Bonds, Corporate Bonds vs. Government Bonds.
UNIT V	Central Banking, Crises, and Contemporary Issues: Central Banking and Monetary Policy: Instruments, interest rate rules, Taylor rule basics, Financial Crises: theoretical models of bank runs, contagion, balance-sheet recessions, Case Studies: Global Financial Crisis (2008), Indian Banking Crisis (NPAs, IL&FS), Fintech disruptions, Emerging Issues: Digital currencies, crypto-assets, fintech and financial inclusion, climate finance.

Course Outcomes

By the end of the course, students will be able to:

1. Apply the concepts of time value of money and interest rate structures to evaluate investment projects using tools such as NPV, IRR, MIRR, and benefit–cost ratio.

2. Analyze risk–return trade-offs in portfolio selection and employ quantitative models such as Markowitz's theory, CAPM, and APT in asset pricing.

3. Value and manage derivative instruments including forwards, futures, and options using binomial and Black–Scholes models, and apply them for hedging and risk management.

4. Explain and critically assess the role of financial institutions and intermediation, incorporating models of asymmetric information, adverse selection, and moral hazard.

5. Evaluate the impact of monetary policy and central banking on financial markets, stability, and systemic risk.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2									
CO2		2								
CO3			2							
CO4	2							2		
CO5										2

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

Mishkin, F.S. & Eakins, S.G. – *Financial Markets and Institutions* (Pearson).

Bodie, Z., Kane, A. & Marcus, A.J. – *Investments* (McGraw Hill).

Bhole, L.M. & Mahakud, J. – *Financial Institutions and Markets: Structure, Growth and Innovations* (McGraw Hill, Indian focus).

Hull, J.C. – *Options, Futures and Other Derivatives* (Pearson).

Elton, E.J. & Gruber, M.J. – *Modern Portfolio Theory and Investment Analysis* (Wiley).

Copeland, T.E. & Weston, J.F. – *Financial Theory and Corporate Policy*.

Campbell, J.Y., Lo, A.W. & MacKinlay, A.C. – *The Econometrics of Financial Markets*.

Markowitz, H. (1952) – "Portfolio Selection." *Journal of Finance*.

MEC027A :ADVANCED ECONOMETRICS AND TIME SERIES ANALYSIS

Course Objectives

1. To enable students to understand and apply the Generalized Linear Model (GLM), Instrumental Variables (IV), and Bayesian estimation in econometric analysis.
2. To acquaint students with dynamic econometric models such as distributed lag models, adaptive expectations, and Vector Auto Regression (VAR) models.
3. To develop an understanding of simultaneous equation systems, their identification, and estimation through advanced econometric methods.
4. To introduce time series econometrics including ARIMA, SARIMA, and spectral analysis, emphasizing forecasting and stationarity issues.
5. To equip students with diagnostic and model selection techniques, exposure to non-linear and panel data models, and applications of econometrics to policy evaluation and causal inference.

UNIT I	Econometrics: Review of GLM and generalized least squares, GLM with stochastic regressors, Instrumental Variables (I.V): estimation, consistency property, asymptotic variance of I.V estimators. Bayesian analysis of Linear Model with Non-Informative Priors and Conjugate Priors. Bayes estimation and testing of hypothesis of regression coefficients.
UNIT II	Distributed lag models, Polynomial lag models, Almon's lag model, Determination of degree of polynomial and lag length. Adaptive expectation model, Partial adjustment model, Compound Geometric lag model. Methods of estimation. Vector Auto Regression (VAR), the Granger Causality Test.
UNIT III	Simultaneous-equation models: Identification problems. Restrictions on structural parameters – Rank and Order Condition for identification. Restrictions on variances and covariances. Simultaneous-equation methods: Estimation – Recursive systems, Two Stage Least Squares (2SLS) estimators, Limited Information (Least Variance Ratio) estimators, k- class estimators, Three Stage Least Squares (3SLS) and Full Information Maximum- Likelihood (FIML).
UNIT IV	Time series as discrete parameter stochastic process. Auto-covariance and Auto- correlation functions and their properties. Stationary Processes: Moving average (MA) process, Auto-regressive (AR) process, ARMA, ARIMA and SARIMA models. Box-Jenkins models, Discussion (without proof) of estimation of mean, auto-covariance auto-correlation functions under large sample theory. Linear Filter: Auto regressive processes, Moving average processes. Correlogram and Periodogram analysis. Spectral representation of time series. Problems associated with estimation of spectral densities, Properties of spectral densities. Spectrum theory, smoothing the spectrum. Forecasting. Exponential smoothing methods, Direct smoothing and adaptive smoothing.
UNIT V	Model Specification and Diagnostic Testing: Nature, consequences and

