

MUGBERIA GANGADHAR MAHAVIDYALAYA

P.O.-BHUPATINAGAR, Dist.-PURBA MEDINIPUR, PIN.-721425, WEST BENGAL, INDIA NAAC Re-Accredited B+Level Govt. aided College CPE (Under UGC XII Plan) & NCTE Approved Institutions DBT Star College Scheme Award Recipient

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Department of Economics (Hon. & Gen.)

Academic Year: 2021-2022

Date: 08.07.2021

Course	Course Contents/Syllabus	Allotted Teacher	Credit	Class Allotted per Week	Total Class	
	Introductory Microeconomics Exploring the subject matter of Economics Why study economics? Nature, scope and method of economics; the economic themes: scarcity and efficiency; thinking like an economist: the question of what to produce, how to produce and how to distribute output; production possibility curve, positive and normative economics, marginal benefits and marginal costs; opportunity cost (private and social); the basic competitive model; prices, property rights, the role of property rights in markets and profits; incentives and information; rationing; opportunity sets; economic systems; reading and working with graphs.	РВ	6		3	3×15 = 45
CC-1	Supply and Demand: How Markets Work, Markets and Welfare Elementary theory of demand: determinants of household demand, market demand, and shifts in the market demand curve Elementary theory of supply: factors influencing supply, derivation of the supply curve, and shifts in the supply curve The elementary theory of market price: determination of equilibrium price in a competitive market; the effect of shifts in demand and supply; the excess demand function: Existence, uniqueness, and stability of equilibrium; consumer surplus, producer surplus and efficiency of competitive markets (graphical approach); the idea of market failure; Elasticities and their applications. Government intervention and their impact on market equilibrium and efficiency-: controls on prices (Price ceilings and price floors); indirect taxation.	ВМ		3	3×15 = 45	

	The Households Theory of consumer behaviour – cardinal and ordinal utility approach; Indifference curve and its properties; The consumption decision - budget constraint, consumption and income and price changes, demand for all other goods and price changes; description of preferences- most preferred bundle and its properties; consumer's optimum choice; income and substitution effects; Marshallian and compensated demand curves; Price consumption curve,	РВ		3	3×15 = 45
	tastes; labour supply and savings decision - choice between leisure and consumption.				
	The Firm and Perfect Market Structure Defining a firm- firm's legal forms; profit maximization				
	hypothesis; Contractual theories and organizational theories of firms (concepts only); Behaviour of profit maximizing firms and the production process; short run costs and output decisions; costs and output in the long run.				
	Imperfect Market Structure				
	Monopoly and anti-trust policy; measuring monopoly power; government policies towards competition; various types of imperfect competition.	РР		3	3×15 = 45
	Input Markets				
	Theory of rent-Ricardo, Marshall, and Modern theory of rent; Labour and land markets - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves, competitive labour markets; labour market and public policy.				
	Mathematical Methods in Economics-I				
	Logic and proof techniques; sets and set operations; relations; functions and their properties; number systems. Convex sets; geometric properties of functions: convex functions, their characterizations, properties and applications; further geometric properties of functions: quasi-convex functions, their characterizations, properties and applications; limit and continuity.				2.45
CC-2	Functions of one real variable	PB	6	3	= 45
	Continuous functions of different types and their graphs- quadratic, polynomial, power, exponential, and logarithmic; Derivatives of first and second order and their properties; convex, concave and linear function. Application in economics- concept of marginal.				
	Single variable optimization				
	Local and global optima; Geometric characterizations; characterizations using calculus; Applications in Economics-				

	profit maximization and cost minimization.				
	Integration of functions Integration of different types of functions; Methods of Substitution and by parts; Applications in economics- obtaining total from the marginal.				
	Difference Equations Finite difference; Equations of first and 2 nd orders and their solutions; Application in Economics- Cobweb model.				
	Elementary Probability Theory Sample space and events; Probability axioms and properties; counting techniques; conditional probability; Bayes' rule and independence of events; Random variable and probability distributions- Discrete and continuous. Expectation of a random variable.	AD		1	1×15 = 45
	Introductory Macroeconomics				
(CC-3)	National income accounting, unemployment, and open economy issues Macroeconomic data- National Income accounting and cost of living; Concept of Growth-role of savings, investment, and financial intermediation; Open Economy- Balance ofPayments, exchange rates, and capital flow; Concept of unemployment- Types and their characteristics; Growth accounting and Solow residual.				
	Money and Inflation Monetary system- definitions of money and determinants of money supply – money multiplier and central bank's role in controlling money supply; quantity theory of money; inflation and its costs.	ВМ	6	3	3×15 = 45
	The Closed Economy in the Short Run Theory of aggregate demand- components and their interrelations - crowing out- Factors causing shift in the function; Theory of aggregate supply- determinants of supply and shift factors; Interaction of aggregate demand and supply.				
	Mathematical Methods in Economics-II				
	Matrix Algebra				
CC-4	Matrix: its elementary operations; different types of matrix; Rank of a matrix; Determinants and inverse of a square matrix; solution of system of linear equations; Eigen values and Eigen vectors. System of nonlinear equations- Jacobian determinant and existence of solution.	РВ	6	3	3×15 = 45
	Function of several variables				
	Continuous and differentiable functions: partial derivatives and Hessian matrix. Homogeneous and homothetic functions. Euler's theorem, implicit function theorem and its application to comparative statics problems. Economic applications- theories of consumer behaviour and theory of production				

