

DEPARTMENT OF ECONOMICS

COURSE OUTCOME

CBCS

First Semester

Paper: ECO-HC-1016: INTRODUCTORY MICROECONOMICS

Course Outline

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.

2. Supply and Demand: How Markets Work, Markets and Welfare

Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual 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.

3. 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.

4. The Firm and Perfect Market Structure

Behaviour of profit maximizing firms and the production process; short run costs and output decisions; costs and output in the long run.

5. Imperfect Market Structure

Monopoly and anti-trust policy; government policies towards competition; imperfect competition.

6. 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.

Course Outcomes ECO-HC-1016: INTRODUCTORY MICROECONOMICS

Students successfully completing this unit will have the ability to

CO1 understand the subject matter of economics, science of economics and understand the basic concepts of basic competitive model; prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems.

CO2 understand demand and supply curves, demand/supply schedule and market versus individual demand/supply; allocation of prices ; elasticity and its application; consumer surplus, producer surplus and the efficiency of the markets.

CO3 understand consumption decisions of individuals with the help of budget constraints and indifference curve, consumer preferences, income and substitution effects; labour supply and savings decision.

CO4 understand the short run and long run process, production function, production function. How a profit maximizing firm works and output decisions in the short run and long run.

CO5 understand the imperfect market competition and its functioning

CO6 understand the concepts related to factor markets and its functioning

Paper: ECO-HC-1026: MATHEMATICAL METHODS IN ECONOMICS–I

Course Outline

1. Preliminaries

Sets and set operations, relations and functions, number system

2. Functions of one real variable

Elementary types of functions: quadratic, polynomial, power, exponential, logarithmic, convex, quasi-convex and concave functions, limit and continuity of functions

3. Differential calculus

Differentiation of a function, partial and total differentiation, second and higher order derivatives for single variable, economic applications of differentiation

4. Single variable optimization

Local and global optima: geometric characterization, characterization using calculus: tests for maximization and minimization, applications: profit maximization, cost minimization, revenue maximization

5. Integration of functions

Meaning and significance of integration, basic rules of integration, significance of a constant after integration, applications: derivations of total functions (total cost, total revenue, consumption and saving functions) from marginal functions, consumer's surplus and producer's surplus, problems relating to investment and capital formation

Course Outcomes ECO-HC-1026: MATHEMATICAL METHODS IN ECONOMICS–I

CO1 to develop the ability to understand set and number theory

CO2 to develop the ability to understand quadratic, polynomial, power, exponential, logarithmic, convex, quasi-convex and concave functions, limit and continuity of functions

CO3 to develop the ability to understand the basic rules of differentiation and its economic application

CO4 to develop the ability to understand maximization and minimization in economic problems

CO5 to develop the ability to understand the basic rules of integration and its economic application

Second Semester

PAPER ECO-HC-2016: INTRODUCTORY MACROECONOMICS

Course Outline

1. 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 and capital accounts.

2. Money

Functions of money; quantity theory of money; determination of money supply and demand; credit creation; tools of monetary policy.

3. Inflation

Inflation and its social costs; hyperinflation.

4. The Closed Economy in the Short Run

Classical and Keynesian systems; simple Keynesian model of income determination; IS- LM model; fiscal and monetary multipliers.

Course Outcome ECO-HC-2016: INTRODUCTORY MACROECONOMICS

Students successfully completing this unit will have the ability to

CO1 understand the various concepts related to national income accounting.

CO2 understand the functions of money, theories related to money; credit creation; and learn about the monetary policy of the government

CO3 understand the issue of inflation and its impact on the economy

CO4 understand the Classical and Keynesian system of income determination; IS-LM model

PAPER ECO-HC-2026: MATHEMATICAL METHODS IN ECONOMICS – II

Course Outline

1. Linear algebra

Matrix: various types of matrices, vector and vector space-concept, matrix operations: addition, subtraction and multiplication; rank, norm and trace of a matrix, introduction to the concept of determinants and their properties, non-singularity of matrix, matrix inversion, solutions of simultaneous equations by using matrix inversion and Cramer's rule, simple market model and national income model

