

Vidyanagar College
South 24 Parganas
Affiliated to Calcutta University



Department of Economics
PO, PSO and CO of B.Sc. Economics (Honours & General, Under CBCS)

PROGRAMME OUTCOME : (PO)

Economics (Hons. & Gen.) courses of the University of Calcutta has been designed to help the 'Under Graduate Students' to enhance their learning in different fields of study. The University has structured the Syllabus of Economics in such a way that shall help the students to gather knowledge on of the basic tenets of Economics, affect the socio-economic lives of every citizen of any nation,

- a) increasing employability prospects – both at the corporate and / or academic levels,
- b) acquiring knowledge to undertake research in the future.
- c) Making students equipped to undertake multi – disciplinary courses and projects in the future.

**Programme Outcome (PO)
Economics (Hons. & Gen.)**

	Program Outcome	Description
PO1	Domain Knowledge	Have a clear and comprehensive understanding of the basic concepts and fundamental principles of the subject. Simultaneously they should also be able to logically and empirically process the various theoretical frameworks.
	Method of Measurement:	Assessment (Internal & Final)
PO2	Critical Thinking	Engage in rational, objective and independent thinking so as to identify, define and logically evaluate ideas; solve problems systematically and detect inconsistencies in arguments.
	Method of Measurement:	Assessment (Internal & Final)
PO3	Communication Skills	Clearly, succinctly and successfully deliver, receive and disseminate knowledge/ concepts - oral, written or otherwise.
	Method of Measurement:	Regular Communication Activity Internal Assessment
PO4	Spirit of Enquiry and Lifelong Learning	Have a curious and open mind, willing to attend to and/or accept new or differentiated ideas.
	Method of Measurement:	Internal Assessment

PO5	Spirit of Research and Innovation	Have a scientific temper that would inculcate a spirit of research and enquiry which are fundamental for future policy initiatives and social growth.
	Method of Measurement:	Assessment (Dissertation)
PO6	Social Concerns and Ethics	Take a normative i.e. a value-based approach to various social conditions and situations, such that scientific objectivity and research finds a social acceptability
	Method of Measurement:	Regular Teacher-Student Interactive Sessions
PO7	Environment and Sustainability	Access to scientific information that is a prerequisite for increased environmental awareness and knowledge of sustainable development.
	Method of Measurement:	Regular Teacher-Student Interactive Sessions

Programme specific outcome :(PSO)

1. Sound financial understanding and application in day life.
2. Understand how government helps in mediating between consumers and producers.
3. Understanding international relation in terms of economic co-operation.
4. Addressing various economic problems like unemployment, inflation etc.
5. How economic growth of a country affects in general income of a person .
6. Prescribe methods of improving health, education and other activities of life.
7. Good employment opportunity in teaching, research and industry.
8. Helps in starting new ventures as successful entrepreneurs.

Course Outcome

Economics Core Course-I: ECO-A-CC-1-1-TH-TU

Introductory Microeconomics

Total Marks: 100 [Theory (Th) 65 + Tutorial (Tu) 15 + Internal Assessment 10+Attendance: 10]

CO – In this course, students will understand the fundamentals of microeconomic theory. They will get the basic idea about -

- the subject matter of economics-decision making, principles of economic interactions -trade off, opportunity cost, efficiency, marginal changes and cost-benefit, trade, market economy, property rights, market failure, externality and market power; interdependence and the Gains from Trade- production possibilities frontier and increasing costs, absolute and comparative advantage, comparative advantage and gains from trade
- reading and working with graphs
- workings of the market - demand and supply, market and adjustments, market sensitivity, Elasticity concepts and government intervention
- the Utilitarian approach – from Cardinal to Ordinal approach, Utility theory of Demand and Indifference curve analysis and all the applications, the PCC and the ICC and Price Effect

Economics Core Course-II: ECO-A-CC-1-2-TH-TU

Total Marks: 100 [Theory (Th) 65 + Tutorial (Tu) 15 + Internal Assessment 10+Attendance: 10]

Mathematical Methods in Economic

CO – Students shall acquire in-depth knowledge of and able to explain-

- the concepts of sets, functions, graphs, limit, continuity and the number system, continuous functions and their graphs
- convex sets, convex functions, quasi-convex functions, quasi-concave functions -characterizations, properties and applications.
- Derivatives of first order and second order convex, concave and linear function and applications in economics
- Optimization with equality and inequality constraints
- Difference and Differential equations- Theory and Applications
- Linear algebra and linear programming, integration and their applications in economics
- Detailed study of matrix algebra, solution of linear and non-linear equations, the concept of comparative statics, applications in input-output analysis-the Leontief Static Open Model (LSOM)
- Intricacies of Game Theory in detail with emphasis on Nash equilibrium and common games like Prisoners' Dilemma, Battle of Sexes, Matching Pennies.