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	Multi-variable optimization Optimization of nonlinear functions: Convex, concave, and quasi-concave functions; Unconstrained optimization; Constrained optimization with equality constraints- Lagrangian multiplier method; role of Hessian determinant; Inequality constraints and Kuhn-Tucker Conditions; Value function and Envelope theorem; Economic applications – consumer behaviour and theory of production. Optimization of linear function: Linear programming; concept of slack and surplus variables (graphical solution only) concept of convex set.				
	Differential Equations Solution of Differential equations of first order and second order; Economic application- price dynamics in a single market- multimarket supply demand model with two independent markets. Qualitative graphic solution to 2x2 linear simultaneous differential equation system- phase diagram, fixed point and stability.				
	Intermediate Microeconomics – I				
	Cardinal utility; Preference: ordering and properties of ordinal utility; existence of utility functions, different utility functions and their properties, compensating and equivalent variation, Slutsky equation; consumption-leisure choice and labour supply; choice under uncertainty (expected utility and risk aversion), inter- temporal choice and savings decision; revealed preference approach.				
CC-5	Production and Costs Technology- general concept of production function; returns to factor and returns to scale, isoquants and diminishing rate of factor substitution – elasticity of substitution –some examples of technology (fixed proportion, perfect substitute, Cobb– Douglas Production Function, CES Production Function), General concept of homogenous and homothetic production function and their properties; production with one and more variable inputs; isocost line and firms equilibrium and expansion paths; short run and long run costs; cost curves in the short run and long run; relation between short run and long run costs.	РР	6	3	3×15 = 45
	Competitive Equilibrium Short run and long run equilibrium; determination of the supply curve of the firm and the industry: with reference to external economies and diseconomies of scale.				
	Input market in perfect competition Derived demand for input, marginal product and marginal revenue product, input demand for competitive firm and competitive industry, returns to scale and product exhaustion.				

	Intermediate Macroeconomics – I				
	Income Determination in the short-run				
CC-6:	 Simple Keynesian System: Multipliers; equilibrium in both closed and open economy and stability; autonomous expenditure, balanced budget, and net exports; paradox of thrift. IS-LM Model - equilibrium, stability and comparative statics; effects of fiscal and monetary policies, real balance effects; IS-LM in the open economy under fixed and flexible exchange rate with perfect and imperfect capital mobility (Mundell-Fleming model). Aggregate Demand and Aggregate Supply Derivation of aggregate demand assuming price flexibility; Derivation of aggregate supply curves both in the presence and absence of wage rigidity; equilibrium, stability, and comparative statics-effects of monetary and fiscal policies; 	BM & PB	6	3+3	6×15 = 90
	Unemployment and its causes- possible solutions, including real balance effect and wage cut policy.				
	Inflation, Unemployment and Expectations Inflation and unemployment trade-off- Short run and long- run Phillips curve under adaptive expectations-outcome under rational expectations (non-rigorous)				
	Statistical Methods for Economics Descriptive Statistics				
CC- 7	Presentation of Data; Frequency Distribution; Measures of central tendency, Dispersion, Moments, Skewness and Kurtosis; Bivariate Frequency Distribution- correlation and regression.				
	Univariate Probability Distribution Discrete distribution-Binomial, Poisson; Continuous Distributions-Uniform, Normal, Exponential (Properties of each distribution; mean and variance).	PB & AD 6			
	Jointly Distributed Random Variables Density function of Bivariate normal distribution and obtaining means, variances, and correlation coefficients.		6	313	6×15
	Sampling Concept of sampling and random sampling. Principal steps in a sample survey; methods of sampling;-SRSWR, SRSWOR, Stratified sampling. Sampling vs non-sampling error		515	= 90	
	Index Number Price and quantity index number; Different formula; Tests for an ideal index application-Cost of living index; Real GDP				
	Estimation Parameters and statistics: Point estimation-Properties of a				
	good estimator; Maximum Likelihood Method and the method of moments; Estimation of population parameters using SRSWR and SRSWOR; Interval estimation.				

