

St. Xavier's College (Autonomous), Ahmedabad

FACULTY OF ARTS

DEPARTMENT OF ECONOMICS (SF)

BA. Hons. (Economics) SF

SEMESTER-5

Minor Course (For Economics students): Statistics for Economics-4

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credit Distribution of The Course			Eligibility Criteria	Pre-requisite(s) of the Course (if any)
	Lectures	Tutorial	Practical / Practice		
Statistics for Economics-4 (ECHMN551C)	4	0	0	10 + 2 from a recognized board in any stream	Intermediate Stats

Learning Outcomes (LO):

1. Understand the principles of regression, ANOVA, and nonparametric statistical methods.
2. Learn how to test hypotheses using parametric and nonparametric methods.

Course Outcomes (CO):

1. Conduct and interpret regression analysis and ANOVA in statistical modelling.
2. Apply nonparametric and goodness-of-fit tests for distributional and independence analysis.

Unit-1: Hypothesis Testing

Concept of statistical hypotheses, Null and Alternative hypotheses, Simple and Composite hypotheses, Type I and Type II errors, Level of significance and power of a test, One-tailed and Two-tailed tests, Test statistic and critical region, p-value approach and critical value approach, Large sample tests (Z-test for mean and proportion), Small sample tests (t-test for single mean and difference of means), Chi-square test for goodness of fit and independence, F-test for equality of variances, Applications of hypothesis testing in economics and social sciences, Interpretation of test results and common pitfalls.

Unit 2: Regression Analysis

Simple Linear Regression Model, Estimated Regression Equation, Least Squares Method, Coefficient of Determination, Correlation Coefficient, Model Assumptions, Testing for Significance, t Test, F Test, Confidence and Prediction Intervals, Using Regression for Estimation and Prediction, Residual Analysis, Detecting Outliers and Influential Observations, Multiple Regression Model, Estimated Multiple Regression Equation, Interpretation of Coefficients, Multiple Coefficient of Determination, Multicollinearity, Categorical Independent Variables, Logistic Regression Equation, Significance Testing in Logistic Regression, ANOVA

Unit 3: Time Series Analysis and Forecasting

Time Series Patterns, Horizontal Pattern, Trend Pattern, Seasonal Pattern, Trend and Seasonal Pattern, Cyclical Pattern, Selecting a Forecasting Method, Forecast Accuracy, Moving Averages, Weighted Moving Averages, Exponential Smoothing, Linear Trend Regression, Nonlinear Trend Regression, Seasonality Without Trend, Seasonality and Trend, Models Based on Monthly Data, Time Series Decomposition, Calculating the Seasonal Indexes, Deseasonalizing the Time Series, Using the Deseasonalized Time Series to Identify Trend, Seasonal Adjustments, Cyclical Component.

Unit 4: Nonparametric Methods

Sign Test, Hypothesis Test About a Population Median, Hypothesis Test with Matched Samples, Wilcoxon Signed-Rank Test, Mann-Whitney-Wilcoxon Test, Kruskal-Wallis Test, Rank Correlation.

Textbook:

- Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., Cochran, J. J., Fry, M. J., & Ohlmann, J. W. (2020). *Statistics for business & economics* (14th ed.). Cengage Learning.

Suggestive Reading

1. Larsen, R.J. and M.J. Marx (2017) – *An Introduction to Mathematical Statistics and Its Applications*, Pearson Education, 6th edition.
2. Wackerly, D., Mendenhall, W., & Scheaffer, R. (2014) – *Mathematical Statistics with Applications*, Cengage Learning, 7th edition.
3. Hogg, R. V., Tanis, E. A., & Zimmerman, D. L. (2018) – *Probability and Statistical Inference*, Pearson, 10th edition.
4. Casella, G., & Berger, R. L. (2002) – *Statistical Inference*, Duxbury Press, 2nd edition.

