

Department of Economics
BhairabGanguly College

Course Outcomes – B.Sc. Economics

The students pursuing Economics Course at the Under Graduate(UG) level, in general, will be able to understand the past, present economic conditions of the country and by deduction methods they will be able to predict the future of economic condition of any country. The intention of B.SC economics undergraduate course is to create students with a vast understanding of policy taken by any government of a country and then to relate the bookish knowledge to solve or at least learn the problem. They are also equipped with the techniques to find solution of the problems like poverty, inequality, and many modern day problem faced by any developing country. As the Under Graduate Course consist the fields like statistics, mathematics and economic theories, it makes them to compute and assess the real situation of the economy including the size and changes of population, income distribution pattern among peoples, nature of employment or unemployment, rate of development with pattern of investments and savings, policies in relation to other countries, and social security measures adopted in the country. In a nut shell, the course tries to create human beings with knowledge of economy, policies and politics to take the country in higher growth trajectory.

Course Specific Outcomes –Economics (HONOURS)

Semester-I

Core Course-1INTRODUCTORY MICROECONOMICS (ECOACOR01T):

In the paper of Introductory Macroeconomics students would be able to:

1. Develop ideas of the basic characteristics of an economy, and all questions and problems an economy deals with.
2. Demonstrate demand, supply and concept of equilibrium in different forms of markets in economy.
3. Demonstrate marginal productivity theory of distribution, theory of wages, identify different types of rent, and illustrate different theories of interest and profits.
4. Understand how factor market works, illustrate nascent concepts in welfare economics, and describe the concept of social welfare functions.
5. Understand concepts of cost, different form of production function and different type of curves and their origins to make economic problem more understandable.

Core Course-2 MATHEMATICAL METHODS FOR ECONOMICS-I (ECOACOR02T)

On completion of the paper on Mathematical Methods for Economics-1, students would be able to:

1. Demonstrate the role of quantitative techniques in the field of business, able to describe different types of equations, solve equations and system of equations, and understand the concept of sets.
2. Explain the rules for calculating derivatives, uses and application in calculating inter-relationship among total, marginal and average cost and revenue, calculate maxima, minima, elasticity, decide the optimal level of production for a firm.
3. Demonstrate the rules for calculating integration; describe the importance and application of integration in consumers' and producers' surpluses, total revenue and cost.
4. Illustrate matrix operation, minors, cofactors, use cofactor method to find inverse of a matrix, use Cramer's rule to solve systems of equations.
5. Demonstrate knowledge of basic concept of linear program, duality, and capacity to solve linear programming problems', familiar with the basic techniques most commonly used in economic problems.

Semester-II

Core Course-3 INTRODUCTORY MACROECONOMICS (ECOACOR03T):

In this subject of Introductory Macroeconomics students would be able to:

1. Define and explain the process of calculating national income, identify its components, demonstrate circular flow of income, analyses the various income identities.
2. Develops the idea about GDP, exchange rate, rate of interest, unemployment rate and how different economies are related with each other in this globalized world.
3. Understand Say's law of market, classical theory of employment and Keynes objection to the classical theory; demonstrate the principle of effective demand and income determination.
4. Explain the meaning of consumption function, relationship between APC and MPC, consumption and income, concept of multiplier and analyses the theories of absolute and relative income hypotheses.
5. Demonstrate the meaning and function of money, high powered money, monetary and paper system, illustrate various version of quantity theory of money.

Core Course-4 STATISTICAL METHODS FOR ECONOMICS-I (ECOACOR04T)

On completion of the course of Statistical Methods for Economics-1, students would be able to:

1. Collect data needed, draw inferences, describe the concepts of statistical averages, and apply measure of central tendency, and measure of dispersion.
2. Understand the concept of Anova table.
3. Understand the components of time series, apply time series analysis in different economic scenarios, illustrate the different types of index numbers, and calculate index numbers.
4. Measure mortality rates, population growth, age sex specific birth and death rates, rate of natural increase, knowledge in understanding how the population profile of a country is changing.