SEC-1	 Data Analysis UNIT 1 Sources of data. Population census versus sample surveys. Random sampling. Frequency distribution and summary Statistics. UNIT 2 Analysis of Indian Data: Economic Survey, RBI Bulletin on currency and finance, ASIDATA, Foreign Trade Statistics, NSS Consumer surveys. 	РВ	2	2	2×15 = 30
CC-8	 Intermediate Microeconomics – II General Equilibrium, Efficiency, and Welfare a) Exchange Economy, Consumption Allocation and Pareto Optimality; Edgeworthbox and contract curve; Equilibrium and efficiency under pure exchange. b) Pareto efficiency with production: concepts of PPF, SIC, and resource allocation; Perfect competition, Pareto efficiency and market failure (externalities and publicgood); property right and Coase Theorem. Market Structure and Game Theory a) Monopoly; pricing with market power; degree of monopoly; price discrimination- different degrees; multiplant monopoly; peak-load pricing; two-part tariff; monopolistic competition. b) Oligopoly and game theory (Cooperative and Noncooperative static games; simultaneous move and sequential move games; non- cooperative games of perfect information; the Prisoner's dilemma, Nash equilibrium in pure and mixed strategies; Backward induction solutions and SPNE); Applications of game theory in oligopolistic markets (Cournot Equilibrium, Bertrand Equilibrium, StacklebergEquibrium) ; concept of collusion and cartels; Solution by backward induction. 	PB, BM & PP	6	3+3+3	3×15 = 45 3×15 = 45 3×15 = 45

	Intermediate Macroeconomics – II Schools of Macroeconomic Thoughts				
CC-9	Classical System: Say's law and quantity theory; Friedman's restatement; classical dichotomy and neutrality of money; Keynesian vs classical system; basic tenets of New Classical and New Keynesian System.	PB, BM & PP	6	3+3+ 3	3×15 = 45 3×15 = 45 3×15 = 45
	Macroeconomic Foundations				

Consumption: Keynesian theory of optimal intert permanent income hypothe hypothesis; rational exp consumption expenditure. Investment: MEC and MEI Acceleration principle-fixed Demand for money: Reg portfolio choice models; Ba demand	consumption function; Fisher's emporal choice; life-cycle and ses; Dusenberry's relative income ectations and random-walk of - Jorgenson's neo-classical theory- l and variable. ressive expectations and Tobin's numol's inventory theoretic money		
Monetary Policy			
Government debt and Ric money; money multiplier a Bank rate, variable reserve r	ardian equivalence; high-powered nalysis; monetary policy – OMO, atio, repo and reverse repo.		
Economic Growth			
Harrod- Domar model and golden rule; dynamic effic elements of endogenous gro	Solow one sector growth models; iency, technological progress and wth theory.		

	Understanding the nature of research. Formulating the research topic Review of Literature Unit 2 Approaches to research and research strategy Research Ethics Using Secondary data Using Primary data- collecting data through observations/ interviews/ questionnaire Unit 3 Sample Selection Methods Analyzing Data Writing Project Report – Referencing Styles				
CC-11	International Economics Basics of trade theory Arbitrage as basis and direction of trade; fundamental sources of cross-country price differences and arbitrage; concept of comparative advantage; International equilibrium; offer curves, ToT and stability; Gains from Trade (GFT) Theorem; Concepts of Production possibility Frontier and Community Indifference curves; Illustration of GFT; Decomposition of GFT; Substitution possibilities and magnitude of GFT. Technology and Trade (Ricardian Model): Comparative versus Absolute Advantage, One-factor economy, production possibility frontier, relative demand and relative supply, terms of trade; Trade in Ricardian world, Determination of intermediate ToT, Complete specialization & GFT H-O theorem and physical vs. price definitions of factor abundance; Properties of the HO model: Factor intensity ranking, one-to-one correspondence between commodity price ratio & factor price ratio (Stolper-Samuelson theorem), One to one correspondence between endowment ratio and production proportion (Rybczysky's theorem); Proof ofHO theorem; Taste bias and invalidation of HO theorem; Empirical studies- Leontief Paradox; Effects of trade on factor price and income distribution, factor price equalization, factor intensity reversal & factor price equalization.	PB & PP	6	3+3	3×15 = 45 3×15 = 45

