

DEPARTMENT OF ECONOMICS
CENTRAL UNIVERSITY OF RAJASTHAN

Learning Outcome Based Curriculum Framework (LOCF) For Int.

M.Sc. B.Ed. in Economics

Programme Objectives: The M.Sc. Bed Programme is intended to enable the students to understand the principles, theories and applications of both disciplines of economics and education, to develop classroom teaching skills and pedagogy of economics education and to apply the economic concepts and tools on research of economics and education field

Programme Outcome:

1. To gain an understanding of core economic principles and how they apply to a wide range of real-world issues.
2. To analyze relevant economic literature, concretize economic problems, and have insight into how you may draw the connection between theory and empirical conditions
3. To use economic models and communicating both the underlying assumptions of these models, as well as the results from theoretical and empirical model-based analysis.
4. To analyze existing economic models and evaluate their relevance for theoretical and practical problem solving
5. To use relevant models and methods, independently but under supervision, and undertake applied work and research projects in economics
6. To conduct research to evaluate important questions in social sciences by reviewing academic literature, collecting data, and applying econometric methods.

Course: Microeconomics I (ECO 401)									
TEACHING SCHEME		EXAMINATION SCHEME				CREDITS ALLOTTED			
Theory: 4 hrs per week		End Semester Examination: 60 marks Internal Assessment: 40 marks				Theory: 4			
						Total: 4			
Course Objective:									
The Course examines how individuals and firms make decisions by weighing up preferences, costs and benefits, and how the interaction of their decisions leads to utility-maximization, market and social outcomes. The model of market supply and demand is employed to examine the effects of taxes, subsidies and other government interventions in market activity. The implications of different market structures, including perfect competition and monopolistic are examined.									
Course Outcomes: The students will be able to									
1	Demonstrate an understanding of the concepts of utility functions, demand functions and preference structure to compare the choices of consumer								
2	Demonstrate the ability to apply optimization techniques to decisions made by consumers and firms								
3	Students will be able to demonstrate an understanding of producer choice, including cost and production function analysis								
4	Demonstrate an understanding of how markets work to allocate resources and the optimal individual decision making that underlies market outcomes								
5	Identify perfect competition, monopoly and monopolistic market structures and discuss their implications for resource allocation								
6	Explain the advantages and potential shortcomings of markets, discuss the conditions under which markets do and do not work well								
Unit 1 Theory of Consumer: Preference relations and their properties, Consumption Decision (Optimizing Behaviour of the consumer under alternative preference structures- Utility, Indifference curves and revealed preference). Comparative statics of the consumer's decision, income and substitution effect –Hicks and Slutsky analysis Slutsky Equation, derivation of ordinary and compensated demand function, derivation of demand functions: Perfect Substitute, perfect compliments and quasi-linear utilities, Demand elasticity. Consumer's surplus									
Unit 2 Theory of Production and Costs, The Production function- Assumptions, Variation in Scale, Variation in input proportions, the multi-product firm and production possibility set. Minimization of costs in the long and the short run, Derivation of cost functions from production functions; derived demand for factors of production, Cobb-Douglas, CES, and Trans-log production functions and their properties;									
Unit 3 Perfect competition — short run and long run equilibrium of the firm and industry, supply curve; Monopoly — short run and long run equilibrium, price discrimination, welfare aspects, monopoly control and regulation; Natural Monopoly									
Unit 4 Monopolistic competition — general and Chamberlin approaches to equilibrium, equilibrium of the firm and the group with product differentiation and selling costs, excess capacity under monopolistic and imperfect competition.									
Basic Readings 1. Gravelle, H and Ray Rees (2004), <i>Microeconomics</i> , 3 rd edition, Prentice Hall Longman London. 2. Sen, A. (1999), <i>Microeconomics : Theory and Applications</i> , Oxford University Press, New Delhi. 3. Varian, H. (2005), <i>Intermediate Microeconomics: A Modern Approach</i> W.W. Norton, New York. 4. Roy Choudhary, K <i>Microeconomics</i> , Vol 1. 5. Varian, H. (2004), <i>Microeconomic Analysis</i> , W.W. Norton, New York. 6. <i>Microeconomic Theory: Basic Principles and Extensions</i> (Upper Level Economics Titles)Cengage; 11 edition (2014)									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			

CO1	3	2							
CO2	2	2		3					
CO3	3	2		3					
CO 4	2			3					
CO 5	2								
CO 6	2								
*1: Low, 2: Medium, 3: High									

Course: Macroeconomics I (ECO 402)		
TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
Course Objective:		
	This course Introduces students to the main classes of models in modern macroeconomics. The first half of the course will be aimed at providing students with astound knowledge of modern macroeconomic theories of income and employment determination while the second half will deal with the theories of consumption and investment along with measures to analyze unemployment and inflation including contrasting economic views on unemployment. Final part of the course will mainly focuses on integration of goods and money market and the use of fiscal and monetary police to achieve economic goals.	
Course Outcomes: The students will be able to		
1	Demonstrate the problem of macroeconomic aggregations using partial and general equilibrium analysis	
2	Examine how the economy behaves at the aggregate level and how national income is measured and determined both in closed and open economy context	
3	Demonstrate various theories explaining the major factors determine consumption expenditure on final goods and services.	
4	Define money and describe the theories on money demand and money supply including the process of money creation by the banking system and the role of the central bank.	
5	Apply macroeconomic measures to analyze unemployment and inflation including contrasting economic views on unemployment.	
6	Explain the components of aggregate economic activity, fluctuations and effects for the national economy and how fiscal policy is used to achieve economic goals.	
	<p><u>Unit - 1: Introduction to Macroeconomics</u></p> <p>Why and how to study macroeconomics; Scope of macroeconomics, Macroeconomic Variables- Stocks and Flows, Problem of Aggregation: Macroeconomic Equilibrium. National Income Accountings.</p> <p>Macroeconomic Debate (Introductory)</p> <p>Classical Macroeconomics: The Economy in the long run; Keynesian approach of Macroeconomics.</p> <p>Models of Income and Employment Determination: An Overview. Walrasian interpretation of Keynesian unemployment; New Keynesian Interpretation, Post-Keynesian Interpretation. New classical economics.</p>	
	<p><u>Unit - 2 Consumption Function and Investment Function</u></p> <p>Keynes consumption theory, Kuznet's Puzzle, Life Cycle Hypothesis, Permanent Income Hypothesis, Random Walk Hypothesis, Keynesian Theory of Investment, Accelerator principles, Neo-Classical and New Classical Theories of Investment.</p>	
	<p><u>Unit - 3 Money and Inflation</u></p>	

