



## **Course Structure and Syllabus for MA in Economics**

**2024-25**

*School Of Liberal Studies*

*Pandit Deendayal Energy University*



# PDEU

PANDIT DEENDAYAL ENERGY UNIVERSITY

Formerly Pandit Deendayal Petroleum University (PDPU)

## SCHOOL OF LIBERAL STUDIES: M.A. Economics Program Outcomes

<b>PO 1</b>	Domain Knowledge	Develop and strengthen theoretical, conceptual and applied knowledge of Economics to understand the real-world phenomenon from a global, national and regional perspective
<b>PO 2</b>	Problem Analysis	Enable use of critical, logical and reflective thinking to construct reasonable arguments and analyze complex phenomena with strategic decision making process
<b>PO 3</b>	Design/ Development of solutions	Construct and design effective solutions by applying existing economic theory and tools to identify the research and policy gaps
<b>PO 4</b>	Conduct Investigations of Complex Problems	Apply tools of optimization and quantitative aptitude to examine, evaluate and analyze economic issues affecting the developed, emerging and developing economies
<b>PO 5</b>	Modern Tool Usage	Develop the ability to apply quantitative and qualitative tools of advanced statistics & econometrics to analyze disciplinary and cross-disciplinary real-world issues
<b>PO 6</b>	The Citizen and the Society	Enable students to become informed and responsible citizens by inculcating the practice of rational, ethical thinking and optimal decision making to minimize resource wastage.
<b>PO 7</b>	Environment and Sustainability	Enhance practical insights towards energy efficiency and sustainable development models by demonstrating solutions from energy economics & environment and resource economics.

<b>PO 8</b>	Ethics	Apply the existing ethical guidelines in everyday economics, research thinking and community development
<b>PO 9</b>	Individual and Teamwork	Manage and build high performance teams by understanding the role of incentives, scientific virtues, decent work and pillars of organization efficiency
<b>PO 10</b>	Communication	Practice effective oral and written communication to be able to convey advanced economic theories and models in a pragmatic manner to the stakeholders of the society
<b>PO 11</b>	Project Management and Finance	Predict and analyze the role of economic factors and policies on overall economic and financial performance of an economy using managerial economics tools
<b>PO 12</b>	Life-long Learning	Raise awareness on the importance of constant upskilling in the wake of Industry 4.0 and Education 4.0 and demonstrate effective usage of existing e-resources.

**MA ECONOMICS**  
**PROGRAMME STRUCTURE**

<b>Sr. No.</b>	<b>Course Title</b>	<b>Code</b>	<b>Credits</b>
	<b>SEMESTER I – CORE PAPERS</b>		
1	Microeconomics	24MAECO501T	4
2	Macroeconomics	24MAECO502T	4
3	Mathematical Economics	24MAECO503T	4
4	Research Methods	24MAECO504T	4
5	Economic Thoughts	24MAECO505T	4
	<b>SEMESTER II– CORE PAPERS</b>		
6	Econometrics	24MAECO506T	4
7	Public Economics	24MAECO507T	4
8	International Trade and Finance	24MAECO508T	4
9	Environment and Resource Economics	24MAECO509T	4
10	Indian Economy	24MAECO510T	4
			4
	<b>SEMESTER III – CORE PAPERS</b>		
11	Development Economics	19MEC201	4
12	Financial Economics	19MEC202	4
13	Energy and Infrastructure Economics	19MEC203	4
14	Economics of Industrial Organization	19MEC204	4
18	Research Dissertation 01		4
	<b>Semester III Elective Papers: Any ONE of the following from TWO Clusters</b>		
16	Time series and Forecasting	19MEC205	4
17	Entrepreneurship	19MEC206	4
18	Rural Economics	19MEC207	4
	<b>SEMESTER IV – CORE PAPERS</b>		
19	Behavioural Economics	19MEC208	4
20	Work and Labour Studies	19MEC209	4
21	Financial Markets and Institutions	19MEC210	4
22	Data Analytics for Economics	19MEC211	4
	<b>Semester IV Elective Papers: Any ONE of the following from TWO Clusters</b>		
25	Urban Economics	19MEC212	4
24	Game Theory	19MEC213	4
25	Geo-Political Economy	19MEC214	4
26	Research Dissertation 02	19MEC215	4

**FIRST YEAR**

**SEMESTER I AND II**

24MAECO501T					MICROECONOMICS					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To explain core microeconomic concepts and know their theoretical foundations
- To evaluate consumer and producer decision making using microeconomics lens
- To enable students to use critical thinking and tools of optimisation
- To provide formal training in Applied Microeconomic Theory for real-world issues

**UNIT 1 CONSUMER AND PRODUCER THEORY****18 Hrs.**

Consumption Set; Competitive Budget; Consumer Choice; Demand Function and comparative statics; Demand Elasticity analysis; Demand Forecasting; Theory of Production; Theory of Cost Production Economics Producer's Equilibrium

**UNIT 2 MARKET STRUCTURES AND GAME THEORY****18 Hrs.**

Perfect Competition – Pareto Optimality and competitive Equilibria- Partial Equilibrium competitive analysis- Monopoly - Monopolistic Competition - Non-Collusive Oligopoly - Collusive Oligopoly - Alternative Theories of Firm- Cooperative Games, Games of Incomplete Information, Repeated Games

**UNIT 3 SOCIAL CHOICE AND WELFARE****18 Hrs.**

Pigovian vs. Paretain Approach - Social Welfare Function - Imperfect Market, Externality and Public Goods - Social Choice and Welfare

**UNIT 4 GENERAL EQUILIBRIUM, PARTIAL EQUILIBRIUM AND ECONOMICS OF UNCERTAINTY****18 Hrs.**

Partial and General Equilibrium Approaches- Walrasian Equilibrium- Market Economy with contingent commodity- Choice in Uncertain Situations - Insurance Choice and Risk - Economics of Information- Intertemporal Utility- Intertemporal Production and efficiency.

**Min. 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 – Understand the role of economic agents in economic environment  
 CO2 - Understand the fundamentals of consumer decision and firm production function.  
 CO3 – Apply economic theories and methodologies in analyzing economic issues in various sub-fields of applied microeconomics  
 CO4 – Distinguish the role of Government and market in policy questions of real economy  
 CO5 – Evaluate and critique alternative economic policies.  
 CO6 – Construct innovative microeconomic approaches to analyse and solve various economic problems.

**TEXT/REFERENCE BOOKS**

1. Microeconomics, Paul Krugman and Robin Wells, Macmillan Press, Latest edition
2. Microeconomic theory Mas-Colell, A., Whinston, M. D., & Green, J. R. (Vol. 1). New York: Oxford university press.
3. Macroeconomics, (Global edition), Pindyck, R., & Rubinfeld, D. Pearson Education.

**Assessment Indicator**

Internal Assessment

Mid Semester Exam

End Semester Exam

**Weightage**

25 Marks

25 Marks (50 Marks Exam for 2 hours)

50 Marks (100 Marks Exam for 3 hours)

24MAECO502T					MACROECONOMICS					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To enhance the reading skills about national economy and sector composition
- To analyse factors for fluctuations in growth rate and aggregate demand
- To analyse contributions of classical, neo-classical and Keynesians economists
- To discuss policy decisions in fiscal, monetary and trade in non-normal times

**UNIT 1 FRAMEWORK OF AGGREGATE ANALYSIS****20 Hrs.**

Size & Growth Rate of An Economy, Accounting Structure in National Income, GNP, GDP, NNP, Consumption, Saving, Investment. Keynesian consumption function. Permanent income and life cycle hypothesis. Fixed and flexible accelerator model. Keynesian Models, Classical Models and Neo-Classical Approach to Aggregate Demand and Supply, Aggregate Demand Management and Supply

**UNIT 2 GOODS AND ASSETS MARKET BEHAVIOUR****16 Hrs.**

Unemployment and inflation relationship. Short run and long run Phillips curve. Paradox of Thrift, Behaviour of IS-LM model. Shift and slope of IS-LM. Movement in Interest rate and effects, Policy for Growth, Closed and Open Sector Model, Liquidity Preference, Liquidity Trap