	large country, Offer curve and ToT, Tariff ridden offer curve, Tariff war, Optimum tariff for large economy, Metzler's Paradox.				
	Balance of Payments & Exchange Rate:				
	Balance of Payment accounts in an open economy; Determination of National Income, Transfer problem, Introduction of foreign Country & repercussion effect - open economy multiplier with & without repercussion effect; Fixed &Flexible Exchange Rate: adjustment of demand and supply of Foreign Exchange, Effect of devaluation, Effects of exchange rate on domestic prices and ToT, Marshall-Lerner Condition, J-Curve effect.				
	Public Economics				
	Nature and Scope of Public Economics				
	Definition and Scope of Public Economics; Externalities, Market Failure andGovernment Intervention; Coase Theorem; Public Expenditure to finance Development.				
	Theory of Public Good				
	Overview of Public Good; Characteristics of Pure Public Good; Distinction between Pure Public Good and Private Good; Market Failure in case of Pure Public Good; Optimal provision of Public Goods; Private Provision and Public Provision of Public Goods; Lindahl Equilibrium, Voting Equilibrium.				
CC-12	Taxation: Classification of Taxes; Canons of Taxation; Benefit Principle; Equal Sacrifice Principle; Ability to Pay Principle; Incidence and Burden of Taxes; Effects of taxation on income distribution work efforts and on savings: the Laffer	ВМ	6	3	3×15 = 45
	curve; Optimal Taxation				
	Public Expenditure and Public Debt:				
	Meaning and Classification of Public Expenditure; government budget and its types; government expenditure and tax multipliers, balanced budget multiplier; Fiscal Federalism in India; Meaning of Public Debt; Sources of Public Borrowings: internal and external borrowing; Effects of Public Debt.				
	Economics of Health and Education				
	Role of Health and Education in Human Development				
	Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic				3×15
DSE-1	Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance.	PP & PB	6	3+3	3×15 = 45
DSE-1	Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance.	PP & PB	6	3+3	3×15 = 45 3×15
DSE-1	Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance. Microeconomic Foundations of Health Economics Demand for health: uncertainty and health insurance market:	PP & PB	6	3+3	3×15 = 45 3×15 = 45
DSE-1	Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance. Microeconomic Foundations of Health Economics Demand for health; uncertainty and health insurance market; alternative insurance mechanisms; market failure and	PP & PB	6	3+3	3×15 = 45 3×15 = 45

	 Evaluation of Health Programs Costing, cost effectiveness and cost-benefit analysis; burden of disease. Health Sector in India: An Overview Health outcomes; health systems; health financing. Education: Investment in Human Capital Rate of return to education: private and social; quality of education; signaling or human capital; theories of discrimination; gender and caste discrimination in India. 				
	Education Sector in India: An Overview Literacy rates, school participation, school quality measures.				
DSE 2	 Money and Financial Markets Introduction to money and BankingMoney Concept, functions, measurement; theories of money supply determination. Financial Institutions, Markets, Instruments and Financial Innovations Role of financial markets and institutions; problem of asymmetric information –adverse selection and moral hazard; financial crises. Money and capital markets: organization, structure and reforms in India; role offinancial derivatives and other innovations. Financial Markets and Interest Rates Behaviour Determination; sources of interest rate differentials; theories of term structure of interestrates; interest rates in India. Banking System Balance sheet and portfolio management; Multiple Deposit Creation,Determinants of the Money Supply. Indian banking system: Changing role and structure; banking sector reforms. Central Banking and Monetary Policy Functions, balance sheet; goals, targets, indicators and instruments of monetary control;monetary management in an open economy; current monetary policy of India. 	BM	6	3	3×15 = 45

CC13	Indian Economy Economic Development since Independence Major features of the economy at independence; Planning: Evolution of India's development goals and strategies - Structural constraints and Indian development strategy:	ВМ	6	3	3×15 = 45
	Debates between Growth and distribution, Public sector vs.				

