

## EC-101 Micro Economics-I

### **Introduction**

#### **The Price Mechanism**

The concept of a market economy, Laws of demand and supply, schedules & graphs of demand and supply, Market equilibrium and the determination of price, Movement along and shifting of demand and supply curves, Concept of elasticity of demand and supply, Importance of elasticity

#### **Consumer's Behavior**

Consumers / households as economic agents, Problem of the consumers, the utility theory, Laws of diminishing marginal utility and equi-marginal utilities, Budget constraint and consumer's equilibrium, Individual demand and market demand, Introduction to demand elasticity

#### **Firms and Industries**

Business enterprises, Forms of business organization: Proprietorship, Partnership, Joint stock companies, multinational corporations, Classification of the firms, Production and supply of commodities (goods and services), Objectives of the firm: The p r o f i t motive, Output maximization and cost minimization, Industrial structure & market supply

#### **Production and Cost Functions**

Production function, Primary inputs: factors of production Secondary/intermediate inputs: Raw material and energy, The laws of returns, Revenues of the firm: total, average and marginal revenues, Cost function: Total, average and marginal costs, Short-run and Long run costs, Equilibrium of the firm

#### **Market Structure**

Classification of markets, according to nature of commodity, extent, time and degree of competition, Perfect competition among buyers and sellers, Imperfect competition: Monopoly and Monopsony, Monopolistic competition, Price determination, The need for market regulation and role of the government, Public goods and their provision beyond the market

## EC-102 Principles of Accounting

### **Introduction of Accounting, Accounting Concepts and Principles**

#### **Accounting Procedures and Systems**

Principles of Double Entry Book Keeping, Accrual-Based Accounting System, Adjusting, Closing and Reversing Entries, Methods of Keeping and Presenting Books of Prime Entry (Cash Book, Petty Cash Book, Sales Journal, Purchase Journal, Purchase and Sales Return Journals etc.), Principle and Subsidiary Ledgers, Trial Balance, Impact of Accounting Standards, Classification of Expenditure between Capital and Revenue, Prepayments and Adjustments, Accounting Cycle and Their Steps, Preparation of Worksheet

#### **Financial Statements**

Definition and Scope of Financial Accounting, Account of Manufacturing and Trading Concerns, Component of Financial Statements Like, Income Statement for Merchandising and Services Business, Balance Sheet, Cash Flow Statements as per International Accounting Standard (IAS-1) (Revised)

#### **Cash Control and Financial Assets**

Financial Assets and Their Recognition, Cash Management, Internal Control, Control of Receipts and Payments, Petty Cash System, Bank Reconciliation Statement and Adjusting Entries, Voucher System, Voucher Register and Cheque Register

#### **Receivables and Payables**

Nature of Receivables and Payables, Purpose and Form of Bill of Exchange, Basis for Estimating Charges for Bad Debts and Bad Debts Adjustment

#### **Fixed Assets - Tangible**

Definition and Calculation of The Initial Cost of a Fixed Assets and Apply This to Various Examples of Expenditures Distinguishing Between Capital and Revenue Items, Subsequent Expenditures that may be Capitalized, Accounting for Gains and Losses on the Disposal of Asset, Methods and Calculation of Depreciation like Straight Line, Diminishing Balance, Units of Production, Sum-of-the-Year-Digit Method, Units Hours Work Method. As Per International Accounting Standard (IAS-16)

#### **Intangibles**

## EC-103 Macro Economics-I

### **Introduction**

The economy in aggregate, Complexities of the world of business, Scope of macroeconomics, Brief account of the development of macroeconomics after the World War-II, Concept of business cycles: Boom and Depression, Concepts of Inflation and Unemployment, Macroeconomic variables and their mutual relationship, Macro-models as abstraction from the real economy

### **National Income**

Definition and concept of national income, Measures of national income: Gross Domestic Product (GDP) and Gross National Product (GNP), GDP at factor cost and at market prices, Computation of national income: Product, Income and Expenditure approaches, Circular flow of income, Nominal versus Real income, Per capita income and the standard of living

### **Components of Aggregate Demand**

The Concept of Open and closed economy models, Concept of aggregate markets: Product, Money, Labor and Capital markets, Components of aggregate demand: Consumption, Investment and Government spending, Income and expenditure identities

### **Money and Banking**

Money: definition, forms and functions, Central Bank and its functions with reference to the State Bank of Pakistan, Commercial banking, The Quantity Theory of money, Inflation: measurement and impacts, causes of inflation and remedies, Monetary policy: brief introduction

### **Public Finance and Taxation**

Sources of public revenue, Various forms of taxes: Direct and Indirect, Income and Commodity taxes, Sales, Excise, Customs, Non-tax revenues, Major heads of public expenditure, Revenue and Capital account, Concept of budget deficits and sources of filling the gaps, Deficit financing, Fiscal policy: meaning and objectives

### **International Trade**

Global distribution of resources, Concept of imports and exports, Theory of absolute and comparative advantage, Currency exchange rates, Balance of Payments: causes of deficits in BOP of Pakistan and remedial measures, Custom Unions, The problem of external debt, Commercial Policy: objectives and scope

## EC-104 Financial Accounting

### **Introduction of Financial Accounting and Principles**

### **Financial Statements – The Outputs of the System**

Objectives of Financial Reporting, Qualitative Characteristics of Financial Information, The Uses and Limitations of Classified Balance Sheets

### **Inventory Accounting**

Nature and Classes of Inventories, Periodic and Perpetual Inventory Valuation as per International Accounting Standard (IAS-2), LIFO, FIFO Methods, Weighted Average Method, Moving Average

### **Cash Flow Statement**

Preparation of Cash Flow Statements According to the Requirement of IAS 7, Classification of Cash Flow Statements as Operating Activities, Investing Activities and Financial Activities by Using Direct and Indirect Methods

### **Interpreting Financial Statement Data**

Users of Financial Statements and The Purposes of Financial Statement Analysis, The Techniques and Tools of Financial Analysis, Common Financial Ratios, Common Size Balance Sheet and Income Statement

### **Accounting for Receivables**

Accounting for Receivables under Income Statement and Balance Sheet Approach, Notes Receivable and Their Matters

### **Current Liabilities and Accounting for Long Term Liabilities**

Definition and Recognition of Liabilities, Types of Current Liabilities, Types of Long Term Liabilities, Bonds, Accounting for Bonds by Borrowers, Accounting for Bonds by the Investor, Other Forms of Long Term Debt, Time Value of Money Concept