Semester-III

Core Course-5 INTERMEDIATE MICROECONOMICS – I (ECOACOR05T)

In Intermediate Microeconomics-1, students would be able to:

1. Understand the concepts of Preference; utility, budget constraint and choice.
2. Demonstrate the meaning of Choice under risk, and the axioms of Revealed Preference.
3. Understand the concepts of perfect competition, short run and long run market equilibrium and industry equilibrium.
4. Understand the concepts of Monopoly and anti-trust policy, government policies towards competition, Sources of monopoly power, Index of monopoly power, Price discrimination; peak-load pricing; bundling, two-part tariff, Monopsony.
5. Demonstrate the meaning of Monopolistic Competition and its Concepts of Product diversification, Short-run & Long-run equilibrium, Excess Capacity.

Core Course-6 INTERMEDIATE MACROECONOMICS – I (ECOACOR06T)

On completion of the course of Introductory Macroeconomics, students would be able to:

1. Understand the concepts of the classical system and its view of macroeconomics in respect of the determination of employment, output and price.
2. Understand the complete Keynesian model.
3. Demonstrate the meaning of wage rigidity, involuntary unemployment, underemployment equilibrium, effects of change in money supply and other factors on complete Keynesian model and money illusion.

4. Understand the concepts of Phillips curve, adaptive and rational expectations and policy ineffectiveness debate.
5. Demonstrate the meaning short-run open economy models, Mundell-Fleming model, exchange rate determination, purchasing power parity, asset market approach, Dornbusch's overshooting model, monetary approach to balance of payments, and international financial markets.

Core Course-7MATHEMATICAL METHODS FOR ECONOMICS-II(ECOACOR07T)

On completion of this course students would be able to:

1. Understand the concepts of Convex sets, geometric properties of convex functions, their characterizations, properties and applications, quasiconvex functions, their characterizations, properties and applications, the implicit function, homogeneous and homothetic functions characterizations and application to comparative statics problems, Maximum (and Minimum) Value Functions, Envelope Theorem, Shadow prices, envelope theorem and applications.
2. Demonstrate knowledge of basic concept of linear program, duality, and capacity to solve linear programming problems', familiar with the basic techniques most commonly used in economic problems.
3. Demonstrate the concepts of simultaneous equation and familiar with basics techniques commonly used to solve the simultaneous equation.
4. Understand the concepts of Game theory and by apply basics techniques to solve different type of game.
5. Understand the concepts of Dynamical Methods: algebraic and geometric exposition and learns its application in the form of Cobweb models, Simple small open economy trade models, and the existence of equilibrium and comparative statics.

SEC Course-1SURVEY METHODOLOGY (ECOSSEC01M)

In Survey Methodology course, students would be able to:

1. Understand the concepts of survey methodology, Steps of the process of a survey, LargeScale Survey Instruments, and the Concepts of Validity and Reliability.
2. Being Clear about the Population of Interest, Developing a Sampling Frame, Probability sampling, Simple Random and Systematic sampling; Stratification, Cluster and multistage sampling; Other probability designs, Sampling frames; Selection weights; Computing sampling errors.
3. Demonstrate the concepts of different Mode of Data Collection like Face-to-face, Telephone, Self-administered, and Administrative records, Web surveys.
4. Being clear about Post-Survey Processing like Estimation (Lepkowski), Lecture, and Editing data, Coding Imputation, Construction of unit weights, Variance estimation and Analysis of survey data.

Semester-IV

Core Course-8 INTERMEDIATE MICROECONOMICS–II(ECOACOR08)

On completion of the course of Intermediate Microeconomics-2, students would be able to:

1. Understand the concepts of Market Structure of Oligopoly market and Strategic Behavior of Firms.
2. Demonstrate the concepts of Market Failure, Externalities, public goods and markets with asymmetric information, Moral hazard and adverse selection Market for Lemons.
3. Demonstrate the concepts of Input Markets with Derived demand for a single input & multiple inputs in competitive & imperfectly competitive markets, Firm demand & industry demand, Adding up problem, Collective bargaining & exploitation, Rent & Quasi-rent.
4. Understand the concepts of General Equilibrium, Efficiency and Welfare.