2. Functions of several real variables

Homogeneous and homothetic functions: concepts, Differentiable functions: concepts, Implicit Function Theorem and applications

3. Multi-variable optimization

Unconstrained optimization: geometric characterization, characterization using calculus and applications: price discrimination and multi-plant firm; constrained optimization with equality constraints, Lagrange multiplier, applications: consumer's equilibrium and producer's equilibrium

4. Differential equation

Meaning, first order differential equation, application to market model

5. Difference equation

First order difference equation, Cob-Web market model

Course Outcome ECO-HC-2026: MATHEMATICAL METHODS IN ECONOMICS – II

Students successfully completing this unit will have the ability to

CO1 have the ability to understand the concept of matrices and its economic applications

CO2 have the ability to understand the homogeneous and homothetic functions, theorem of implicit function and its applications

CO3 have the ability to understand the concept of unconstrained optimization, ; constrained optimization with equality constraints, applications of consumer's equilibrium and producer's equilibrium

CO4 have the ability to understand the differential equation and its application in market model

CO5 have the ability to understand first order difference equation

Third Semester

Paper: ECO-HC-3016: INTERMEDIATE MICROECONOMICS - I

Course Outline

1. Consumer Theory

Preference; utility; budget constraint; choice; demand; Slutsky equation; buying and selling; choice under risk and inter-temporal choice; revealed preference.

2. Production, Costs and Perfect Competition

Technology; isoquants; production with one and more variable inputs; returns to scale; short run and long run costs; cost curves in the short run and long run; review of perfect competition.

Course Outcome ECO- HC-3016: INTERMEDIATE MICROECONOMICS - I

Students successfully completing this unit will have the ability to

CO1 understand the concepts of consumer's choice and equilibrium

CO2 understand the concepts of production and cost along with perfect competition

PAPER ECO-HC-3026: INTERMEDIATE MACROECONOMICS - I

Course Outline

1. Aggregate Demand and Aggregate Supply Curves

Derivation of aggregate demand and aggregate and supply curves; interaction of aggregate demand and supply.

2. Inflation, Unemployment and Expectations

Phillips curve; adaptive and rational expectations; policy ineffectiveness debate.

3. Open Economy Models

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; international financial markets.

Course Outcome ECO- HC-3026: INTERMEDIATE MACROECONOMICS-I

Students successfully completing this unit will have the ability to

CO1 understand the concepts of aggregate demand and aggregate supply curves

CO2 understand the various issues of inflation and unemployment

CO3 understand the open economy models

PAPER ECO-HC-3036: STATISTICAL METHODS FOR ECONOMICS

Course Outline

1. Introduction and Overview

The distinction between populations and samples and between population parameters and sample statistics; the use of measures of location and variation to describe and summarize data; moments – basic concepts and types.

2. Elementary Probability Theory

Sample spaces and events; probability axioms and properties; addition and multiplication theorem of probability, counting techniques; conditional probability and Bayes' rule; independence of events.

3. Random Variables and Probability Distributions

Defining random variables; probability distributions; expected values of random variables and of functions of random variables; properties of commonly used discrete and continuous distributions (uniform, binomial, poisson and normal random variables).

4. Random Sampling and Jointly Distributed Random Variables

Density and distribution functions for jointly distributed random variables- basic concepts; covariance and correlation coefficients.

5. Sampling

Principal steps in a sample survey; methods of sampling; Sampling techniques- random, stratified random, multi-stage random and systematic random sampling; the role of sampling theory; properties of random samples.

Course Outcome PAPER ECO-HC-3036: STATISTICAL METHODS FOR ECONOMICS

Students successfully completing this unit will have the ability to

CO1 understand the concepts related to population and sample

CO2 understand and applying probability theory

CO3 understand random variables and probability distributions

CO4 understand random sampling and jointly distributed random variables

CO5 understand the different concepts related to sampling

PAPER ECO-SE-3014: Data Collection and Presentation

Course Outline:

1. Use of Data

Use of data in social sciences; types and sources of data; data collection methods. Population census versus sample surveys. Random sampling.

2. Questionnaires and Schedules

Meaning; how to prepare a questionnaire and interview schedule; use of questionnaire and interview schedule for data collection.

