Department of Economics

Syllabus Distribution and Teaching Plan, Even Semester, Session:

2022-2023

Term I: Commencement of classes to 1st internal; **Term II**: 1st internal to 2nd internal; **Term III:** 2nd internal to ESE preparatory break

Semester II

Name	Syllabus Allotted	Teaching Plan
Dr. Sukla Mondal Saha	**C3T: Introductory Macroeconomics**	**Term1:** **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. **Term II:** **The Closed Economy in the Short Run** Theory of aggregate demand- components and their interrelations - crowing out- Factors causing shift in the function; **Term III:** **The Closed Economy in the Short Run** Theory of aggregate supply- determinants of supply and shift factors; Interaction of aggregate demand and supply.

	GE2T: Introductory Macroeconomics	**Term1:**
		Money
		Functions of money; quantity theory of money; **Term**
		II:
		Money
		Determination of money supply and demand; **Term**
		III:
		Money
		Credit creation; tools of monetary policy.

Dr. Bikash Kumar Ghosh		**Term I**	Lectures
	C4T: Mathematical Methods in Economics-II		
		1.1 Mathematical Applications of function of several variables on Theory of Consumer Behaviour	03
	1. Function of several variables (Economic Applications)	1.2 Mathematical Applications of function of several variables on Theory of production	03
		1.3 Tutorial class for the above part of the syllabus	02
	2. Multi-variable optimization		
		2.1 Concept of Convex, concave, and quasi-concave functions.	01
	3. Differential Equations	2.2 Basic idea of the Optimization of nonlinear functions: Convex, concave, and quasi-concave functions.	02
		2.3 Unconstrained optimization.	
		2.4 Constrained optimization with equality constraints.	01
		2.5 Lagrangian multiplier method	02
		2.6 Role of Hessian determinant	03
		2.7 Inequality constraints and Kuhn-Tucker	01
			02

		Conditions.	
		2.7 Value function and Envelope theorem	02
		2.8 Mathematical Applications of multi-variable optimization on Theory of consumer behavior 2.9	06
		Mathematical Applications of multi-variable optimization on Theory of production	06
		2.10 Tutorial class for the above part of the syllabus	04
		Internal examination – I	01
		Term II	
		3.1 Solution of Differential equations of first order	02
		3.2 Solution of Differential equations of second order 3.3	04
		Economic application - price dynamics in a single market.	02
		3.4 Economic application - price dynamics in a multimarket supply demand model with two independent markets.	03
		3.5 Qualitative graphic solution to 2x2 linear simultaneous differential equation system. 3.6	02
		Phase diagram, fixed point and stability.	03
		3.7 Tutorial class for the above part of the syllabus	04
		Internal examination – II	01
	GE2T: Introductory Macroeconomics The Closed Economy in the Short Run	**Term I**	
		1.1 Classical model of Income and employment determination.	03
		1.2 Keynesian systems: Simple Keynesian model of income determination	04
		1.4 Tutorial class for the above part of the syllabus	03
		Internal examination – I	01

		Term II	
		1.4 IS- LM model.	04
		1.5 Fiscal and monetary multipliers	04
		1.6 Tutorial class for the above part of the syllabus	04
		Internal examination – II	01
Kuntal Das	**C4T: Mathematical Methods in Economics-II**	**Term I (20 Lectures)** 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. **Term II (16 Lectures)** Eigen values and Eigen vectors. System of nonlinear equations-Jacobean determinant and existence of solution. **Term III (12 Lectures)** Optimization of linear function: Linear programming, concept of slack and surplus variables (graphical solution), concept of convex set.	
	GE2: Introductory Macroeconomics	**Term I (12 Lectures)** Inflation and social costs **Term II (6 Lectures)** Hyperinflation	

Pranim Rai	**C3 T : Introductory Macroeconomics** National income accounting, unemployment, and open economy issues	**Term I (20 Lectures)** Macroeconomic data- National Income accounting and cost of living; Concept of Growth Role of savings, investment, and financial intermediation; **Term II (20 Lectures)** Open Economy- Balance of Payments, Exchange rates, and capital flow, Concept of unemployment- Types and their characteristics **Term III (06 Lecture)** Growth accounting and Solow residual.

Semester IV

Name	Syllabus Allotted	Teaching Plan

Dr. Sukla Mondal Saha	**C9T: Intermediate Macroeconomics – II**	**Term1:**
		Macroeconomic Foundations
		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.
		Term II:
		Macroeconomic Foundations
		Investment: MEC and MEI- Jorgenson's neo-classical theory- Acceleration principle- fixed and variable.

	C10T: Introductory Econometrics	Demand for money: Regressive expectations and Tobin's portfolio choice models; Baumol's inventory theoretic money demand **Term III:**
		Statistical Concepts
		Sampling Distributions-, t- and F-distributions and their application in testing of hypothesis; Defining hypothesis; Distribution of test-statistics; testing hypotheses related to population parameters; Type I and Type II errors; power of a test.