Economics Core Course III: ECO-A-CC-2-3-TH-TU

Introductory Macroeconomics

Total Marks: 100 [Theory (Th) 65 + Tutorial (Tu) 15 + Internal Assessment

10+Attendance: 10]

CO – In this course, students gain important insights in the basic and initial concepts of macroeconomics such as

- the basic concepts of National Income accounting - The Circular Flow, Concepts of GNP, GDP, NNP, and NDP at market price and at factor cost. National Income measurement methods, concepts of Corporate Income, Corporate Savings, Personal, Income, Personal Disposable Income and Personal Savings. Relation of Saving-Investment gap with budget deficit and trade surplus, Cost of Living.
- the Simple Keynesian Model of Income Determination in a closed economy – concepts of consumption and savings function, paradox of thrift, Simple Keynesian Multiplier, stability of equilibrium, SKM in a closed economy with government, the associated multipliers, the budget surplus tax changes, government purchases and the full employment budget surplus
- Basic ideas of Classical Macroeconomics; Say's Law and QTM, Loanable fund theory; Classical Theory of Income and Employment

determination; notions of full employment, wage-price flexibility, Classical Dichotomy and Neutrality of Money

- Macroeconomic Foundations - Bond market and money market-Walras' Law, bond price and rate of interest- the concept of Keynesian liquidity preference schedule, speculative demand for money and liquidity trap,
- Investment function: Concepts of Marginal productivity, marginal efficiency of capital (MEC) and marginal efficiency of investment (MEI)-Jorgenson's Neo-classical theory, Acceleration principle and the Multiplier-Accelerator interaction.

Economics Core Course IV: ECO-A-CC-2-4-TH-TU

Mathematical Methods in Economics-II

Total Marks: 100 [Theory (Th) 65 + Tutorial(Tu) 15 + Internal Assessment

10+Attendance: 10]

CO – In this course, the students will be able to grasp various mathematical tools in economics such as -

- derivatives, continuous and differentiable functions, Euler's Theorem and Implicit function and application in Comparative Statics
- advanced learning of convex, concave, and quasi-concave functions, unconstrained optimization. constrained optimization with equality constraints- Lagrangian multiplier method and Hessian determinant
- inequality constraints and Kuhn-Tucker Conditions
- Value function and Envelope theorem applied to consumer theory
- Linear programming; Duality Theorem
- Difference Equations and applications in economic models e.g. cobweb models
- first-order linear differential equations-applications in price dynamics in a single market- multimarket supply demand model with two independent markets
- The 2x2 linear simultaneous non-linear differential equation system-phase diagram, fixed point and stability

Economics Core Course V: ECO-A-CC-3-5-TH-TU

Intermediate Microeconomics –I

Total Marks: 100 [Theory (Th) 65 + Tutorial (Tu) 15 + Internal Assessment 10+Attendance: 10]

CO – This paper will enlighten the students about crucial aspects of Microeconomics which they will apply in several other sub-fields. The topics covered are -

- the theories of Consumer Behaviour like Inter- Temporal Choice, Revealed Preference, Choice under Uncertainty and their applications in Construction of Price Indices – Laspeyers and Paasche's
- the details of the theory of Production and Cost
- the intricacies of the Perfectly Competitive Market Structure - the short and long-run competitive equilibrium, economic rent and profit, the long-run industry supply price
- the analysis of Input Market under Perfect Competition – the marginal productivity theory of distribution
- labour and land market and rent

Economics Core Course VI: ECO-A-CC-3-6-TH-TU

Intermediate Macroeconomics-I

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

In this course students find an extensive analysis of the aggregate economy and acquire very important theoretical insights into -