	detection of specification errors, multicollinearity, autocorrelation and heteroscedasticity; tests for normality and model stability — RESET test, Durbin–Watson test, Breusch–Pagan test, White test, and Chow test. Model Selection Criteria: AIC, BIC, and HQC. Non-linear and Limited Dependent Variable Models: Logit, Probit, and Tobit models — estimation and interpretation. Panel Data Models: Fixed effects, Random effects, and Dynamic panel models (Arellano–Bond). Applications of econometric modelling to policy evaluation — Difference-in-Differences, Instrumental Variables in policy contexts, and introduction to causal inference frameworks.

Course Outcomes

After successful completion of this course, students will be able to:

1. Apply GLM, GLS, IV, and Bayesian approaches to empirical economic problems, ensuring consistency and efficiency of estimators.
2. Construct and interpret dynamic models including distributed lags, adaptive expectations, and VARs to capture real-world economic dynamics.
3. Identify and estimate simultaneous-equation systems using appropriate techniques such as 2SLS, 3SLS, and FIML.
4. Analyze and forecast economic time series using ARIMA and spectral methods, recognizing stationarity and stochastic trends.
5. Evaluate econometric models through specification tests, apply logit/probit and panel data frameworks, and conduct econometric analysis for evidence-based policy evaluation.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2									
CO2		2								
CO3			2							
CO4	2									
CO5			2						2	

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

Basu, A.K. (2003). Introduction to Stochastic Process, Narosa Publishing House Pvt. Ltd., India

Brockwell, P.J. and Daris, R. A. (2002). Introduction to time Series and Forecasting, 2nd ed., Springer-Verlag.

Greene, W.H. (2003). Econometric Analysis, 5th ed., Dorling Kindersley (India) Pvt. Ltd., licensees of Pearson Education in South Asia.

Johnston, J. (1984). Econometric Methods, McGraw Hill Kogakusha Ltd.

Judge, G.G., Hill, R, C., Griffiths, W.E., Lutkepohl, H. and Lee, T.C. (1988). Introduction to the Theory and Practice of Econometrics, 2nd ed., John Wiley & Sons.

Kmenta, J. (1986). Elements of Econometrics, 2nd ed., Mac Millan.

Kendall, M.G. and Stuart, A. (1968). The Advanced Theory of Statistics, Vol. III, 2nd ed., Charles Griffin.

Medhi, J. (1994). Stochastic Processes, 2nd Edn., Wiley Eastern, New Delhi

Montgomery, D.C. and Johnson, L.A. (1976). Forecasting and Time Series Analysis, McGraw Hill.

PAPER-3
MEC028A: MONETARY THEORY AND POLICY

Course Objectives

1. To introduce students to advanced macro-monetary frameworks explaining money's role in the economy.
2. To equip students with an understanding of the Money-in-the-Utility (MIU) model and its implications for monetary neutrality and dynamics.
3. To develop the ability to analyse New Keynesian monetary policy models and their relevance to modern policy formulation.
4. To enable students to evaluate monetary policy coordination and exchange rate dynamics in an open economy.
5. To critically assess the design and effectiveness of monetary policy operating procedures, communication strategies, and unconventional policy tools.

