ECONOMICS HONOURS SYLLABUS

Semester	Paper No	Papers	Credits	Marks
I	ECO-UG-E101	Microeconomics – I	4	100
II	ECO-UG-E201	Macroeconomics – I	4	100
III	ECO-UG-E301	Economic Development & Policy in India	4	100
IV	ECO-UG-C401	Microeconomics –II	4	100
IV	ECO-UG-C402	Mathematics for Economics	4	100
V	ECO-UG-C501	Macroeconomics – II	4	100
V	ECO-UG-C502	Statistics for Economics	4	100
VI	ECO-UG-C601	International Economics	4	100
VI	ECO-UG-C602	Basic Econometrics	4	100

ECO-UG-E101: Microeconomics – I

Unit I: Introduction
Problem of Scarcity and Choice: Concept of Production Possibility Curve (Excluding section on index numbers); Demand & Supply: Determinants of Demand; Movements vs. Shifts in Demand Curve; Determinants of Supply, Movements along a Supply Curve vs. Shifts in Supply Curve. Market Equilibrium and Price Determination; Law of Demand and its Criticism, Elasticity of Demand and Supply; Applications of Demand and Supply, Taxes (unit) and Subsidies.

Unit II: Consumer Theory
Cardinal Utility Theory: Concept of Utility: Marginal Utility and Total Utility; Consumer's Equilibrium, Marginal valuation, Equi-marginal utility, Consumer's Demand Curve, Consumer's Surplus; Paradox of Value; Ordinal Utility Theory: Indifference Curve Approach; Consumer's Preferences; Indifference Curves, Budget Line; Consumer's Equilibrium Income and Substitution Effects, Price Consumption Curve and the derivation of Demand Curve for a commodity, Income consumption path, Engel's Law.

Unit III: Production and Costs
Production: Firm as an agent of production; Concept of Production Function; Law of variables proportions; Isoquants; Returns to scale, Economies & Diseconomies of scale.
Costs: Costs in the short run; Costs in the long run; Profit maximization and Cost minimization; Equilibrium of the firm, Technical/Technological Change; the very long run.

Unit IV: Market Structures
Theory of perfect competition: Assumptions; Theory of a firm under perfect competition; Average & Marginal Revenue; Equilibrium of the firm in the short run and long run. The long-run industry supply curve; increasing, decreasing and constant cost industry. Allocative Efficiency under perfect competition.

Theory of a monopoly firm: Short run and long run equilibrium of a monopoly firm, Concept of Supply curve under Monopoly; Allocative Inefficiency & dead weight loss under Monopoly; Price Discrimination.

Theory of monopolistic competition: Assumptions: Short-run Equilibrium; Long run Equilibrium; Concept of Excess Capacity; Empirical relevance. Oligopoly: Features. Causes for the existence of oligopolistic firms in the market rather than Perfectly Competitive Firms in the Market;

References
- Lipsey, R.G. & Chrystal, K.A: Principles of Economics, Latest edition. Oxford University Press.
- Mankiw,N.G.(2007): Economics: Principles and Applications, 4th edition, Cengage (India).
- Salvatore, Dominick (2006): Micro Economics: Theory and Applications, 4th edition, Oxford University Press.
- Koutsoyiannis, A (1990): Modern micro Economics. Macmillan, London.
- Pyndick, R.S., and D.S. Rubinfeld (2007) Microeconomics, Prentice Hall of India Pvt Ltd, New Delhi.

ECO-UG-E201: Macroeconomics – II

Unit I: National Income Accounting
National Income: Concepts and measurement, and Related Aggregates; Gross and Net National Income; Nominal and Real Income; Limitations of the GDP concept. Environmental concerns in national accounts- green accounting.

Unit II: Keynesian Theory of Income Determination
Concept of Aggregate Demand and Aggregate Supply; Concept of Effective Demand; Consumption Function; Average and Marginal propensity to consume; factors influencing consumption spending; Concepts of Saving and Investment Function; The concept of Investment Multiplier (Static); Fiscal Policy: Impact of Changes in Govt. Expenditure and Taxes.

Unit III: Money in the Modern Economy
Concept of Money; Quantity Theory of Money - Cash Transaction and Cash Balance Approaches; Demand for Money; The Keynes's Liquidity Preference theory of Interest; Supply of Money; Functions of Commercial and Central Bank; Credit Creation; Credit control methods of Central Bank.