Core Course-9 INTERMEDIATE MACROECONOMICS–II(ECOACOR09T)

In this paper of Intermediate Macroeconomics-2, students will be equipped with:

1. Understand the concepts of growth economics and its different models and aspects like Harrod-Domar model, Solow model, golden rule, technological progress and elements of endogenous growth.
2. Demonstrate the concepts of Keynesian Consumption function, Fisher's theory of optimal intertemporal choice, life-cycle, Duesenberry's relative income hypothesis and permanent income hypotheses, rational expectations and random-walk of consumption expenditure.
3. Understand the concepts of Schools of Macroeconomic Thoughts and in this school of Macroeconomic thought able to explain the concepts of Mercantilism, Physiocracy, Classicals, Keynesians, New-Classicals and New-Keynesians.

Core Course-10 STATISTICAL METHODS FOR ECONOMICS-II (ECOACOR10T)

On completion of the course on Statistical Method for Economics-2, students would be able to:

1. Demonstrate the basic concept of probability, theoretical distribution, probability theorems; solve probability problems by applying probability concept.
2. Demonstrate the concepts of Random Variables and Probability Distributions and solve problem by applying the concepts of random variable and probability distribution.
3. Understand the concept of Principal steps in a sample survey, methods of sampling, the role of sampling theory, Distributions of sample mean and sample variance, properties of random samples.
4. Understand the concepts statistical Inference and Estimation of population parameters using methods of moments and maximum likelihood procedures.

SEC Course-2 INDIAN OFFICIAL STATISTICS (ECOSSEC02M)

The subject of Indian Official Statistics will enable students to:

1. Understand, what is Official Statistics? Methods of Collecting Official Statistics, Aims and Objectives, Indian Statistical System: Main functions of Statistical System in Indian, Institutional Framework- Official Organizations for collecting/compiling/ publishing national/state level data on different variables.
2. Understand the different aspects of Economic Censuslike Economic Statistics, Population Statistics, Employment Statistics, Agriculture Statistics, Financial Statistics - Main Publications, Who collects - Periodicity and Features.
3. Learn how to register a vital events and rates and ratios, measures of mortality, measures of fertility and reproduction? Also able to use the demographic data for policy formulation.
4. Understand and able to Compare of major macro variables like National Income/GDP, Purchasing power parity, Indicators relating to Energy, environment, Gender, Industry, National accounts, Social Statistics.

Semester-V

Core Course-11 INTRODUCTORY ECONOMETRICS (ECOACOR11T)

On completion of the course on Introductory Econometrics, students would be able to:

1. Understand the concepts of Basic concepts of Estimation, Desirable properties of Estimators- Unbiasedness, Minimum Variance- Simple methods of point Estimation-Maximum Likelihood, Estimators and their properties testing of hypothesis: Confidence intervals- Testing of Hypothesis- p-values- Type-I and Type-II errors- Simple applications of tests for the mean and variance of Univariate Normal Population, Non-parametric tests.

2. Demonstrate the concepts of Linear Regression and solve the problem using linear regression model.
3. Understand the problems in OLS Method.
4. Understand the concepts of qualitative information, single and multiple dummy independent variables, interaction of dummy independent variables and binary Dependent variable probability model.
5. Demonstrate the concepts of Omission of a relevant variable, inclusion of irrelevant variable, tests of specification errors.