UNIT I	Money-in-the-Utility Function: MIU model; steady state equilibrium; Non super neutrality; Dynamics
UNIT II	New Keynesian Models of Monetary Policy: Basic New Keynesian model; Monetary policy analysis in the New Keynesian model
UNIT III	Monetary Policy in an Open Economy: Two-country model; Policy coordination; Small open economy models
UNIT IV	Discretionary Policy and Rules: Policy Objectives; Targeting rules; Taylor Principle; Inflation Targeting framework; Commitment vs. Discretion
UNIT V	Monetary Policy Operating Procedures: Instruments and goals; Effects of operating procedures; policy measures; Role and strategies of Central Bank communication in Monetary Policy; Forward guidance; Unconventional monetary policy

Course Outcomes

After completing this course, students will be able to:

1. Explain the theoretical foundation and dynamics of the Money-in-the-Utility model.
2. Apply New Keynesian frameworks to analyse the effectiveness of monetary policy under price and wage rigidities.
3. Evaluate the interaction between domestic monetary policy and open economy mechanisms.
4. Compare discretionary policy and rule-based approaches in achieving macroeconomic stability.
5. Critically assess modern monetary policy procedures, central bank communication strategies, and unconventional policy interventions.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2									
CO2			2							
CO3		2								
CO4				2						
CO5	2							2		

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

Gali, J. (2015): *Monetary Policy, Inflation, and the Business Cycle*, Princeton Univer- sity Press.

Walsh, C. (2017): *Monetary Theory and Policy*, 4th Edition, MIT Press

Woodford, M. (2003): *Interest and Prices: Foundations of a Theory of Monetary Policy*, Princeton University Press

Bianchi, F., and Melosi, L.(2018): "Constrained Discretion and Central Bank Trans-parency", *Review of Economics and Statistics*, 100 (1), 187-202.

Hansen, S., McMahon, M., and Tong, M.(2019): "The Long-run Information Effect of Central Bank Communication", CEPR Discussion Paper 13438.

PAPER-4
MEC029A : FINANCIAL RISK MANAGEMENT

Course Objectives

1. To introduce students to the fundamentals and typologies of financial risks, including market, credit, operational, and systemic risks.
2. To develop the ability to measure, assess, and interpret financial risks using quantitative tools such as Value-at-Risk (VaR), Expected Shortfall, and stress testing.
3. To examine volatility models and statistical frameworks such as ARCH and GARCH in the context of financial risk management.
4. To enable students to understand credit risk assessment, sovereign risk evaluation, and regulatory frameworks such as Basel Accords.
5. To equip students with the analytical and managerial skills required to identify, measure, and mitigate operational risks in financial institutions through effective risk governance and insurance mechanisms.

UNIT I	Fundamental of Risk Management: Typology of Risks: Market Risk, Credit Risk, Liquidity Risk, Operational Risk, Business & Strategic Risk, Reputation Risk, The Risk Management Process, Identifying Risk: Known & Unknown, Quantitative Risk Metrics: VaR & Expected Shortfall, Tail Risk, Systemic Risk, Human Agency & Conflicts of Interest, Risk Aggregation, Balancing Risk & Reward, Enterprise Risk Management.
UNIT II	Measures of Financial Risk: Mean-Variance Framework, The Normal Distribution, VaR, Expected Shortfall, Coherent Risk Measures, Calculating and Applying VaR: Linear Vs Non-Linear Portfolios, Historical Simulation, Portfolio Valuation, Term Structures, Stressed Measures, The Delta-Normal Model, Monte Carlo Simulation, Estimating Parameters Values, Correlation Breakdown, Worst Case Analysis
UNIT III	Measuring & Monitoring Volatility: Deviation from Normality, Unconditional & Conditional Normality, Slow Changes vs Regime Switching, Volatility measures, Estimating the Current Volatility, ARCH, GARCH, Long Horizon Volatility, Implied Volatility, Correlation.
UNIT IV	Credit Risk: Credit Ratings, Credit Spreads & Risk Premiums, Rating Process: Outlooks & Watchlists, Rating Stability, Through the Cycle vs Point-in-Time; Alternatives to Ratings, Internal Ratings, Rating Transitions. Sovereign Credit Risks, Foreign Currency Defaults, Local Currency Defaults, Impact of Sovereign Default. Measuring Credit Risks: The Basel Committee, Economic Capital, Data on Defaults, Model for determining Capital, Gaussian Copula Model, The Vasicek Model, Credit Metrics, & Risk Allocation.
UNIT V	Operational Risk: Operational Risk & its Measurement: Types of Operational Risks, The Large Risks, Basel II Regulation, Determining the Loss Distribution, Monte Carlo Simulation & Power Law. Reducing the Operational Risk, Insurance

Course OutcomesAfter completing this course, students will be able to:

