Department of Economics

Course Outcomes of Semester I

The Department of Economics has the following Course Outcomes which are based on the given syllabus. The department has two full time teachers and one guest teacher who carry the total class load of the students of Semester I.

Course Type CC1: Introductory Microeconomics (75 marks)-Paper Code-Ec1C1

Dr. Ramesh Chandra Das, Associate Professor

Courses teaches:

- Concepts on individual and aggregate demand and individual supply and aggregate supply
- Operation of market principle for goods and services
- Mathematical tools needed for microeconomic analysis-function, limit, continuity, differential and integral calculus, etc
- Cardinal and Ordinal utility analysis to consumer's behavior to study demand theory
- Indifference curves, budget function, consumer's equilibrium, price consumption and income consumption curves
- Price effect, substitution effect, income effect: Decompositions analysis
- Ordinary and compensated demand functions
- Corner solutions
- Rationality testing of the consumer's behavior
- Slope and Elasticity of demand
- Own price, cross price and income elasticity of demand
- Relation between expenditure and price change via elasticity of demand
- Revealed Preference Theory-weak and strong axioms, substitution effect, demand curve derivation
- Market morphology-perfect and imperfect markets, firm vs industry
- Structure of a perfectly competitive firm and market-parametric price system, ideal allocation of inputs
- Perfect competition, government and the society

Course Outcomes:

- Discussion of the market behavior of economic agents like consumer in the goods market and service market.
- Determination of consumer's willingness to pay for a good.
- Behaviour ofa consumer if price of the good changes through adjustments of his purchasing power upon changes in price and income levels.
- Describing the purchasing plans of the consumer if indirect tax is imposed on the good or income tax is imposed on him/her.
- Discussion of firms'behaviour to determine prices of the goods in a competitive system.Expressing price as a parameter in this market.Discussion of why some goods have nearly identical prices in the market.
- Differentiate between Ideal and Non ideal market structure.Discussion of why government should not interfere into the perfectly competitive market.Examination of it with respect to a sub optimal decision.
- Explanation of how the concept of dead weight loss arises in a competitive market when government intentionally enters into the internal system of the competitive market system. Whether we will allow the government to intervene into this particular type of market.

Shri Bankim Chandra Ghosh, Assistant Professor

Courses teaches-

- Basis of supply system of an economy
- Input-output relation in a production function
- Technology and production function
- Concepts of short run and long run system of production function -Law of Variable Proportions and Laws of Returns to Scale
- Homogenous production function, Cobb-Douglas production, CES production function, Homothetic production function
- Optimum use of factors by the producers-primal and dual solutions, offer curve, elasticity of factor substitution, factor price sharing, theory of profit, product exhaustion theorem, Clark-Wicksteed theorem
- Expansion path
- Derivation of cost function from production function
- Short run and long run cost functions, Average and marginal cost functions, overhead cost, sunk cost, envelope curve, Cassel's Law, Cobb-Douglas cost function

- Determination of quantity of sale in a competitive system in the short run and long run system, optimum solution in a competitive system
- Derivation of supply curve under firm and industry level, long run supply conditions under CRS, DRS and IRS system

Course Outcomes-

- Discussion of methods of transformation of inputs into outputs.
- Explanation of technology playing role in transformation of inputs into output.
- Differences between technology and production function.
- Discuss LVP working in determining the short run system of production.
- Discussion of the production nature when all the inputs of production made variable.
- Description of the producer deciding how much to hire inputs and how much to produce.
- Mention the cost items in short run and long run production system.Discussion to differentiate between a short run and long run total, average and marginal cost functions.
- Discussion of competitive firm and industry determining output in a perfectly competitive system of production and sale.

Part B: Course Type CC2: Statistics-I (75 Marks) Paper Code-Ec1C2

Dr. Ramesh Chandra Das, Associate Professor

Courses teaches-

- Definition of Statistical data
- Primary Vs Secondary data
- Sample Vs Universe/Population
- Methods of sample survey
- Presentation of Data-Tabular, Charts, Frequency distribution

Course Outcomes-

- Differentiate between Statistics and Data
- Methods of data collection. Discussion of Sample Survey Method and Census Method

- Description of presentation of data by Tables, Charts and Frequency Distribution
- Explanations of Bar Chart, Line Chart, Pie Chart and Scatter Chart

Shri Bankim Chandra Ghosh, Assistant Professor

Courses teaches-

- Simple frequency distribution and grouped frequency distribution
- Class Intervals-Class limit and class boundary
- Open end class and closed end class
- Cumulative frequency distribution
- Ogive and cumulative frequency polygon
- Histogram for common and uncommon widths

Course Outcomes-

- Describe simple and grouped frequency distribution with a suitable set of observations
- Differentiate class limit from class boundary
- Draw cumulative frequency distribution for a set of observation taken from your choice
- Derive Ogive from a cumulative frequency distribution
- Discuss the difference between common width and uncommon width in connection of drawing Histogram. Meaning of the area of a histogram.

Miss Kinkini Bhattacharjee, Guest Lecturer

Courses teaches-

- Measures of Central Tendency- Mean, Median, Mode, AM, GM, HM
- Measures of dispersion- Range, Standard Deviation, Quartile Deviation, Coefficient of variations
- Moments, Skewness and Curtosis
- Correlation and Regression-Pearson and Spearman measures, Partial correlation, Total sum squares, Explained sum squares and Residual sums squares
- Index Numbers-Price Measures and Quantity Measures, Wholesale vs Consumer's price indices, Chain index

- Time Series Analysis-Trend vs Cyclical fluctuations, Estimation of a trend series

Course Outcomes-

- Explain most desirable properties of the measures of central tendency
- Discuss on simple AM and Weighted AM. Explain important properties of simple and weighted AM
- Meaning of GM and HM. Compute AM, GM and HM for data sets framed by your own choice
- Prove that AM≥GM≥HM
- Explain most desirable properties of the measures of dispersion
- Define Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of variations in suitable simple and grouped frequency data
- Define Moments, Skewness and Curtosis and prove mathematically their natures with respect to particular frequency distribution-Explain Sheppard's Correction Method
- Explain Correlation and Regression. Differentiate between Pearson method and Spearman method of computing correlation coefficient.
- Explain the relation between correlation coefficient and regression coefficient
- Prove that $-1 \leq r \leq +1$. Define Total sum squares, Explained sum squares and Residual sums squares
- Define Index Numbers and mention its useful nesses. Explain different Price and Quantity methods of index numbers and prove their useful properties
- Explain it detail the feature of a time series data and how to control their nature by proper methods.