### **Corporate Organization and Capital Stock Transactions**

Characteristics of A Corporation, The Formation and Organization of a Corporation, Types of Capital Stock, The Components of Stockholders' Equity, Accounting for the Issuance of Stock, Use of Stock Information

### **Stockholders Equity Retained Earnings and Dividends**

Corporate Income Statements, Earnings Per Share, Dividends, Stock Splits Prior Period Adjustments, Appropriations, and Treasury Stock, Retirement of Capital Stock, Statement of Stockholder's Equity

## EC-105 Information Technology in Business Economics

### **Information Technology**

Principles, Practices, Opportunities

### **Computer System and Its Components**

Hardware, Software, Data / Information, People, Procedures, Environment

### **Operating System and User Interface**

Operating System Basics, UNIX, Macintosh OS, Windows, Linux, Managing Files, Managing Hardware

### **Application Software: Word Processor and Spreadsheet**

Advanced features of Word Processing and Spreadsheets.

### **Application Software: Presentation Programs and Databases**

Advanced features of Presentation Programs.

Databases and Database Management Systems, Working with Tables, Creating Tables, sorting data, Viewing Records, manipulating data, Generating Reports.

### **Graphics and Multimedia**

Introduction to graphics packages, graphic file formats, animation.

Multimedia, Multimedia Interactivity and New Media Defined, MPEG and JPEG, Quick Time, Real Audio and Video etc.

### **Internets Basics**

Introduction to the Internet, Addressing Schemes, Domains and Sub-Domains, Major Features of Internet (www, e-mail, Telnet, FTP, Chat, Firewalls, Intranets and Extranets, Cyber Crimes).

### **Networks and Data Communications**

The Uses of a Network, Network structures (Local Area Network, Metropolitan Area Network, Wide Area Network, Server-Based Network, Client / Server Networks, Peer-to-Peer Networks)

Network Topologies, Data Communication basics.

## EC-106 Principles of Management

### **Introduction**

### **Management Functions – Planning, Organizing, Staffing, Leading and Controlling**

#### **Planning**

The nature and Purpose of Planning, Objectives, Meaning of Objective, Process of Managing by Objectives, How to Set Objectives, Types of Plans, Steps in Planning

#### **Decision Making**

Importance and Limitations of Rational Decision Making, Evaluation of Alternatives, Decision Making under Uncertainty, Evaluating the Importance of Decision Making

#### **Organizing**

#### **Staffing**

Definition of Staffing, Human Resource Management, Recruitment and Selection: Matching the Person with the Job, Selection Process and Techniques, Training and Development, Purpose and Uses of Appraisal, Choosing the Appraisal Criteria, Formulating the Career Strategy

#### **Leading – Human Factors and Motivation**

Human Factors in Managing, Motivation and Motivators, Behavioral Models – Mc Gregor's Theory X and Theory Y, Maslow's Hierarchy of Needs Theory, Herzberg Two Factor Theory of Motivation and Other's, Job Enrichment

#### **Controlling**

The Basic Control Process, Requirement for Effective Control, Control Techniques: The Budget, Traditional Non-Budgetary Control Devices, Time – Event Network Analysis, Program Budgeting, Information Technology and Its Challenges

#### **Management and Society**

Operation in a Pluralistic Society, External Environment – Economic, Technological, Social, Political and Legal, Social Responsibility and Ethical Managerial Practices, Future Perspective of Management

## EC-201 Micro Economics-II

### **Introduction**

Scope of Microeconomics and areas of its concern

### **Theory of Consumer Behavior**

Axioms of Rationality, the utility function and its arguments, Laws of diminishing marginal and equi-marginal utility

### **Demand & Elasticity**

Derivation of demand functions using indifference curves, Ordinary and Compensated demand functions, Engel's law

### **Production Functions**

Definition, classification and problems of firms, Production and value- added functions, Fixed and variable-coefficient functions, Some commonly used production functions: Cobb Douglas

### **Cost of Production**

Types of costs: Economic and Accounting costs, Opportunity costs, Fixed and Sunk costs, Total and variable costs, average

### **Behavior of the Firm**

Profit maximization (loss minimization) as the sole objective of all firms, Equilibrium of the firm when it faces the market, Total, Average and Marginal Revenues, Equality of marginal revenue

### **Market Structure and Price Determination**

#### **The Perfectly Competitive Market**

Assumptions of the model, Pure and Perfect Competition, Short-run and Long-run equilibrium of competitive firms

#### **Monopoly and Monopsony**

The market power of a firm, Sources of monopoly power: why do monopolies exist, Decreasing-cost industries and natural monopolies,

#### **Monopolistic Competition and Oligopoly**

Characteristics of monopolistic competition, Short-run and Long-run equilibrium,

#### **Pricing of the Factors of Production**

Derived Demand for Variable Inputs, The marginal productivity theory and its criticism

## MT-230 Statistics & Probability

### **Statistics**

Introduction, types of data & variables, presentation to data, tabulation, frequency distribution, graphical representation, stem & leaf plot, simple & multiple bar diagrams, pie-diagram, histogram, frequency polygon, frequency curves.

### **Measures of central tendency and dispersion**

Statistical averages, median, mode, percentiles, quartiles, range, moments, skewness & kurtosis, quartile deviation, mean deviation, standard deviation, variance & its coefficient, practical significance in related problems.

### **Probability**

Basic concepts, permutation & combination, definitions of probability, laws of probability, conditional probability, Bayes' rule, related problems in practical significance,

### **Random variables**

Introduction, discrete & continuous random variables, random sequences and transformations, probability mass function, probability density function, distribution function, mathematical expectations, Moment generating function (M.G.F.).

### **Probability distributions**

Introduction, discrete probability distributions, binomial, poisson, hyper geometric & negative binomial distributions, continuous probability distribution, uniform, exponential, gamma & normal distributions & their practical significance.