1. Explain the various types of financial risks and understand the processes involved in enterprise risk management.
2. Apply quantitative techniques like VaR, Expected Shortfall, and simulation-based models to evaluate market and portfolio risks.
3. Analyse financial volatility using econometric models such as ARCH, GARCH, and implied volatility measures.
4. Evaluate credit risk through rating systems, Basel regulatory frameworks, and models such as Vasicek and CreditMetrics.
5. Assess operational risks and propose mitigation strategies through risk modeling, simulation, and insurance mechanisms to enhance institutional resilience.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2							2		
CO2		2								
CO3	2									
CO4									2	
CO5									2	

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

- Bhanu Murthy, K. V. & Sakshi Gambhir (2017) 'International trade and foreign direct investment: empirical testing of the trade–environment triangle', Transnational Corporations Review, 9:2, 122-134.
- Jha, Raghbendra and Murthy, K. V. Bhanu, 'Sustainability: Behavior, Property Rights and Economic Growth' (September 1999). MacArthur Foundation Project on World Environmental Organization Working Paper No. 03, Available at SSRN: https://ssrn.com/abstract=235608 or http://dx.doi.org/10.2139/ssrn.235608
- Jha, Raghbendra and Murthy, K. V. Bhanu (2006) Environmental Sustainability -A Consumption Approach, Routledge, London, ISBN 9780415544283.
- K. G. Maler, J. Vincent: Handbook of Environmental Economics, Elsevier (2005)
- Phaneuf and Requate: A Course in Environmental Economics: Theory, Policy and Practice, Cambridge University Press (2017).
- Freeman, Herriges and Kling: The Measurement of Environmental and Resource Values: Theory and Methods, 3rd ed. RFF Press/Routledge (2014).
- W. Baumol, W. Oates: The Theory of Environmental Policy. Cambridge University Press (1988).
- Champ, Boyle and Brown: A Primer on Nonmarket Valuation. Springer (2003).
- Ananya Ghosh Dastidar and Yamini Gupta (2016). Contemporary Issues in Trade Environment and Policy, Ane Books, New Delhi

TRACK 2: DEVELOPMENT AND POLICY STUDIES

PAPER-1
MEC030A: DEVELOPMENT ECONOMICS: THEORY AND PRACTICE

Course Objectives

1. To introduce students to the origins, evolution, and scope of Development Economics and its distinction from mainstream economic thought.
2. To familiarize students with different theories and models of economic growth and stages of development.
3. To analyze the role of key factors of production—land, labor, and capital—in the development process of emerging economies.
4. To understand the dynamics between trade, dependency, and underdevelopment, and the role of international institutions in shaping development policy.
5. To critically evaluate issues of poverty, inequality, and inclusive growth, and assess policy approaches for sustainable human development.

UNIT I	Approaches to Development and Underdevelopment:- Concepts, dimensions and indicators, Growth and development, Characteristics of underdevelopment, Measurements: Issues and challenges, Rostow's stages of growth, Balanced growth and unbalanced growth
UNIT II	Economic Growth and Stages of Development:- Theories of Economic Growth: Harrod-Domar model, Solow growth model, Endogenous Growth: Human capital, population, technological progress
UNIT III	Rural and Urban Economy: Interaction and Linkages:- The Lewis Model The Harris–Todaro Model, Formal and Informal Sector Debate
UNIT IV	Trade, Dependency and Underdevelopment:- Gains from trade, Terms of trade, Export promotion and import substitution.
UNIT V	**Poverty, Inequality and Development:-** Vicious circle of poverty, Measurement of poverty and inequality, Inverted-U hypothesis, Human Development Indices and Capabilities approach, Inequality within household: Intra-household bargaining and unequal sharing, Gender and development, Poverty alleviation programmes.