3. Presentation of Data

Data presentation in tabular formats; use of diagrams for data presentation; creating charts and diagrams in MS-Excel – bar, line, pie, scatter, radar, bubble diagrams, population pyramids

Course Outcome PAPER ECO-SE-3014: Data Collection and Presentation

Students successfully completing this unit will have the ability to

CO1 to develop the skill of using data

CO2 to prepare questionnaire and schedule for collecting data

CO3 to present data using computer

Fourth Semester ;

PAPER ECO-HC-4016: INTERMEDIATE MICROECONOMICS – II

Course Outline

Unit 1: General Equilibrium, Efficiency and Welfare

- a) Exchange Economy, Consumption Allocation and Pareto Optimality; Edgeworth Box and Contract Curve; Equilibrium and Efficiency under Pure Exchange.
- b) Pareto Efficiency with production: Concepts of PPF, Social Indifference Curves and Resource Allocation.
- c) Perfect Competition, Pareto Efficiency and Market Failure (Externalities and Public Goods), Property Right and Coase Theorem.

Unit 2: Market Structure and Game Theory

- a) Monopoly, Pricing with Market Power; Degree of Monopoly, Price Discrimination-Different Degrees; Multi-plant Monopoly, Peak-Load Pricing.
- b) Monopolistic competition; Product Differentiation; Perceived and Proportionate Demand Curves; Price-Output Determination.
- c) Oligopoly and Game Theory (Two Person Zero Sum Game, Basic ideas and examples of non zero sum games, Prisoner's Dilemma), Applications of Game Theory in Oligopolistic Markets (Cournot Equilibrium, Bertrand Equilibrium, Stackleberg Equilibrium).

Unit 3: Markets with Asymmetric Information

Information Asymmetry, Adverse Selection, Moral Hazard, Signaling and Screening.

Course Outcome ECO-HC-4016: INTERMEDIATE MICROECONOMICS - II

Students successfully completing this unit will have the ability to

CO1 understand the concepts of general equilibrium theory, pareto efficiency and welfare economics

CO2 understand the imperfect market structure and game theory

CO3 understand markets with asymmetric information

PAPER ECO-HC-4026: INTERMEDIATE MACROECONOMICS - II

Course Outline

1. Economic Growth

Harrod-Domar model; Solow model; golden rule; technological progress and elements of endogenous growth.

2. Microeconomic Foundations

a. Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; rational expectations and random-walk of consumption expenditure.

b. Investment: determinants of business fixed investment; residential investment and inventory investment.

c. Demand for money.

3. Fiscal and Monetary Policy

Active or passive; monetary policy objectives and targets; rules versus discretion: time consistency; the government budget constraint; government debt and Ricardian equivalence.

4. Schools of Macroeconomic Thoughts

Classicals; Keynesians; New-Classicals and New-Keynesians.

Course Outcome ECO-HC-4026: INTERMEDIATE MACROECONOMICS - II

Students successfully completing this unit will have the ability to

CO1 understand the growth models of Harrod-Domar and Solow

CO2 understand the Keynesian theory of consumption and investment

CO3 understand the fiscal and monetary policy

Co4 understand the ideas of different schools of economic thought

PAPER ECO-HC-4036: INTRODUCTORY ECONOMETRICS

Course Outline

1. Statistical Background

Normal distribution; chi-sq, t- and F-distributions; estimation of parameters; properties of estimators; testing of hypotheses: defining statistical hypotheses; distributions of test statistics; testing hypotheses related to population parameters; Type I and Type II errors; power of a test; tests or comparing parameters from two samples.

2. Simple Linear Regression Model: Two Variable Case

Estimation of model by method of ordinary least squares; properties of estimators; Gauss-Markov theorem; goodness of fit; tests of hypotheses; scaling and units of measurement; confidence intervals; forecasting.

3. Multiple Linear Regression Model

Estimation of parameters; properties of OLS estimators; goodness of fit - R² and adjusted R²; partial regression coefficients; testing hypotheses – individual and joint; functional forms of regression models; qualitative (dummy) independent variables.