Demand for Money- Friedman, Baumol, Tobin, Patinkin's Real Balance Effect, Issues regarding endogenous and exogenous supply of money, R.B.I.'s Approach to Supply of Money Demand-Pull and Cost-Push Inflation, Phillips Curve Controversy, Natural Rate of Unemployment-Adaptive expectations and Rational expectations models of inflations. The quantity theory of money.									
Unit – 4 Economy in the short-run Goods markets and the IS curve, Financial or money market and the LM curve, Goods market and money market together-The IS-LM model- closed economy case; Fiscal policy and monetary policy under alternative supply assumptions, Policy Mix. Aggregate demand and supply.									
Recommended Texts. 1. Dornbusch Rudi, Fischer, Stanley and Startz Richard. <i>Macroeconomics</i> , Tata McGraw-Hill Publishing Co. Ltd. 2. Mankiw Gregory N. <i>Macroeconomics</i> , Worth publishers 3. Blanchard Olivier. <i>Macroeconomics</i> , Prentice Hall									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	2	3	2						
CO2	2		2	3	2				
CO3	2	2							
CO 4	1	2							
CO 5			3	2	2				
CO 6	2	2							
*1: Low, 2: Medium, 3: High									

Course Name: Mathematical Methods in Economics (ECO 403)		
TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
		Total: 4
Course Objective:		
	The course covers a wide range of mathematical methods in applied economics. Specifically, it aims to provide the basics of mathematical methods and the range of mathematical techniques that are used to explain various applied economics problems. Also the course attempt to provide the insight of some advance level mathematical tools in understanding and formulating various economic theories.	
Course Outcomes: The students will be able to		
1	Familiar with a wide range of mathematical tools that are used to explain various economic theories.	
2	Successfully demonstrate the economic meaning of mathematical models.	
3	Optimize the resources and thus understand how the economic policymakers make decision.	
4	Demonstrate most of the theories in economics precisely and strategically.	
5	Understand the economic dynamics.	
	Unit 1	

<p>Concept of a function; Limits, continuity and differentiability of a real valued function; Convex and concave functions, Differentiation- Partial and total; Interpretation of partial derivatives. Optimization with single and multivariable functions- Unconstrained and constrained optimization in simple economic problems. Integration-simple and Definite, Applications to Economic variables</p>									
<p>Unit 2</p> <p>Concept of a vector - its properties; Concept of matrix - their types, Simple operations on matrices, matrix inversion. Determinants and their basic properties; Solution of simultaneous equations through Cramer's rule; Jacobians and Hessians: Input-output Analysis. Difference equations - Solution of first order and second order difference equations; Differential Equations</p>									
<p>Unit 3</p> <p>Linear programming — Basic concept; Formulation of a linear programming problem — Its structure and variables; Nature of feasible, basic and optimal solution; Solution of simple linear programming problems through graphical and simplex method; Concept of duality and statement of duality theorems; Formulation of the Dual and its interpretation.</p>									
<p>Unit 4</p> <p>Game Theory: an introduction. Dominated and Dominant Strategies: The Prisoner's Dilemma, mixed strategy Nash Equilibrium; Saddle point solution; Simple applications to economics.</p>									
<p>Recommended Texts</p> <ol style="list-style-type: none"> 1. Chiang, Alpha, C. and Kevin Wainwright. Fundamental methods of Mathematical 2. Economics, latest edition, McGraw Hill. 3. Knut Sydsaeter and Peter J Hammond. Mathematics for Economic Analysis, Pearson 4. Education India. 5. Carl P Simon and Lawrence Blume. Mathematics for Economists, W. W. Norton & 6. Company. 7. Mike Rosser. Basic Mathematics for Economists, Routledge 8. Eric Rasmusen. Games and Informations, Basil Blackwell. 9. Martin, J Osborne. An Introduction to Game Theory, Oxford University Press. 									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	2	2	2	2					
CO2			3	3					
CO3			2	2	2	2			
CO 4			2	2	2	2			
CO 5		3	2	3					
*1: Low, 2: Medium, 3: High									

Course Name: Environmental Economics and Policy (ECO 404)									
TEACHING SCHEME		EXAMINATION SCHEME				CREDITS ALLOTTED			
Theory: 4 hrs per week		End Semester Examination: 60 marks Internal Assessment: 40 marks				Theory: 4			
						Total: 4			
Course Objective:									
The course aims to acquaint the students with tools of microeconomics in dealing with environmental problems. This course targets to apprise the environment-economy interactions and familiarize the various economic regulatory tools in handling environmental problems.									
Course Outcomes: The students will be able to									
1	Understand the main interactions between the environment and the economy and the physical constraints that place limits on the interaction								
2	Be familiar with the history of the discipline of environmental economics and what is included in the discipline								
3	Appreciate how markets allocate goods and why they sometimes fail allocate environmental goods optimally.								
4	Plan regulatory framework for correcting market failures.								
5	Use economic techniques to analyze environmental problems and to assess environmental policies								
6	Have the knowledge of the components of environmental policy, criteria for its design and assessment, and critique of these matters.								
7	Apply the various quantitative regulations on the basis of criteria of cost effectiveness.								
MODULE I (15) What is environmental economics? Distinction between environmental Economics and natural resource economics. Introduction to Environmental Economics: Historical perspectives (classical, neo-classical and modern) Interface between Economy, Environment and Development; Environment versus development Controversy. First and second law of thermodynamics. Efficiency and choice, Problems of Market Failure: Public bads and externalities. Social choice of optimum pollution.									
MODULE II (15) Theory of environment Regulation: Pigovian solutions; Subsidies for Abatement of pollution, Property Rights and the Coasian Approach: bargain Solution. Buchanan's theory.									
MODULE III (15) Quantitative regulation: Command and Control- Standard setting; Tradable pollution permits; Refundable deposits, Output Tax.									
MODULE IV (15) The Problem of uncertainty and risk in Environmental policy choice; Regulation with unknown Control cost; Monitoring emissions, enforcement and Moral hazard; Environmental Risk and uncertainty.									
Suggested Texts : 1. Kolstad, C. D. (2003) Environmental Economics, Oxford university Press 2. Thomas and Callan, Environmental Economics, Cengage Learning, 2009. 3. Tietenberg, T. (1996), Environmental and Natural Resource Economics, Harper Collins, College Publishers, New York, Fourth Edition 4. Bhattacharya, R. N. (Edited) (2001), Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	2	2							
CO2	2	2							
CO3		2	2	2					
CO4		2	2	2					
CO5		2	3	3	2	2			
CO6	2	2			2	2			