St. Xavier's College (Autonomous), Ahmedabad

FACULTY OF ARTS

DEPARTMENT OF ECONOMICS (SF)

BA. Hons. (Economics) SF

SEMESTER-5

Minor Course (Subject Minor): Globalization of World Politics and Economy

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credit Distribution of The Course			Eligibility Criteria	Pre-requisite(s) of the Course (if any)
	Lectur es	Tutori al	Practical / Practice		
Globalization of World Politics and Economy (ECHMN552C)	4	0	0	10 + 2 from a recognized board in any stream	NA

Learning Objectives:

1. Develop a comprehensive understanding of International Relations, World Politics, Globalization, and Global Political Economy, and familiarise students with the major theoretical approaches used to interpret global affairs.
2. Examine the historical transformation of world politics and the global economy during the 20th and 21st centuries, including the World Wars, Great Depression, totalitarianism, Cold War, collapse of the USSR, and changing global power structures.
3. Understand and critically assess the functioning and significance of international organisations, economic institutions, global forums, regionalism, and non-state actors in contemporary international affairs.
4. Analyse major contemporary international issues and challenges—including armed conflicts, global trade and finance, poverty and hunger, forced migration, refugee crises, terrorism, and globalisation—and evaluate their political and economic consequences for the world and India.

Course Outcomes

1. Explain and critically analyse the concepts, scope, theories, and major debates in International Relations, World Politics, and Globalization, including Realist, Liberal, Constructivist, and Marxist perspectives.

2. Analyse the evolution of global political and economic order from the 20th century to the 21st century, with particular reference to the World Wars, Cold War, emergence of superpowers, globalization, and the transition from a unipolar to a multipolar world.
3. Evaluate the role of major international organizations, global forums, regional groupings, and non-governmental organizations in shaping international political and economic relations, trade, finance, development, and regional cooperation.
4. Assess contemporary global issues and conflicts such as poverty, hunger, migration, refugees, terrorism, international trade and finance, and major wars, and critically examine their implications for developing countries, particularly India.

Unit-1: Meaning and Scope of World Politics

Meaning of International Relations and World Politics - Concept of Globalisation, Theoretical Approaches to Globalization- Realism, Constructivism, Liberal and Marxist Approaches- Globalisation: Myth or reality, Waves of Globalization, Factors of Globalization, Entrepreneurs of Globalization (MNCS)- Globalization: Transformation of World Politics and Economy
Debating Globalization, Global Political Economy

Unit 2: World Politics and Economy in 20th Century

First World War – Impact on Economy of the European Countries, Emergence of USA and USSR as Super Power, Great Economic Crisis - Totalitarianism in the World- Case study on Japan and Germany - Cold war Politics - Rise of Capitalism and Communism, Some cold war crisis, China's cold wars - End of Cold war in 1991- Changing Political and Economic world order- Gulf War, Iraq war, Rwandan Genocide (1994), End of Apartheid in Africa, Oslo Accord, Unipolar World and USA, After USSR- Boris Yelstin to Vladimir Putin

Unit 3: World Politics and Economy in 21st Century

Emerging Global Powers in the world- Changing political and economic order, Impact on World politics and Economy, Rise of New Cold War – Russia and the West, Status of European Powers, Rise of Global South, Transition from unipolar to multipolar World - International Organisations and Forums in Politics and Economy- UNO, WTO, ILO, BRICs, G-7 and G-20, Role of NGOS in world politics and economy
Regionalism in International Affairs - War and World Politics -Economic Impact- Case study on Ukraine -Russia war, Case study on USA, Israel and Iran war, Israel- Hamas War- Palestinian Issue

Unit 4: International Issues and World Politics

Global Trade and Finance- Indian Economy - Poverty, Hunger and Development- Hunger crisis in Sudan, Nigeria, Somalia and Palestine (Gaza Strip) - Refugees and migration Issues in the world - Case study on Rohingya Refugees, Migration of Indians

to USA and other countries, Forced Migration

Terrorism and Globalization-9/11 attack in USA, Mumbai terror attack and Pahalgam terror attack in India

References:

1. Joseph E. Stiglitz, *Globalization and Its Discontents*
2. Baylis, J., Smith, S. & Owens, P., *The Globalization of World Politics: An Introduction to International Relations*, Oxford University Press.
3. O'Brien, R. & Williams, M., *Global Political Economy: Evolution and Dynamics*, Bloomsbury Academic.