4. Violations of Classical Assumptions: Consequences, Detection and Remedies

Multicollinearity; heteroscedasticity; serial correlation.

5. Specification Analysis

Omission of a relevant variable; inclusion of irrelevant variable; tests of specification errors.

Course Outcome ECO-HC-4036 INTRODUCTORY ECONOMETRICS.

Students successfully completing this unit will have the ability to

CO1 have the ability to understand different statistical tests like t -test, F-test and Chi-square test

CO2 have the ability to understand Simple Linear Regression Model with Two Variable Case

CO3 have the ability to understand Multiple Linear Regression Model

CO4 have the ability to understand the concepts of Multicollinearity; heteroscedasticity; serial correlation

CO5 have the ability to understand the concept of Specification Analysis

PAPER ECO-SE-4014: Data Analysis

Course Outline:

1. Data entry in softwares like MS-Excel, SPSS/PSPP
2. Univariate frequency distributions. Measures of central tendency: mean, median and mode; arithmetic, geometric and harmonic mean. Measures of dispersion: range, mean deviation and standard deviation, skewness and kurtosis.
3. Bivariate frequency distribution. Correlation and regression. Rank correlation.
4. Estimation of population parameters from sample data. Unbiased estimators for population mean and variance.

Course Outcome ECO-SE-4014: Data Analysis

Students successfully completing this unit will have the ability to

CO1 to develop the skill of data entry using softwares

CO2 to apply the concepts of measures of central tendency and dispersion

CO3 to apply the concepts of correlation and regression

CO4 to enhance the skill of estimating population parameters

Fifth Semester

PAPER ECO-HC-5016: INDIAN ECONOMY-I

Course Outline

1. Economic Development since Independence

Major features of the economy at independence; growth and development under different policy regimes—goals, constraints, institutions and policy framework; an assessment of performance—sustainability and regional contrasts; structural change, savings and investment.

2. Population and Human Development

Demographic trends and issues; education; health and malnutrition.

3. Growth and Distribution

Trends and policies in poverty; inequality and unemployment.

4. International Comparisons

With China, Pakistan, Bangladesh, Sri Lanka, Nepal and Vietnam

Course Outcome ECO-HC-5016: INDIAN ECONOMY-I

Students successfully completing this unit will have the ability to

CO1 learn about the economic development of India since independence

CO2 learn about the various problems relating to population growth and human development in India

CO3 learn about the various problems relating to poverty, inequality and unemployment

CO4 learn about India's relationship with its neighbouring countries

PAPER ECO-HC-5026: DEVELOPMENT ECONOMICS-I

Course Outline

1. Conceptions of Development

Alternative measures of development, documenting the international variation in these measures, comparing development trajectories across nations and within them.

2. Growth Models and Empirics

The Harrod-Domar model, the Solow model and its variants, endogenous growth models and evidence on the determinants of growth.

3. Poverty and Inequality: Definitions, Measures and Mechanisms

Inequality axioms; a comparison of commonly used inequality measures; connections between inequality and development; poverty measurement; characteristics of the poor; mechanisms that generate poverty traps and path dependence of growth processes.

4. Political Institutions and the Functioning of the State

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.

Course Outcome ECO-HC-5026: DEVELOPMENT ECONOMICS-I

Students successfully completing this unit will have the ability to

CO1 understand the different concepts of development

CO2 understand the Harrod-Domar and Solow Model

CO3 understand the Measures and Mechanisms of Poverty and Inequality

CO4 understand the different Political Institutions and the Functioning of the State

PAPER ECO-HE-5016: ECONOMICS OF HEALTH AND EDUCATION

Course Outline

1. Role of Health and Education in Human Development

Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance.

2. Microeconomic Foundations of Health Economics

Demand for health; uncertainty and health insurance market; alternative insurance mechanisms; market failure and rationale for public intervention; equity and inequality.

3. Evaluation of Health Programs

Costing, cost effectiveness and cost-benefit analysis; burden of disease.

4. Health Sector in India: An Overview

Health outcomes; health systems; health financing.

5. 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.

6. Education Sector in India: An Overview

Literacy rates, school participation, school quality measures.