### **Index Number**

Introduction, simple and weighted index number, consumer price index number, use of index number



## EC-202 Cost Accounting

### **The Management Concept and the Function of the Controller**

The Management Concept, The Controller's Participation in Planning and Control, The Cost Department, The Role of Cost Accounting

### **Cost Concepts and the Cost Accounting Information System**

The Cost Concept, The Cost Accounting Information System, Classification of Costs, The flow of Costs in a Manufacturing Enterprise, Manufacturing Cost Accounting Cycle, Factory Ledger and General Ledger Accounting

### **Job Order Costing**

#### **Process Costing: Cost of Production Report**

#### **Process Costing: Average and FIFO Costing**

#### **By Product and Joint Product Costing**

#### **Materials: Controlling and Costing**

Procedures for Materials Procurement and Use, Materials Costing Methods, Transfer of Materials Cost to Finished Product, Costing Procedures for Scrap, Spoiled Goods and Defective Work, Summary of Materials Management

#### **Materials: Quantitative Models for Planning and Control**

#### **Labor: Controlling and Accounting for Costs**

#### **Factory Overhead: Planned, Actual, and Applied; Variance Analysis**

#### **Standard Costing Setting Standards and Analyzing Variances**

Usefulness of Standard Costs, Setting Standards, Determining Standard Production, Determining Standard Cost Variances, Responsibility and Control of Variances

#### **Standard Costing Incorporating Standards into the Accounting Records**

Recording Standard Cost Variances in the Accounts, Standard Cost Accounting Procedures for Materials, Standard Cost Accounting Procedures for Labor, Standard Cost Accounting Procedures for Factory Overhead

## EC-203 Computer Applications to Business & Finance

### **Communications and Networks**

Communication Equipment, Software and Protocols

### **Electronic Data Interchange (EDI)**

EDI Technology, EDI as a Re-engineering Tool, EDI Development

### **E-Commerce Technology**

Web Applications and Uses, Information Retrieval, Transactions Processing System (TPS), E-Com Support System: E-Commerce and Services, Net Components and Technologies, Electronic Mail, Accessing Files with FTP

### **E-Commerce Applications Models**

B2C, B2B, C2C, B2E, G2S

B – Business, C – Consumer, G – Government, S – Society, E – Employee

### **B2C – Business to Consumer Application (Corporation's Interface with Its Customers)**

Electronic Commerce Growth and Structure, EFTS (Electronics Funds Transfer System), Online Payments: PIN Payments, e-cash

### **e-Marketing Process Models**

Direct Marketing versus Indirect Marketing, Full Cyber Marketing versus Partial Cyber Marketing, Electronic Store versus Electronic Shopping Mall, etc.

### **Consumer Applications**

Online Catalogs, Online Banking, Online Auctions, Virtual Storefront, Online Education, Online Security, Online Investment, Stock Trading

### **B2E – Business to Employee Applications (Inter-Enterprise Commerce)**

Intra Business E-Commerce, Intranet, Effective Management Control, ERP Systems and Their Extension to Inter – Enterprise Commerce

### **The Driving Forces of E-Commerce**

Change Management (CM), New World of Business, Organization Responses, Business Process Reengineering (BPR), Business Pressures

### **Establishing Presence in E-Commerce**

Types of Web Sites, Web Page Design and Tools, Publishing and Promoting Web Site, maintaining a Web Site: Structuring a Traditional Company's "Dot Com"

### **Limitations, Issues and Problems in E-Commerce**

Technical Issues, Legal Issues, Social Issues, Security Issues, Remedies

**Introduction**

**Measurement of National Income**

The circular flow of National Income, GDP and GNP, Measurement of GNP: Expenditure (demand), Product (supply) and Income (factor rewards) approach, Value added at factor cost and market prices, Personal and disposable income, Per capita income, GNP as measure of welfare

**Theories of Consumption**

Consumption as a function of income, Theories of Consumption: The Absolute income, Relative income, Permanent income and Life-cycle income hypotheses, Kuznets's findings and Reconciliation of Marginal and Average Propensity to Consume, Saving and Investment Definition of Investment, Real and Financial investment

**The Demand for and Supply of Money**

The demand for money, The Quantity Theory of money, The Liquidity Preference/ Portfolio Balance Approach, The supply of money: M1, M2, M3 concepts, The money supply multiplier and the role of banking system

**Determination of National Income**

The Keynesian model for a simple two-sector economy, inflationary and deflationary gaps, The concepts of multiplier, Interaction of the IS and LM functions and derivation of the aggregate demand function, The impact of changes in public expenditure

**Aggregate Supply and the Labor Market**

The aggregate production function, Demand for Labor in the short run, Labor market and its Equilibrium: The flexible and sticky wage models, The imperfect information model, The short-run aggregate supply function, The concepts of full-employment and underemployment, Supply shocks and stabilization

**Inflation and Unemployment**

Types, causes and measurement of inflation, the structural and monetary approaches to inflation, Global inflation and its impacts on developing economies, Transitory and structural unemployment, The problem of unemployment with special reference to Pakistan, The relationship between inflation and unemployment, Phillips curve in the short-run and long-run

## EC-205 Development Economics

### **Scope and New Developments**

Definitions: Economic Development and Growth, Identification of Development variables. Scope and Significance of Development Economics.

### **Major Theories of Development**

Classical and Neo-classical Theories, Adam Smith and Competitive Capitalism, Vicious Circle of Poverty, Stages of Economic Growth, Balanced and Unbalanced Growth, Big Push Theory.

### **Agriculture and Industry**

Agriculture vs. Industry: Development Debate. Lewis' Model of surplus Labor. Rains' Fei Model and its critical review. Transforming Agriculture, Underemployment problem. Role of Agriculture: Market for Industrial Output, Provision of Input, food, Complementarities, productivity growth. Terms of Trade Issue and Subsidies, etc.

### **Population, Education and Human Capital**

Demographic Transition, Human Resources as a source of growth and their contributions. Investment in education and returns. Models of Employment & Unemployment: Time Criterion, Productivity Criterion and New Index etc.

### **International Debt, Aid / Assistance**

Why international borrowing? Two Gap Model, Aid commitments and disbursement. Sources of borrowing. Debt Cycle Theory/Stages.

### **WTO, Liberalization and International Trade**

Trade vs. Aid. Liberalization of Trade and its impacts/gains etc., Foreign Exchange Constraints and Balance of Payment deficit. Role of GATT and its Failure. WTO and LDC's.

### **Poverty and Income Distribution**

Definitions and Measurement of Poverty/Poverty Line. Poverty concepts/definitions. Absolute Poverty, Relative Poverty, Income approach, Expenditure approach, Basic needs approach, Poverty of Opportunities Index (POPI) and Calorie-based approach etc. Poverty Indicators. Poverty by socio-economic groups.