Course Outcomes

Students will:

1. Demonstrate a comprehensive understanding of the historical evolution of development economics and its diverse theoretical perspectives.
2. Compare and contrast different models and stages of economic growth and their relevance to contemporary developing economies.
3. Analyze the interplay between land, labour, and capital markets and their impact on economic development.
4. Assess how international trade, globalization, and dependency influence development outcomes and national policy strategies.
5. Evaluate the causes and consequences of poverty and inequality and apply development policy frameworks to promote equitable and sustainable growth.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2									
CO2		2								
CO3	2									
CO4								2		
CO5	2									2

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

- Todaro, M P and S C Smith (2011), Economic Development, 12th Edition, Prentice Hall (Chapters 1,2,3,4,5,7,9,11,12)
- Ray, Debraj., (1998). Development economics. Princeton University Press (Chapters 1,2,3,6,7,8,10,11,12,13,14)
- P. Thirlwall (1983) 'Growth and Development', Sixth edition, Macmillan Press Ltd (Chapters 1,2,3,4,5,6, 9,10,12,16)
- Bardhan, P., & Udry, C. (1999). 'Introduction' in Bardhan and Udry (eds) Development microeconomics. OUP Oxford.
- Jomo K.S. and Erik S Reinert (2005). 'Introduction' in Jomo and Reinert (eds). The Origins of Development Economics, Tulika Books
- Patnaik, P (2005). 'Why Development Economics' in Jomo, K.S. (ed.), Pioneers of development economics: great economists on development. Zed Books.
- Patnaik, U (2005). 'Ricardo's Fallacy: Mutual Benefit from Trade Based on Comparative Costs and Specialization?' in Jomo, K.S. (ed.), Pioneers of development economics: great economists on development. Zed Books.
- Peterson, J. and Lewis, M. eds., (2001). The Elgar companion to Feminist Economics. Edward Elgar Publishing. (Entries on Development Policies, Theories of Development, Economic Man, Economic Welfare, Feminization of Poverty, Macroeconomics, Income Distribution, Labour Force Participation and Women's Budgets)

MEC031A : INTERNATIONAL TRADE

Course Objectives

1. To introduce the foundational theories of international trade and their evolution from classical to modern frameworks.
2. To examine the welfare implications of trade policies, tariffs, quotas, and other commercial instruments in shaping national and global trade outcomes.
3. To analyze the role of imperfect competition, economies of scale, and firm heterogeneity in explaining modern trade patterns.
4. To understand the impact of foreign direct investment (FDI), trade agreements, and global production chains on international specialization and growth.
5. To critically evaluate emerging issues in international trade, including environmental sustainability, global value chains, and digital trade in a post-globalization context.

UNIT I	Trade Theories: Adam Smith and absolute advantage theory of trade; Ricardo and comparative advantage; its limitations; production possibility curve; gain from trade; determination of international equilibrium price; factors affecting terms of trade; comparative advantage in Heckscher Ohlin Model; relationship between factor prices and commodity prices; factor price equalization theorem; factor intensity reversal; the empirical evidence on Heckscher Ohlin theory; Leontief Paradox
UNIT II	Gains from Trade, Commercial Policy, and Economic Growth: The rationale of tariffs, quotas and subsidies; Infant industry argument; tariffs and factor income distribution; Stolper-Samuelson Theorem; Rybczynski Theorem – tariffs, terms of trade and domestic prices; The optimum tariff rate – tariffs, subsidies and distortions in commodity and factor markets; effective rate of protection; welfare implications of tariffs – Non-tariff barriers; Effects of quotas and other quantitative restrictions; tariffs versus quotas; Theory of customs union
UNIT III	Imperfect Competition: Imperfect competition, homogeneity: Krugman, Brander-Spencer models Monopolistic competition, heterogeneity; Generalised oligopoly framework, heterogeneity
UNIT IV	FDI and production chains: FDI and global production, FDI vs. exports, political economy of trade agreements and upcoming issues of protections, trade and growth; immiserizing growth; endogenous growth with homogeneity and heterogeneity, migration, international trade and capital formation
UNIT V	Trade, Environment, and Global Value Chains: Trade–environment nexus; carbon tariffs; WTO and sustainability; global value chains and trade in value-added; role of MNCs and digital trade; post-COVID trade resilience and inclusive globalization.