		Term I	Lectures
Dr. Bikash Kumar Ghosh	**C10T: Introductory Econometrics**		
	1. Nature and Scope of Econometrics	1.1 Definition and Scope of Econometrics.	02
		1.2 Importance of Error Term.	01
		1.3 Tutorial class for the above part of the syllabus	01
	2. Classical Linear Regression Model: Two Variable Case	2.1 The CLRM model.	02
		2.2 The role of disturbance term.	01
		2.3 Estimation of parameters present in the model by method of ordinary least squares (OLS).	02
		2.4 Gauss-Markov theorem.	02
		2.5 Reverse Regression.	02
		2.6 BLUE Properties of estimators.	04
		2.7 Goodness of fit	02
		2.8 Testing of hypotheses and confidence intervals 2.9 Scaling and units of measurement	04
			01
		2.10 Prediction and forecasting.	02
		2.11 Problems in OLS Method	02
		2.12 Tutorial class for the above part of the syllabus	04
		Internal examination – I	01
	3. Multiple Classical Linear	**Term II**	

	Regression Model	3.1 Motivation for multiple regression.	01
		3.2 Estimation by OLS method	02
		3.3 Properties of OLS estimators	04
		3.4 Testing hypotheses – individual and joint	03
		3.5 Partial correlation and regression coefficients.	03
		3.6 Goodness of fit –role of R^2 and adjusted R^2 3.7	03
		Use of qualitative (dummy) independent variables.	02
		3.8 Tutorial class for the above part of the syllabus.	04
	4. Violations of Classical Assumptions: Consequences, Detection and Remedies	4.1 Problems of Multi-collinearity.	02
		4.2 Problems of Heteroscedasticity	01
		4.3 Problems of Auto correlation	01
		4.4 Consequences of applying OLS under Heteroscedasticity .	02
		4.5 Consequences of applying OLS under Autocorrelation and their detection.	02
		4.6 DurbinWatson Test	02
		4.7 Glesjer Test and Goldfeld-Quandt Test.	02
		4.8 Tutorial class for the above part of the syllabus.	04
	5. Specification Problem	5.1 Omission of a relevant variable.	02
		5.2 Inclusion of an irrelevant variable.	02
		5.3 Tests of specification errors.	02
		5.4 Tutorial class for the above part of the syllabus	02
		Internal examination – I	01
	SEC2T: Research Methodology	**Term I**	
	1. Unit-1	1.1 Understanding the nature of research.	02
		1.2 Formulating the research topic	02
		1.3 Review of Literature	02
		1.4 Tutorial class for the above part of the syllabus	01

		Internal examination – I	01
	2. Unit-2	**Term II**	
		2.1 Approaches to research and research strategy	02
		2.2 Research Ethics	02
		2.3 Using Secondary data	02
		2.4 Using Primary data- collecting data through observations/ interviews/ questionnaire	02
		2.5 Tutorial class for the above part of the syllabus	02
		Internal examination – II	01

| Kuntal Das | **C8T: Intermediate Microeconomics – II** | **Term I (18 lectures)**

Monopoly, pricing with market power, degree of monopoly, price discrimination of different degrees,
Multiplant monopoly, peak-load pricing, two-part tariff, monopolistic competition.
Co-operative and Non Cooperative static games, simultaneous move and sequential move games.

Term II (12 lectures)

Non –cooperative games of perfect information, the Prisoner's dilemma, Nash equilibrium in pure and mixed strategies, Backward induction solutions and SPNE.

Term III (10 lectures)

Applications of game theory in oligopolistic markets, Cournot equilibrium, Bertrand Equilibrium model, Stackelberg model, Concept of collusion and cartel, solution by backward induction |

	C9T: Intermediate Macroeconomics – II	**Term I (10 Lectures)** Harrod – Domar model, Solow one sector Growth models. Golden rule. **Term II (8 Lectures)** Dynamic efficiency, technological progress and elements of endogenous growth theory.
Pranim Rai	**C8T: Intermediate Microeconomics – II** General Equilibrium, Efficiency, and Welfare Input Market under Imperfect Competition	**Term I (20 Lectures)** Exchange Economy, Consumption Allocation and Pareto Optimality; Edgeworth box and contract curve; Equilibrium and efficiency under pure exchange. Pareto efficiency with production: Concepts of PPF, SIC, and resource allocation; **Term II (20 Lectures)** Perfect competition, Pareto efficiency and market failure (externalities and public good); Property right and Coase Theorem. Monopsony, bilateral monopoly in labour market; **Term III (08 Lectures)** Externalities; public goods and markets with asymmetric information.

C9T: Intermediate Macroeconomics II	Term I (08 Lectures)
Schools of Macroeconomic Thoughts	Classical System: Say's law and quantity theory; Friedman's restatement; classical dichotomy and neutrality of money; **Term II (06 Lectures)** Keynesian vs classical system; Basic tenets of New Classical and New Keynesian System.

Semester VI

Name	Syllabus Allotted	Teaching Plan

Dr. Sukla Mondal Saha	C13T: Indian Economy	**Term1:** **Growth and Distribution** Trends and policies in poverty including Sen's Entitlement Analysis; Inequality and unemployment. **Term II:** **Economic Growth** An overview and policy implications of one sector growth models- Harrod-Domar,
	C14T: Development Economics	**Term III:** **Economic Growth** An overview and policy implications of one sector growth models- Solow; Sources of economic growth, international comparisons.