- Income Determination in the Short-run (Part-II) : The IS-LM Model
- The Complete Keynesian Model
- the Keynesian vs Classical system., Hybrid models under Classical/Keynesian framework and Friedman's restatement of classical ideas
- Money Supply, Monetary Policy and Government Budgetary Operations- concepts, measures with special reference to India, Balance sheet views, high-powered money
- the important multipliers-Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier
- Interest sensitivity of money supply and the slope of the LM curve
- monetary policy
- government budget deficit, deficit financing and money supply-Indian illustration
- extensive analysis of inflation, unemployment and expectations- Inflationary gap, different types of inflation, the central bank role, inflation and unemployment trade-off
- Four models of aggregate supply: The Sticky-Wage Model, The Worker-Misperception Model, The Imperfect Information Model and The Sticky-Price Model.
- Deriving the Phillips Curve from Aggregate Supply Curve, short run and long- run Phillips curve – role of adaptive expectations and rational expectations, disinflation, Sacrifice Ratio and policy ineffectiveness.

Economics Core Course VII: ECO-A-CC-3-7-TH-TU

Statistical Methods for Economics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

This course covers the most important basic topics of statistics for a beginner. It will equip students to use these tools and includes

- The subject-matter of statistics- scope and basic concepts of population, sample variable attribute,
- Collection, tabulation and representation of statistical data
- Frequency Distribution and associated concepts
- Measures of central tendency, partition values
- Measures of dispersion – absolute and relative, Lorenz curve and Gini coefficient
- Moments, Skewness and Kurtosis (definition, computation)
- Correlation and Regression (definition, computation, properties)
- Elementary Probability Theory-sample space, events, definitions and theorems of probability, Bayes' theorem and its applications.
- Probability Distributions of discrete and continuous random variables - pmf, pdf, expected value, properties, joint, marginal and conditional distributions
- Sampling Theory, Methods and Sampling Distributions
- Statistical Inference-Estimators and their properties, Estimation with OLS, MLE and Moment method, concept of Null and Alternative Hypothesis and Testing of Hypothesis.

Economics Core Course VIII: ECO-A-CC-4-8-TH-TU

Intermediate Microeconomics II

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

In this paper the students acquire in-depth knowledge about imperfectly competitive market forms like -

- monopoly and price discrimination;
- monopolistic competition; various models on Oligopoly such as Cournot, Bertrand, Stackelberg, Sweezy's model, Cartel and Price Leadership

- input market under imperfect competition
- The basic concepts of general equilibrium, efficiency and welfare.

Economics Core Course IX: ECO-A-CC-4-9-TH-TU

Intermediate Macroeconomics II

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

This paper imparts knowledge about some of the more contemporary ideas in macroeconomics such as

- the basic tenets of New Classical theories which includes rational expectations and the theory of real business cycle and those of New Keynesian Theories-nominal rigidities, real rigidities, interest rates rigidities and credit rationing
- Principal consumption theories developed individually by Keynes, Fisher, and Dusenberry, Rational Expectation and Random Walk of Consumption Expenditure
- Theories of Demand for Money-Regressive Expectations, Tobin's portfolio choice models, Baumol's inventory theoretic demand
- Technological progress
- Economic Growth Models developed individually by Harrod, Domar and Solow and the AK Model.

Economics Core Course X: ECO-A-CC-4-10-TH-TU

Introductory Econometrics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Econometrics is a set of tools used to estimate and test economic relationships and is amply used in research-based studies in economics. The emphasis is on learning concepts that enhance students' understanding of

- Economic vs. Econometric Model, Stochastic relation, Randomness in empirical models and various type of data
- The Classical Linear Regression Model (CLRM) and its assumptions, PRF, SRF, application of OLS method in SLRM and MLRM and different types of Correlation
- properties of Least Square Estimators, use of the of Dummy Variables
- use of different Sampling Distributions in statistical inference and population prediction through Hypothesis Testing, Goodness of Fit and Analysis of Variance, statistical significance of various independent

variables

- violations of the CLRM assumptions: multicollinearity, heteroscedasticity and autocorrelation and remedies

- specification errors and their consequences.