	 Private sector, Consumer goods vs. Capital goods, Import substitution vs. Export promotion ; growth and development under different policy regimes—goals, constraints, institutions and policy framework; an assessment of performance—sustainability and regional contrasts; structural changes, savings and investment including the saving-investment paradox. Population and Human Development Demographic trends and issues; education; health and malnutrition. 				
	Growth and Distribution Trends and policies in poverty including Sen's Entitlement Analysis; inequality and unemployment.				
	Economic Reforms in India Monetary, Fiscal, and Trade Policy Reforms.				
CC-14	 Development Economics Meaning of Economic Development Income Approach and Capability Approach, construction and interpretation of HDI; international variations in development measures; comparing development trajectories across nations and within them. Dependency school of development. Economic Growth An overview and policy implications of one sector growth models- Harrod- Domar, and Solow; Sources of economic growth, international comparisons. Poverty and Inequality Inequality axioms; a comparison of commonly used inequality measures; Gender Inequality, connections between inequality and development; poverty measurement, HPI; poverty traps and path dependence of growth processes. Political Institutions and the State Definition of institutions; The determinants of democracy; alternative institutional trajectories and their relationship with economic performance; within-country differences in the functioning of state institutions; state ownership and regulation; government failures and corruption. 	РР	6	3	3×15 = 45
DSE-3	 Environmental Economics Introduction What is environmental economics; review of microeconomics and welfare economics. The Theory of Externalities Pareto optimality and market failure in the presence of	РВ	6	3	3×15 = 45

	externalities; property rights and the coase theorem. The Design and Implementation of Environmental Policy Overview; pigouvian taxes and effluent fees; tradable permits; choice between taxes andquotas under uncertainty; implementation of environmental policy. International Environmental Problems Trans-boundary environmental problems; economics of climate change; trade and environment. Measuring the Benefits of Environmental Improveme nts Non-Market values and measurement methods; risk assessment and perception. Sustainable Development Concerts: measurement				
DOE 4	Ducient Work	DD		2	<mark>3×15</mark>
D96-4	Introductory Microscon emics	PP	0	3	= 45
GE-1	 Exploring the subject matter of Economics Why study economics? Scope and method of economics; the economic problem: scarcity and choice; the question of what to produce, how to produce and how to distribute output; science of economics; the basic competitive model; prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems; reading and working with graphs. Supply and Demand: How Markets Work, Markets and Welfare Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets. The Households The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer's optimum choice; income and substitution effects; labour supply and savings decision - choice between leisure and consumption. 	PP, BM & PB	6	1+1+1	1×15 =15 1×15 =15 1×15 =15

	output in the long run.				
	Imperfect Market Structure				
	Monopoly and anti-trust policy; government policies towards competition; imperfectcompetition.				
	Input Markets				
	Labour and land markets - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves; competitive labour markets; and labour markets and public policy.				
	Introductory Macroeconomics				
	Introduction to Macroeconomics and National				
	Income Accounting				
	Basic issues studied in macroeconomics; measurement of gross domestic product; income, expenditure and the circular flow; real versus nominal GDP; price indices; national income accounting for an open economy; balance of payments: current andcapital accounts				1×15 -15
	Money				-15
GE-2	Functions of money; quantity theory of money; determination of money supply anddemand; credit creation; tools of monetary policy.	PP, BM & PB	6	1+1+1	1×15 =15
					1×15 =15
	Inflation				
	inflation and its social costs, hyperinflation.				
	The Closed Economy in the Short Run				
	Classical and Keynesian systems; simple Keynesian model of income determination; IS-LM model; fiscal and monetary multipliers.				
	Money and Banking Money				
	Concept, functions, measurement; theories of money supply determination.				
	Financial Institutions, Markets, Instruments and				
	Financial Innovations				1×15
	1. Role of financial markets and institutions; problem				=15
GE-3	moral hazard; financial crises.	PP, BM & PB	6	1+1+1	1×15
	2. Money and capital markets: organization, structure				=15
	and reforms in India; role offinancial derivatives and other innovations.				1×15 =15
	Interest Rates				
	Determination; sources of interest rate differentials; theories				
	ot term structure of interestrates; interest rates in India. Banking System				
	1. Balance sheet and portfolio management.				

	 2. Indian banking system: Changing role and structure; banking sector reforms. Central Banking and Monetary Policy Functions, balance sheet; goals, targets, indicators and instruments of monetary control;monetary management in an open economy; current monetary policy of India.				
GE-4	 Public Finance Combinatorial Mathematics Overview of Fiscal Functions, Tools of Normative Analysis, Pareto Efficiency, Equity and the Social Welfare. Market Failure, Public Good and Externalities. Elementary Theories of Product and Factor Taxation (Excess Burden andIncidence). 	PP, BM & PB	6	1+1+1	1×15 =15 1×15 =15
	 Issues from Indian Public Finance 1. Current Issues of India's Tax System. 2. Working of Monetary and Fiscal Policies. 3. Analysis of Budget and Deficits 4. Fiscal Federalism in India 5. State and Local Finances 				1×15 =15



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