	DSE3T: Environmental Economics	**Term1:** **The Theory of Externalities** Pareto optimality, Pareto optimality and market failure in the presence of externalities; Property rights and the Coase theorem. **Term II:** **Project Work** Field Survey for Project Work. **Term III: Project** **Work** Preparation of Project based on Field Survey data.	
	DSE4: Project Work		
Dr. Bikash Kumar Ghosh	**C13T: Indian Economics** 1. Population and Human Development	**Term I** 1.1 Demographic trends of India. 1.2 Demographic issues in India. 1.3 Tutorial class for the above part of the syllabus **Internal examination – I** **Term II** 1.3 Education Sector in India. 1.4 Health and malnutrition in Indiaa. 1.5 Tutorial class for the above part of the syllabus **Internal examination – II**	**Lectures** 02 02 01 01 02 03 02 01

	DSE3T: Environmental Economics 1. Introduction	**Term I**	
		1.1 What is environmental economics?	01
		1.2 Review of microeconomics and welfare economics.	04
		1.3 Tutorial class for the above part of the syllabus	01

	2. Measuring the Benefits of Environmental Improvements	1.1 Economic Perspectives of value in Environmental context.	02
		1.2 Non-Market values of environmental improvement.	02
		1.3 Measurement methods of environmental improvement.	04
		1.4 Expressed preference Methods.	02
		1.5 The Revealed Preference methods.	02
		1.6 Contingent Valuation Methods.	02
		1.7 Hedonic Pricing Methods.	02
		1.8 Cost-Benefit Methods	02
		1.9 Risk assessment and perception.	02
		1.10 Tutorial class for the above part of the syllabus	04
		Internal examination – I	01
	3. Sustainable Development	**Term II** 1.1 Concepts of Sustainable Development 1.2 Goals of Sustainable Development.	02
			03
		1.3 Measurement of Sustainable Development.	06
		1.4 Tutorial class for the above part of the syllabus	04
		Internal examination – II	01

	DSE 4 Project Work 1. Field Survey based Project work.	1.1 Selection of topic of the Project work.	01
		1.2 Questioners Preparation.	02
		1.3 Field survey / village survey to collect primary data.	15
		1.4 Preparation of statistical tables based on collected data.	02
		1.5 Tutorial classes for preparation of statistical tables and data analysis using computer.	04
		1.6 Analysis of Data using different methodology.	06
		1.7 Writing the result analysis and conclusion.	04
		1.8 Project book preparation.	02
		1.9 Tutorial classes for project viva.	04
		1.10 Demonstration of Project Work.	01

Dr. Subhabrata Chakrabarty	**C13T: Indian Economics** Economic Reforms in India	**Term I (06 Lectures)** Monetary and Fiscal Policy Reforms **Term II (03 Lectures)** Trade Policy Reforms

Kuntal Das	**C13T: Indian Economics**	**Term I (16 Lectures)** Main features of economy since independent, Planning, development goals and strategies, structural constraints, Debate between growth and Distribution. **Term II (10 Lectures)** Public sector vs Private Sector, Consumer goods vs Capital goods, Import Substitution vs Export Promotion , Growth and Development under policy regimes **Term III (6 Lectures)** Sustainability and regional constraints, Structural Changes, Saving and investment and Saving Investment Paradox.
	C14T: Development Economics	**Term I (10 Lectures)** Poverty and Inequality: Inequality axioms, Commonly used inequality measures, Gender inequality,

		Connections between inequality and development. **Term II (6 Lectures)** Poverty measurement, HPI, poverty traps and path dependence of growth process.

	DSE3T: Environmental Economics	**Term I (6 Lectures)** Trans-boundary environmental problems, economics of climate change. **Term I (4 Lectures)** Trade and environment.
	DSE4: Project Work Supervision of Students' Project Work	Selection of topic of the Project work. Questioners Preparation. Field survey / village survey to collect primary data. Preparation of statistical tables based on collected data. Tutorial classes for preparation of statistical tables Writing the result analysis and conclusion.

Pranim Rai	**C14T: Development Economics** Meaning of Economic Development, Political Institutions and the State	**Term I (18 Lectures)** 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.
		Term II (12 Lectures) Definition of institutions, Evolution of Political and Economic Institutions; The determinants of democracy; Alternative institutional trajectories and their relationship with economic performance; **Term III (04 Lectures)** Within-country differences in the functioning of state institutions; State ownership and regulation; government failures and corruption.

	DSE3T: Environmental Economics	**Term I (07 Lectures)** Overview; pigouvian taxes and effluent fees; tradable permits; **Term II (04 Lectures)** Choice between taxes and quotas under uncertainty; **Term III (03 Lectures)** The Design and Implementation of Environmental Policy
	DSE 4: Project Work Supervision of Students' Project Work	Selection of topic and area of Project. Preparation of questionnaire. Field survey to collect primary data. Preparation of statistical tables based on collected data. Tutorial classes for preparation of statistical tables Writing the result analysis and conclusion.