CO7		2	3	3	2	2			
*1: Low, 2: Medium, 3: High									

Course Name: Microeconomics II (ECO407)									
TEACHING SCHEME		EXAMINATION SCHEME				CREDITS ALLOTTED			
Theory: 4 hrs per week		End Semester Examination: 60 marks Internal Assessment: 40 marks				Theory: 4			
						Total: 4			
Course Objective:									
The Course will selectively cover recent developments in macroeconomics of fluctuations, open economy, policy, and micro-foundations. The focus will be on substantive issues and applications of basic principles. The workhorses of macroeconomic issues will be applied to analyse economy-wide topics of current interest. Familiarity with the material covered in texts as mention in Macroeconomics-I is assumed.									
Course Outcomes: The students will be able to									
1	Develop the intellectual ability of explaining some core economic issues.								
2	Demonstrate how the economy works at different situations both in short-run as well as long-run.								
3	Apply the economic theories the contemporary economic and social issues								
4	Develop skills of synthesising the argument found in academic research and also in media.								
5	Develop skill of logical economic arguments.								
Oligopoly & Game Theory (15) Non-collusive (Cournot, Bertrand, Edgeworth, Chamberlin, kinked demand curve and Stackelberg's solution) and collusive (Cartels and mergers, price leadership) models; Price and output determination under monopsony and bilateral monopoly; Game Theory: Nash Equilibrium, Prisoners' Dilemma, Dominant Strategies, Repeated Games, Zero-Sum Game, Mixed Strategies									
Theory of Distribution (15) Neo-classical approach — Marginal productivity theory; Product exhaustion theorem; Elasticity of technical substitution, technical progress and factor shares; Theory of distribution in imperfect product and factor markets;									
General Equilibrium(15) Partial and general equilibrium, Walrasian excess demand and input-output approaches to general equilibrium, existence, stability and uniqueness of equilibrium and general equilibrium, coalitions and monopolies; Production without consumption — one sector model									
Welfare Economics (15) Pigouvian welfare economics; Pareto optimal conditions; Value judgment; Social welfare function; Compensation principle; Theory of Second Best — Arrow's impossibility theorem; Rawl's theory of justice, equity-efficiency trade off. Production and consumption externality, Public Good									
References									
1. Gravelle, H and Ray Rees (2004), <i>Microeconomics</i> , 3 rd edition, Prentice HallLongman London.									
2. Mas-colell, A, Michael D. Wiston and Jerry G. Green (1995), <i>Microeconomic Theory</i> , OUP, New York.									
3. Sen, A. (1999), <i>Microeconomics: Theory and Applications</i> , Oxford University Press, New Delhi.									
4. Stigler, G. (1996), <i>Theory of Price</i> , (4th Edition), Prentice Hall of India, New Delhi.									
5. Varian, H. (2004), <i>Microeconomic Analysis</i> , W.W. Norton, New York.									
6. Roy Choudhary,K; <i>Microeconomics</i> , Vol 2,3.									
7. Modern Microeconomics 2e,Koutsoyiannis 2nd Revised edition Edition 2nd Publisher: Macmillan,ISBN: 9780333778210, 0333778219									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			

CO1	2	2							
CO2	2	2	2						
CO3			3	3	3				
CO 4					3	3			
CO 5	2	2	3			2			
*1: Low, 2: Medium, 3: High									

Course Name: Macroeconomics II (ECO 408)									
TEACHING SCHEME		EXAMINATION SCHEME				CREDITS ALLOTTED			
Theory: 4 hrs per week		End Semester Examination: 60 marks Internal Assessment: 40 marks				Theory: 4			
						Total: 4			
Course Objective:									
The Course will selectively cover recent developments in macroeconomics of fluctuations, open economy, policy, and micro-foundations. The focus will be on substantive issues and applications of basic principles. The workhorses of macroeconomic issues will be applied to analyze economy-wide topics of current interest. Familiarity with the material covered in texts as mention in Macroeconomics-I is assumed.									
Course Outcomes: The students will be able to									
1	Demonstrate how the economy works at different situations both in short-run as well as long-run.								
2	Apply the economic theories the contemporary economic and social issues.								
3	Understand how the fiscal policy makers and the monetary policy makers interact and also they can able to analyze the policy decision.								
4	Improve to make economic policy debate.								
Module-1 Macroeconomics in the Short Run (20) Fluctuations of Macroeconomic variables, The Stylized facts. Open Economy Issues: Open economy IS-LM and IS-MP, the Mundell-Flemming Model, Macroeconomic Policy and Exchange Rate Regimes. Asset Price Volatility, Interest rate and Exchange rates, Crisis models and Strategic interactions.									
Module-2 Micro-foundations of Real and Nominal Rigidities (20) Determination of Aggregate supply curve, Wage-Price rigidities. Imperfect Information, Imperfect Competition and Asymmetric Information, Solving for Rational Expectation Equilibrium, Coordination Failure									
Module-3 Macroeconomics in the Medium Run (10) Ricardian Equivalence, the Open economy consumption smoothing, and foreign capital, the firm; Tobin's 'q' theory of investment, Business Cycle Dynamics-nominal and real.									
Module-4 Macro Policy (10) Coordination of Fiscal and Monetary Policy, Rules versus Discretion, Credibility, Commitment devices, Monetary Transmission Mechanism and Targeting, Policy debates.									
Recommended Texts- 1. Blanchard Olivier & Fischer Stanley. <i>Lectures on Macroeconomics</i> . Cambridge: MIT Press, 2. Blanchard Olivier. <i>Macroeconomics</i> , Prentice Hall 3. Heijdra B., van der Ploeg F. <i>Foundations of Modern Macroeconomics</i> , Oxford University Press 4. Romer D. <i>Advanced Macroeconomics</i> . McGraw Hill Book Company: London,									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	2	2							
CO2			3	3	2	2			