Economics Core Course XI: ECO-A-CC-5-11-TH-TU

International Economics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

International trade has occurred since the earliest civilisations began trading and has important from time immemorial, important to a nation's economic welfare and development. This course will impart a deep and comprehensive understanding about the main topics central to the study of international trade theory and policy students and help them explain -

- Theories of Absolute and Comparative Advantage - cross-country price differences, arbitrage as basis and direction of trade, externalities, regulation, PPF, Ricardian and intermediate terms of trade, specialization and gains from trade
- The Building Blocks of Trade Theory-community and trade indifference curves, Offer curves, elasticities of offer curves, demand for imports, and supply of exports, International equilibrium and offer curves, terms of trade (TOT) and stability, the Marshall-Lerner condition, Gains from Trade (GFT) theorem, Neo-classical trade models
- Factor Endowment and Trade - Heckscher-Ohlin (HO) theorem and role of homotheticity of tastes, Factor Intensity Reversal and invalidity of HO Theorem, factor intensity ranking and Stolper-Samuelson theorem, Rybczynski theorem, Factor price equalization, complete and incomplete specialization, Empirical studies- Leontief Paradox
- Neo-classical Trade Models & developing countries – the Jones (1965) Heckscher-Ohlin type 2x2 (two factors-two commodities) with assumption of CRS, the Stolper-Samuelson and Rybczynski theorems, Jones (1971) 3x2 (three factors-two commodities) specific-factor model - basic structure with CRS
- Trade Policy - Partial Equilibrium Analysis of Tariff, Quota, Subsidy and General Equilibrium Analysis- welfare effects, tariff war, optimum tariff, Metzler's Paradox
- Open Economy Macroeconomics and Balance of Payments – equilibrium income determination, Foreign Trade Multiplier with & without repercussion effects, BOP account, Fixed & Flexible Exchange Rates, Devaluation, The Mundel-Fleming Model (IS-LM BP model).

Economics Core Course XII: ECO-A-CC-5-12-TH-TU

Indian Economy

Total Marks: 100 [Theory (Th) 65 + Tutorial Based Term Paper (Tu) 15 + Internal Assessment 10+Attendance: 10]

This course introduces students to the process of India's development from the initial days of planning after independence to the reforms and thereafter. The students gain insights into –

- India's economic development since independence – The era of planning under different regimes – achievements and failures, the economic crisis of 1980s, critical understanding of economic reforms, the resultant structural changes and regional variations
- India's demographic issues, education and health, government measures- the RTE Act
- Growth and Distribution – Trends in GDP, per capita GDP, poverty and inequality and their impact on growth, youth unemployment (School Transition to Work), Policy perspectives in growth and distribution
- Economic Reforms in India – extensive analysis of reforms in banking sector, tax policy, external sector and labour market.

A basic and crucial learning outcome of this course is that the students will get from the four broad themes the idea about a topic for writing a mandatory Tutorial Based Term Paper should cover a literature survey of the topic along with a critical evaluation of the policy measures undertaken in the Indian context to tackle the specified problem.

Economics Core Course XIII: ECO-A-CC-6-13-TH-TU

Public Economics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

In this course, students will acquire an understanding about

- Role of government in a market economy, public goods, market failure, government intervention and public expenditure for financing development
- Choice and Public Economics – pure public good, private good, market failure, optimal provision of public good, private provision and public provision of public goods, Lindahl and Voting equilibrium
- Government revenue and government expenditure: Taxes-classification,

canons, principles, incidence and burden of taxation, income distribution

and taxes, the Laffer curve, direct and indirect taxes and income distribution, optimal taxation

- Public Finance - Meaning and Classification of Public Expenditure, the fiscal multipliers, definition, sources and effects of public debt, Fiscal Federalism in India and why there should be multiple levels of government.

Economics Core Course XIV: ECO-A-CC-6-14-TH-TU

Development Economics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10

The objective of this paper is to provide students with the essential tools and concepts of development economics and help them to understand why underdevelopment persists and what helps development succeed. The course equips students with knowledge about –

- The meaning of development-income and capability approach, HDI, international variations in development measures, inter-development trajectories across countries and the dependency theory
- Poverty and inequality-axioms, measures and comparison, gender inequality and development, poverty measurements and poverty trap, vicious circle of poverty
- Dualism and Dual economy models – surplus labour, disguised unemployment, Sen's surplus labour model, Lewis model, Ranis-Fei model and Harris-Todaro models of rural-urban migration
- Population growth and economic development – birth, death, mortality and fertility rates, theory of Demographic Transition, cost of dependency, Low level equilibrium trap model and critical minimum effort thesis
- Development strategies – balanced and unbalanced growth, choice of techniques
- Political institutions and state – political and economic institutions, democracy, alternative institutional trajectories and economic performance, inter-country differences in state functioning, state ownership, regulation, government failures and corruption