Core Course-12 DEVELOPMENT ECONOMICS(ECOACOR12T)

In the paper of Development Economics students will learn to:

1. Understand the Basic concepts of development like Sustainable development, Participatory development, Inclusive development, and Human development, Per capita Income–Human Development Index, Gender Development Index and Human Poverty Index.
2. Demonstrate the concepts of Characteristics of underdevelopment, Trap Models, Vicious circle of poverty, Critical minimum effort thesis, and Low level equilibrium trap.
3. Demonstrate the concepts of inequality, Lorenz Curve, Range, Coefficient of variation, Gini-coefficient, Poverty, relative and absolute deprivation with respect to income, Poverty line, Head count ratio, Poverty gap ratio, Income gap ratio, Human Poverty Index, hunger index and how to Tackle Poverty in context of the World Bank Approach.
4. Understand the concepts of Globalization in historical perspective.

DSE Course-Group A (a) APPLIED ECONOMETRICS (ECOADSE01T)

The course on Applied Econometrics will enable students to:

1. Understand research methodology and thus enhancing the skill of doing research.
2. Understand the concepts of Problem selection, designing of questionnaire, sample design, pre-testing of questionnaire for collection of primary data, introduction to secondary data sources.
3. Understand the concepts of autocorrelation, multicollinearity, application of dummy variable models, estimated parameters; goodness of fit - R² and adjusted R²; partial regression coefficients; testing hypotheses and Dummy variables
4. Demonstrate the apply the concept of Econometric Software Package SPSS to various problem.

DSE Course-Group A(b) PUBLIC ECONOMICS (ECOADSE02T)

On completion of the course of Public Economics, students would be able to:

1. Understand the sources of finance both public and private; demonstrate the role of government to correct market failures and possible advantage of public financing.
2. Understand the concepts of Public Good; Characteristics of Pure Public Good; Distinction between Pure Public Good, impure public good and Private Good; Free riding problem; 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.
3. Demonstrate the concepts of Canons of Taxation; Benefit Principle; Equal Sacrifice Principle; Ability to Pay Principle; Incidence and Burden of Taxes.
4. Understand the meaning 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.

Semester-VI

Core Course-13 INDIAN ECONOMY (ECOACOR13T)

The subject of Indian Economy will empower students to:

1. Develop ideas of the basic characteristics of Indian economy, its potential on natural resources.
2. Understand the importance, causes and impact of population growth and its distribution, translate and relate them with economic development.
3. Understand the ideas of poverty, inequality, unemployment and Indian growth pattern in post liberalization era.
4. Understand the policies like Fiscal Policy, trade and investment policy, financial and monetary policies, labour policy and their impact on Indian economy.

Core Course-14 INTERNATIONAL ECONOMICS (ECOACOR14T)

On completion of the course on International Economics, students would be able to:

1. Identify the basic difference between inter-regional and international trade, understand how international trade has helped countries to acquire goods at cheaper cost and explain it through the various international trade theories.
2. Understand the different Theories of International Trade.
3. Understand the different Trade Policy by which any country's international trade governs.
4. Understand the meaning of Balance of Payment accounts in an open economy, Fixed & Flexible Exchange Rate, Pegged Exchange Rate and BoP and Effects of exchange rate on domestic prices and ToT.

DSE Course-Group B(a) CONTEMPORARY DEVELOPMENT ECONOMICS (ECOADSE04T)

The paper on Contemporary Development Economics will enable students to:

1. Understand the concepts of Income Approach and Capability Approach, construction and interpretation of HDI; international variations in development measures; comparing development trajectories across nations and within them.
2. Demonstrate the concepts of 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.
3. Understand the concepts about Political Institutions and the State.

4. Understand the concepts of Individuals, Communities and Collective Outcomes and Environment and Sustainable Development.
5. Understand the concepts of Globalization and Development as historical processes- Dependency Approach, Unequal exchange.

DSE Course-Group B(c)PROJECT/DISSERTATION (ECOADSE02P)

In this Project/Dissertation paper, students would be able to write research papers because:

1. The course is aimed at providing students the scope to develop the skill of taking up independent analytical research project where they can learn how to select a real life problem, transform the problem into a research question and to apply an analytical framework based on theories learnt and use quantitative tools and problem designing skill.