CO3	2	2	2	1					
CO 4				3	3	3			
*1: Low, 2: Medium, 3: High									

Course Name: Theories of Economic Growth (ECO 409)		
TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
		Total: 4
Course Objective:		
	This course offers an introduction to the theories and models of economic growth. It will use these models to shed light both on the process of economic growth at the world level and on sources of income and growth differences across countries. Topics covered include income distribution and economic growth, where Kaldor and Pasinetti's work will be mentioned, and the standard economic growth model of Solow. Macroeconomic questions addressed include: Why are some countries rich and some poor? What differences among countries can explain economic success and failures? This course is aimed at Economics students on the Mathematical Pathway and homework questions will typically involve solving problems etc. Course also employs the knowledge of endogenous growth models of AK, Lucas and Romer and its interpretation within theoretical model.	
Course Outcomes: The students will be able to		
1	Demonstrate a deep analytical understanding of exogenous and endogenous growth models	
2	Understand the main insights into the economic growth process that economists have gleaned over the past half century.	
3	Solve and manipulate a variety of simple models in economic growth.	
4	Identify applications and limitations of the models learned.	
5	Develop an understanding of the evolution of growth models;	
6	Display a good grasp of those factors that contribute to or inhibit economic growth (population, capital, technology, human capital, and institutions);	
7	Develop the understanding of Solow growth model and its applications in real life	
8	Understand the conditional and unconditional convergence in growth models	
9	Develop the understanding of role of money, wealth, saving, physical capital, income distribution, and role of initial per capita, in economic growth.	
	Module-1 (15) Problem of Economic Growth- Problem of Economic Growth and the General Solution; Growth Equilibrium; Harrod –Domar Model of Economic Growth	
	Module-2 (15) Neo-Classical Models of Growth: Growth model of R.M. Solow, Instability & Convergence debate, Ms. Joan Robinson and Concept of Golden Age and Golden Rule of Accumulation; Models of Optimum Economic Growth- Keynes-Ramsey Rule, Cass-Koopmans Model	
	Module-3 (15) Neo-Keynesian Models of Growth & Distribution- Kaldor and L. Pasinetti Technology and Growth- Hicks, Harrod and Solow- Neutrality of Technical Change, Embodied and Dis-embodied Technical Change, Growth Accounting. Money and Growth- James Tobin and H.G. Johnson;	
	Module-4(15) Endogenous Growth Models- AK Models, Lucas Model of Human Capital, Romer Model of Endogenous Innovation.	

Recommended Texts

1. Barro, Robert J. and Xavier Sala-i-Martin, Economic Growth, McGraw-Hill,
2. H.G. Jones, "An Introduction to Modern Theories of Economic Growth" McGraw-Hill Book Company
3. Jones C.I., "Introduction to Economic Growth" W.W. Norton & Company, New York
4. Romer, David, Advanced Macroeconomics, New York: McGraw-Hill Co.,
5. Sen, A.K.,ed.(1970) Growth Economics, Penguin Books.
6. Blanchard, O. and Fischer, S. 1989. Lectures on Macroeconomics.

PO-CO Compliance Matrix

	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	3	3							
CO2	2	2							
CO3			3	3					
CO 4			3	3					
CO5			3	3					
CO6	3	3							
CO7			3	3	2	3			
CO8	2	3							
CO9	3	3							

*1: Low, 2: Medium, 3: High

Course Name: Econometrics (ECO 411)

TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
		Total: 4

Course Objective:

The course is quantitatively rigorous and requires advanced knowledge of mathematics and statistics. An important objective of the course is to introduce regression analysis to students so that they are able to understand its applications in different fields in economics. Attention is also given to the violations of CLRM model, aspects of discrete choice models, and simultaneous equations models. Specifically, by the end of the course, students will be able to specify assumptions, formulate and estimate appropriate models, interpret the results and test their statistical significance. Students are required to conduct research in teams where they apply the techniques learnt during the course and present their results.

Course Outcomes: The students will be able to

1	<i>Estimate the regression model, derive the parameter estimators and learn to interpret.</i>
2	Learn the consequences of the violations of CLRM assumptions, how to detect the problems of autocorrelation and heteroskedasticity and also able to learn the remedial measures.
3	Understand and would learn to quantify the qualitative variables and the interpretations. They would learn to use the dummy variables both as explanatory as well as dependent variable.
4	Learn the important simultaneous equation models and the simultaneous equation bias.
5	Use these techniques of econometrics in their MA dissertations
	Module-1(15): Classical Linear Regression Model- two and three variables- assumptions, estimation, testing and forecasting, BLUE properties of OLS estimators (derivation and proof); Variance of disturbance term; Regression through the origin; Matrix method of linear regression models; Introduction to multiple linear regression model and tests of linear restrictions; Simple regression coefficients versus partial regression coefficients.
	Module-2(15): Multicollinearity, Auto-correlation, and Heteroscedasticity: Nature, Causes, Consequences,

Detection and Remedial measures.									
Module-3 (15): Models for Binary Choice-Linear Probability Model; The logit and the Probit Model. Dummy variables.									
Module-4 (15): Simultaneous Equation Models (Structural form and Reduced form) and Simultaneous Equation Bias; Identification (Under-identified, Exactly identified and Over-identified model); Various Methods of Simultaneous Equation Model Estimation.									
Recommended Text Book									
1. Damodar N. Gujarati, <i>Basic Econometrics</i> ; 4th Edition, McGraw Hill, 2008.									
Supplementary References									
2. Damodar Gujarati, <i>Essentials of Econometrics</i> : McGraw Hill, 2005.									
3. C. Mukherjee, H.White and M. Wuyts, <i>Econometrics and Data Analysis for Developing Countries</i> ,Routledge, 1998.									
4. RamuRamanathan, <i>Introductory Econometrics with Applications</i> :Cengage Learning (Thompson), 2002.									
5. Introductory Econometrics ByJaffery Wooldridge.									
6. Theory of Econometrics By A. Koutsyannis.									
7. Introduction to Econometrics By G. S. Madalla									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1			3	3	2	2			
CO2	2	3	3	3					
CO3	2	3	3	3					
CO 4	3	3	3	3					
CO 5			3	3	3	3			
*1: Low, 2: Medium, 3: High									

Course Name: Theories of International Trade (ECO501)		
TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
		Total: 4
Course Objective:		
The course examines the gains from trade, the determinants of patterns of international trade and the effects of trade on income distribution, the relationship between trade, and economic growth. The course relies predominantly on a standard collection international trade models to understand the motivations behind modern trade policies. Course employs the understanding of classical, neo-classical and modern trade theories and its implications for economic welfare and gain. Course develops the understanding of analyzing the partial and general equilibrium effect of trade policies and theory of custom union. This course is also discussing about the recent issues of WTO and regional trade agreements.		
Course Outcomes: The students will be able to		
1	Compare at the level of formal analysis, the major models of international trade and be able to distinguish between them in terms of their assumptions and economic implications.	
2	Develop the basic understanding of trade theories and its interpretation and implication on world economy	
3	Analyze the partial and general equilibrium effect of trade policies, a) trade policy instruments such as tariffs, quotas, export subsidies, (b) retaliatory measures such as anti-dumping duties and countervailing duties and (c) the creation of regional trading arrangements such as free trade areas, customs unions and common market.	

