Lesson Plan for BSc ECONOMICS MAJOR (ECOM)

(Semester – V)

Economics Core Course-: ECOM-DSCC-9

Microeconomics III

Total Marks: 100 [Theory(Th) 75 + Tutorial(Tu) 25]
Total Credits: [3(Th)+1(Tu)]=4 , No. of Lecture hours (Theory): 45, No. of Tutorial contact hours:15

Unit	Topic	Classes	
		Allotted	Assigned To
1	**Imperfect Market Structure** 1.1 Monopoly and barriers to entry- output determination and price rule, measure and sources of monopoly power, social costs of monopoly power-deadweight loss 1.2 Pricing with market power- first, second and third degree price discrimination, multiplant monopoly 1.3 Monopolistic competition- short run and long run equilibrium, excess capacity 1.4 Oligopoly- Oligopoly equilibrium as Nash equilibrium, Cournot, Bertrand and Stackelberg Model- use of iso-profit curves and simple game theoretic interpretation. Sweezy's kinked demand curve model and non-collusive equilibrium. Competition versus collusion- the Prisoners' Dilemma. Collusive Oligopoly –Cartels and Price Leadership	20	SL
2	**Input market under Imperfect Competition** 2.1 Monopsony, bilateral monopoly in labour market	5	SL

3	**General Equilibrium, Efficiency and Welfare** 3.1 General Equilibrium and Economic Efficiency- Exchange, production and welfare, Pareto Optimality, Edgeworth box and contract curve, Pareto efficiency and perfect competition 3.2 Reasons for Market failure, Pareto efficiency and market failure (externalities and public goods), property right and Coase Theorem 3.3 Markets with asymmetric information-adverse selection, moral hazards, agency problems (concepts only)	20	SC
4	**Tutorial**	15	SL

Economics Core Course-: ECOM-DSCC-10

Macroeconomics III

Total Marks: 100 [Theory(Th) 75 + Tutorial(Tu) 25]
Total Credits: [3(Th)+1(Tu)]=4 , No. of Lecture hours (Theory): 45, No. of Tutorial contact hours:15

Unit	Topic	Classes	
		Allotted	Assigned To
1	**Basic Tenets of New Classical and New Keynesian Theories** • New Classical Theory-The concept of rational expectations and the theory of real business cycle-introductory ideas • New Keynesian Theory- nominal rigidities and real rigidities, rigidities in interest rates and credit rationing-introductory ideas	10	MDG
2	**Macroeconomic Foundations -II** • Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; Dusenberry's relative income hypothesis; rational expectations and random-walk of consumption expenditure. • Demand for money: Regressive Expectations and Tobin's portfolio choice models; Baumol's inventory theoretic money demand.	15	MDG
3	**Economic Growth** • Harrod and Domar models of economic growth. • Solow one sector growth model-golden rule- -dynamic efficiency. • Technological progress , • Elements of endogenous growth theory-basic ideas-the AK model	20	MDG
4	**Tutorial**	15	MDG

Economics Core Course-: ECOM-DSCC-11

Mathematical Economics II

Total Marks: 100 [Theory(Th) 75 + Tutorial(Tu) 25]
Total Credits: [3(Th)+1(Tu)]=4 , No. of Lecture hours (Theory): 45, No. of Tutorial contact hours:15

Unit	Topic	Classes	
		Allotted	Assigned To
1	Game Theory Concept of a game Pure Strategy and Mixed Strategy, Constant-sum and Non-constant sum game Constant-sum game as a zero-sum game(3 lectures Static Games Pure Strategy Solution Methods, viz., Maximin Minimax technique, Dom inant strategy equilibrium, Iterated dominant strategy equilibrium, Nash equilibrium and Mixed Strategy Solution Method(4 lectures) Some Common Games Prisoners Dilemma, Battle of Sexes, Matching Pennies Dynamic Games Method of Backward Induction (Basic concept) (3 lectures)	10	SL
2	**Integration of functions** Integration of functions Integration by Substitution and Integration by parts(3 lectures) Applications in Economics, Finding total functions from marginal functions, Present Value(2 lectures)	5	SC
3	Difference equation First order linear difference equations and their solutions Second order linear difference equations and their solutions(5 lectures) Non-linear Difference Equations Qualitative-Graphic Approach Applications in Economics Cobweb model, A model with lagged adjustment, Samuelson s multiplier-accelerator model. (5 lectures)	10	IL