**LEARNING & SKILL OUTCOMES
OF
SKILL ENHANCEMENT COURSES (SEC)**

SEMESTER III

SEC I(A) [Students shall choose any one of the two courses DA and RD]

Total Marks: 100 [Theory (Th) 80 + Internal Assessment 10+Attendance: 10]

Data Analysis [DA]

On completion of this course, students will be able to understand the methodological issues in collection of data, census and sample surveys, represent the data and learn the basics of data management through the use of software packages namely, Stata/ R/Eviews/SPSS/MS Excel utilise spreadsheets, in particular, Microsoft Excel They will know how to search, identify, access and read important Indian secondary data sources such as National Accounts statistics (NAS), ASI, NSSO, Census of India and Handbook of statistics on Indian Economy, utilise spreadsheets, in particular, Microsoft Excel.

Rural Development [RD]

Skill outcomes are manifest in students' ability to look into the real issues of rural development and its connection with agricultural development and rural non-farm sector and the role of NGOs and Panchayats in rural development in India as well as in the state of West Bengal. This course helps student understand the role of National Bank for Agriculture and Rural Development (NABARD) in promoting rural development through provision of rural credit and the role of Self Help Groups. The course helps student to take a critical look at some major rural government programmes like MGNREGA, National Rural Health Mission (NRHM) and Pradhan Mantri Gramin Sadak Yojana (PMGSY).

SEMESTER IV

SEC II (B) [Students shall select any one of the two courses RM and ME]

Research Methodology (RM)

Learning outcomes of this course are crucial for students aspiring to become future researchers. This course equips students in the rudiments of a good research work and research paper. It makes students aware of the basic methodological issues such as

- identifying a concrete research problem, writing a theme-based literature survey, developing writing skills, designing a field survey- the sampling frame, using random numbers for samples, drawing up the questionnaire,

data entry after field survey, tabulating the data and interpreting it with graphs and figures

- motivation, objectives, theme-based literature survey, developing writing skills, conducting field surveys, sampling frame, sample and use of random numbers, preparing questionnaire, pilot survey, data entry, tabular representation and graphical interpretation
- Theoretical and Empirical Research - structure of an ideal research paper in Economics, illustrations, reporting and interpretation of regression results, testable hypothesis and statistical inference in empirical research, model building and closing the model, stability analysis in theoretical models using linearization of non-linear differential equations, Jacobian matrix and phase diagram analysis with illustration from IS-LM model
- Role of footnotes or end notes in a research paper
- Bibliography, reference and citation, Abstract writing
- Power Point Presentation of papers with graphs and charts.

Managerial Economics (ME) [Optional]

In this course, the students learn the concepts and techniques of production management. They will learn the various theoretical concepts of Economic Analysis so that they can use this as inputs in managerial decision-making process when they are engaged in corporate employment. The broad topics include demand, cost and profit analysis, pricing policies and practices, capital budgeting and appraisal methods. cost of capital- notions of debt, share and equity capital, inventory management costs, concepts of average inventory and various inventory models. Skill outcomes will be reflected in the ability of students to demonstrate the use of economic concepts and policies to improve skills in business decision-making.

LEARNING OUTCOMES OF DISCIPLINE SPECIFIC ELECTIVE SUBJECTS (DSE)

SEMESTER V

[Two mandatory Discipline Specific Elective Courses namely, DSE-A(1) and DSE-B(1)]

DSE A(1) [Students shall select any one of the two courses, AE and EHI]

Applied Econometrics [AE]

Total Marks: 100 [Theory (Th) 50+ Practical (P) 30 + Internal Assessment 10 + Attendance: 10]

This is a practical based course. Econometrics is a set of research tools used to estimate and test economic relationships. The course work consists of econometric methods and models that can be used in empirical economic research, marketing, management and in many social science disciplines. It will impart knowledge and skills that can help bridge the gap between being “a student of economics” and being “a practicing economist”. They should be able to use a statistical/econometric computer packages such as Stata and /or R to estimate an econometric model and be able to report the results of their work in a non-technical and literate manner. The student will learn the diagnostics of regression – functional forms, model selection, specification errors. Students will learn to apply these methods for analysing and estimating cross-section (as in NSSO), time series (as in NAS) and panel data (as in Indian Official Statistics) with the help of Stata/R. In the ultimate a student will be able to distinguish between economic and statistical importance, be able to critique reported regression results in applied academic papers and interpret the results for someone who is not trained as an economist.