Course Outcome ECO-HE-5016: ECONOMICS OF HEALTH AND EDUCATION

Students successfully completing this unit will have the ability to

CO1 understand the role of health and education in human development

CO2 understand the health insurance market; alternative insurance mechanisms; market failure and rationale for public intervention

CO3 understand the cost-benefit analysis of health

CO4 learn about the health sector in India

CO5 learn about the investment in human development

CO6 learn about the education sector in India

ECO-HE-5026: MONEY AND FINANCIAL MARKETS

Course Outline

1. Money

Concept, functions of money; concept of money supply and its measurement; money multiplier theory, RBI's approach to money supply.

2. Financial Institutions, Markets, Instruments and Financial Innovations

Meaning and types of financial institutions, nature and role of financial institutions; financial markets: definitions and types-money market and capital market, their characteristics and functions, call money market, treasury bill market, commercial bill market including commercial paper and certificates of deposits, government securities market, primary and secondary market for securities, financial sector reforms in India, financial derivatives –meaning, types ,distinctive features of financial derivatives and its benefits.

3. Interest Rates

Determination; sources of interest rate differentials; theories of term structure of interest rates; interest rates in India.

4. Banking System

Meaning and types; Functions of Commercial banks, process of credit creation and its limitations, Balance sheet of Commercial banks, portfolio management-meaning and objective of portfolio management, theories of portfolio management; banking sector reforms in India.

5. Central Banking and Monetary Policy

Functions of central bank; monetary policy-objectives, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India.

Course Outcome ECO-HE-5026: MONEY AND FINANCIAL MARKETS

Students successfully completing this unit will have the ability to

CO1 understand concepts of money, money supply, money multiplier theory and RBI's approach to money supply

CO2 understand the different types of Financial Institutions, Markets, Instruments and Financial Innovations

CO3 understand the different sources of interest rate differentials; theories of term structure of interest rates

CO4 understand the commercial banking system, its working and functions. Learn about the banking sector reforms in India

CO5 understand the central banking system and monetary policy

PAPER ECO-HE-5036: PUBLIC FINANCE

Course Outline Part 1: Theory

1. Normative Theory of Public Finance –Nature and Scope: Allocation Function, Distribution Function and Stabilization Function. Coordinating the functions.
2. Public Goods and their characteristics. Free Rider Problem and Market Failure, Externalities vis- à-vis Public Good.
3. Direct and Indirect Tax. Concepts of taxation: tax rate, buoyancy & elasticity of a tax. Proportional, Progressive and Regressive Taxation. Benefit Principle and Ability to Pay Theory.

Part 2: Issues from Indian Public Finance

4. Fiscal Policies: Definition and Objectives. Instruments of Fiscal Policy. Adopting Monetary

Policy to complement Fiscal Policy: The Indian Experience.

5. Indian Tax System. Direct Taxes: Income Tax, Corporate Tax, Customs Duty etc. Reforms in the Indirect Tax Structure: Goods and Service Tax.
6. Structure of the Public Budget. Types of Deficits and their significance: Revenue Deficit, Fiscal Deficit and Primary Deficit

7. Fiscal Federalism in India: Principles of Fiscal Devolution, Horizontal and Vertical Fiscal Balance. Federal Finance and the Finance Commission.

8. State and Local Finances. The State Subjects and its Budget. Fiscal decentralization: Role of Municipalities and Gaon Panchayats.

Course Outcome ECO- HE-5036: PUBLIC FINANCE

Students successfully completing this unit will have the ability to

Part 1

CO1 understand the normative theory of public finance

CO2 understand public goods and its related concepts

CO3 understand Direct and Indirect Tax, theory of taxes

Part 2

CO4 understand Fiscal Policies and its instruments

CO5 understand the Indian tax system

CO6 understand the Structure of the Public Budget.

CO7 understand Fiscal Federalism in India

CO8 understand State and Local Finances. Know about the Role of Municipalities and Gaon Panchayats.

Sixth Semester

PAPER ECO-HC-6016: INDIAN ECONOMY-II

Course Outline

1. Macroeconomic Policies and Their Impact

Fiscal Policy; trade and investment policy; financial and monetary policies; labour regulation.