Unit IV: Balance of Trade, Balance of Payment and Exchange Rate
Basis of Trade; Absolute and Comparative Advantage; Arguments for Free Trade and Protection; Concept of Balance of Trade; Balance of Payments- Current and Capital Account; Market for Foreign Exchange; Determination of Exchange Rates.

References:
- Lipsey, R.G. & Chrystal, K.A : Principles of Economics, Latest edition, Oxford University Press.

- Mankiw,N.G.(2007): Economics: Principles and Applications, 4th edition, Cengage (India).
- Froyen, R.T (2003): Macroeconomics: Theories and Policies. Pearson India.
- Shapiro, E. (1996): Macroeconomic Analysis, Galgotia Publications, New Delhi.

ECO-UG-E301: Economic Development and Policy in India–II
Section - A: Issues in Development and Planning with references to India

Unit I: Characteristics and causes of underdeveloped countries with special reference to India
Role of Technology, Sustainability and institutional factors.
Employment in the organized and unorganized sectors; Openunemployment; Underemployment and Disguised Unemployment; Rural and Urban Unemployment in India; Employment generation schemes and their impact.

Unit II: Current Issues in Indian Planning
Objectives and their Critical evaluation. Growth of self-reliance; Inequality Reduction; Poverty Alleviation; Modernisation and Competitiveness; Impact of Economic Reforms.

Section -B: Sectoral Aspects of the Indian Economy

Unit III: Agriculture and Industry
Agriculture: Its importance in the Indian Economy, Problems and solutions regarding low productivity; agricultural credit; agricultural labour; agricultural marketing and agricultural pricing.
Industry: Industrial Policy; pre- and post- 1991. Relative roles of large and small scale, Public Vs Private sector, role and forms of foreign capital Foreign Institutional Capital; Foreign Direct Investment.

Unit IV: Foreign Trade
Role and importance of foreign trade in India, The Balance of Trade and the Balance of Payments situation in India; World Trade Organisation (WTO).

References
- Todaro, M and Smith, S (2008): Economic Development in the Third World, 8th edition, Pearson Education, India.
- Kapila Uma: "Indian Economy since Independence", Latest edition, Academic Foundation.
- Bhaduri, Amit (2009): "The Face You were Afraid to See", Penguin.
- Mishra & Puri: "Indian Economy", (Latest Edition), Himalayan Publishing House.
- Datta & Sundaram: "Indian Economy" (Latest Edition), S. Chand & Company Ltd, New Delhi.

ECO-UG-C401: Micro Economics – II

Unit I: Consumer Theory

Consumer Preferences: Assumptions about Preferences; Indifference Curve; Marginal Rate of Substitution; Budget Line; Consumer Choice: Optimal Choice; Price, Income, Substitution effects- Hicksian Approach and Slutsky Approach- Compensating and Equivalent Variation in Income; Price Offer Curve and the Demand Curve; Normal and Inferior Goods; Income and Substitution effects in case of inferior and Giffen Goods; Income Offer Curves and Engel Curves; Ordinary and Compensated demand curves; Indifference curves in exceptional cases.

Unit II: Theory of Production and Cost
Concept of Production Function; Production with one variable input;Production with two variable inputs; Isoquant and Economic Region of production; Marginal Rate of Technical Substitution; Optimal Input Combination; Constrained Output Maximization and Cost Minimization; Expansion Path; Elasticity of Substitution; Scale Elasticity of output: Wicksell Johnson Theorem; Cobb-Douglas Production function (Basic properties only); Concept of Cost Function; Cost in the Short Run and Long Run.

Unit III: Market Structure and Game Theory
Review of Perfect Competition and Monopoly; Pricing with market power; Price Discrimination, Peakload Pricing, Two-part tariff; Monopolistic competition- Equilibrium in the Short Run and the Long Run; Oligopoly- Characteristics; Conjectural variation and reaction patterns; Oligopoly Models: Cournot,Sweezy, Stackleberg and Collusive Oligopoly; Competition versus Collusion - the Prisoner's Dilemma; Game theory and Strategic Decisions- Noncooperative versus Cooperative Games; Dominant Strategies; The Nash Equilibrium.

Unit IV: Market Failure
Externalities- Negative externalities and inefficiency; Positive externalities and inefficiency; Ways of Correcting Market Failure; Externalities and Property Rights; Common Property Resources; Public Goods- Efficiency and Public Goods; Public Goods and Market Failure;Markets with Asymmetric Information- Quality Uncertainty and the Market for Lemons;Adverse Selection; Moral Hazards.