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

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10 + Attendance: 10]

Colonialism had a deep and everlasting effect on the Indian economy and polity, so much so, that its legacy influenced many economic decisions and structural arrangements even after attainment of freedom and in the contemporary too. The aim of this course is to impart a deep understanding of the reasons behind the rise of economic nationalism in India from 1857 to the eve of its independence, the economic and social consequences of de-industrialisation, commercialization of agriculture and drain of resources. Students also get acquainted with the land policy, discriminating protection, currency policy, early industrialization policy followed by the colonial rulers as well as their efforts in infrastructure development with Railways. This course helps students to gain knowledge on the economic dimensions of the colonial era (1857-1947) the most important phase of India’s freedom struggle, their interlinkages on the economic framework and relate them with the persistence of India’s underdevelopment.

DSE-B (1) [Students shall choose any one of the two courses, CED and FE]

Comparative Economic Development (1850-1950) [CED]

[Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

This course explores the different strategies and policies that underlie the initiation of development processes in different countries of the world. It imparts an understanding about laissez faire and free trade and strategy of industrialization in the Soviet Union. The course also covers contrasting contemporary development experiences of countries like Japan, South-East Asia and China which are success stories and Latin America and Africa are plagued by periodic economic and political crises and failures.

Financial Economics [FE] Optional Course

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Financial economics is a broad field covering corporate finance, asset pricing, and financial intermediation. Financial economics is important in making investment decisions, identifying risks, and valuing securities and assets. The course covers the basic concepts of Financial Economics – Investment Theory and Portfolio Analysis which deal with deterministic cash-flow streams and single-period random cash flows. There is a section which develops the notions of derivatives and options and different patterns of corporate financing. Students also acquire a sound understanding about the Capital Asset Pricing Model which evaluates the risks and returns that come with a risky asset in order to determine its price and proposes that the risks taken on by investors need to be countered with the appropriate compensation.

SEMESTER VI

[Two mandatory Discipline Specific Elective (DSE) Courses namely, DSE-A(2) and DSE-B(2).

DSE-A(2) [Students shall choose any one of the two courses, MFM and IIE]

Money and Financial Markets [MFM]

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

Money and banking which is an integral part of the actual macroeconomy of a nation. Students shall acquire understanding about

- functions of money and how money supply is measured, the role of

financial and capital markets and associated problems of asymmetric information resulting in adverse selection, moral hazard and financial crisis,

- structure of Indian money market, reforms, banks as leveraging institutions,
- interest rate behaviour-term structure of interest rates and sources of interest rate differentials with special reference to India
- the operational aspects of a banking system, India's banking system and banking system reforms
- functions balance sheet, instruments of monetary control and management in an open economy and monetary policy of India.

Issues in Indian Economy [IIE]

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

This course will give the students a thorough grounding in the most important contemporary issues of the Indian economy. On completion, students will

- acquire an understanding about the basic characteristics of the Indian economy, the structural composition of its national income
- grasp the necessity and importance of the fiscal, trade, investment, financial policies undertaken in the post-independent period
- be able to explain the reasons of inflation in the Indian economy and inflation control measures
- understand labour laws and regulation
- understand all aspects of Indian agriculture – growth, productivity, marketing
- be aware of issues related to food, food security, farmers' security and impact of WTO on agriculture
- be able to explain the policies and performance in industry-output, employment, productivity growth, the importance of small-scale industry, performance of PSEs, FDI and economic reforms in Indian industry
- understand how services sector, formal and informal have developed, particularly with the growth of banking, insurance and services.

DSE-B (2) [Students shall choose any one of the two courses, EE and IDE]

Environmental Economics [EE]

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

At the end of the course, the student will be able to:

- grasp the essential nature of environmental economics and how microeconomics and welfare economics are related to it and the relation

between environment and economy and apply economic principles to resolve specific environmental problems and issues

- identify the sources of externalities, 'market failure' (inefficiency) specially in case of free and public goods, property rights and Coase theorem and the distinction between public good and public bad
- utilize various 'instruments' developed by economists to deal with environmental problems to evaluate alternative courses of action for policy makers – Pigouvian Fees, command over and control of use (regulation) and the theory of tradeable permits in the context of pollution control
- able to explain international externalities and transboundary pollution, pollution havens and International Environmental Agreements – Montreal and Kyoto Protocol and Talks on Climate Change
- apply microeconomic principles to measure the values of environmental costs and benefits- the concepts of WTP and WTA and acquire the knowledge of the use of direct and indirect methods of environmental valuation -contingent method, travel cost and hedonic pricing.