2. Policies and Performance in Agriculture

Growth; productivity; agrarian structure and technology; capital formation; trade; pricing and procurement.

3. Policies and Performance in Industry

Growth; productivity; diversification; small scale industries; public sector; competition policy; foreign investment.

4. Trends and Performance in Services

Course Outcome ECO-HC-6016: INDIAN ECONOMY-II

Students successfully completing this unit will have the ability to

CO1 understand the impact of macroeconomic policies

CO2 understand the growth of agricultural sector, its various policies and performance

CO3 understand the growth of industrial sector, its various policies and performance

CO4 understand the trends and performance in services sector

PAPER ECO-HC-6026: DEVELOPMENT ECONOMICS-II

Course Outline

1. Demography and Development

Demographic concepts; birth and death rates, age structure, fertility and mortality; demographic transitions during the process of development; gender bias in preferences and outcomes and evidence on unequal treatment within households; connections between income, mortality, fertility choices and human capital accumulation; migration.

2. Land, Labor and Credit Markets

The distribution of land ownership; land reform and its effects on productivity; contractual relationships between tenants and landlords; land acquisition; nutrition and labor productivity; informational problems and credit contracts; microfinance; inter- linkages between rural factor markets.

3. Individuals, Communities and Collective Outcomes

Individual behavior in social environments, multiple social equilibria; governance in organizations and in communities; individual responses to organizational inefficiency.

4. Environment and Sustainable Development

Defining sustainability for renewable resources; a brief history of environmental change; common-pool resources; environmental externalities and state regulation of the environment; economic activity and climate change.

5. Globalization

Globalization in historical perspective; the economics and politics of multilateral agreements; trade, production patterns and world inequality; financial instability in a globalized world.

Course Outcome ECO-HC-6026: DEVELOPMENT ECONOMICS-II

Students successfully completing this unit will have the ability to

CO1 understand the various demographic concepts and the development in them in India

CO2 understand the land, labor and credit markets

CO3 understand the behaviour of individuals towards social environment, governance in organizations and in communities

CO4 understand the environmental changes and the concept of sustainable development, climate change and economic activities

CO5 understand the different concepts related to globalization

PAPER ECO-HE-6016: ENVIRONMENTAL ECONOMICS

Course Outline

1. Introduction

Basic concepts: Environment, Ecology, Economy and the ecosystem. Definition and scope of environmental economics, why study environmental economics. Interaction between the environment and the economy, environmental economics and ecological economics, environmental economics and resource economics. Review of microeconomics and welfare economics: the utility function, social choice mechanism, the compensation Principle and social welfare function (concepts only).

2. The Theory of Externalities

Pareto optimality or Pareto efficiency, Externalities: meaning and types of externality, market failure: meaning, market failure in the presence of externalities; market failure and public goods, is environment a public good? Property rights and the coase theorem.

3. The Design and Implementation of Environmental Policy

Environmental Policies: an overview; Nonmarket and market based instruments of Environmental Policy: command and control (CAC) approach, economic instruments like pigovian taxes and effluent fees, tradable permits and mixed instruments. Monitoring and Enforcement: What is monitoring and enforcement? Penalties, cost of abatement. Damages from pollution. Incentives to sources to comply with environmental regulations.

4. International Environmental Problems

Nature of environmental problems: transboundary pollution –Climate change, global warming, ozone depletion and bio-diversity loss; Trade and environment: pollution haven hypothesis.

5. Measuring the Benefits of Environmental Improvements

Non-Market values: use and non-use values and optional value, measurement methods: Direct method-contingent valuation and indirect method-hedonic pricing methods, value of statistical life; their applications and limitations.

6. Sustainable Development

Conventional development model: a critique, Alternative approach: Sustainable Development and its origin, objectives of Sustainable Development, Approaches to Sustainable Development: weak sustainability, strong sustainability, Safe minimum standard approach, ecological perspective and social perspective, Rules and indicators of Sustainable Development.