4	Distinguish and critically analyze the main arguments for protection and conversely be able to critically evaluate the relevance and realism of arguments for free trade, taking into account the costs and benefits of trade policy measures on different sections of the community and the implications for the formulation of trade policy.
5	Analyze the partial and general equilibrium effect of theory of custom union
6	Analyze the effects of Immiserizing growth and intra-industry trade
7	Identify major recent developments in the world trading system, and be able to critically analyse the WTO negotiations and regional trading arrangements.
8	Analyze the country's gain in free, restricted and no trade situations
9	measure the economic welfare and gain of participating international trade
10	Measure the trade gain through offer curves, trade indifference curve and production possibility curves
	Module 1(20) 'Classical theory, Absolute Advantage, Comparative advantages and labour productivity differences as the basis of trade. "Trade is better than no trade". Constant costs and complete specialization in a two good, one factor model, Extension to multi country and multi commodity trade.Gains from trade and terms of trade, Neo- classical trade theory – two factor, two goods and variable cost model. Opportunity cost. Incomplete specialization, Heckscher Ohlin factor endowment model.factor price equalization Theorem. Stolper-Samuelson theorem. Specific Factor Model
	Module 2 (20) Leontief Paradox and factor intensity reversals and pattern of trade, Intra-industry and intra-firm trade. Modern explanations of trade patterns Transportation costs. Increasing returns.Product differentiation. Trade under imperfect competition, Technology and demand.Empirical testing of trade models. Terms of trade and Offer curves.Growth and terms of trade effects.Rybczynski theorem.Immiserizing growth.Growth and factor mobility – immigration and capital mobility. New Trade Theories: Kravin, Canon, Posner, Vernon, Krugman
	Module 3 (20) General equilibrium effects of tariffs on welfare. Offer curves and tariffs. Arguments for protection.Quotas.Comparison of tariffs and quotas. Countervailing duties and export subsidies. Effects of tariffs on factor prices.Effective rate of protection.Dumping.Non-tariff barriers.Voluntary Export Restraints, Export Subsidies etc. Theory of customs union – 'second best' argument – trade creation and trade diversion, Stages of integration Regional trade groupings, GATT and WTO
	<ol style="list-style-type: none"> 1. Pugel, T.A.(2008), <i>International Economics</i>, 13th Edition, Tata Mcgraw hill publishing Co, New Delhi. 2. Bhagwati, J. N., A. Panagariya and T.N.Srinivasan(1998), <i>Lectures on International Trade</i>, OUP,NewDelhi, Second Edition. 3. Krugman, P.A. and M Obstfeld (2003), <i>International Economics: Theory and Policy</i>,Sixth Ed. 4. Dominick Salvatore, <i>International Economics: Trade and Finance</i>, John Wiley International Student Edition, 10th edition, 2011.

PO-CO Compliance Matrix

	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	2	2							
CO2	3	3		1	1				
CO3			2	2					
CO 4		2	2	2	2				
CO5		2		2					
CO6		2		2					
CO7	2	2		2					
CO8	2	2	1	1					
CO9			2	2					
CO 10			2	2					

*1: Low, 2: Medium, 3: High

Course: Introduction to Environmental Valuation (ECO502)									
TEACHING SCHEME		EXAMINATION SCHEME				CREDITS ALLOTTED			
Theory: 4 hrs per week		End Semester Examination: 60 marks Internal Assessment: 40 marks				Theory: 4 (3 L+ 1 T)			
						Total: 4			
Course Objective:									
Course Objective: The course aims to disseminate the techniques of valuing the worth of non-market commodities especially environmental goods and service. Several case studies based on different valuation techniques would help the students appreciate the application of these techniques in determining the worth of environmental commodities.									
Course Outcomes: The students will be able to									
1	Discern valuation criterion in environmental economics, including its key principles and methods.								
2	Use microeconomic principles in valuation of environmental good and services								
3	Determine consumer preferences to infer demand for environmental quality.								
4	Apply approaches of non-market valuation of environmental goods and services, and of their strengths, weaknesses and methods of application								
5	Demonstrate theoretical and practical application of different valuation techniques.								
6	Apply cost benefit analysis to decide on a sustainable project.								
Economic Valuation of Environmental Damage or Benefits I Economic Theory and Measurement of Environmental Benefits. Demand for Environmental Service – Willingness to Pay and Willingness to Accept. Economic Valuation of Environmental Damage or Benefits II Concepts of Consumer’s Surplus. Compensating and Equivalent Surplus in the context of rationed goods and the Environment.									
Alternative Approaches and Methods of Environmental Valuation – I i. Revealed Preference and Stated Preference Method – Hedonic Pricing, Household Production Function, Travel Cost Method, Defensive cost and Contingent Valuation Method. ii. Case studies to be discussed. Alternative Approaches and Methods of Environmental Valuation –II i. Valuation of Health and Human Life iii. Case studies to be discussed									
Alternative Approaches and Methods of Environmental Valuation –III i. Valuing Environment as Input in Production ii. Case studies to be discussed Environmental Accounting and Measuring Green GDP i. Sustainable Macroeconomic Accounting of National Income and Wealth. ii. Green Accounting. iii. Environmental Cost-Benefit Analysis for Sustainable Development. iv. Rationale of Discounting the Future in the context of Sustainability v. Theory of Krutilla-Fisher Equation for Preservation or Development									
Kolstad C.D., Environmental Economics, Oxford University Press, 2000. Johansson Per-Olov: The Economic Theory and Measurement of Environmental Benefits, Cambridge University Press, Cambridge, 1987. Bhattacharya R.N. (ed.), Environmental Economics: An Indian Perspective, Oxford University Press, 2001. M.N. Murthy Environment, Sustainable Development, and Well-being Valuation, Taxes, and Incentives, OUP May 2009									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	1	2			3				
CO2	1	2		3	3	2			