Issues in Development Economics [IDE]

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

In this course students will acquire thorough understanding in the relationship between Demographic characteristics and scope of development in developing economies. At the end of the course, students will

- learn about the basic demographic concepts of birth and death rates, age structure, fertility and mortality, demographic transition and development process, gender discrimination and inter-connections between income, fertility and mortality, fertility choices and human capital formation and reasons behind migration
- land ownership and land reforms and their effect on productivity, contractual relations in land, land acquisition, nutrition and labour productivity, problems of information and credit contracts in rural sector
- the role of microfinance and inter-linkages between rural factor markets
- individual social behaviour and multiple social equilibria, governance principles in organizations and communities and responses to inefficiency.
- The essentials of environment and sustainable development- renewable resources, common pool resources, environmental externalities, state regulation of environment, market -based instruments and climate change
- Be able explain the phenomenon of globalization in the historical perspective, the economics and politics of international agreements, trade and production patterns and international inequality and associated problem of international financial instability

- Be able to identify India's position in the global economy as a developing nation.

Program Outcomes of Economics Honours

Program Objective

The purpose of the Economics Honours Program is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well of the society.

Program Outcomes

On completion of the under-graduate Economics Honours Program, students will have acquired much knowledge and many skills.

PO1: An in-depth knowledge of the fundamental theoretical aspects which form the foundation of the discipline of Economics – microeconomics and macroeconomics; their applications in and extensions to sub-fields such as International Economics, Public Finance, Managerial Economics, Financial Economics, Environmental Economics, Development Economics and Indian Economics.

PO2: learnt the synthesis of Mathematics and Economics: Application of mathematics for understanding the different concepts of economics.

PO3: Acquired Research Orientation: an understanding about research methodology for identifying, formulating and analysing complex economic problems to substantiate and conclude by applying the knowledge of statistics., crucial learning skills in data collection, analysis and interpretation with appropriate statistical and econometric tools.

PO4; Learnt the usage of tools: Applying appropriate techniques for economic models with an understanding of the limitations.

quire prior knowledge about what to expect when dealing with the real-world data and be able to use the analytical skills acquired to explain real economic situations and phenomena critically, check the validity and accuracy of data and analyse data with effective statistical tools using statistical software and sharpen their acumen for undertaking serious and effective research.

Environment and Sustainability: Understanding the impact of economic dynamics on environment and to determine the need for sustainable development, to evaluate the sustainable performance level of an economy.

Effective Communication: To communicate effectively with the society at large with better comprehension and to make effective presentations

Individual and Team work: To function efficiently as an individual and as a team to share and shoulder responsibilities.

Critical Thinking: To analyse the economic situations critically and provide suggestions, checking the validity and accuracy using effective tools

Self-directed and Life-long Learning: Recognise the need for and engage in independent and life-long learning

Project Management and Finance: To demonstrate knowledge and to understand the economic and management principles, manage projects in multidisciplinary environment.

the ability to look into the contemporary economic issues of India and the rest of the world, interrelate them and propose suggestions for policy-making.

Programme Specific Outcomes of Economics honours

Students shall acquire a basic, comprehensive and in-depth understanding of all branches of the discipline of Economics. The course work will help them in acquiring desirable outcomes in graduate examinations, pursue higher academic degrees, enhance their preparedness for appearing in competitive examinations, get them ready as future teachers and equip them as professionals in accounting, insurance, finance, marketing and management and such others, both in the national as well as in the international arena. Students shall acquire skills needed to conduct research studies relevant and beneficial in the contemporary world. In fact, the way the course work is structured, will certainly go a long way to impart sufficient skills and information which will enhance students' employability, make them environmentally conscious and responsible citizens and help them to become important contributors to national wealth and prestige.

Prospects and Career Options

The University of Calcutta Undergraduate Economics Honours Program under CBCS is the right option for students who are interested in understanding economics, the motive and understanding behind each economic policy, the

functioning of different economic strategies, and various economic principles and allied fields of economics. There are various academic and career options.