Course Outcome ECO-HE-6016: ENVIRONMENTAL ECONOMICS

Students successfully completing this unit will have the ability to

CO1 understand the meaning and objective of environmental economics, the relationship between environment and economy and its related issues

CO2 understand externalities and various issues related to it

CO3 understand environmental policies, its implementation and problems

CO4 understand international environmental problems

CO5 understand the benefits of environmental improvements

CO6 understand the concept and importance of sustainable development and various issues related to it

PAPER ECO-HE-6026: INTERNATIONAL ECONOMICS

Course Outline

1. Introduction

What is international economics about?, subject matter of International Economics, An overview of world trade- its changing pattern.

2. Theories of International Trade The Ricardian theory- comparative advantage, Heckscher-Ohlin model, specific factors model, new trade theories- Leontief Paradox, factor-intensity reversal, international trade in the context of economies of scale and imperfect

competition, technological gap and product cycle theories; the Locational theory international trade; multinational enterprises and international trade.

3. Trade Policy

Instruments of trade policy- tariff and quota- partial equilibrium analysis; political economy of trade policy- free trade vs. protection; controversies in trade policy.

4. International Macroeconomic Policy

Fixed versus flexible exchange rates; international monetary systems- Gold Standard, interwar period, Bretton-Woods system, European Monetary system; financial globalization and financial crises.

Course Outcome ECO-HE-6026: INTERNATIONAL ECONOMICS

Students successfully completing this unit will have the ability to

CO1 understand the subject matter of international economics

CO2 understand the theories of international trade

CO3 understand the instruments of trade policy

CO4 understand the different exchange rates, gold standard, financial globalization and financial crises.

PAPER ECO-HE-6036: THE ECONOMY OF ASSAM

Course Outline

1. Changes and Evolution of the Economy in the Economic under Colonial Rule (1837 - 1947):

Imposition of Land Revenue and Its Impact, Prohibition of Opium Production and State Takeover of Opium Trade, Inflow of Colonial Investment in Plantation, Mining and Other Industries. Development of Water Transport and Railways, In-migration of Population and its Impact on the Economy: Shock of Partition and its Impact

2. Growth Trends and Sectoral Composition in the Post-Independence Period:

Population growth trends before and after 1971, Trends in Demographic Parameters, Population Density, Sex Ratio, Life Expectancy and Infant Mortality Rate– Work Force and Labour Force Participation, Occupational Distribution.

Trends in Per Capita NSDP in comparison with trends in all-India Per Capita Income – Trends in Other Indicators of Development in Comparison with all-India standard; Literacy Rate, Enrolment Ratio and Forest Cover – Inter-community differences in Development Attainments.

3. Sectoral Status and Prospects:

Infrastructure: State of Road, Rail and Air Connectivity within and out of the State; Potentials and Limitation of Waterways Development; Status of Power and Telecommunication, Financial System and Inclusion; Agriculture: Land Holding Patterns, Land Tenure and Land Reforms, Cropping Pattern, Production and Productivity of Principal Crop –Diversification of the Rural Economy to Horticulture, Fishery, Livestock and Non-farm activities – Prospects and Challenges of the Sector. Industry: State of the Tea Industry and Role of Small Tea Growers, State of Hydrocarbon Industry. Other Emerging Industries– Traditional Handloom Handicraft and their Prospect; Service Sector: Size and Composition

4. State Finances:

Public Finance in Assam and the emerging challenges. Trends and composition of revenue receipt and its implications. State taxes in Assam and the impact of GST. Strategies to enhance Revenue Receipt. Composition of Public Expenditure and its implications. The Assam FRBM Act: Its implementation and outcome. Fiscal Devolution to local bodies.

5. Assam Economy in its Neighborhood – Mutual inter-dependence with neighboring States – Stakes of Assam in the Act East Policy

Course Outcome ECO-HE-6036:THE ECONOMY OF ASSAM

Students successfully completing this unit will have the ability to

CO1 understand the changes and evolution of the Assam economy under colonial rule

CO2 understand the trend and growth of population, demographic features of Assam in the post-independence period

CO3 understand the growth and development of different sectors of Assam

CO4 understand the state public finances, various developments undertaken for improving the finances

CO5 understand the relationship of Assam economy with its neighbouring states

COURSES UNDER NEP

First Semester

Paper ECO0100104 Introductory Economics

Course Outline

Unit 1: The Essences of the Economic Problem

Scarcity and Alternative Usability of Resources, Problem of Choice and Optimization by an Economic Agent. The Notion of Opportunity Cost. Notions of Individual Demand and Supply. Individual Demand Function, Demand Curve and the Law of Demand, Shift of the Demand Curve, The Idea and calculation of Elasticity: Price, Income and Cross Elasticities of Demand and their Significance. Cost of Production and Supply. Elasticity of supply.