Course Specific Outcomes –Economics (General)

Semester-I

INTRODUCTORY MICROECONOMICS

DSC-1 (ECOGCOR01T)/ GE Course-1 (ECOHGEC01T)

On completion of the course on Introductory Microeconomics, students would be able to:

1. Develop ideas of the basic characteristics of an economy, and all questions and problems an economy deals with.
2. Demonstrate demand, supply and concept of equilibrium in different forms of markets in economy.
3. Demonstrate marginal productivity theory of distribution, theory of wages, identify different types of rent, and illustrate different theories of interest and profits.
4. Understand how factor market works, illustrate nascent concepts in welfare economics, and describe the concept of social welfare functions.
5. Understand concepts of cost, different form of production function and different type of curves and their origins to make economic problem more understandable.

Semester-II

INTRODUCTORY MACROECONOMICS

DSC-2 (ECOGCOR02T)/ GE Course-2(ECOHGEC02T)

In this paper of Introductory macroeconomics, students will learn to:

1. Define and explain the process of calculating national income, identify its components, demonstrate circular flow of income, analyses the various income identities.
2. Develops the idea about GDP, exchange rate, rate of interest, unemployment rate and how different economies are related with each other in this globalized world.
3. Understand Say's law of market, classical theory of employment and Keynes objection to the classical theory; demonstrate the principle of effective demand and income determination.
4. Explain the meaning of consumption function, relationship between APC and MPC, consumption and income, concept of multiplier and analyses the theories of absolute and relative income hypotheses.
5. Demonstrate the meaning and function of money, high powered money, monetary and paper system, illustrate various version of quantity theory of money.

Semester-III

DEVELOPMENT ECONOMICS

DSC-3 (ECOGCOR03T)/GE Course-3 (ECOHGEC03T)

On completion of the course on Development Economics, students would be able to:

1. Understand the Basic concepts and meaning of growth and development, Distinction between Economic Growth and Economic Development-Growth indicators-NNI and PCI, Concept and formulation of HDI.
2. Demonstrate the concepts of Balanced vs. Unbalanced growth and Complementary Roles of Agriculture and Industry, Role of Technology in Agriculture and Industry.
3. Understand the concepts of Population and Economic Development and its two way relation.
4. Demonstrate the concepts of Foreign Investment and their different forms, their roles in Economic Development, role of International Institutions like IMF & World Bank in economic development of the LDCS.
5. Understand Gender Related Issues and Gender Discrimination in the society.

SEC Course-1SURVEY METHODOLOGY (ECOSSEC01M)

The paper on Survey Methodology will enable students to:

1. Understand the concepts of survey methodology, Steps of the process of a survey, LargeScale Survey Instruments, and the Concepts of Validity and Reliability.
2. Being Clear about the Population of Interest, Developing a Sampling Frame, Probability sampling, Simple Random and Systematic sampling; Stratification, Cluster and multistage sampling; Other probability designs, Sampling frames; Selection weights; Computing sampling errors.
3. Demonstrate the concepts of different Mode of Data Collection like Face-to-face, Telephone, Self-administered, and Administrative records, Web surveys.
4. Being clear about Post-Survey Processing like Estimation (Lepkowski), Lecture, and Editing data, Coding Imputation, Construction of unit weights, Variance estimation and Analysis of survey data.

Semester-IV

INDIAN ECONOMY

DSC-4 (ECOGCOR04T)/ GE Course-4(ECOHGEC04T)

On completion of the course on Indian Economy, students would be able to:

1. Understand the concepts of Structure of Indian Economy and its aspects like Sectoral distribution of National Income and its change since inception of Planning, Occupational pattern in India-A trend analysis since 1901.Inequalities in Income distribution. Economic reforms and reduction of poverty; Poverty eradication programmes and their effectiveness. Structure and quality of employment in India, Government undertaken different schemes to reduce unemployment and underemployment.
2. Understand the concepts of Size and growth rate of population in India, changes in sex composition since inception of planning and Population policy and population projections for India.
3. Understand the Causes for low productivity in Indian agriculture, Targeted public distribution system, new agricultural policy, Green revolution and its prospects Land reforms and its appraisal and effects of GATT on Indian Agriculture.
4. Understand the concepts of Industry and review of Industrial growth under planning, role of small-scale industries and policy perspective to help them and role of trade union and social security measures in India.
5. Understand the concepts of Banking and Role of Indian Commercial Banks and Reserve Bank, monetary Policy of the Reserve Bank of India and Profitability of banks in India.