### **Economic Growth and Environment**

Model of Environment and Economic Activity. Market Based Approach and Externalities

## EC-206 Economy of Pakistan

### **Major Sectors of Pakistan Economy**

Agriculture Sector, Industries, Education, Health and Services

### **Foreign Trade**

Major Exports and Imports, Commercial Policy, Tariffs and Quotas, Export Subsidies and Rebate, Foreign Exchange Earnings

### **Monetary Policy**

Role of State Bank of Pakistan in Money Supply, Tools of Monetary Policy, Open Market Operation, Bank Rate and Required Reserve Ratio

### **Fiscal Policy**

Direct and Indirect Taxes, Excise Duty, Government Budget and Government Expenditure, Revenue Sharing Between Federation

### **Investment Policy**

Domestic Investment, Foreign Direct Investment, Privatization of Public Sector Enterprises

### **Inflation**

Measurement of Inflation, Consequences of Inflation, Inflation and Unemployment, How to Control Inflation

### **Labor Force**

Manpower Planning Male / Female, Skilled / Unskilled, Rural / Urban, Self-Employed / Employed Labor Force, Manpower Planning

### **GDP**

Measurement of GDP, Composition of GDP, Growth Rate of GDP, Per Capita GDP and Growth Vs. Development

### **Capital Markets**

Stock Exchanges and Their Functioning, Role of Security Exchange Commission of Pakistan (SECP), Stock Index

### **Infrastructural Services**

Transportation (Roads, Railway, Airplanes and Merchant Ships), Communication Network (Telephone, Radio, TV, Print Media)

### **Energy Resources**

Sources of Power (Thermal Power Resources, Hydropower Resources)

## MT-231 Statistical Inference

### **Sampling and Sampling Distribution**

Introduction, population, parameter & statistic, objects of sampling, sampling distribution of mean, standard errors, sampling & non-sampling errors, random and non-random sampling, sampling with & without replacement, central limit theorem, related problems

### **Statistical Inference and Testing of Hypothesis**

Introduction, estimation, types of estimates, point estimation, Interval estimation, tests of hypothesis, one tails & two tails tests, tests concerning means, proportions & variances, Chi-square tests, related problems.

### **Regression and Correlation**

Introduction, scatter diagrams, correlation & its coefficient, rank correlation & its coefficient, simple and multiple linear regressions, nonlinear regression, test of significance, related problems.

### **Time series**

Introduction, components of time series, methods, finding secular trend by the principle of least square methods, related problems

## EC-207 Managerial Accounting

### **Introduction: Managerial Accounting**

A Perspective, Cost Terms, Concepts and Classification

### **Responsibility Accounting and Cost Allocation Concepts**

Responsibility Accounting Centers and Performance Reports

### **Cost Flows and Accumulation**

The Basic Cost Flow Model, Cost Accumulation, Merchandizing Organizations, Manufacturing Organizations, Services Organizations

### **Costing Systems**

Job Order Costing Systems, Process Costing System, Hybrid Product Costing System, Cost Management Systems for New Manufacturing Environment

### **Cost Behavior and Estimation**

Cost Behavior Patterns, Cost Estimation Methods

### **Cost–Volume–Profit Analysis**

The Break Even Point, CVP Analysis, CVP with Multiple Products, Cost Structure and Leverage Analysis

### **Standard Costing System**

Standard Costs and Control, Setting Cost Standards, Overhead Application in a Standard Costing System, Analysis of Cost Variances

### **Differential Cost Analysis**

Differential Costs versus Variable Costs, Differential Costs versus Total Costs, Cost Analysis for Pricing Decisions, Make-or-Buy Decision

### **Variable Costing**

Variable Costing versus Full Absorption Costing, Appropriateness of Variable Costing and Full Absorption Costing Methods

### **Flexible Budgeting**

Static Budget versus Flexible Budget, Sales Activity (Volume) Variance, Profit Variance Analysis, Variable, Manufacturing Costs Variance

### **Budgeting and Monitoring**

Framework of Budgeting, The Master Budget Development Process, Budgeting in Merchandising Operations, Service Enterprising and Non-Profit Organization, Budget Under Uncertainty, Report for Monitoring

## EC-208 Introduction to Business Finance

### **An overview of Finance**

Scope of Finance and its Career Opportunities, Alternative form of Business Organization, Finance in the organizational structure of the firm, Managerial Actions to Maximize Shareholders Wealth

### **The Financial Environment: Markets, Institutions, and Interest Rates**

The Financial Market, Financial Institutions, The Stock Market, The cost of Money, Interest Rate Level, The Determinants of Market Interest Rates

### **Fundamental Concepts of Finance**

#### **Analysis of Financial Statements**

#### **The Impact of Operating and Financial Decisions on the Firm**

#### **The Framework of Financial Planning**

Short-Term Financial Planning, Long-Term Financial Planning

#### **Investing in Long-Term Assets**

The Cost of Capital (Basic Definition, Cost of Debt)

#### **The Basic Concept of Capital Budgeting**

Importance of Capital Budgeting, Generating Ideas for Capital Budgeting, Project Classification, Capital Budgeting Decision Rules

#### **Working Capital Management**

The importance of Working Capital, Short-term Financial Decisions and Value Maximization, Why Current Assets and Current Liabilities are Required, Deciding on an Appropriate Working Capital Policy

#### **Cash and Near-Cash Item Management**

The Efficient Collection and Disbursement of Operating Cash, The Optimal Level of Operating Cash Balance,

#### **Accounts Receivable and Inventory**

Managing Accounts Receivable, Managing Inventory, Monitoring of Accounts Receivable, Aging and Collection Schedules

#### **Cash and Near-Cash Item Management**

General Consideration in Current Liabilities Management, Sources of Short-term Credit



## EC-301 Political Economy

### **Introduction**

Meaning, Definition and brief Introduction of basic Concepts of Political Economy.

### **Political Economy and World Order**

Problem of Power and Knowledge: New Millennium, Knowledge, Politics and Neo-Liberal Political Economy.

### **Regional Dynamics**

Regionalism and Globalization, The Political Economy of European Integration, Regionalism in the Asia-Pacific Political Globalization and the Competition State. Economic Blocks and Political Blocks.

### **Political Economy of Economic Development**

International Politics and Transfer of Technology, Sector Specific Development Limitation. Agriculture and Industry, Political Slogans and their Implementation.

### **Political Economy of Pakistan**

The Economics of Patronage, Seven Pillars of good Governance. The Political Economy of Reforms. Pakistan - Dynamics of Elitist Model. Strategies for self-preservation.