Course Outcomes

After completing this course, students will be able to:

1. Explain classical and modern trade theories and evaluate the determinants of comparative advantage and trade gains.
2. Assess the effects of trade policies, tariffs, and non-tariff barriers on welfare, income distribution, and growth.
3. Apply models of imperfect competition and new trade theory to understand intra-industry and strategic trade patterns.
4. Evaluate the role of FDI, multinational corporations, and trade agreements in influencing global production networks and economic integration.
5. Critically analyze the interface between trade, environment, and sustainable development, and identify contemporary challenges to global trade governance.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	2								
CO2	2									
CO3										
CO4		2	2							
CO5								2		

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

- Antras, P. (2016): Global Production: Firms, Contracts, and Trade Structure, Princeton University Press
- Dornbusch, R.; Fischer, S. and Samuelson, P. (1977): Comparative advantage, trade, and payments in a Ricardian model with a continuum of goods, American Economic Review 67, 823-39
- Dornbusch, R.; Fischer, S. and Samuelson P. (1980): Heckscher-Ohlin trade theory with a continuum of goods, The Quarterly Journal of Economics 95, 203-224.
- Feenstra, R. (2015): Advanced International Trade: Theory and Evidence, Princeton University Press
- Feenstra, R. (2010): Measuring the gains from trade under monopolistic competition, Canadian Journal of Economics, 1-28.
- Gopinath, G.; Helpman, E. and Rogoff, K. (2014) (eds.): Handbook of International Economics, Vol. 4, Elsevier
- Bhagwati, Jagdish (1964), "The Pure Theory of International Trade", Economic Journal, Vol. 74, pp. 1-78

Course Objectives

1. To introduce the fundamental concepts of labor supply and demand within the framework of individual and household decision-making.
2. To analyze the determinants of labor demand and wage formation under competitive and non-competitive market conditions.
3. To examine the theory of human capital, returns to education, and the role of education as a signaling mechanism in the labor market.
4. To understand labor market frictions, job search behavior, and the causes and measurement of labor market discrimination.
5. To evaluate the role and effectiveness of labor market institutions and public policies, including unions, minimum wage laws, and employment protection regulations.

UNIT I	Labour Supply: Choice between Consumption and Leisure; Incorporating Household Production and Decisions.
UNIT II	Labour Demand and Equilibrium: Labour Demand Function, Competitive Equilibrium, Compensating Wage Differentials and Hedonic Theory of Wages
UNIT III	Investment in Education: Theory of Human Capital, Education as a Signalling Device, Returns to Education
UNIT IV	Job Search and Discrimination: Theories of Discrimination, Measuring Discrimination, Affirmative Action
UNIT V	Labour Market Institutions and Policies: Collective Bargaining and Labour Unions, Minimum Wage and Employment, Un- employment Insurance, Job security regulations

Course Outcomes

After completing this course, students will be able to:

1. Explain how individuals and households make labour–leisure choices and the factors influencing labour supply decisions.
2. Analyse the determinants of labour demand, equilibrium, and wage differentials using economic models.

3. Apply human capital theory and signalling models to assess the relationship between education, productivity, and wages.
4. Evaluate theories and empirical evidence on labour market discrimination and the impact of affirmative action.
5. Assess the functioning and implications of labour market institutions and public policies on employment, wages, and job security.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2	2								
CO2		2						1		
CO3	2									
CO4									1	
CO5	2							1		

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

Cahuc, P.; Carcillo, S. and Zylberberg, A. (2014): *Labor Economics*, MIT Press

Ehrenberg, R. G. and Smith, R. S.(2018): *Modern Labor Economics: Theory and Public Policy*, Routledge

Borjas, G. J. (2010): *Labor Economics*, McGraw-Hill/Irwin, Boston MA (5th edition).

Card, D., and Ashebfelrer, O. (2011): Handbook of Labor Economics, Vol 4A & B, Elsevier

MEC033A : ECONOMICS OF ENVIRONMENT

Course Objectives

1. To introduce students to the interlinkages between economic development and environmental sustainability.
2. To develop an understanding of the methods of environmental valuation.
3. To familiarize students with major environmental issues.
4. To analyze the economic dimensions of climate change and global warming.
5. To understand the institutional and policy frameworks governing environmental management.