- Pursuing higher studies (post-graduate) in Economics, Applied Economics, and allied subjects (like Foreign Trade, Quantitative Economics, Labour Economics and other fields of Social Science) in different reputed universities all over India and abroad.
- Pursuing higher studies in Management and Actuarial Science Jobs in schools, colleges and Universities after acquiring additional higher degree qualifications.
- Job prospects as economist, consultant, analyst in the growing Banking and Insurance Sector.
- Prospect of being absorbed in Actuarial business is particularly bright for students in the discipline of Economics with Mathematics.
- Jobs in Indian Economic Services and State Government Services through success in competitive examinations.
- Jobs and engagement in Rural Development and Public Policy.
- Students with a flair for writing in English/Bengali may choose careers in Journalism particularly in the field of socio-political issues in print and electronic media.

Course Outcomes of Economics Generic Elective

Semester-wise break-up of Generic Elective for students having Honours in subjects other than Economics

Semester I	Generic Elective Course I (GE-I)	Code: (ECO-GE-1-1-TH-TU)
Semester II	Generic Elective Course II (GE-II)	Code: (ECO-GE-2-2-TH-TU)
Semester III	Generic Elective Course III (GE-III)	Code: (ECO-GE-2-2-TH-TU)
Semester IV	Generic Elective Course IV (GE-IV)	Code: (ECO-GE-2-2-TH-TU)

CO: GE I Introductory Microeconomics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

In this generic course students acquire comprehensive knowledge about

- the subject matter of economics and the various economic agents, along with the behaviour of market, through demand supply interaction

- the concept of demand and elasticity of demand with mathematical foundation. Along with it, it also gives an idea about the basics of cardinal and ordinal theory of demand determination

- theory of production, production technology and function, concept of TP, AP, MP, revenue and the theory of cost of production.
- behaviour of profit maximising firms, features of perfect competition, short and long run equilibrium in perfectly competitive market
- features of imperfection- Monopoly and price discrimination

CO – GE II Introductory Macroeconomics

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

In this generic course, the students acquire knowledge on

- the basic concepts of national income accounting which includes GDP, GNP, NDP, NNP, along with the different methods of its measurement.
- The Simple Keynesian model in a closed Economy – the concept of multiplier, income determination, role of the government
- Basic ideas of classical system-Say’s Law and Quantity Theory of Money- classical theory of income and employment determination.
- basic idea of money and banking like measures of money supply, Quantity Theory of Money, Keynesian Liquidity Preference, role of Central and commercial bank along with the credit creation process.
- Inflation – types of inflation, Phillip’s Curve- trade-off between inflation and unemployment. Hyperinflation, anti-inflationary policies
- The External Sector - Basis of trade: concepts of absolute advantage and comparative advantage; arguments for free trade; arguments for protection, Balance of Payments-accounting and equilibrium; disequilibrium in balance of payments and devaluation-the role of the Marshall-Lerner condition

CO – GE III Issues in Economic Development and India

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

In this generic course, the students gain insights in

- The meaning of economic development; growth vs. development; concept of human development and its measurement - the HDI, relation between population and growth; features of underdevelopment of the Indian economy; the health and education sectors in India

- Basic issues of poverty and inequality- concepts and measurements; Measures to eradicate poverty and income inequality in India
- Dual Economy problems – surplus labour, disguised unemployment, the Lewis Model; the choice between balanced and unbalanced growth strategy
- The international organizations - the IMF. World Bank and WTO; the functions and their roles in economic development; WTO and India.

CO – CC IV

Indian Economic Policies

Total Marks: 100 [Theory(Th) 65 + Tutorial(Tu) 15 + Internal Assessment 10+Attendance: 10]

This course provides the students with a deep understanding of the problems faced by India in the process of economic development and policies and the programmes undertaken to resolve them. The broad topics covered are

- The macroeconomic problems and the fiscal and monetary measures and labour regulations adopted – the context and actions
- Indian agriculture – structure, productivity, technology, trade, pricing and procurement, the problems faced and the policy measures.
- Problems of Indian industry – growth, productivity, diversification, competition policy, public sector, small scale industries, foreign investment and policies undertaken
- Policies and Performance of Indian Foreign Trade – change in volume and direction in the post-liberalization period and the BOP situation; the export-import policies undertaken