CO3	1	2	1	3	3	2			
CO 4			2	3	3				
CO 5			2	3	3	3			
CO 6	2	2		2	3	2			
*1: Low, 2: Medium, 3: High									

Course Name: Development Economics (ECO503)		
TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
		Total: 4
Course Objective:		
	This course familiarizes the students with emergence of the field of development economics in the context of international events. It aims to focus on various development theories and approaches in dealing with underdevelopment and pressing issues of poverty and inequality, with the concepts and measurement.	
Course Outcomes: The students will be able to		
1	Analyze the shift of focus from economic growth as a single dimensional concept to economic development which is a multi-dimensional concept.	
2	Demonstrate familiarity with some central themes and issues of economic development.	
3	Demonstrate the understanding of the difference between growth and development, major development and growth theories, the measurement of inequality, significance of agriculture in developing countries, poverty and population issues facing the world, international trade, and importance of foreign aid.	
4	Examine the factors responsible for perpetuation of the conditions of underdevelopment in same economies.	
5	Differentiate different measures of poverty and inequality and pros and cons of different measurement.	
6	Review the policy implications of these key development economic theories	
7	Critically analyze how the theory of development economics impacts upon practical implementation macro development policies in varying local and global contexts	
Course Contents		
	Concept of Development – From GDP per capita to holistic indicators.PPP and international differences. International poverty line and estimates of poor. Factors of development. Colonialism and dependency theories. Schumpeter –Innovation, enterprise and process of ‘creative destruction’. Rejection of trade as the ‘engine of growth’. Nurkse and Prebisch arguments. Structural changes: Kuznets analysis of structural change.	
	Concept and Measures of Poverty-, Pareto Distribution, Head- Count Ratio, Income Gap Ratio, FGT Index. Concept and Measures of Inequality – Lorenz Curve and Gini coefficient, Issues in composite Indices, Problems of Aggregation. Inequality and Growth- the inverted U curve hypothesis, Inequality and growth – Interrelationships. Role of capital formation – vicious circle arguments, Rostow’s stages of development, Kuznet’s economic history analysis of characteristics of development.	
	Capital formation and allocation of investment- Balanced and unbalanced growth theories. Rosenstein – Rodan and Hirschman. Denison’s growth accounting – Contribution of labour, capital and Technology. Role of agriculture. Dual economies and surplus labour argument, Ranis-Fei Model, Unemployment-efficiency wage theory as an explanation for wage rigidity and involuntary unemployment, Collusive theory of unemployment. Population growth and critical Minimum Effort. Demographic transition. Demographic dividend.	
	Reference Readings	

A.P. Thirlwall: Growth and Development, ELBS.

D Ray: Development Economics, OUP.

S. Ghatak: Introduction to Development Economics, Rutledge.

Kaushik Basu: Analytical Development Economics: The Less Developed Economy Revisited, OUP.

D Lal; The Poverty of Development Economics, OUP.

G. Meier: Leading issue in Economic Development (4th Edition),OUP.

Meier and Rauch: Leading Issues in Economic Development (8th Edition),OUP

PO-CO Compliance Matrix

	PO1	PO2	PO3	PO4	PO5	PO6			
CO1		3	2	2					
CO2	2	2							
CO3	3	3							
CO 4			2	2					
CO5	2	2	1						
CO6		3			2	2			
CO7	2	3			2	2			

*1: Low, 2: Medium, 3: High

Course Name: Development Issues in Indian Economy (ECO410)

TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
Course Objective:		
The course introduces the students to the various dimensions of the Indian Economy and the contemporary Problems of Indian Economy. This course is also aims to provide the basic information regarding the developmental strategies and structural adjustment reform measures that countries across the world adopt to eradicate the poverty and unemployment, to reduce inequalities and regional imbalances. The course also focuses on the changing role of state, markets and civil society institutions with respect to economic development.		
Course Outcomes: The students will be able to		
1	Understand the Indian economy better and will get some idea about the problems faced by the Indian economy	
2	Demonstrate the development process in India after independence	
3	Develop a perspective on the external sector reforms and industrial sector reforms undertaken in global economies including in India for last three decades	
4	Demonstrate various structural adjustment programs and reform measure that the government of India has been initiated to eradicate poverty and unemployment, to reduce inequalities and regional imbalances since Independence	
5	Understand what the primary measures of inflation in India are and be able to assess the impact of inflation on inflow and outflow of foreign capital India.	
Problems in Indian Economy (15)		
Concepts of development and under development, General characteristics of Indian economy, Growth and		

Structural Change in the Indian Economy since 1950: Nature, causes and changes in sectoral income distribution and occupational structure, Poverty - The concept and measurement of poverty, Causes of poverty and Remedies, Unemployment - Concept and measurement of unemployment, Causes of unemployment and Remedies									
Agriculture (15) Role of Agriculture in Indian economy, Institutional Structure – land reforms in India Agricultural production and productivity – recent trends Sources of Agricultural finance, Agricultural Marketing - Problems and Remedies Rural indebtedness - Suicide of farmers – causes and remedies,, Economic liberalisation and merging trends in Indian Agriculture,									
Industry, Tertiary Sector and Parallel Economy of India (15) Industrial development during the planning period; Industrial policy of 1948, 1956, 1977 and 1991, Industrial licensing policy — MRTP Act, FERA and FEMA; Growth and problems of small scale industries; Role of public sector enterprises in India. Service Sector in India – Growth, pattern and future prospects, Fiscal federalism-Centre state financial relations, Parallel Economy –Causes and impact of black money, Measures to control black money.									
Planning and Economic Reforms (15) Need and objectives of planning, Achievements and failure of 11th five year plan, 12th Five Year Plan – objectives, targets and strategy. Rationale of Economic Reforms, Features and appraisal of Economic Reform Programme, Liberalization, Privatization and Globalisation of the economy									
Foreign Trade and Policy Trade policy during pre and post reform period, Liberalised Exchange Rate Management System. Foreign Direct Investment – Trends and issues, Indian foreign trade—composition, volume, direction and trade balance.									
Reference Books 1. Kapila, Uma (Ed.) : Indian Economy – Performance and Policies, Academic Foundation,. New Delhi. 2. Datt R. & K.P.M. Sundharm, Indian Economy, S. Chand & Co. Ltd. New Delhi. Datt R. & K.P.M. Sundharm, Indian Economy, S. Chand & Co. Ltd. New Delhi. 3. Misra S.K. & V.K. Puri, Indian Economy – Himalaya Publication house Mumbai 4. Kapila, Uma (Ed.) : Indian Economy Since Independence, Academic Foundation, New Delhi.									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	3	3							
CO2	1	2				1			
CO3	2	2				1			
CO 4	2	2		1	1	1			
CO 5	1	2	1	2	1	1			
*1: Low, 2: Medium, 3: High									