4	Differential equation First order linear differential equations and their solutions Second order linear differential equations and their solutions Solution of linear system of Differential Equations (i) via Eigen values(ii) by substitution.(8 lectures) Fixed Point and stability Qualitative-Graphic Approach One-variable and Two-variable Phase Diagrams Linearization of a Non-linear Differential-Equation System and Stability Analysis .(6 lectures) Applications in microeconomics and macroeconomics Price dynamics in a single market, Multi-market equilibrium and stability, A model with inflation-unemployment interaction, Solow model, IS-LM model.(6 lectures)	20	IL
5	**Tutorial [for revision, doubt clearing, solving problems]**	15	SL

Economics Core Course-: ECOM-DSCC-12

Econometrics I

Total Marks: 100 [Theory(Th) 75 + Tutorial(Tu) 25]
Total Credits: [3(Th)+1(Tu)]=4 , No. of Lecture hours (Theory): 45, No. of Tutorial contact hours:15

Unit	Topic	Classes	
		Allotted	Assigned To
1	**Nature and Scope of Econometrics** 1.1 Distinction between Economic Model and Econometric model [1 lecture hour] 1.2 Concept of stochastic relation, Role of random disturbance in econometric model [1 lecture hour] 1.4 Application of Econometrics in different branches of social science [1 lecture hour]	3	SC

2	**Classical Linear Regression Model (Simple linear regression and multiple linear regression):** 2.1 The classical assumptions (basic interpretation) [1 lecture hour] 2.2 Concepts of population regression function and sample regression function [3 lecture hours] 2.3 Estimation of model by method of ordinary least squares (Derivation in simple linear model (SLRM) and multiple linear model (MLRM) with two regressors only) [6 lecture hours] Properties of the Least Squares Estimators (BLUE) in SLRM- Gauss-Markov theorem . Simple correlation, partial correlation and multiple correlation (Definition, and interpretation in the context of SLRM and MLRM) [2 lecture hours] Limitations of SLRM and additional complications in MLRM [2 lecture hours] Economic interpretations of the estimated model [1 lecture hour] Use of standard normal, chi2, t, and F statistics in linear regression model [9 lecture hours] Testing hypothesis [12 lecture hours] Single test (t test and chi2 test) Joint test (F test) Goodness of fit (in terms of R2 , adjusted R2 and F statistic), Analysis of Variance (ANOVA) [3 lecture hours] Statistical significance and economic importance [2 lecture hours]	27	SC
3	**Qualitative (dummy) independent variables** intercept dummy and slope dummy (only interpretation of the model) Forecasting - Ex-post forecast and Ex-ante forecast, forecast error (only for two variable model)	10	SC

4	**Violations of Classical Assumptions** Multicollinearity - Consequences, Detection (Variance Inflationary Factor (VIF)) and Remedies [4 lecture hours] Heteroscedasticity - Consequences, Detection (Lagrange Multiplier test) and Remedies [4 lecture hours] Autocorrelation - Consequences, Detection (Durbin-Watson test) and Remedies [4 lecture hours]	5	SL
5	**Tutorial [for revision, doubt clearing, solving problems]**	15	SC

Lesson Plan for BSc ECONOMICS MDC (MECO)

(Semester – V)

Economics Core Course: MECO-CC1/CC2 (MDC)

Economic History of India (1857-1947) (EHI)

Total Marks: 100 [Theory(Th) 75+ Tutorial(Tu) 15]

Total Credits: [3(Th)+1(Tu)]=4 , No. of Lecture hours (Theory): 45, No. of Tutorial contact hours: 15

Unit	Topic	Classes	
		Allotted	Assigned To
1	**Colonial India: Background and Introduction** Overview of the colonial economy Macro Trends National Income; population; occupational structure.	10	SD
2	**Agriculture** Agrarian structure and land relations; agricultural markets and institutions – credit, commerce and technology; trends in performance and productivity; famines.	10	SD
3	**Railways and Industry** Railways; the de-industrialisation debate; evolution of entrepreneurial and industrial structure; nature of industrialisation in the interwar period; constraints to industrial breakthrough; labor relations..	10	SD
4	**Economy and State in the Imperial Context** The imperial priorities and the Indian economy; drain of wealth; international trade, capital flows and the colonial economy – changes and continuities; government and fiscal policy.	15	SD
5	TUTORIAL	15	SD