**UNIT 3 MONETARY AND FISCAL POLICY****18 Hrs.**

Fiscal, Money and Trade Multiplier, Inflationary Tendencies, Factors for Money Demand, Clowers and Patinkin's Money Demand Functions, Modern monetary theory. Comparative Decision Autonomy of Central Banks, Fiscal Policy Initiatives, Policy Synchronization, Inflation Targeting, Recessions, Bank Runs

**UNIT 4 INTERNATIONAL LINKAGES and ADJUSTMENTS****18 Hrs.**

Adaptive and Rational Expectations Hypothesis, Lucas Critique, BoP Concept, Market for Foreign Exchange, Devaluation and Depreciation, Real and Nominal Exchange Rate, Mundell-Fleming model, Purchasing Power Parity

**Min 72 Hrs****COURSE OUTCOMES**

On completion of the course, student will be able

CO1 To comprehend interconnectivity of macroeconomic variables

CO2 To review performance of aggregate demand and aggregate supply models

CO3 To critically analyze classical, Keynesian and neo classical model of economy

CO4 To review objectives and tolls of monetary and fiscal policies

CO5 To examine international adjustment mechanism by different countries

CO6 To develop a skill to analyze macroeconomic performance of countries.

**TEXT/REFERENCE BOOKS**

1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill
2. N. Gregory Mankiw. Principles of Macroeconomics, Worth Publishers
3. Shapiro, E., Macroeconomic Analysis, Galgotia Publications, New Delhi.

**Assessment Indicator**

Internal Assessment

Mid Semester Exam

End Semester Exam

**Weightage**

25 Marks

25 Marks (50 Marks Exam for 2 hours)

50 Marks (100 Marks Exam for 3 hours)

24MAECO503T					MATHEMATICAL ECONOMICS			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- To introduce the basic mathematical tools which are useful in economics.
- Mathematical methods have been incorporated in the course so that students can understand the use of mathematical tools in economic problems.
- To enable students to follow simple economic problems related to optimization.
- To make students ready for advanced mathematical courses in Economics.

**UNIT 1 FUNCTIONS OF ONE AND SEVERAL REAL VARIABLES****18 Hrs.**

Functions; basic definitions; Types and their graphs; properties of functions; composite functions; inverse functions; sequences and series: convergence

**UNIT 2 DIFFERENTIATION AND INTEGRATION****18 Hrs.**

Calculus of single and multivariable functions: differentiable functions; rules of differentiation, partial differentiation; second and higher order derivatives: properties and applications. Integration of functions and application in Economics; Areas under curves; indefinite integrals; the definite integrals; economic applications

**UNIT 3 OPTIMIZATION****18 Hrs.**

Single-variable optimization; Geometric properties of functions: convex functions; local and global optima; inflexion point; The implicit function theorem, and application to comparative statics problems; homogeneous and homothetic functions: characterizations and applications.

**UNIT 4 LINEAR ALGEBRA****18 Hrs.**

Vector and scalar quantities: scalar products, orthogonality; linear transformations: matrix representations and elementary operations; introduction to eigen values and eigen vectors, determinants.

**Min. 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

CO1: Define different type of mathematical functions and concepts

CO2: Understand the concepts of linear algebra, differentiation and integration, optimisation and identify their applications

CO3: Choose the appropriate functional form for different economic models.

CO4: Analyse the economic models mathematically.

CO5: Select the application of single and multivariable functions based on problem statement.

CO6: Develop working knowledge on use of optimization in economic problems.

**TEXT/REFERENCE BOOKS**

1. K.Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia, Delhi.
2. A.C. Chiang; Mathematical methods for economics.
3. Basic Mathematics for Economists by Mike Rosser.
4. Hoy Michael, Livernois John, McKenna Chris, Mathematics for Economics, 3<sup>rd</sup> edition, PHI publication.
5. Simon Carl P. and Blume Lawrence, Mathematics for Economists.

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

24MAECO504T					RESEARCH METHODS					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To introduce and discuss research approaches, strategies, and data collection methods
- To enable constructing research tools and pilot them before they become ready for use.
- To train students about the aspects related to language, writing style, and lay-out
- To guide students on writing a comprehensive research proposal for future conduct

**UNIT 1 RESEARCH APPROACHES AND PHILOSOPHY****20 Hrs.**

Definition of research – Types- Steps of research: Quantitative and Qualitative Research methods (Grounded Theory, Phenomenology, Ethnomethodology, Symbolic Interactionism, Interpretivism). Cross-disciplinary mixed-methods, research narratives, Case studies, Content analysis. Ethics in secondary and primary data collection

**UNIT 2 RESEARCH DESIGN AND METHODS OF RESEARCH****18 Hrs.**

Definition and sources of research problems – Definition and type of hypothesis, Definition of variables – types of variables – Identification of variables – operationalization of variables – Formulation of research objectives.

**UNIT 3 DATA COLLECTION AND ACADEMIC REPORT WRITING****24 Hrs.**

Classification of research design. Types of data and measurements. Sample and Sampling techniques probability & non probability sampling, Research Ethics in data collection, Questionnaire – Interview – Observation – Focus Groups Discussion – Case Study – PRA method, Academic Report Writing and Formatting, Tools for Referencing – MLP, APA

**UNIT 4 DATA ANALYSIS: INTRODUCTION TO STATISTICAL SOFTWARE USED IN ECONOMICS****10 Hrs.**

Data Analysis, Introduction to Data Analysis using Statistical Software

**Min. 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

CO1 – Define research jargons from an economic application perspective and remember the philosophical foundations of research.

CO2 – Explain and discuss the complex issues inherent in selecting a research problem, selecting an appropriate research design, and implementing a research project.

CO3 – Apply research skills in qualitative and quantitative data analysis and presentation

CO4 – Examine choice of an appropriate method for data collection and description of data.

CO5 – Critically evaluate appropriate research designs and methodologies to apply to a specific research project.

CO6 – Formulate a research proposal understanding the feasibility and practicality of research methodology for a proposed project

**TEXT/REFERENCE BOOKS**

1. C.R. Kothari, Research Methodology, New Age Publications, latest edition
2. John W Creswell, A Concise Introduction to Mixed Methods Research (Sage Mixed Methods Research), Latest Edition

**Assessment Indicator**

Internal Assessment

Mid Semester Exam

End Semester Exam

**Weightage**

25 Marks

25 Marks (50 Marks Exam for 2 hours)

50 Marks (100 Marks Exam for 3 hours)

24MAECO505T					ECONOMIC THOUGHTS			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- To provide fundamental concepts of economic systems and their evolution.
- To provide an understanding of various economic systems and their workings.
- To analyze theoretical framework of past economic systems, evolution & interactions.
- To understand emerging conflicts of competing economic systems.

**UNIT 1 SOCIALISM, MARKET PLANNING & ROLE OF GOVERNMENT 18 Hrs.**

Property Rights: Use, Income, Transfer; Private, State, Communal; Forms Of Exclusion; Free Access. Socialism-Basic Features; New Interpretation as State Capitalism; Extensive vs. Intensive Growth; Varieties of Socialism; Market Planning- Industrial Policy; Economic Growth; Social Insurance

**UNIT 2 ECONOMIC SYSTEMS & THEORY OF CAPITALIST DEVELOPMENT 18 Hrs.**

The Economic Theory of History; What Forces Cause Property Rights To Change Over Time; Sampling Of Economic System Of The Past; Marxism Theory; Rise Of Inequalities In Western Nations; Schumpeter's Theory. Critique of Socialism

**UNIT 3 THE CRISIS OF CAPITALISM 18 Hrs.**

The Political Economy of Humanitarian Aid; The Failure of Development In Africa; Political Economy Of Failed And Weak States.