Course Name: Environmental Issues and Sustainable Development (ECO 507)		
TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
		Total: 4
Course Objective:		
The course aims to discuss the various approaches of sustainable development, emergence of the concept of sustainable development and role of environment in sustainable development. It also deals with international		

	and domestic environmental issues and the new economic framework of genuine well-being and happiness.								
Course Outcomes: The students will be able to									
1	Critically appreciate the relevance of environmental economics in linking the notions of sustainable development.								
2	Understand the various approaches of sustainable development and how they are different from each other.								
3	Understand various trans-national environmental issues.								
4	Follow various issues related to energy, water, land, transport issues in association with the environmental concerns in India								
5	Appreciate the emergence of genuine wealth and its relevance in the new economic framework of well-being								
6	Comprehend the effects of globalization on environment.								
Course Contents									
The concept of Development and emergence of a new paradigm: Sustainable Development. Pursuits of Sustainable Development. Aspects of Sustainable Development : Economic, Ecological and Social, a Synthesis Theory of Sustainable Development: Rules of sustainable development and Indicators: The Hartwick-Solow approach, Non-declining natural capital stock approaches, The SMS approach, Daly's operational principles, The Common-Perrings model of SD, 'Distance to goals' approach.									
Trade and Environment: Trade, Foreign Investment and the Environment. Ecological dumping and standards Trans-national Pollution. Porter's hypothesis, race to bottom and pollution haven hypothesis. Globalization, Economic Reforms and the Environment									
Environment and Economic Growth i) Indian Energy and Environment issues ii) Water, Land Transport and Urban development issues									
Genuine Wealth and Sustainable Development The Genuine Wealth Model : Defining genuine wealth , Old Economy of scarcity and new economy of well-being, Five Capital of Genuine wealth. Genuine wealth assessment life cycle. Genuine wealth models of communities and nations. Gross National Happiness: Case of Bhutan									
Reference Books Jonathan M. Harris (2000): "Basic Principles of Sustainable Development" G-DAE Working Paper No. 00-04. Bruno S. Frey , Economics Of Happiness, Springer International Publishing,2018 Kanchan Chopra and VikramDayal (Ed). Hand book of Environmental Economics, Oxford University Press 2009. Sengupta, R.P, "Economics in India. Prospects and policies of low carbon Economic growth in India", NIPFP Publications 2010. Peter Meier and Mohan Munasinghe,Sustainable Energy in Developing Countries: Policy Analysis and Case Studies,Cheltenham: Edward Elgar.									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1			3		2	2			
CO2	3	3	2						
CO3	2	2			2	2			
CO4	2	2			2	2			
CO5	2	2			2	2			
CO6	2	2			2	2			
*1: Low, 2: Medium, 3: High									

Course Name: Advanced Econometrics (ECO506)		
TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
		Total: 4
Course Objective:		
	The purpose of this course is to teach and make student learn about the econometric estimations and their inferences at the advance level that can covers wide-range of economic issues. The course structure can be seen in broad heads, i.e. Time-series and Panel data analysis which further divided into four units. At the end of the course students are expected to learn how to apply the modern econometrics concepts and methods in analyzing and interpreting empirical research. The basic level of econometric understanding that has been taught in the previous semester is assumed.	
Course Outcomes: The students will be able to		
1	To conduct panel data analysis using pooled OLS, Fixed effects and Random Effects model.	
2	To apply time series econometric techniques to empirical settings	
3	To carry out empirical analyses using economic and financial time series data	
4	Interpret the results of such analyses, in terms of the validity of the inferences that can be drawn, and to appreciate the interplay between data and theory in making such inferences	
Course Contents		
Unit I (15)		
Review of cross section data analysis; Introduction to static panel data models: pooled OLS, Fixed effects and Random Effects. Choosing fixed effects vs random effects: The Hausman specification test, Mundlak's approach, Chamberlain's approach. Robust estimations, Heteroscedasticity and autocorrelations in panel data.		
Unit 2 (15)		
Importance of lags in economic variables, Estimations of distributed lag model: Koyck Approach, adaptive expectations model, adaptive expectations and partial adjustment models; Autoregressive models. Almon Approach. Introduction to Univariate time-series econometrics: Stationary and non-stationary process; Tests for stationarity: unit root tests.		
Unit 3 (15)		
Time series and forecasting: AR, MA, and ARIMA models. The vector auto regression (VAR), Granger causality, Granger non-causality tests: Toda and Yamamoto. Measuring volatility: the family of ARCH and GARCH models.		
Unit 4 (15)		
The concept of spurious regressions and co-integration. Engle —Granger approach, Multivariate co-integration tests: the Johansen's approach. ECM and VECM. ARDL models. Dynamic linear panel data models; Panel Unit root tests, GMM models, the system GMM models.		
Recommended Readings		
<ul style="list-style-type: none"> • Arellano M. (2003). <i>Panel Data Econometrics: Advanced texts in econometrics</i>. Oxford University Press • Badi H Baltagi (2005). <i>Econometric Analysis of Panel Data</i>, 3rd edition, John Wiley and Sons Ltd. • Greene, William H. (2012). <i>Econometric Analysis</i>, Pearson Prentice Hall, 7th edition. • Pesaran M. H (2015). <i>Time Series and Panel Data Econometrics</i>, Oxford University Press • Wooldridge, Jeffrey (2010), <i>Econometric Analysis of Cross Section and Panel Data</i>, Cambridge: MIT Press. • Hsiao, Cheng (2003). <i>Analysis of Panel Data</i>, Second Edition, Cambridge University Press 		

PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1			3	3	2	2			
CO2			3	3	2	2			
CO3			3	3	2	2			
CO4			3	3	2	2			