References
- Pyndick, R.S., and D.S. Rubinfeld (2007) Microeconomics, Prentice Hall of India Pvt Ltd, New Delhi.
- Bernheim, D and Whinston, M (2009): Microeconomics, Tata McGraw Hill, India.
- Varian, Hal (2006): Intermediate Microeconomics, A Modern Approach, 7th edition; Affiliated East-West Press.
- Boumol, William J and Blinder Alan S (2005) Microeconomics; Principles and Policy 9th Edition, Thomson, 1st Indian Edition (2007)
- Salvatore Dominick (2003) Microeconomics: Theory and Applications; 4th Edition, Oxford University Press.
- Koutsoyyiannis, A (1990): Modern micro Economics. Macmillan, London.

ECO-UG-C402: Mathematics for Economics – II

Unit I: Elementary Linear Algebra

The Theory of Sets, vectors, Linear and Convex Combination of Vectors, Linear Independence and Convex sets.

Matrices and Matrix Operations: Addition, Scalar Multiplication, Matrix Multiplication. The Transpose, The Inverse of a Square Matrix. Rank of a matrix. Matrix Methods of Solution and Cramer's rule

Determinants: Definition, Properties, Minors and Cofactors, Singularity and Invertibility; the Adjoint Matrix and formula for the inverse. Illustrations of the application in economic analysis.

Unit II: Differential Calculus

Concept of Variables, Constants, Parameters, Functions and Limits; Derivatives of Algebraic functions; Exponential, Logarithmic functions; Parametric differentiation; product and quotient rules; Successive differentiation (up to second order); Partial Differentiation. Illustrations of the applications in economic analysis.

Unit III: Integral Calculus

Indefinite and Definite Integrals: Integration by Parts and Integration by Substitution. Differential equations: Solution processes for first and second order equations. Illustrations of the applications in economic analysis.

Unit IV: Maxima and Minima Concepts

Slope of a curve; Maxima and Minima; Points of Inflexion; Euler's Theorem; Lagrange's Method. Illustrations of the applications in economic analysis.

References:

- Chiang, Alpha C (1974): Fundamental Methods of Mathematical Economics, 3rd edition, McGraw Hill.
- Mukherjee, B and V. Pandit (1989): Mathematical methods for Economic Analysis, Allied Publishers Pvt Ltd., New Delhi.
- Henderson, J.M. and Quandt, R.E. (1980): Micro Economic Theory: A Mathematical Approach, McGraw Hill Book Co., New York.
- Sydsaeter, K and Hammond, P (1995):Mathematics for Economics, Pearson Education (India).
- Weber, Jean, E. (1982): Mathematical Analysis: Business and Economic Applications, Harper and Row Publishers, New York.
- Allen, R.G.D. (1974): Mathematical Analysis for Economists, Macmillan and Co., London.

ECO-UG-C501: Macroeconomics – II

Unit I: Theories of Consumption and Investment

Consumption Theory: Absolute Income Hypothesis, Life Cycle Hypothesis; Relative Income Hypothesis; Permanent Income Hypothesis.

Investment Theory: Relationship between MEC and MEI; MEC Criterion and PV Criterion; Acceleration Principle; Flexible Accelerator Model.

Unit II: The Closed Economy in the Short Run

IS-LM   Model;   Fiscal   and   Monetary   Multipliers;   Aggregate   Demand   and

Aggregate Supply.

Unit III: Inflation and Aggregate Supply Curve
Inflation - Definition, Types, Causes and Effects of Inflation on different sectors of the Economy; Demand-Pull and Cost-Push Inflation; Measures to control Inflation; Phillips curve; Adaptive Expectations.

Unit IV: Open Economy Models
Short Run Open Economy Models; The Mundell-Fleming Model. Solow Model; Concepts of Endogenous Growth.

References:
- Dornbusch, R and Fischer, S (2005): Macroeconomics, 6th edition, Tata McGraw Hill.
- Mankiw, N.G (2007) : Macroeconomics, 6th edition, Worth Publishers (India).
- Blanchard, O (2006): Macroeconomics, 4th edition, Pearson Education (India).

ECO-UG-C502: Statistics for Economics

Unit I: Univariate Frequency Distributions
Mean, Median & Mode; Range, Quartile deviation, mean deviation and standard deviation; Coefficient of variation; Central and non-central moments; Skewness and Kurtosis.