**UNIT 4 CONVERGENCE AND DIVERGENCE OF ECONOMIC SYSTEMS 18 Hrs.**

The trade and economic relationships among developing countries; BRICS; SAARC; Different systems-based approaches and policies adopting global challenges

**Min. 72 Hrs****COURSE OUTCOMES**

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

CO1 – Understand evolution of economic theories over centuries

CO2 – Appreciate existence of differences in economic ideologies across various schools of thoughts

CO4 – Critically analyse economic theories and postulates proposed by different schools of thoughts

CO5 – Observe the relevance of history of economic thoughts with the current socio-economic issues and policies

CO6 – Appreciate the contribution of Indian philosophers in the history of economic thoughts

**TEXT/REFERENCE BOOKS**

1. Richard L Carson, Market and State in Economic Systems (Armonk, NY and London, England: M.E Sharpe, 1997) ISBN 1-56324-920-0, second edition.
2. Steven Rosefielde, Comparative Economic Systemic Culture, Wealth and Power in the 21<sup>st</sup> Century, Wiley-Blackwell; latest edition (2002).

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

24MAECO506T					ECONOMETRICS			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- To introduce the basics of econometrics.
- To know the methods of model transformations.
- To gain knowledge about advantages and limitations of different econometric models.
- To prepare students for empirical work in different areas of Economics

**UNIT 1 SIMPLE REGRESSION ANALYSIS****18 Hrs.**

Nature and scope of econometrics; Specification of the two variable regression model; OLS estimation Assumptions; BLUE property; General and confidence approach to hypothesis testing; ANOVA; Multiple regression model estimation; R square & adjusted R square; General Linear Model; Gauss Markov Theorem.

**UNIT II QUALITATIVE MODELS****18 Hrs.**

Choice of function forms: linear, log-linear, semi-log, double log, quadratic functional forms, Regression on dummy variables, dummy variable trap, piecewise linear regression model, Logit and Probit models.

**UNIT III: VIOLATION OF CLASSICAL ASSUMPTIONS****18 Hrs.**

Consequences, detection and remedial measures of multicollinearity, Heteroskedasticity and autocorrelation; multicollinearity: Specification error (omitted variable, inclusion of irrelevant variables, measurement error in dependent and independent variables)

**UNIT IV: EVENT STUDY AND PANEL DATA****18 Hrs.**

Chow test; Pooled ordinary least square; Fixed effects approach; Random effects approach; Dynamic panel by Generalized Method of Moment.

**Min. 72 Hrs.****COURSE OUTCOMES**

Upon completion of the course, students will be able to

CO1-Evaluate the different types of econometric models

CO2-Identify the issue and limitation in the data and models

CO3-Perform the data analysis with the use of software

CO4-Build econometrics models and transform

CO5-Interpret the results from the outcome of the econometrics analysis

CO6-Recommend policy implication based on econometric analysis.

**TEXT/REFERENCE BOOKS**

1. Gujarati and Porter, Basic Econometrics, Fifth Edition, McGraw Hill/Irwin, 2009.
2. Greene, William H. Econometric Analysis. 6th Edition, Prentice Hall. 2008.
3. Johnston J. and DiNardo, J. Econometric Methods. 4th Ed. McGraw-Hill 1997. Greene
4. Wooldridge, J., Introductory Econometrics: A Modern Approach, 2018, Nelson, Education.
5. Ramanathan, Ramu, Introductory Econometrics with Applications, Thomson Asia Pte Ltd., Singapore

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

24MAECO507T					PUBLIC ECONOMICS					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To introduce importance of externalities and presence of public goods in economy
- To prepare students for quantitative and qualitative research
- To enable students to think of areas of research proposals in social sciences
- To provide insights into drafting a research proposal with interdisciplinary approach

**UNIT 1 IMPORTANCE OF PUBLIC UTILITIES AND GOODS****20 Hrs.**

Public Finance: Meaning and Scope; Public Good V/s Private Good, Principles of Maximum Social Advantage; Market Failure and Role of Government. Theory of Local Public Goods International Public Goods; Civil society and Business to Global Public Goods, Institutional Factors for Global Public Goods

**UNIT 2 PUBLIC POLICY AND PUBLIC EXPENDITURE****18 Hrs.**

Meaning, Classifications, Public Expenditure: Principles, Canons, Causes and Growth, Wagner's Law of Increasing State Activities, Peacock-Wiseman Hypotheses, Welfare Economics, Public Sector Economics, Treatment to International Public Goods

**UNIT 3 PUBLIC REVENUES, STATE FINANCING AND FISCAL FEDERALISM** **18 Hrs.**

Sources of Public Revenue, Impact and Incidence of Taxes, Division of Tax Burden, The Benefit and Ability to Pay Approaches, Taxable Capacity, Characteristics of Good Tax System, Fiscal Federalism in Principles and Theory; Fiscal Federalism in India, NITI Aayog approach to Cooperative Federalism, Competitive Federalism, Municipality Budget, State Finances Statistics

**UNIT 4 DEFICIT FINANCING AND FISCAL DISCIPLINE****10 Hrs.**

Theories of deficit financing: Ricardian Equivalence vs Keynesian, FRBM Act, Public Debt: Objectives, Problems, Growth, Deficits Debt Management Practices, Burden of Public Debt, Debt Ratio in different countries, Debt Redemption

**Min 72 Hrs****COURSE OUTCOMES**

On completion of the course, students will be able.

CO1: To comprehend issue of market failure and the consequence of the same.

CO2: To appreciate role of government intervention and the social welfare objective

CO3: To explain theories of public expenditure and taxation

CO4: To extract and interpret data from government budget documents

CO5: To evaluate fiscal performance of central, state and local government

CO6: To critically review the fiscal policy and its impact on economic performance

**TEXT/REFERENCE BOOKS**

- Hindriks, J., Myles, G. (2013). Intermediate public economics, 2nd ed. MIT Press
- Musgrave, Richard A, Public Finance in Theory and Practice
- Atkinson A.B. and J.E. Siglitz (2015). Lectures on Public Economics, Tata McGraw Hill Delhi
- J.E. Siglitz (2000). Economics of the Public Sector( third Edition)

**Assessment Indicator**

Internal Assessment

Mid Semester Exam

End Semester Exam

**Weightage**

25 Marks

25 Marks (50 Marks Exam for 2 hours)

50 Marks (100 Marks Exam for 3 hours)

24MAECO508T					INTERNATIONAL TRADE AND FINANCE					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To acquaint students with international economic environment in trade
- To provide insights into gains from trade and globalisation, Protectionism
- To analyse measures for externalities, international debt, investments and institutions
- To share role of regional blocks and trade policies in trade, and MNCs

**UNIT 1 GLOBALIZATION AND TRADE RATIONALES****18 Hrs.**

Globalization and Issues, Country risk assessment, Free trade theory, Alternative explanations of trade (Heckscher-Ohlin model, Stopler-Samuelson theorem, Leontief Paradox), Gains from free trade and welfare, Production possibility curve, Importance and Limitation of trade, Offer curve, Marshall-Lerner condition

**UNIT 2 MULTILATERALISM IN TRADE AND BALANCE OF PAYMENTS****18 Hrs.**

Trade surplus or deficit: implications, Theories of Protectionism, Role of GATT and WTO in trade policy, Trade and Developing Countries, International Financial Institutions, International Money Market Instruments, International Capital Market Instruments, Debt Securitization, International Debt and the role of Financial Institutions, Policy and Regulatory responses- Role of IMF in stabilizing economies

**UNIT 3 TRADE BLOCKS, TRADE POLICIES AND AGREEMENTS****18 Hrs.**

Theory of Regional Trade Blocks i.e. ASEAN, SAARC, NAFTA, OPEC, Preferential Trade, Favoured Nations, Custom's Union, Single Currency, Trade Policies regarding Tariffs and Quotas, Types of Promotion, Trade and Development, Technology and Externalities Imperfect Competition and Protection, Export-oriented development strategies

**UNIT 4 INTERNATIONAL LINKAGES AND ADJUSTMENTS****18 Hrs.**

India's role, Trade policies in India: Indian Trade policy-Recent Developments, Marketing Mix decision for International Markets; Role of EXIM Bank, Export credit and Guarantee Corporation, Market for Foreign Exchange, Factoring and Forfeiting, Mundell-Fleming model, International Adjustment and Interdependence

**Min 72 Hrs****COURSE OUTCOMES**

On completion of the course, student will be able to

CO1: Understand the challenges of globalization and free trade.