### **SAARC: Political & Economic Aspects**

Economic Aspects, Poverty Eradication, Trade & Economic Cooperation, Cooperation with Regional NGO's in South Asia. Pakistan and SAARC: Composition of Trade.

### **Issues in Lawlessness and Development**

Introduction, Economic Crimes, Terrorism & Insurgency, Theories of the Economic impact of Law & Order.

### **Socio Economic Developments & Crime**

A Review of Socio-Economic Situation in Pakistan, Urbanization, Housing, Unemployment, Poverty, Juvenile Delinquency, Health Hazards. Environment and Externalities.

### **Global Issues**

Global Issues in Historical Perspective, Capital Mobility and Global Order, Opening up of Services Sector and its beneficiaries. Will there be free mobility of factors of production? Capital, labor and entrepreneurs etc.

**The Nature of Mathematical Economics**

**Equilibrium Analysis**

Equation of a straight line: Intercept and Slope parameters and their economic interpretation, Partial and general equilibrium analysis, Single and Simultaneous equation models, Examples from market models: Demand and supply equations, Determination of price and quantity, Calculation of elasticities at equilibrium,

**Applications of Matrix Algebra in Economics**

Simultaneous equations models and use of matrices in economics.

**Differentiation**

The concept of derivations, Functions of one variable and rules of differentiation: Sum-difference, product and quotient rules, chain rule, power function rule, inverse function rule, Implicit functions rule, Combinations of rules, differentiation of logarithmic & exponential functions, Higher order derivatives, Concept of maxima & minima, First and second derivative tests, point of inflection, Free and Constrained optimization

**Economic Applications of Differential Calculus**

Analysis of Utility, Demand, Production, Cost and Supply functions, Lagrange function: Profit maximization and cost minimization under perfect competition and monopoly, Maximizing excise tax revenue in monopolistic competitive market, Comparative static analysis: Partial equilibrium market model

**Linear Programming**

Ingredients of linear Programming, Graphical approach, Simplex method, Economic application of linear programming, Concept of primal & dual, Duality theorems, Solving of Primal via dual, Economic interpretation of a dual.

**Introduction**

Definition and scope of Econometrics, Economic theory as the basis for empirical analysis, Mathematical and Econometric models, Application of Statistical techniques to Economic data, Ingredients of Econometric modeling: Specification, Estimation, Evaluation and Forecasting.

**The Classical Linear Regression Model (CLRM)**

**(a) The Simple Two-Variables Model**

Variables and parameters, Meaning of the explained and explanatory variables, Estimators and estimates, Correlation and Regression theory, Mathematical versus econometric model, Structure of the linear econometric model with two explanatory variables,

**(b) The Multiple Linear Regression Model (MLRM)**

The general format of MLR model, Assumptions of model with special reference to independence of the explanatory variable, Estimation of model with 3-4 explanatory variables using the OLS procedure,

**Deviation from the Classical Assumptions**

Assumptions of the classical model and economic reality, Relaxation of the assumptions and estimation issues, Brief introduction to the nature of problems and alternatives.

**(i) Multicollinearity**

Linear relationship between any two explanatory variables, Nature and severity of the problem, Distinction between perfect and partial Multicollinearity, Properties of OLS estimators in the presence of collinearity, Detection of the problem and remedial measures.

**(ii) Heteroskedasticity**

Meaning of Heteroskedasticity, The nature of the problem with reference to economic theory, Cross-section data and the problem of non-constant variances, Consequences for OLS estimators,

**(iii) Autocorrelation**

Autocorrelation and its causes, Time-series data and emergence of the problem with reference to economic theory,

**The Simultaneous Equations Models**

Why Simultaneous Equations Models: Deviation from the classical assumptions, The simultaneous equations bias,

## EC-304 Money and Banking

### **Evaluation, Function and Forms of Money**

Need for Money. Origin of Money. Commodity Money and Commodity Standards

### **Techniques of Money Management and Role of Central Bank**

Definition of Money Policy, Monetary Policy Operation Procedures, Rules versus Discretion in Monetary Policy,

### **Introduction to International Monetary System**

International Accounting Identities: Balance of Payment. The Current Account.

### **Monetary and Fiscal Policy Coordination**

Basic International Policy Relationship, Regulation of Banking and Financial Markets, Basle Agreements I and II

### **Financial Markets, Financial Institutions and Instruments**

Capital Markets: Debt and Equity Markets, Money Markets: Financial Service Markets, Financial Institution: Depository Institution

### **Financial Instruments**

Certificate of Deposits, Treasury Bills, Purchase Agreements, Banker's Acceptances, Federal Funds, Corporate Stocks, Corporate Bonds, Mortgages, Government Securities etc.

### **Banking**

Origin, Evolution, Types and Functions, Sources of Funds in Relation to Legal, Economic and Social Factors Involved in Pakistan

### **Prudential Regulations for Banks, DFIs etc.**

### **Funds Management**

Investment and Lending, Statutory and Liquidity Requirements in Pakistan

### **Banker Customer Relationship**

Primary and Others

### **Customer's Accounts**

Individual, Institutional and Corporate, Requirement of KYC

### **Negotiable and Other Instruments**

Promissory Notes, Bill of Exchange, Cheque, Drafts, Receipt, Bonds, Coupons, Dividend Warrants, Letter of Credit, Traveler's Cheques, Credit and Debit Cards

### **Payment of Cheques and Other Instruments by Banks**

### **Collection of Instruments by Banks**

Crossing and Endorsements, Principles of Bank Lending, Control of Credit in Pakistan, Security of Bank Advances

### **Interest Free Banking**

Relation and Methods

## EC-305 Comparative Economic System

### **Evaluation of Economic Systems**

Classification of Economic Systems, Historical Development Criteria for Evaluation of an Economic System. Basic Differences between Economic System.

### **Capitalism**

Definition, Historical Development, Pre-Requisites of Capitalism Competitive and Monopoly Capitalism. Economic Institutions of Capitalism. Distinction between private and Public Property and Production, Price System, Profit Maximization/Cost Minimization and Competition. Economic Decision Making under Capitalism. Evaluation of Capitalism in USA and Europe Capitalism, Market System and Environmental Problems.