UNIT I	Environmental Sustainability and Economic Development: Approaches to environmental sustainability; Sustainability: Behavior, Property Rights and Economic Growth; Environmental Sustainability and Consumption Approach; The relation between Environment and Development: Environmental Kuznets Curve; Trade-Environment triangle. Pollution Haven Hypothesis.
UNIT II	Environmental Valuation: Use value, option value and non-use value; Revealed Preference and Stated preference; Hedonic functions; Household production function; Travel cost method- Zonal, individual and random utility; Hypothetical markets and Contingent valuation.
UNIT III	Environmental issues and Control: Bio-diversity loss. Depletion of Common property. Deforestation. Air, water and soil pollution. Pollution abatement methods: Market solutions - pollution charges, marketable permits, and better-defined property rights. Pigouvian Tax. Coase bargaining solutions. Non-market solutions to pollution control. Command and control approach. Hybrid approach – combining standards and pricing. Liability rules, information disclosure and voluntary action. Circular Economy and Waste Management.
UNIT IV	Global Warming and Climate Change: Climate Change: Natural factors and anthropogenic factors. Ozone layer depletion – causes, potency and policy. Climate change and loss of biodiversity. Adaptation & Mitigation strategies. Combined strategies – Improved mass transit, Indigenous people's land rights, decentralized energy distribution, sustainable agro-forestry and protection of coastal wetlands.
UNIT V	Environmental Policy and Governance: Environmental Policy and Governance: Evolution and framework of environmental policy in India; Overview of major environmental legislations such as the Environment (Protection) Act, 1986, the Air

	(Prevention and Control of Pollution) Act, 1981, and the Water (Prevention and Control of Pollution) Act, 1974; Role of institutions like the Ministry of Environment, Forest and Climate Change (MoEFCC), Central Pollution Control Board (CPCB), and State Pollution Control Boards (SPCBs); Environmental Impact Assessment (EIA) and public participation in environmental decision-making; National Green Tribunal (NGT) and judicial activism in environmental protection; International environmental governance – role of the United Nations Environment Programme (UNEP), major conventions such as UNFCCC, Kyoto Protocol, Paris Agreement, and Convention on Biological Diversity; Integrating environmental policy with the Sustainable Development Goals (SDGs); Transition towards Green Economy and Ecological Modernization.

Course Outcomes

On successful completion of the course, students will be able to:

1. Explain the relationship between environment and economic development, using theoretical models and empirical evidence.
2. Apply environmental valuation techniques to assess the economic worth of environmental goods and services for policy analysis.
3. Critically evaluate different policy instruments (market-based, command-and-control, and hybrid) for addressing environmental degradation and promoting sustainability.
4. Assess the causes and consequences of global climate change, and evaluate national and international strategies for mitigation and adaptation.
5. Demonstrate understanding of environmental governance structures and their role in achieving sustainable development goals, green growth, and environmental accountability.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2							2		
CO2		2								
CO3			2							
CO4								2		
CO5									2	

3 = Highly Related; 2 = Medium; 1 = Low

Essential Readings

- Bhanu Murthy, K. V. & Sakshi Gambhir (2017) 'International trade and foreign direct investment: empirical testing of the trade–environment triangle', Transnational Corporations Review, 9:2, 122-134.
- Jha, Raghbendra and Murthy, K. V. Bhanu, 'Sustainability: Behavior, Property Rights and Economic Growth' (September 1999). MacArthur Foundation Project on World Environmental Organization Working Paper No. 03, Available at SSRN: https://ssrn.com/abstract=235608 or http://dx.doi.org/10.2139/ssrn.235608
- Jha, Raghbendra and Murthy, K. V. Bhanu (2006) Environmental Sustainability -A Consumption Approach, Routledge, London, ISBN 9780415544283.
- K. G. Maler, J. Vincent: Handbook of Environmental Economics, Elsevier (2005)
- Phaneuf and Requate: A Course in Environmental Economics: Theory, Policy and Practice, Cambridge University Press (2017).
- Freeman, Herriges and Kling: The Measurement of Environmental and Resource Values: Theory and Methods, 3rd ed. RFF Press/Routledge (2014).
- W. Baumol, W. Oates: The Theory of Environmental Policy. Cambridge University Press (1988).
- Champ, Boyle and Brown: A Primer on Nonmarket Valuation. Springer (2003).
- Ananya Ghosh Dastidar and Yamini Gupta (2016). Contemporary Issues in Trade Environment and Policy, Ane Books, New Delhi.
- Narayan Singh and Amit Kumar Thakur (2016). Climate Change and Environmental Issues, The Energy Research Institute, New Delhi.