CO2: Explain the role of GATT and WTO in trade policy.

CO3: Develop understanding on international financial institutions, international debt and the role of financial institutions

CO4: Compare trade policies regarding tariffs and quotas across different nations.

CO5: Appraise trade policies in India and role of EXIM bank.

CO6: Measure the foreign exchange devaluation and depreciation.

**TEXT/REFERENCE BOOKS**

1. International Trade Finance, A Pragmatic Approach, Tarsem Bhogal, Arun Trivedi, Palgrave Macmillan Cham, Latest edition
2. International Trade Finance and Forex Operations Theory and Application, Gargi Sanati, Routledge India Latest Edition.
3. Krugman, P.R. and M. Obstfeld, International Economics: Theory and Policy
4. Salvatore, D.L., International Economics, Prentice Hall, Upper Saddle River, N.J.

**Assessment Indicator**

Internal Assessment

Mid Semester Exam

End Semester Exam

**Weightage**

25 Marks

25 Marks (50 Marks Exam for 2 hours)

50 Marks (100 Marks Exam for 3 hours)

24MAECO509T					ENVIRONMENT AND RESOURCE ECONOMICS			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- To offer an insight in environmental and natural resource economics.
- To make an understanding of essential concepts of natural resources economics,
- To acquaint theoretical framework of environment and resource economics, market.
- To get students with an understanding of environmental valuation techniques, global environmental issues and sustainable policy environment for natural resources

**UNIT 1 ISSUES AND THEORIES IN ENVIRONMENTAL ECONOMICS****18 Hrs.**

Market failure, property rights, open access resources, environment and development trade-off – environmental; Pollution Haven Hypothesis; Kuznet's curve; Environmental Fiscal Reforms; Hotelling's rule, Solow-Harwick's rule, Optimal extraction policy, rate of resource extraction, economic models of forestry & fisheries, economics of biodiversity.

**UNIT 2 ENVIRONMENTAL VALUATION****18 Hrs.**

Welfare Measures and Environmental Values; Market and non-market valuation; Physical linkage methods; Revealed and stated preference methods; Revealed Preference Methods of Valuation; Valuing Environment as Input in Production; Environmental Accounting and Measuring Green GDP

**UNIT 3 ENVIRONMENTAL POLICY****18 Hrs.**

Command and control versus market mechanisms; Uncertainty and instrument choice; regulatory compliance and enforcement; Eco-taxes and other fiscal measures; Models of the Policy Process; Efficiency & Equity; Costs, Benefits and Risk; Environmental Justice.

**UNIT 4 GLOBAL ENVIRONMENTAL ISSUES****18 Hrs.**

Transboundary pollution, economics of global warming, impact of trade on environment and environment on trade, Porter's hypothesis, Pollution havens hypothesis, case studies

**Min. 72 Hrs.****COURSE OUTCOMES**

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

CO1 – Understand the fundamental concepts of environmental economics.

CO2 – Classify the principles and theoretical economic models of natural resources and renewable resources.

CO3 – Apply environmental valuation methods and techniques.

CO4 - Analyse environmental policy instruments and testing their efficiency

CO5- Evaluate global environmental issues, impact of trade on environment

CO6 – Appraise the concepts of environmental issues on developing and analysing

**TEXT/REFERENCE BOOKS**

1. Kolstad, C., Environmental Economics, Oxford University Press, 2000.
2. Baumol, W.J, and W.E. Oates, The Theory of Environmental Policy, Cambridge University Press, 1988.

**Assessment Indicator**

Internal Assessment

Mid Semester Exam

End Semester Exam

**Weightage**

25 Marks

25 Marks (50 Marks Exam for 2 hours)

50 Marks (100 Marks Exam for 3 hours)

24MAECO510T					INDIAN ECONOMY					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To provide a descriptive overview of the Indian economy and its historical trajectory.
- To provide analytical perspective on sectoral performance of Indian economy
- To enable students to critically examine the linkages between India's economic performance & policy
- To familiarise students with current economic policies and the debates around the same

<b>UNIT 1 INDIAN ECONOMY - PRE- AND POST-INDEPENDENCE</b>	<b>15 Hrs.</b>
Indian economy during ancient and medieval time. Indian economy during British Raj. Economic impact of colonial rule. India's economic performance and policies post independent era. The debate of economic planning in India upto 1991. Challenges of economic growth. Hindu rate of growth. 1991 Economic reforms in India: rationale, nature and structure of economic reforms. Performance of Indian economy from 1991 to 2007-08. India's economic performance post 2008 financial crisis and rise of emerging market economy.	
<b>UNIT 2 AGRICULTURE AND INDUSTRY: SECTORAL PERFORMANCE AND POLICIES</b>	<b>15 Hrs.</b>
Agriculture sector: contribution to GDP & employment, productivity issues, land reforms, and green revolution, agriculture credit. Food security – agrarian distress-agricultural subsidies issues. Recent discussion on farm laws. Industrial sector: characteristics and features of India's industrial sector. Brief discussion on industrial policy, public v/s private enterprises, large scale v/s small scale debate. Definition and role of MSMEs.	
<b>UNIT 3 SERVICE SECTOR AND EXTERNAL SECTOR: PERFORMANCE AND POLICIES</b>	<b>10 Hrs.</b>
The growth and dominance of services sector in India. Nature and growth of India's service sector. Role of service sector in India's economic growth. External sector: – volume, composition and director of foreign trade. Foreign trade policy. India's position in WTO. Ease of doing business and FDI trend in India.	
<b>UNIT 4 INDIA'S CONTEMPORARY ISSUES OF DEVELOPMENT</b>	<b>10 Hrs.</b>
India's population and demographic dividends. A debate on India's population policy. Performance of India with respect to Human development and sustainable development goals. Poverty and inequality in India. India's employment and labour force trend and issues. Discussion on prominent policies of social development – focus on health and education.	
<b>UNIT 5 INDIA'S ECONOMIC PERFORMANCE AND ISSUES OF RECENT YEARS</b>	<b>10 Hrs.</b>
India's economic growth performance and challenges post pandemic. Economic reforms and policy for post pandemic recovery. Make in India and Atmanirbhar bharat policies – critical analysis. Current economic priorities and policies: Urbanisation, migration, green growth, digital India. (Discussion on economic performance and policies of current fiscal year from economic survey and union budget.	
<b>Max. 60 Hrs.</b>	

**COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 – Critically analyse performance of Indian economy over different growth phases
- CO2 - Examine India's performance across sectors like agriculture, industry, service, trade etc.
- CO3 – Comprehend and Interpret the economic policies announced in the recent time
- CO4 – Evaluate India's economic policies and examine its impact on India's economic performance
- CO5 – Carry out secondary data analysis on policies and programme in various sector of the economy
- CO6- Write an analytical essay on Indian economic performance

**TEXT/REFERENCE BOOKS**

1. Madhur M Mahajan (2022), Indian Economy, 2<sup>nd</sup> Edition, Pearson Education
2. Government of India, Economic Survey (Annual), Economic Division, Ministry of Finance, New Delhi.
3. Ahluwalia, I.J. and I.M.D. Little (Eds.) (1999), India's Economic Reforms and Development (Essays in honor of Manmohan Singh), Oxford University Press, New Delhi.
4. Panagariya Arvind (2010) India: The Emerging Giant, Oxford University Press

**Assessment Indicator**

Internal Assessment

Mid Semester Exam

End Semester Exam

**Weightage**

25 Marks

25 Marks (50 Marks Exam for 2 hours)

50 Marks (100 Marks Exam for 3 hours)

**SECOND YEAR**

**SEMESTER III AND IV**

19MEC201					DEVELOPMENT ECONOMICS			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- To provide students with conceptual tools of economic growth and development.
- To provide a theoretical framework for analysing process of economic development.
- To acquaint with various dimensions of development and development gaps.
- To explain major challenges to development and to provide measurable parameters

**UNIT 1 ECONOMIC DEVELOPMENT & THEORIES OF ECONOMIC GROWTH 18 Hrs.**

Concepts, dimensions of development and indicators; measurement issues; Economic growth, development and sustainable development, factors influencing growth, structure and openness of the economy, distribution of income, poverty measures and underdevelopment, Theories of Economic Growth: Classical, Marx, Schumpeter, Arrow, Lucas, Romer, Rostow, exogenous and endogenous growth models, Harrod-Domar model, New classical growth: Solow model

**UNIT 2 HUMAN RESOURCES AND LABOUR MARKETS 18 Hrs.**

Impact of nutrition, health, education, population growth on human capital; segmented labour markets, migration, Approaches to Development: Balance growth, critical minimum effort, big push. unemployment (Harris-Todaro model, labour turnover model, efficiency wage hypothesis), informal labour markets

**UNIT 3 SECTORAL ISSUES AND ROLE OF STATE 18 Hrs.**

Markets for land, credit and water, Ownership and contractual arrangements, risk sharing mechanisms, formal and informal rural credit markets, lender's risk hypothesis, Issues of finance and importance of agriculture, industry and services in development, role of state in provision of public goods, political economy of development.