### **Communism and Socialism**

Meaning and Nature, Communism and Power to the Centre. Concepts of Ownership and Production. Various types of Communism, Marxism, Socialism, Economic Planning and Decision Making. Achievements and Failures, Communism / Socialism in USSR, China and Other parts of the World. Modern Trend and its failure, Convergence of Capitalism and Socialism. Present Status of Socialism.

### **Economic System of Islam**

Distinctive Features, Basic Economic Values of Islam. Economic Institutions and their Role, Property Rights, Production and Distribution System. The Concept of Welfare State. Comparative Analysis: Islamic System, Capitalism and Communism.

### **Economic System in Pakistan**

Brief Economic History of Pakistan. The Mixed Economy, Nationalization and its Impacts. Operations under Mixed Economy, Privatization and Liberalization in the 1990's and 2000's. Islamisation in Pakistan: Process and Problem, Achievements and Experience. Islamic Economics as Global System of Equity and Welfare.

## EC-306 Mathematical Economics-II

### **Complex Number**

Complex Numbers, Roots, Circular Functions, Properties of Sine & Cosine functions.

### **Integral Calculus**

Comparative Dynamics and Integration, The Nature of Indefinite Integrals, Rules of Integrations and Operation: Substitution Rule, Integration by parts. Definite integrals and their properties, Definite Integrals and Area under a curve

### **Differential Equations**

#### **First Order Linear Differential Equations**

Meaning and Definition; Homogenous & non-Homogenous cases, Solution of first order linear differential equations: with constant coefficient & constant term, with variable coefficient and variable terms, Qualitative approach: Concept of phase diagrams, types of time paths and the dynamic stability of equilibrium

#### **Higher Order Differential Equations**

Solution and Verification of second order linear differential equations with constant coefficients and constant terms, Real and imaginary roots

### **Difference Equations**

#### **First Order Difference Equations**

Meaning and definition, First order linear difference equations: Solution and verification of results, Conditions for dynamic stability of equilibrium

#### **Higher Order Difference Equations**

Solution and verification of second-order linear difference equations with constant coefficients and constant terms, Real and imaginary roots.

### **Non-Linear Programming**

The nature of non-linear programming, Non-linearities in Economics, Kuhn-Tucker conditions and their interpretation, The Kuhn-Tucker Sufficiency theorem: Concave programming,

**Overview of the Classical Regression Model**

The multiple regression (K-variable) model in matrix format, Assumptions of the model, The Least-Squares estimation procedure in matrix notation, Properties of the OLS estimators, Interpretation of the Beta coefficients ( $\beta_1, \beta_2, \dots, \beta_k$ ), Hypothesis testing using matrix approach, Forecasting in OLS model, Time as an explanatory variable, Regression on Dummy variables, Dummy variable trap, Chow test, Specification bias and Errors in variables, Estimation with endogenous lagged variables, Restricted Least Squares,

**The Generalized Least-Squares Model**

Deviation from the assumptions of the classical regression model, the problem of heteroskedasticity, The GLS model in matrix format, Detection of the problem and consistent estimators, the problem of autocorrelation: Autoregressive and Moving Average processes, The Durbin-Watson statistics, Alternative estimation techniques.

**The Maximum Likelihood Estimators**

The likelihood function, Properties of ML estimators: consistency, Asymptotic normality, efficiency, Comparison with OLS estimators, Instrumental variable (IV) estimators

**Time Series Analysis**

Rationale for univariate analysis, ARMA and ARIMA Models, Comparison of forecast based on ARIMA and regression models, Stationarity, Unit roots, co-integration and error correction models, Introduction to Autoregressive Distributed Lag models, ARCH models

## EC-308 Business Research Methods

### **The Role of Business Research**

Definition of Research, Business Research, Structure of Decision Making, Level of Decision Making, Decision Making Process

### **Scientific Inquiry**

Overview, Definitions and Terminologies Used in Research, Methods of Theory Construction, Model Based Theory, Deductive Theory, Functional Theory, Induction Theory

### **Beginning the Research Process**

Business Research Processes, Problem Identification and Formulation, The Research Problem Development Process, Methods of Calculation of Research Cost and its Worth

### **Research Proposal Development and Evaluation**

Overview, Types of Research Proposal, Research Proposal Importance for Manager and Researcher, Letter of Request, Letter of Transmittal, Title, Background, Problem Statement, Objectives

### **Fundamentals of Research Design**

The Nature of Research Design, Error Reduction Through Research Design, Material Sources of Error in the Research Design Process, Managerial Strategies for Dealing with Error, Major Types of Design

### **Data Collection, Analysis and Interpretation**

Primary Data Collection, Secondary Data Collection, Questionnaire Design, Sampling Design, Observation Method

### **Foundations of Measurement**

The Nature of Measurement, Components of Measurement, The Measurement Process, Levels of Measurement, Nominal, Ordinal, Interval Evaluation of Measurement Scales, Validity and Reliability

### **Attitude Measurement**

Attitude Measurement, Attitude Defined, Attitude as a Hypothetical Construct, Techniques for Measuring Attitudes, Attitude Rating Scales, Ranking, Sorting, Other Methods of Attitude Measurement



## EC-309 Financial Management

### **An Overview of Financial Management**

#### **Working Capital Policy**

Working Capital Terminology, The Requirements of External Working Capital Financing, The Relationship of Working Capital Accounts, The Cash Conversion Cycle

#### **Short Term Financing**

Sources of Short – Term Financing, Accruals Accounts Payables, Short- Term Bank Loans, Commercial Papers

#### **Valuation Models**

Key Concepts of Value, Time Value of Money, The Valuation Process, The Fundamental Valuation Model, Valuation of Securities, Bond Valuations, Preferred Stock

#### **Financial Markets**

An Overview, Money Market, Institutional Framework with Reference to Pakistan, Capital Markets, Primary Vs Secondary Markets, Organized Vs Over the Counter Market,

#### **The Cost of Capital**

Cost of Debt, Cost of Preferred Stock, Cost of Retained Equity, Weighted Average Cost of Capital (WACC), Managing Cost of Capital

#### **Capital Budgeting**

#### **Capital Structure**

The Target Capital Structure, Determining the Optimal Capital Structure, Capital Structure Theory

#### **Risk Analysis**

Risk and Return, Risk Behavior, Return Portfolio, Risk Measurement

#### **Dividend Policy**

Dividend Policy and Shares' Value, Investors and Dividend Policy, Factors Influencing Dividend Policy, Bonus Shares and Share Splits

#### **Lease Financing**

Features of a Lease Types of Lease, Accounting and Tax Treatments of Leases, Evaluation by the Lessee, Evaluation by the Lessor, Other Issues in Lease Analysis, Why Firm Lease

## EC-401 Public Finance

### **Introduction and Role of Public Sector**

The Economic Functions and Public Goods: Allocation of Resources, Redistribution of Income and Wealth and Stabilization. Pricing Public Goods.