St. Xavier's College (Autonomous), Ahmedabad

FACULTY OF ARTS

DEPARTMENT OF ECONOMICS (SF)

BA. Hons. (Economics) SF

SEMESTER-5

Minor Course: Principles of Economics-4

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credit Distribution of The Course			Eligibility Criteria	Pre-requisite(s) of the Course (if any)
	Lectures	Tutorial	Practical / Practice		
Statistics for Economics-4 (ECHMN555C)	4	0	0	10 + 2 from a recognized board in any stream	Intermediate Stats

Learning Objectives:

1. Understand the functioning of labour markets, monetary systems, inflation dynamics, and aggregate fluctuations within the macroeconomy.
2. Analyse how monetary and real factors interact to determine employment, price levels, and output in both the short and long run.

Course Outcomes:

1. Apply macroeconomic models to explain unemployment, money creation, inflation, and aggregate demand–supply interactions.
2. Evaluate the effects of monetary policy, inflation, and business cycles on overall economic performance and stability.

Unit–1: Unemployment:

Identifying Unemployment, Measurement of Unemployment, Labor-Force Participation of Women and Men, Limitations of the Unemployment Rate, Duration of Unemployment, Causes of Unemployment, The Jobs Number, Job Search, Frictional Unemployment, Public Policy and Job Search, Unemployment Insurance, Minimum-Wage Laws, Federal Minimum Wage, Unions and Collective Bargaining, Economics of Unions, Effects of Unions on the Economy, Structural Unemployment,

Theory of Efficiency Wages, Worker Health, Turnover, Quality, Effort, Morale, Henry Ford's \$5-a-Day Wage, Efficiency Wages in Practice.

Unit–2: The Monetary System:

Meaning of Money, Functions of Money, Kinds of Money, Cryptocurrencies, Money in the U.S. Economy, Credit Cards and Money, Circulation of Currency, The Federal Reserve System, Organization of the Fed, Federal Open Market Committee, Banks and Money Supply, 100-Percent-Reserve Banking, Fractional-Reserve Banking, Money Creation and the Money Multiplier, Bank Capital and Leverage, Financial Crisis of 2008–2009, Fed's Tools of Monetary Control, Influencing Reserves and Reserve Ratios, Problems in Controlling Money Supply, Bank Runs, Federal Funds Rate, Jekyll Island and the Origins of the Fed.

Unit–3: Money Growth and Inflation:

Classical Theory of Inflation, Value of Money and Price Level, Money Supply, Demand and Monetary Equilibrium, Effects of Monetary Injection, Adjustment Process, Classical Dichotomy, Monetary Neutrality, Velocity and Quantity Equation, Hyperinflations, Inflation Tax, Fisher Effect, Costs of Inflation, Purchasing Power and Inflation Fallacy, Shoeleather Costs, Menu Costs, Price Variability and Misallocation, Inflation-Induced Tax Distortions, Confusion and Inconvenience, Wealth Redistributions, Deflation, The Wizard of Oz and Free-Silver Debate, Life during Hyperinflation.

Unit–4: Aggregate Demand and Aggregate Supply:

Economic Fluctuations—Irregular and Unpredictable, Output and Unemployment Relationship, Explaining Short-Run Fluctuations, Classical Assumptions versus Short-Run Reality, AD–AS Model, Aggregate Demand Curve—Slope and Shifts, Aggregate Supply Curve—Long Run and Short Run, Growth and Inflation in the Long Run, Shifts in AS and AD, Economic Fluctuations, Effects of Shifts in Aggregate Demand and Supply, Monetary Neutrality, The Great Depression, World War II, The Great Recession of 2008–2009, Oil and the Economy, Origins of the AD–AS Model, The COVID Recession and the 2020 Downturn.

Textbook:

- Principles of Economics- Mankiw (10th ed.)

Suggestive Reading

1. Principles of Economics – Mankiw (10th ed.), Economics – Samuelson & Nordhaus (19th ed.)
2. Principles of Economics – Case, Fair & Oster (13th ed.)
3. Principles of Microeconomics – Stiglitz & Walsh (2nd ed.)