**UNIT 4 DEVELOPMENT MEASUREMENT TOOLS AND METHODOLOGY 18 Hrs.**

Development Indices and Indicators, Human Development Index, Sustainable Development Index, Demographic measures and methodology

**Min. 72 Hrs****COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 - To acquaint fundamental concepts of economic growth & development  
 CO2 - To understand contemporary theories of growth and development and their implications.  
 CO3 - To enable use of various development tools strategies and policy interventions to realise economies unto higher tential trajectory of development.  
 CO4 - To analyse major issues like poverty, inequality & role of development institutions  
 CO5 - To enhance capabilities to measure levels of development and relate them with various dimensions of development.  
 CO6 - Apply concepts of economic development to mitigate development bottlenecks.

**TEXT/REFERENCE BOOKS**

1. Todaro, M. & Smith, S., 2008. Economic Development (10th Edition). Addison-Wesley.
2. Debraj Ray, Development Economics, Princeton University Press, Princeton. 1998; Oxford University Press, New Delhi.

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC202					ECONOMICS OF SOCIAL SECTOR			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- Develop an understanding of planning, financing and cost of health and education.
- Understand link between health, educational system and economic development.
- Understand health & educational problems in the context of economic concepts, theories
- Examine market failure and role of government intervention.

**UNIT 1 ISSUES OF SOCIAL SECTOR: HEALTH INSURANCE****18 Hrs.**

Goals of Economic Systems: Efficiency and Equity, Cost-benefit Analysis; Production, Cost, and Technology of Health Care; Health Insurance, Organization of Health Insurance Markets, Adverse Selection within Health Insurance: Asymmetric Information and Agency.

**UNIT 2 ECONOMICS OF HEALTH CARE & ROLE OF GOVERNMENT****18 Hrs.**

Healthcare Payment Models, Health Workforce, Hospital Markets and Monopoly Power. Role of Government, Market Failures and Economic Theory of Regulation: Government Intervention in Health Care Markets; Government-Provided Health Insurance, Social Insurance; Healthcare Reforms.

**UNIT 3 CONCEPTS AND COST-BENEFIT ANALYSIS IN EDUCATION****18 Hrs.**

Economics of Education; Financing, Education as industry, consumption, individual, social and national investment; Spill-over & inter-generational effects of education. Cost-benefit analysis. Private marginal and benefit cost ratio; Rates of return on investment in education; Cost Effectiveness Analysis.

**UNIT 4 PRICING & FINANCING OF EDUCATION****18 Hrs.**

Pricing of education; Problem of capitation fees. Sources of finance for education: private, public, fees, donations; Endowments and grants, Grant-in- aid principles & practices; Government's role in financing education at different levels with special reference to higher education.

**Min: 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

CO1 -Introduce students to the basic concepts of economics of social sector and their need.

CO2 -Develop an understanding of economics of education & health care systems

CO3-Apply theoretical issues of health care models & health care markets, role of government

CO4 -Analyse role of economic systems in provisioning of education and health care.

CO5 -Evaluate cost & benefit of provisioning of education using economic efficiency and equity.

CO6 -Construct mechanism and case for pricing and financing of education & role of private-public sector

**TEXT/REFERENCE BOOKS**

1. Mark Blaug.. Introduction to Economics of Education, Penguin London
2. Oxford University Press. Education for Development
3. H E Klarman 1965, Economics of Health, Colombia University Press New York

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC203					ENERGY AND INFRASTRUCTURE ECONOMICS			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

## COURSE OBJECTIVES

- To know fundamental concepts and issues of energy and Infrastructure Economics.
- To make understand various dimensions of the energy, physical and social infrastructure
- To analyse nature of energy markets, social infrastructure and their supply-demand
- To examine pricing of energy and Infrastructure resources; and analyse global market.

### UNIT 1 FUNDAMENTAL ISSUES IN ENERGY AND INFRASTRUCTURE ECONOMICS 18 Hrs.

Role of energy and infrastructure in economic development, renewable vs non-renewable energy, energy demand supply and prices, energy exploration, production transportation, processing and marketing of fossil fuels; production of renewable energy.

### UNIT 2 MARKETS FOR RENEWABLE AND NON-RENEWABLE ENERGY 18 Hrs.

Renewable and non-renewable energy markets, world oil markets and energy security, natural gas market and price regulations; nuclear power energy markets.

### UNIT 3 PUBLIC POLICY ON ENERGY 18 Hrs.

Public policies affecting energy demand supply & prices, retail policies and competition in fossil fuel and gas industry; case studies of nuclear power and renewable energy policies.

### UNIT 4 SOCIAL AND PHYSICAL INFRASTRUCTURES 18 Hrs.

Infrastructure as a public good, social and physical infrastructure, public utilities, cross subsidisation; transportation economics, pricing principles. Public vs private sector financing in infrastructure; Communication infrastructure

**Min. 72 Hrs.**

## COURSE OUTCOMES

On completion of the course, student will be able to

- CO1 – Introduce basic issues and nature of energy and Infrastructure market
- CO2 - Explain the theoretical framework of supply and demand side economics of energy.
- CO3 - Examine global and national markets for renewable and non-renewable energy.
- CO4 - Analyse pricing principles of renewable and non-renewable energy
- CO5 -Evaluate transportation communication and social infrastructure demand & supply gap
- CO6 - Critically analyse public policies on energy and Infrastructure; formulate plan/strategies

## TEXT/REFERENCE BOOKS

1. R Sampson Asonofsky, J.A Rao.... Energy Policy, North Holland, Amsterdam.
2. R. K Pachauri (ed)... Energy Policy for India, Mcmillan India New Delhi.
3. MA Crew...Public Utility Economics. Mcmillan London.

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC204					ECONOMICS OF INDUSTRIAL ORGANIZATION					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To study firm behaviour when assumptions of perfect competition do not hold
- To understand how pricing and marketing strategies are used by individual firms
- To study the strategies and design of different types of market structures
- To examine public policy responses to firm behaviour, antitrust laws and regulations.

**UNIT 1 Introduction to Industrial Organization****18 Hrs.**

Industrial Organization and Game theory- The Structure-conduct-performance paradigm, Location Theory, Efficient market hypothesis

**UNIT 2 Market Structure and Market Power****18 Hrs.**

Concentration measures and Evidence- Case studies of selected firms in India and abroad- Contractual Relationships between Firms- Conglomerate Mergers- Horizontal and Vertical Integration. MSME and reasons for sickness, industrial policy, etc.

**UNIT 3 Price Determination and Competition****18 Hrs.**

Monopoly Pricing- Price discrimination: First degree, Second degree and Third degree price discrimination- Vertical Pricing- Competition policy. Limit Pricing

**UNIT 4 Non-price Competition****18 Hrs.**

Advertising- Theory of Technical Progress- Artificial Intelligence, R & D and Innovation- Industry 4.0, Network Markets and Asymmetric Information- Network goods- Adverse Selection

**Min. 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 – Identify the determinants of strategic behaviour in imperfectly competitive markets
- CO2 – Understand the determinants of industry structure & explain company's basic model
- CO3 - Apply analytical models of firm behaviour and strategic interaction to evaluate various business practices, including implicit collusion, mergers, entry deterrence
- CO4 - Compare the pricing behaviour by firms with market power and analyse welfare
- CO5 - Demonstrate knowledge of analytical techniques for evaluating economic problems.
- CO6 – Design business analytics solutions and analyse business models using case studies.