### **The Theory of Public Goods**

Fiscal Principles and Concepts: The Traditional Principle of Tax Neutrality is Expanded Principle of Fiscal Neutrality. Exhaustive Vs. Non-Exhaustive Public Expenditures, Income Elasticity of Government Expenditures

### **Public Revenue and Taxes**

The Economic Case for the Public Sector to Allocate Resources: Market Imperfections, Decreasing Costs of Production, Public Goods and Externalities. Pricing Decreasing Cost Industry.

### **The Theory of Public Goods**

Public and Private Goods, Pure Public Goods, Should Public Sector be Produced Vs. Private Goods? Semi Public Goods, Merit Goods, Free Rider Problem, Externalities and Public Policy.

### **Distributional Equity in Taxation**

The Ability to pay and Economic benefits (received), Cannons of Taxation, The Optional Income Tax Approach. Optimum Tax and Revenue Collection.

### **Tax Structure of Pakistan**

Various Kinds of Taxes and their Objectives / Performance in Pakistan. Income and Sales Taxes, Excise and Custom Duties, Export and Import Taxes, Tax Reforms in Pakistan and their Impacts. General Equilibrium

### **Fiscal Policy: Public Expenditure and Budget**

Theories of Public Expenditures, Wagner's Law, Efforts of Public Expenditures. Components of Public Expenditures in Pakistan, Sources and Direction of the Growth of Public Expenditures. Kinds of Budget, Surplus,

### **Fiscal Relations**

Fiscal and Economic Aspects of Federalism, Federal – Provincial Fiscal Co-ordination, Collection of Revenue and Provincial Share and its Distribution Criteria. Deficit Financing and its Impacts.

## EC-402 International Trade Theory

### **Importance and Bases of Trade**

Why Study International Economics? The Changing World and Interdependence

### **Growth and Trade**

International Trade and Shift in Production Function, Immerizing Growth, Output Growth and Terms of Trade (T.O.T) / Deterioration: Uniform Growth at given T.O.T. The Transfer Problem: Marshall Plan and Transfers, Transfer of Resources: Neutral Case.

### **Technology and Factor Endowment**

Ricardian Trade Model, World Production and Gains. Comparative Cost and Trade Pattern. National and World Gains from Trade. International Wage differentials and Productivity. Technical Progress and International Gains. WTO and Gains from Technical Progress

### **Factor Endowment and Heckscher – Ohlin Theory**

Output and Factors Rewards in 2\*2 Model. Factor Intensity Comparison. Heckscher- Ohlin (H.O) Model, The Role of Demand, Factor's Prices and Commodity Prices, Factor Price Equalization, and Factor Intensity Reversal.

### **Markets, Cartels and International Trade**

Monopoly and Import Competition, Export Opportunities. Product Differentiation and Monopolistic Competition. Dumping / Discrimination and WTO, Competitiveness and Market Share,

### **Tariff, Quota, Trade Policies and WTO**

Tariff and Small Country: Effects of Tariff, Price and Demand for Imports, Welfare impacts. Impacts of Tariff on Government Revenue, T.O.T Production and Welfare. Impact of Tariff on Domestic and World Welfare. The Optimal Tariff. Tariff and Distribution of Income.

### **Major Contemporary International Economic Issues:**

WTO: GATT and Emergency of WTO. Why necessary to Join WTO? WTO: Major Trade Rules and Their Expected Impacts on Trade, B.O.P Deficit.

## EC-403 Applied Economics

### **SPSS and E-View**

Menu, Tool Bars, File Linkages, Dialog Boxes. Data Analysis, Analysis of Variance. Simple and Multiple Regression Analysis, Formatting Reports, Creation and Modification of Chart, Line Area and Pie Chart Output Navigator Printing, Data Editor Printing, Command Syntax Printing. Use of E-view for Model Estimation.

### **Estimation of Production Function**

Use of Computer, SPSS, E-View to Estimate Production Functions. Cob-Douglas Production Function, Constant Elasticity Production Function etc.

### **Computer Applications: Demand – Supply & Equilibrium**

Estimation of Demand and Supply using E-View / SPSS. Aggregate Demand – Aggregate Supply and Equilibrium.

### **Model Building and Estimation**

Building Simple Econometric Models and Estimation. Single Equation Models, Multiple/Simultaneous Equation Model. Interpretation of Computer Output.

### **Project Appraisal and Computer Application**

Use of Computer Programming (Software), E-View etc. for Cost-Benefit Analysis, Estimation of Present Values, Estimation of Economic and Social Benefits. Project Appraisal Using E-View etc. Estimation of Cost Functions and Decision Making.

### **Econometric Analysis and Computer Applications**

Regression Functions. Estimation with Qualitative Variables Confidence Interval and Hypothesis Testing. Estimation and Improving Model Estimates: Autocorrelation, Estimation of Simultaneous Equations. Estimation of VAR and ARIMA Models.

**Introduction**

Islamic Economics: Definition, Nature, and Importance, Islamic Economics Versus Secular Economics

**Islamic Economic Thought**

Contribution of prominent scholars towards development of Islamic Economic Thought

**Microeconomics in Islamic Framework**

**Consumer's Behavior**

Objectives, Success in this world and the life Hereafter, Moderation in consumption, restricted set of preferences, altruism and charitable donations (Zakah and Sadaqat), Utility function, Consumer's equilibrium in an Islamic framework.