Unit II: Bivariate Frequency Distributions
Bivariate data; Scatter Diagram; Covariance; Simple Correlation Coefficient; Properties of Correlation Coefficient; Calculations of Correlation Coefficient; Concept of Regression; Properties of Linear regression; Relationship between Correlation Coefficient and Regression Coefficient ; Rank Correlation- Spearman's Rank Correlation Coefficient.

Unit III: Probability Theory

Concepts of Sample Space and Events, Meaning of probability; Classical definition of Probability and the Axiomatic Approach; The Addition Rule; The multiplication Theorems of Total Probability; Conditional Probability and Stochastic Independence; Baye's Formula, Random variables, Density function, Joint Density Function, Marginal and Conditional Distributions; Expectation and Variance of Random Variables.

Unit IV: Moment: Theoretical Distributions

Discrete Variables: Binomial Distribution- Properties of Binomial Distribution; Mean and Standard deviation.

Normal Distribution- Properties of the Normal Distribution; Normal Distribution as limiting forms of Binomial Distributions; Importance of the Normal Distribution in Statistics.

References:
- Goon, A, Gupta, M and Dasgupta,B (1986): Fundamentals of Statistics, Vols. 1 & 2. The World Press Private Limited, Calcutta.
- Hoel,P.G., Port,S.C. and Stone,C.J (1972): Introduction to Statistical Theory, Houghton Mifflin Co., Boston (also Universal Books,Delhi)
- Spiegel,M and Lindstrom,D(2010): Statistics,2nd edition, Schaum Series, McGraw Hill(India).
- Das, N.G.(2009): Statistical Methods (Part I & II), McGraw Hill (India).

ECO-UG-C601: International Economics

Section- A: International Trade Theory
Unit I: Introduction to the theory of International Trade
Comparative Advantage: Ricardian, Specific-Factors and Heckscher-Ohlin Models; Terms of Trade, Immiserising Growth and the Transfer Problem.

Unit II: New Trade Theories
Economics of Scale and Imperfect Competition.

Section- B: International Economic Policy

Unit III: The Foreign Exchange Market and Exchange Rate Determination
Open Economy Macroeconomics - Determination of Output, Interest Rates and Exchange Rates in the long and short run.

Unit IV: Macroeconomics Policy in an Open Economy and International Policy Coordination
Fixed and Flexible Exchange Rates.

References:
- Krugman, P and Obstfeld, M: International Economics: Theory and Policy, 6th edition, Pearson Education (India).
- Sodersten, Bo and Reed, G. (1994): International Economics, 3^{rd}edition, Macmillan (India).

ECO-UG-C602: Basic Econometrics

Unit I: Introduction
Definition and Scope of Econometrics; Methodology of Econometric Research; Method of Complete and Partial Enumeration; Population and Sample; Parameter and Statistic; Sampling Techniques; Random Sampling; Standard Error; Type-I and Type-II errors; Sampling Distribution of an Estimator; Mean and Variance of Sampling Distribution; Chi-Square Distribution; Student's t-distribution, Fisher's t-distribution; F-distribution.

Unit II: Theory of Estimation
Basic Concepts of Estimation- Point Estimation and Interval Estimation; Desirable Properties of an Estimator- Unbiased, Efficiency, Consistency and Sufficiency; Estimation of Parameters- Maximum Likelihood Method.

Unit III: Classical Linear Regression Model
Testing of Hypotheses and Confidence Intervals; Test based on Z, t and x^2 (chi-square) Statistics. Concepts of Population Regression Function (PRF), Linearity, Stochastic Disturbance Term and Sample Regression Function (SRF); Assumptions of OLS Estimation; Derivation of Least Square Estimates (Two Variable); Properties of Least Square Estimates – The Gauss-Markov Theorem.

Unit IV: Extended CLRM
Extension of the Two Variable CLRM; The Coefficient of Determination R^2 and Adjusted R^2, Partial correlation, Regression Analysis and Analysis of Variance, Qualitative Data; Concept and Use of Dummy Variables

References:
- Gujarati, D. (2005): Essentials of Econometrics, 3[rd]edition, McGraw Hill.
- Field, A. (2005): Discovering statistics using SPSS, 2nd edition, T. R. Publication, New Delhi.
- Goldberger, A. (1998): Introductory Econometrics, Harvard University Press.