**TEXT/REFERENCE BOOKS**

- Dennis W. Carlton and Jeffrey M Perloff, Modern Industrial Organization, Fourth edition
- Oz Shy, Industrial Organization: Theory and Applications, Cambridge, MA: The MIT Press, 1995.
- Jean Tirole, The Theory of Industrial Organization, Cambridge, MA: The MIT Press, 1988.

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

### **SEMESTER III**

### **ELECTIVE PAPERS**

19MEC205					ADVANCED ECONOMETRICS			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- To introduce the panel data econometric models.
- To gain knowledge about advantages and limitations of different advanced econometric models.
- Understand the use of simultaneous equation models.
- To prepare students for empirical work in different areas of Economics

**UNIT 1 SIMPLE AND MULTIPLE REGRESSION MODELS****18 Hrs.**

Ordinary least square methods: Simple and multiple regression Models, standard errors, Z, t and chi square statistics, F-test. Method of Maximum likelihood and its properties, trinity of classical tests.

**UNIT 2 NON-LINEAR AND QUALITATIVE RESPONSE REGRESSION MODELS****18 Hrs.**

Trial and error method, direct search method, derivative free method, direct optimization, iterative linearization. Linear probability model, Logit and Probit models: grouped and ungrouped. Tobit Model: Ray Fair's model of extramarital affairs, the poisson regression model, ordinal and multinomial Logit and Probit models.

**UNIT 3 PANEL DATA AND DYNAMIC REGRESSION MODELS****18 Hrs.**

The Fixed effects approach, the Random effects approach. Distributed-Lag Models: Koyck approach: adaptive expectations model, stock adjustment model, autoregressive models, Granger causality test.

**UNIT 4 MULTI EQUATION MODELS****18 Hrs.**

Seemingly Unrelated Regressions. Simultaneous equations models: simultaneity bias, Identification problem, model Estimations: two-stage least squares and three-stage least squares, Hausman's specification test.

**Min. 72Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 - To understand the fundamentals of advanced econometrics.
- CO2 - Explain the different types of panel data Models.
- CO3 - Explain the limitations of ordinary least square models.
- CO4 - Illustrate the applications of simultaneous equation models.
- CO5 - Recognize the importance of dynamic econometric models.
- CO6 - Apply the advanced econometric models in the real-world economic problems.

**TEXT/REFERENCE BOOKS**

1. Gujarati and Porter, Basic Econometrics, Fifth Edition, Mcgraw Hill/Irwin, 2009.
2. Greene, William H. Econometric Analysis. 6th Edition, Prentice Hall. 2008.
3. Johnston J. And Dinardo, J. Econometric Methods. 4th Ed. Mcgraw-Hill 1997.
4. Kmenta, J., Elements of Econometrics, Michigan Press, New Delhi.
5. Maddala, G.S., Econometrics – An Introduction, Mcgraw-Hill, New York.

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC206					ENTREPRENEURSHIP					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To acquaint students with theories of entrepreneurship
- To analyse role of banking and non-banking institutions and regulators in economy
- To analyse externalities, taxations, public goods and private goods in economy
- To strengthen their perception on government expenditure and resource mobilisation

**UNIT 1 INNOVATION AND ENTREPRENEURSHIP****18 Hrs.**

Meaning and Role of Entrepreneurship. Innovation and Entrepreneurship, Innovation- Ideas and Screening Opportunities, Packaging up Opportunities, History of Entrepreneurship Development, Rand Importance of Entrepreneurship in Economic Development

**UNIT 2 SUPPORT SYSTEM AND BUSINESS IDEAS****18 Hrs.**

Entrepreneurial environment, Entrepreneurial Organisation, Entrepreneurship Skill and Decision Making Process, Mentors and Support Systems, New Business Ideas, Creativity and Innovation

**UNIT 3 BUSINESS PLAN AND TECHNICAL ANALYSIS****18 Hrs.**

Business concept, Meaning, significance & basic components of business plan, peer consultation, refinement & feasibility study, technical & technological analysis of entrepreneurial projects

**UNIT 4 BUSINESS INVESTMENTS AND FINANCIAL MANAGEMENT****18 Hrs.**

New venture financing, ownership securities, debt securities, angel funds, financial institutions and banks, ideal debt-equity ratio, options for financing small business, Legal framework, intellectual property rights and its protection, marketing and creating strategies for business, fundamentals of entrepreneurship management, small business enterprises, family business and franchises

**Min 72 Hrs****COURSE OUTCOMES**

On completion of the course, student will be able

- CO1. To value characteristics for entrepreneur and entrepreneurship  
 CO2. To understand the business environment for entrepreneurial opportunity  
 CO3. To identify traits for successful business ventures, social entrepreneurship model  
 CO4. To evaluate effectiveness of different business strategies and of a business plan  
 CO5. To respect legal and financial framework for developing a new business venture  
 CO6. To judge basic performance parameters to launch and growth of new business venture

**TEXT/REFERENCE BOOKS**

1. Jerome Katz and Richard Green, Entrepreneurial Small Business, McGraw Hill
2. Robert Hisrich and Michael Peters and Dean Shepherd, Entrepreneurship, 11th Edition, 2020

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC207					RURAL ECONOMICS			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- To acquaint fundamental issues and concepts of rural economy and development.
- To understand rural economy under standard theoretical framework.
- Analyse market failure, challenges of rural economy and government intervention.
- Critically analyse rural economy policies on labour markets, education & natural resources.

**UNIT 1 RURAL ECONOMY AND THEORETICALS OF RURAL DEVELOPMENT 18 Hrs.**

Rural economy, Optimization of minimal resource utilization; Human resource scarcity, Need for developing physical and human resources. Neoclassical growth theory, Cumulative causation & location theory, Agglomeration & land rent theories.

**UNIT 2 RURAL DEVELOPMENT POLICIES & STRATEGIES 18 Hrs.**

Poverty and Regional Development Programs, Agricultural and Labor Policies, Community oriented policies, Decentralization and Community Participation; Rural Attraction Strategies: Tourism, Business Attraction, Social Projects, Local Investments and Rural Entrepreneurship, Sustainable rural economy

**UNIT 3 NEW OPPORTUNITIES IN THE GREEN ECONOMY 18 Hrs.**

Rural Natural Resources, Energy Production and Conservation, Rural Ecosystem Services, Development and sustainable utilization, Sustainable development and rural economy, Green Economy and Strategic development Intervention.

**UNIT 4 CASE STUDY ON INDIA'S RURAL ECONOMIC DEVELOPMENT 18 Hrs.**

India's Rural Economic Development Policies, Budgetary Allocation, Role of Public Sector in rural development, Public Private Partnerships in Rural development.