Unit 2: Market and Its Role in the Economy

Market and its Different Forms - Perfectly Competitive Market versus Monopoly. Individual Demand to Market Demand, Individual Supply to Market Supply. Price determination in a Competitive Market. Stability of the Competitive Market Equilibrium. Consumers' and Producers' Surplus and Efficiency of the Markets Equilibrium.

Unit 3: National Income and its Measurement

From Microeconomics to Macroeconomics. Income (Hicks' Definition), Domestic Income and National Income, GNP and its Measurement, Circular Flow of the Economy, NDP at Factor Cost as Domestic Income. Personal and Disposable Income, Purchasing Power Parity. Concepts of Unemployment, Inflation and Recession Balance of Payment –current and capital accounts

Unit 4: Macroeconomic Equilibrium and Income Determination

Idea of Equilibrium as Applied to a Basic Macroeconomy, Ex Post and Ex Ante Savings and Investment, Keynes' Approach of Aggregate Effective Demand and Determination of Income, Multiplier Analysis

Unit 5: Basic Concepts in Public Finance Operations

Definition of Tax, Direct and Indirect Tax, Tax Rate, Buoyancy and Elasticity of a Tax, Proportionate, Progressive and Regressive Taxation. Government Budget and Its Revenue and Capital Components; Fiscal and Primary Deficits

Course Outcome of Introductory Economics

Students successfully completing this unit will have the ability to

CO1 understand the basic concepts of economic theory like economic choice and scarcity, demand, supply, price elasticities etc.

CO2 understand market, its different forms, how it works

CO3 understand macroeconomics specifically national income and its related concepts, determination of national income, inflation, balance of payments

CO4 understand the Keynesian income determination, effective demand and multiplier analysis

CO5 understand the basic concepts of public finance

Second Semester

Paper Basic Elements of Economics

Course Outline

Unit 1: Basics of data collection - Primary and Secondary, Census versus Sample Survey, Distinction between population and sample, Distinction between population parameters and sample statistics, Principal steps in a sample survey, Methods of sampling - random, stratified, multi-stage and systematic random sampling.

Measures of Central Tendency – Mean: Arithmetic mean (simple and weighted), Geometric mean, Harmonic mean, Median, Mode. Measures of Dispersion: Range, Inter-quartile deviation, mean deviation, standard deviation, Variance.

Unit 2: Index Number - Meaning and Types, Construction, uses and limitations of index numbers, Cost of Living Index Numbers. Consumer Price Index Numbers for Agricultural Labourers in India, Consumer Price Index Numbers for Industrial Workers in India (concept only)

Unit 3: Economic growth and development, Per Capita Income (PCI) as a measure of development, International comparison of PCI and role of Purchasing Power Parity (PPP). Human Development Index (HDI), Concept of Sustainable development.

Unit 4: Financial System and its functions, Formal and informal financial system, Components of a financial system and their interdependence, Relationship between financial system and economic growth

Unit 5: Basic features of Indian economy, Trend of national and per capita income, Sector-wise composition of GDP, Basic demographic features – age, sex composition, density, urbanization, Labour force and Work force and Participation rate , Unemployment, Occupational Pattern, Demographic Dividend.

Course Outcome of Basic Elements of Statistics

Students successfully completing this unit will have the ability to

CO1 understand concepts of data collection and sample survey, measures of central tendency and dispersion

CO2 understand meaning of index number, its types and uses

CO3 understand the concepts of growth and development and its measurements, HDI and sustainable development

CO4 understand the financial system, relationship between financial system and economic growth

CO5 understand the basic features of Indian economy-GDP, per capita income, unemployment, labor force participation etc.