*1: Low, 2: Medium, 3: High

Course Name: Master's Thesis (ECO508)									
TEACHING SCHEME		EXAMINATION SCHEME				CREDITS ALLOTTED			
Theory: 4 hrs per week		End Semester Examination: 60 marks Internal Assessment: 40 marks				Theory: 4			
						Total: 4			
Course Objective:									
The purpose of the Masters' thesis is to encourage students to undertake independent economic research and to foster research-related skills, which should benefit future study and employment.									
Course Outcomes: The students will be able to									
1	Demonstrate specialist knowledge in the area of the research								
2	Demonstrate the ability to initiate research and to formulate viable research questions.								
3	Demonstrate the capacity to design, conduct and report sustained and original research.								
4	Demonstrate the ability to evaluate and synthesize research-based and scholarly literature.								
5	Present research findings and argument in a suitably structured and sequenced thesis that conforms to protocols of academic presentation and research practice.								
6	Demonstrate the ability to critique literature and conduct analyses at a Masters level.								
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1		2			2	2			
CO2		2			2	2	2	2	
CO3		2			3	3	3	2	
CO 4		2			3	3	2	2	
CO5		2	2	2	3	3	3	2	
CO6		2	2	2	2	3	3	2	3

*1: Low, 2: Medium, 3: High

Course Name: Natural Resource Economics (ECO510)		
TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED

Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks		Theory: 4						
			Total: 4						
Course Objective:									
	This course deals with the theoretical framework of the optimal use of renewable and non-renewable natural resources. It also aims to target the common property issues and role of institutions in handling it.								
Course Outcomes: The students will be able to									
1	Know the extension of general equilibrium to resources and environment.								
2	Understand the concept of steady state harvests and the biological growth function of renewable resources.								
3	Learn the process of arriving at bio-economic equilibrium outcome in an open access fishery and static private property fishery.								
4	Construct the model for efficient and optimal use of non-renewable resources.								
5	Understand the static and dynamic efficiency conditions of the resource optimization problem.								
6	Comprehend about some of the ways in which people's participation can be made effective.								
Course Contents									
MODULE I (15) Economy wide Modelling Environmental Input output Analysis Computable General Equilibrium model for Resources and Environmental Pollution..									
MODULE II (15) Economics of Renewable Resources: Growth functions and growth rate Optimal Management of Renewable Resources – Cases of Water, Forest, Fishery: Theories of Pricing, Depletion and Augmentation of Resources									
MODULE III (15) Economics of Non-Renewable Resources: Theories of Depletion and Investment for Exploration, Hotelling's rule, Pricing and Market. Natural Resource Cartels: Cases of Energy and Non-fuel Minerals									
MODULE IV(15) Economics of Common Property Resources and Institutions: Open Access: Economic Failure and consequences; Management of Open Access; Participatory Approach and Institutions									
Suggested texts: 1. Hanely, Nick, Jason F.Shorgen, and Ben White, Environmental Economics: In Theory and Practice 1999, MacMillian 2. Roger Permanet. al., Natural Resource and Environmental Economics, Third edition, Pearson(Module I). 3. Clement A Tisdell, Economics of Environmental Conservation, Second Edition, Edward Elgar(Module IV). 4. Tom Tietenberg, Environmental and Natural Resource Economics, Seventh Edition, Pearson (Module III). 5. David Anderson, Environmental Economics and Natural Resource Management, Routledge.									
PO-CO Compliance Matrix									
	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	2	2							
CO2	2	2							
CO3	2	2							
CO4		2	3	3	1	1			
CO5	2	2			2	2			
CO6	2	2			2	2			
*1: Low, 2: Medium, 3: High									

Course Name: Economics of Human Development (ECO509)		
TEACHING SCHEME	EXAMINATION SCHEME	CREDITS ALLOTTED
Theory: 4 hrs per week	End Semester Examination: 60 marks Internal Assessment: 40 marks	Theory: 4
		Total: 4
Course Objective:		
	This course aims to provide basic knowledge and better understanding of the critical issues involved in human development interpretation. It focuses on 'people-oriented' view of development.	
Course Outcomes: The students will be able to		
1	Appreciate the importance of human development in development theory.	
2	Assess development as 'the expansion of human capabilities' in research application	
3	Relate the various dimensions of human development like Social capital, inclusion, empowerment and freedom to growth and development.	
4	To relate the development phenomenon in India in context of human development	
Course Contents		
	Module 1 (15) Concepts and Dimensions of Human Development, Ends and Means of Development, Multi-faceted Nature of Development, Rawls: A Critique of Utilitarianism, Sen: The Capability Approach, Dimensions of Development, Human Rights and Human Development, Cultural Diversity and Human Development	
	Module 2 (15) Measurement Aspect: Refinement of Human Development Index, Measuring Deprivation adjusted for Group Disparities, Secluded (isolated) and Proximate Illiteracy, Measuring Group Differentials and Multidimensional Poverty	
	Module 3 (15) Economics of Public investment in education, health care and environmental sustainability, Dynamic linkage between human development and growth	
	Module 4 (15) Other dimensions of human development: Social capital, inclusion, empowerment and freedom	
	Module 5 (15) HD in India, Role of institutions (national and international), government and NGOs, Studies specifically related to Indian economy showing linkage between human development and economic growth.	
	Readings: <ol style="list-style-type: none"> 1. Sen, Amartya K., <i>Choice, Welfare and Measurement</i>, Oxford, Basil Blackwell, 1982 2. Nussbaum, Martha, and Sen, Amartya. <i>The Quality of Life</i>. Oxford: Clarendon Press, 1993 3. Sen, Amartya, <i>Development as Freedom</i>, Oxford, Oxford University Press, 1999 4. Ranis, G, F. Stewart and A. Ramirez (2000), Economic Growth and Human development, in <i>World Development</i>, February 2000, Vol. 28(2): 197-219 5. Ranis, G and F. Stewart Dynamic Links between the Economy and Human Development," in <i>Policy Matters: Economic and Social Policies to Sustain Equitable Development</i>, José Ocampo, Jomo K.S. and Sarbuland Khan (eds), Zed Books Ltd., London, UK. 2007, pp.32-52 6. Ranis, G, F. Stewart and Emma Samman "Human Development: Beyond the Human Development 	

Index," *Journal of Human Development*, 7(3), November 2006. pp.323-358.

PO-CO Compliance Matrix

	PO1	PO2	PO3	PO4	PO5	PO6			
CO1	2	2							
CO2			2	2	3	3			
CO3	3	3			2	2			
CO4	3	3			2	2			

*1: Low, 2: Medium, 3: High