**Min.72 Hrs****COURSE OUTCOMES**

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

- CO1 - Introduce basic features of rural economy and appraise the need for development.
- CO2 - Explain the theoretical framework of rural economy and its development
- CO3 - Apply principles of rural economy to frame rural development policies and appropriate rural regional and local development strategies.
- CO4 - Analyse natural resource markets, green economy, strategic development interventions
- CO5 - Evaluate rural development programmes through decentralisation and community participation for creating appropriate rural entrepreneurship.
- CO6 - Formulate plan and policies for India's rural development, critically analyse existing rural development policies and its shortcomings

**TEXT/REFERENCE BOOKS**

1. Karla Hoff, Avishay Braverman, and Joseph E. Stiglitz, ed., Economics of Rural Organization: Theory, Practice and Policy, World Bank Book
2. Thomas N. Carver, Principles Of Rural Economics, Ginn Publication

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

## **SEMESTER IV**

### **CORE PAPERS**

19MEC208					BEHAVIOURAL ECONOMICS					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To introduce principles and methods of Behavioural Economics.
- To provide an overview of how behavioural principles have been applied to economic problems both in microeconomics and macroeconomics.
- To analyse how agents actually behave and models systematic deviations from the predictions of "standard economic theory".
- To understand why people make the decisions they make, improve your own decision making, and predict how others behave in situations

**UNIT 1 INTRODUCTION TO BEHAVIOURAL ECONOMICS****18 Hrs.**

Heuristics and Biases - Beliefs and Markets - Prospect Theory- Nudge Theory, Policy and Happiness

**UNIT 2 INDIVIDUAL DECISION MAKING AND SOCIAL PREFERENCES****18 Hrs.**

Choice under certainty- Intertemporal Choice – Distributional social preferences and intentions-based social preferences – self deception

**UNIT 3 BOUNDED RATIONALITY****18 Hrs.**

Simon's bounded rationality- Ecological bounded rationality - Rationality & Strategic Interaction

**UNIT 4 BEHAVIOURAL MACROECONOMICS****18 Hrs.**

Animal spirits – theory of economic fluctuations – labour market – Money illusion and monetary policy

**Min. 72 Hrs****COURSE OUTCOMES**

On completion of the course, student will be able to

CO1 – Identify and understand the reasons leading to systematic departures of economic behaviour predicted by classical and neoclassical models

CO2 – Understand the behavioural concepts in individual and business decision making

CO3 – Apply advanced behavioural concepts to real-life situations using case studies

CO4 - Compare the predictions of neoclassical and behavioural models

CO5 - Critically discuss the standard assumptions made in classical economic theory

CO6 – Using tools of behavioural economics, design a framework for outcome-based policy actions that can be used by businesses or policymakers

**TEXT/REFERENCE BOOKS**

- Introduction to Behavioural Economics, Nick Wilkinson and Matthias Klaes, Third Edition, Palgrave.
- G. Akerlof, (2001), "Behavioral Macroeconomics and Macroeconomic Behavior", Nobel Prize Lecture

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC209					ECONOMICS OF INFORMAL SECTOR					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To introduce economic models of the labour market, both theoretical and empirical
- To study the wage and employment determination, formation of human capital, labour market discrimination, migration, unemployment, wage differentials, etc.
- To encourage development of independent research interests in labour economics
- To develop the skills to analyse models of the labour market and predict patterns.

**UNIT 1 Overview of labour markets and historical perspectives****18 Hrs.**

Basics of labour supply and demand- Concepts/Measures- Informal Sector— Statistical Concepts and Definitions - Characteristics of Informal Sector- Composition and Segmentation - Types of Employment in the Informal Sector - Role of ILO, WEIGO and World Bank

**UNIT 2 Dynamics of Labour Markets in the Context of Changing Economic****18 Hrs.****Structure:**

Labour Process- Segmentation in the Labour Market;- Types of Labour- Employment, Migration and Urbanisation- Employment problems in developing countries; dimensions of unemployment and underemployment- Decent Work, Future of Work

**UNIT 3 Informal Sector in Global Context:****18 Hrs.**

Informality and Growth, Poverty, Development Policy Dilemma- Women & Informal Sector; Wages and Incomes; Social Protection and Informal Workers; Country Studies

**UNIT 4 Informal sector in India****18 Hrs.**

Size, Structure and Growth- Manufacturing Sector- Small-scale Industry Reservation Policy- Industrial Licensing- Regulation and Informal Sector— Factories Act, Labour Laws and Other Regulations- Informalisation of the Formal Sector- Subcontracting- Missing Middle

**Min. 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 - Acquire a sound understanding of the core concepts and tools of Labour Economics.
- CO2 - Develop an understanding of the evolving social and economic environments.
- CO3 - Apply economic principles and reasoning to critically analyse labour market
- CO4 - Interpret labour market statistics and the statistical outputs in academic papers
- CO5 - Critically evaluate government policies affecting work and jobs
- CO6 - Apply advanced econometric tools to analyse labour market related processes

**TEXT/REFERENCE BOOKS**

- Harriss-White and A. Sinha 2007. Trade Liberalization and India's Informal Economy, New Delhi: Oxford University Press.
- Breman, Jan. 2013. At Work in the Informal Economy of India: A Perspective from the Bottom Up. New Delhi: Oxford University Press.
- ILO Press Releases

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC210					FINANCIAL MARKETS AND INSTITUTIONS					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To know changing role of financial institutions in the process of growth & development
- To introduce financial markets, instruments and understand market operations.
- To expose working of capital market and foreign exchange markets in India.
- To understand the functioning of primary and secondary markets and role of regulators.

**UNIT 1 NATURE AND ROLE OF FINANCIAL SYSTEM****18 Hrs.**

Nature of Financial system- Functions- Financial assets: Risk and return- Theories of asset pricing- APT and CAPM, efficient market hypothesis- Time value of money- determination of interest rates

**UNIT 2 FINANCIAL MARKETS****18 Hrs.**

Money markets- money market instruments- Capital and equity markets: Role and importance- debt and equity market - share market indices- Derivatives markets- Types of derivatives-SEBI- Primary market intermediaries- depository system- custodial services, Financial sector reforms in India (First generation and second generation economic reforms). Financial stability.

**UNIT 3 FINANCIAL INSTITUTIONS****18 Hrs.**

Nature and role of Financial Intermediaries - deposit insurance - Monetary policy- Commercial Banking - emergence of payments banks and e-wallets- Investment banking- Initial Public Offering- Stock exchanges-- futures exchanges- depository institutions- Regulation-. Central Bank Digital Currency (CBDC).

**UNIT 4 MONETARY POLICY AND INTERNATIONAL FINANCIAL MARKETS****18 Hrs.**

Instruments of monetary policy- foreign exchange reserve market- Exchange rate system in India- IMF: Special drawing rights- World Bank- International Development association- International financial corporation- Currency unions- European union- G-20, ASEAN, SAARC, Transmission Mechanism and Evolution of Monetary Policy,

**Min. 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 – Define the nature, role and components of a country's financial system
- CO2 – Explain the instruments, participants and operations of financial markets
- CO3 – Apply concepts relevant to financial markets and financial institutions like flow of funds, levels of interest rates and interest rate differentials, to current events or topical issues.
- CO4 – Analyse the international integration of international financial markets
- CO5 – Critically evaluate the role of regulators in managing the money and financial market and determine how the value of stocks, bonds, and securities are calculated.
- CO6 – Develop the critical skills of analysing case studies on financial markets and institutions.

**TEXT/REFERENCE BOOKS**

1. M Y Khan, Indian Financial System, McGraw Hill
2. S. Gurusamy- Indian Financial System

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC211					INNOVATION AND KNOWLEDGE ECONOMY			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- To introduce the major topics of innovation and knowledge.
- Understanding the theoretical models of innovation.
- Identification of effects of market structure and intellectual property rights on incentives.
- To better understand and evaluate the impact of market power on innovative activity.

**UNIT 1 INTRODUCTION****18 Hrs.**

Innovation, Invention, Imitation, Adoption and Diffusion, rate and the direction of Technological change

**UNIT 2 CLASSICAL AND NEOCLASSICAL ANALYSIS OF TECHNICAL CHANGE****18 Hrs.**

Classical Analysis: Adam Smith, Kaldor and Schmookler, Hicks and Ruttan; Schumpeterian Analysis of Technological Change, Neoclassical Analysis: Exogenous shocks: Paths to depression and Euphoria, Total Factor Productivity, Tobin's q; Shift effects and Bias effects.

**UNIT 3 THE ECONOMICS OF KNOWLEDGE****18 Hrs.**

Arrow and Griliches; Economics of Information and knowledge; Technology production function; Spillover and Externalities; Knowledge Generation Function.

**UNIT 4 KNOWLEDGE BASED ECONOMY FORMATION AND DEVELOPMENT****18 Hrs.**

Concepts and issues; Relationship between innovation, knowledge, competitiveness; Knowledge and economics; Knowledge codification; Knowledge and learning; Knowledge networks; Knowledge and employment; Measuring knowledge; Knowledge-Based Economy and Enterprise Management: theories and fundamentals.

**Min. 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

CO1 - Understand basic concepts of innovation and knowledge in an economy.

CO2 - Explain the classical and neo classical theories of technological change.