6. Demonstrate the concepts of Indian Public Finance and Sources of Revenue and Expenditure of Union and State Government, Union-State Financial Relation and Centre-State Conflict on Finances.
7. Understand the concepts of Foreign trade its volume and direction in the post-Liberalization period.

SEC Course-2 INDIAN OFFICIAL STATISTICS (ECOSSEC02M)

The paper on Indian Official Statistics will enable students to:

1. Understand, what is Official Statistics? Methods of Collecting Official Statistics, Aims and Objectives, Indian Statistical System: Main functions of Statistical System in Indian, Institutional Framework- Official Organizations for collecting/compiling/ publishing national/state level data on different variables.
2. Understand the different aspects of Economic Census like Economic Statistics, Population Statistics, Employment Statistics, Agriculture Statistics, Financial Statistics - Main Publications, Who collects - Periodicity and Features.
3. Learn how to register a vital events and rates and ratios, measures of mortality, measures of fertility and reproduction? Also able to use the demographic data for policy formulation.
4. Understand and able to compare of major macro variables like National Income/GDP, Purchasing power parity, Indicators relating to Energy, environment, Gender, Industry, National accounts, Social Statistics.

Semester-V

ELEMENTARY STATISTICS

DSE Course-1(a) (ECOGDSE01T)

On completion of the course on Elementary Statistics, students would be able to:

1. Understand the concepts of Variable, Attribute, Primary and Secondary Data, Population and Sample, Census and Sample Survey, Classification of data and Tabulation.
2. Understand the concepts of Frequency distribution of an Attribute, Frequency distribution of a discrete variable, Frequency distribution of a continuous variable, Construction of Frequency distribution from raw data, Cumulative Frequency distribution.
3. Understand the meaning and functions of Graphs – Types of Charts and Diagrams – Line Diagram, Bar Diagram, Pie Diagram, Pictogram, Statistical Map, Frequency Polygon, Histogram, Step Diagram, Ogive or Cumulative Frequency Polygon, Frequency Curve and able to solve problem related to Charts and Diagrams.
4. Collect data needed, draw inferences, describe the concepts of statistical averages, and apply measure of central tendency, and measure of dispersion to solve different problems.

Semester-VI

TRADE AND DEVELOPMENT

DSE Course-2(a) (ECOGDSE03T)

The course on Trade and Development will enable students to:

1. Understand why trade occurs between nations, distinction between internal trade & international trade, Concept of Terms of Trade, Gains from Trade: Exchange gain & Specialization gain, Static & Dynamic gains from trade, absolute Advantage & Comparative Advantage theory of International trade.
2. Understand the concepts of arguments for protection, tariff and non- tariff trade barriers (Quota, Voluntary Export Restraint), Concept of Local content requirement, Partial equilibrium effect of imposition of Tariff and Quota on importable, Tariff – Quota equivalence & where it breaks down? Export promotion vs. Import Substitution industrialization strategy Regional Trading Blocs.
3. Understand the concepts of BOP Accounting, current & capital account balance, why BOP balances itself? Autonomous & Accommodating transactions – BOP equilibrium; Concept of Exchange Rate – Nominal and Real exchange rate, Concept of Fixed exchange rate, clean float & dirty float, Determination of exchange rate in foreign exchange market & its fluctuation; Concept of Depreciation / Devaluation of currency.
4. Understand the concepts of Multinational Corporations and its Salient features, Globalization of Market and Globalization of Production, Implication of the activities of MNCs for the host developing nations.