CO3 - Classify the theories of economics of knowledge.

CO4 - Analyse the impact of market structure and intellectual property rights on the incentives for innovations.

CO5 - Evaluate the relationship between innovation, knowledge and competitiveness.

CO6 - Examine the role of alternative incentive mechanisms.

**TEXT/REFERENCE BOOKS**

Advancing Knowledge and The Knowledge Economy by Brian Kahin and Dominique Foray.

The Economics of Knowledge by Dominique Foray.

The Knowledge-Based Economy: Modeled, Measured, Simulated by Loet Leydesdorff.

Doing business in the knowledge-based economy: facts and policy challenges by Louis A. Lefebvre, Élisabeth Lefebvre and Pierre Mohnen.

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

**SEMESTER IV**

**ELECTIVE PAPERS**

19MEC212					URBAN ECONOMICS			
Teaching Scheme					Examination Scheme			
L	T	P	C	Hrs/Week	Theory			Total Marks
					MS	ES	IA	
4	0	0	4	4	25	50	25	100

**COURSE OBJECTIVES**

- To introduce the basic concepts of urbanization.
- Understanding the role of urbanization in economic development.
- Identification of main problems of urbanization.
- To better understand and evaluate the policies to resolve problems of urbanization.

**UNIT 1 THE PROCESS OF URBANIZATION****18 Hrs.**

Urbanization: Meaning & causes, Theories of urban structure and urban growth: Concentric Zone Theory, Central Place Theory-Urban base theory, Features of Urbanization in Developing Countries.

**UNIT 2 THEORY OF HOUSEHOLDS, FIRMS, AND LOCATION DECISIONS****18 Hrs.**

Microeconomic Review: Housing demand, price and income elasticity; indirect utility functions, cost-of-living index and an affordability index. Firms with fixed and variable inputs, labor demand, housing supply, unit cost functions. Theory of locational equilibrium across cities and neighbour hoods.

**UNIT 3 PROBLEMS OF URBANIZATION AND URBAN GROWTH****18 Hrs.**

Urban Transportation; Slums, Housing and Urban Renewal: Urban Water Supply and Public Health: Urban Financial Problems. Welfare benefits of urban migration in developed and developing countries. Efficient population distribution.

**UNIT 4 URBANIZATION AND URBAN DEVELOPMENT POLICY IN INDIA****18 Hrs.**

21st Century Urbanization in India–Growth of Urban Population; Urbanization without labour absorption; Plans-Integrated Development of small and medium towns: Urban development & Housing Policy, Measure to control urban growth-Decentralization of industry-Growth Centres – Satellite towns.

**Min. 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 - Understand basic concepts and process of urbanization.
- CO2 - Explain the theories of urban structure and urban growth
- CO3 - Classify the problems of urbanization.
- CO4 - Analyse the welfare benefits of urban migration in developed and developing countries.
- CO5 - Evaluate the urbanization policies in India.
- CO6 - Construct the policies to solve different urbanization problems.

**TEXT/REFERENCE BOOKS**

1. Arthur O'Sullivan, Urban Economics
2. Brueckner, Jan K. Lectures on Urban Economics
3. Carlino, Chatterjee, & Hunt, "Urban Density and the Rate of Invention," Journal of Urban Economics (2007)

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC213					GAME THEORY					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- Define the basics of game and understand how to apply it for solving conflict situations
- To Appraise theoretical predictions obtained from Game Theory against real conflicts
- To analyse conflict dynamics from the standpoint of the self-interest of the players
- To understand the different types of game and Nash Equilibrium

**UNIT 1 INTRODUCTION TO GAME THEORY****18 Hrs.**

Meaning of game theory- Types of Games - Theory of rational choice Interacting decision makers

**UNIT 2 STRATEGIC GAMES AND NASH EQUILIBRIUM****18 Hrs.**

Strategic games: examples - Nash equilibrium: concept and examples- Best response functions- Dominated Actions Symmetric games and symmetric equilibria- Illustrations of Nash Equilibrium

**UNIT 3 MIXED STRATEGY NASH EQUILIBRIUM AND STATIC GAMES****18 Hrs.**

Introduction- Strategic games with randomisation- Mixed strategy Nash equilibrium: concept and examples- Dominated Actions Formation of Players' belief- Games with Complete information- Nash equilibrium – Games with Incomplete information: Bayesian Nash equilibrium

**UNIT 4 SOLUTION CONCEPTS FOR EXTENSIVE FORM GAMES****18 Hrs.**

Repeated Games -Backwards induction- Subgame perfection- iterated conditional dominance- Bargaining with complete information

**Min. 72 Hrs.****COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 - Identify strategic situations and represent them as games.  
 CO2 - Solve simple games using rules of the game and find Nash Equilibrium.  
 CO3 - Compute pure and mixed strategy Nash equilibria in different types of games.  
 CO4 – Analyse economic situations and business models using game theoretic techniques.  
 CO5 – Judge the ability to apply solution concepts to different types of games.  
 CO6 – Formulate strategic problems & analyse them using tools provided by the theory.

**TEXT/REFERENCE BOOKS**

1. Fudenberg, Drew, and Jean Tirole. *Game Theory*. MIT Press, 1991
2. Osborne, M.J. *An Introduction to Game Theory*, Oxford University Press, 2004

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)

19MEC214					GEO-POLITICAL ECONOMY					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	LE/Viva	
4	0	0	4	4	25	50	25	--	--	100

**COURSE OBJECTIVES**

- To acquaint students with geo political issues
- To analyse cartels in oil economy , arms trade , world military spending
- To analyse geo political risks of MNCs and Government and economics of climate
- To explain geo political risks of BREXIT, US-China, geo-political Europe and Asia

**UNIT 1 INTRODUCTION TO GEO POLITICAL ISSUES****18 Hrs.**

Importance of Climate, Topography, Demography, Natural Resources in Production and Terms of Trade. Geography and Politics for Territorial Waters and Land Territory

**UNIT 2 POLITICS OF NETWORK & NATIONAL SOCIAL MOVEMENTS****18 Hrs.**

Politics of Networks, Politics of Scale, Geo Political Codes like War on Terror, State-Nation and Nation State, Top-Down versus Bottom-Up Nationalism, Trans National Social Movements, Pros and Cons of Modelski's model, Federalism and Regional Political Economy of India

**UNIT 3 GEO POLITICS IN OIL , AGRICULTURE AND MILITARY SPENDING****18 Hrs.**

Diplomacy, Security, Market, Society, Exchange rate and Authorities in Oil, Importance of Food Trade, Geo Political Dimensions of Food and Agriculture, Urbanization and Shifting Production, Agriculture Support in Europe, US and Japan, Climate Change and Agriculture, Warfare State and Domestic Military Spending, Geo Politics of US Military Spending, Politics of Arms Sale and Arms Control

**UNIT 4 POLITICAL RISKS OF MNCs AND GEO POLITICAL RISKS****18 Hrs.**

Political Decisions of Host Country and Impact on MNCs, Strategic Negotiations of MNCs to Counter Political Risk and Tax , Political risks of BREXIT, US-China, Geo-political Europe and Asia

**Min 72 Hrs****COURSE OUTCOMES**

On completion of the course, student will be able

- CO1. To understand geo political issues in the world and their impact assessment  
 CO2. To understand politics of network, trans-national social movement  
 CO3. To identify geo political issue in oil price behaviour  
 CO4. To read implications of US-China stand-offs, trade embargoes  
 CO5. To respect legal and financial framework for developing a new business venture  
 CO6. To evaluate behind the scene negotiations by MNCs for political risks

**TEXT/REFERENCE BOOKS**

1. Ruaprelia Sanjay, Understanding India's New Political Economy,
2. Sinha Aseema , Political Economy of India
3. Geopolitical Economy, The South Korean FTA Strategy, Jonathan Kriekhaus, Michigan Publishing, University of Michigan

Assessment Indicator	Weightage
Internal Assessment	25 Marks
Mid Semester Exam	25 Marks (50 Marks Exam for 2 hours)
End Semester Exam	50 Marks (100 Marks Exam for 3 hours)