**Behavior of the Firm**

Business Ethics in production and marketing, Permissible and prohibited activities,

**Market structure**

The concept of fair trade, Resource allocation under Islamic environment, Emphasis on competition, The case of monopolies and cartels in an Islamic system, Behavior of the retailers,

**Macroeconomics in Islamic Framework**

**Some Basic Macroeconomic Concepts**

Consumption, saving and investment functions, Determinants of consumption and Investment functions in Islamic environment

**Money and Banking**

Commodity money, Paper money and Credit money, The concept of Riba (interest): its interpretation and implications, Justification of interest in the conventional theory,

**Public Finance and Fiscal Policy**

Sources of revenue and heads of expenditure of an Islamic State, the scope for taxation, Objectives of fiscal policy: Social justice

**Islamic Economic System**

Salient features of an Islamic Economic System: Objectives, Economic Freedom, Equity and Efficiency, Social and distributive justice

**Islamization Process in Pakistan**

Islamization of the banking and financial system: Reports of the CII and implementation issues, The role of financial institutions in the private sector, Implementation of Zakah and Usher system

## EC-406 Urban Economics

Theory of Residential Land Use

The Standard Monocentric City Model: Comparative Statics,

Dynamic Stability,

Durable Housing-Development Timing,

Durable Housing-Endogenous Maintenance,

A Commodity Hierarchy Model,

Maintenance, Comparative Statics with Durable Housing,

Name Durable Housing-Investment and Demolition,

Spatial Interactions and Non-Monocentric Cities,

Name Economics of Agglomeration,

City Sizes: Factory Towns, A System of Cities,

Empirical Studies on the Housing Market:

Homogeneous Housing, Intraurban Migration,

Supply, Demand, Tenure Choice

Urban Transportation:

Congestion Pricing and Investment,

Second-Best Pricing and Investment,

Land Use for Transportation,

Transportation Technology and Demand,

Regulation of Urban Transportation Services,

Local Public Goods, Taxation: Property Taxes, Capital Gains Tax, Externalities and Zoning: Externality

Zoning, Fiscal Zoning,

The Hedonic Approach, Measuring the Benefits and Costs of Urban Externalities,

The Contract Theory and the Housing Market,

Tenure Choice Project Financing in Pakistan

## EC-407 Industrial Economics

**Theory of a firm:** What is the firm and why is it organized? A firm as an alternative to a market.

### **Consumer Surplus and Public Welfare**

Estimation of public welfare within the framework of partial equilibrium analysis. Quasilinear utility function and measure of public welfare.

### **Economic Theory of Bundling**

Bundling as a marketing tactics. Price discrimination and bundling. Heterogeneous consumers. Pure components strategy

### **Mergers and Acquisitions.**

#### **Horizontal Mergers and Acquisitions**

Types of mergers and acquisitions: horizontal, vertical, conglomerates. Examples of mergers and acquisitions within the last decade.

#### **Vertical Mergers**

Effect of a vertical merger on output of final and intermediate products. Vertical mergers and market foreclosure.

### **Product Differentiation**

#### **Location Models**

Linear city, linear transportation costs. Quadratic transportation costs. Stability of equilibrium states. Circular city.

### **Differentiated Goods, Increasing Returns to Scale, and Monopolistic Competition**

Markets for differentiated goods. The problems solved by consumers and producers.

### **Industrial Agglomeration**

Phenomenon of industrial agglomeration. Increasing returns to scale as a driving force of agglomeration

### **Economics of Innovations**

Model of the innovation process. Patent race. Market structure and innovation efforts. Incentives for innovations.

### **Imperfect Competition and Macroeconomics (1 lecture).**

Theories of business cycles. Increasing returns to scale and stability of economic equilibrium. Price rigidity as a source of business cycles.

### **Theory of Regulation**

Public costs of monopoly. Subadditivity of cost function – a necessary and sufficient condition for a natural monopoly. Economy of scale

### **Analysis of Particular Industries and Enterprises. Airlines**

Effects of deregulating air companies. “Hub and Spokes” system

### **Theatres and restaurants**

Why in developed market economies there are queues in theatres

### **Economics of Show Business**

Why relatively small number of people in show business, sports, book publishing, etc. earn a lot of money and dominate on markets?

## EC-408 Transport Economics

Economic analysis of transportation projects and transportation

Infrastructure investment,

Analysis of travel demand,

Benefits, costs, equilibrium, pricing, and market structure

Intro to microeconomic principles in transportation,

Travel demand,

Transportation costs,

Pricing alternatives,

Project evaluation,

Congestion,

Air quality,

Fuel economy and safety,

Transportation technology,

Public transit,

Land use,

Transportation and economic development



## EC-409 Environmental Economics

### **Introduction and Awareness**

What is Economics of Environment. Historical Framework for Environmental Protection. Distinction between natural resource economics and environmental economics. The Economy and the Environment.

### **Analytical Tools: An Environment**

Supply and Demand Issue: Cost of Controlling Environment Benefit Cost and its Estimation. Willingness to Pay. Equilibrium Principle Technology and Equi.

### **The Economics of Environmental Quality**

Pollution and Impacts on Human Life, quality of life and Environment Quality, General Models of Pollution Control. Emission Reduction and Equi.

### **Valuing the Environment and Benefit Cost Analysis**

Measuring environmental benefits: Contingent valuation, the travel cost method and the hedonic approach. Benefit Cost analysis: Costs: The value of life, health, safety and risk. Pigouvian Analysis, The Coase Theorem.

### **Economic Development and the Environment**

General considerations, Environmental degradation in developing economies. Economy and Environment. The Pollution Haven hypothesis. The role of developed countries.

### **Environment and Pakistan**

Emergence of Environment Issue in Pakistan, Industrial Waste, Urban Waste and Agricultural Issues Related to Pesticides use, Salinity and Water Logging. Urban Environmental Issues. Public and Private Efforts to Improve Environment Quality and Impacts. Air pollution in Pakistan.

### **The Global Environment**

Ozone Depletion, The Economics of Global Warming. Kyoto – Protocol and Issues. International Environmental Agreements. UN and Environmental Cooperation. International trade and the Environment. Impacts of Awareness Policy.

## EC-410 Labor Economics

### **Importance of Labor Economics**

Introduction: Industrialization and Emergence of Labor Economics. Tools to Analyze Labor Markets and Conditions. Overview of Labor Issues in Developing and Developed World.

### **Labor Markets Analysis: Demand for Labor**

Labor Market Indicators, Demand for Labor, Decision Making and Labor Hiring. Labor Migration: Reasons and Impacts. Demand for Labor by Firms, Short Run and Long Run Demand for Labor

### **Labor Market: Supply of Labor and Wages**

Determinants of Labor Supply. Concepts of Human Capital, Human Capital, Productivity and Wages. The Determinants, Labor Force Participation. Supply of Labor and Household Productions. Labor – Skill, Training and Productivity.

### **Wages, Unemployment and Inflation**

Determinants of Wages, Market Determination of Wages and Marginal Productivity, High Wages and Involuntary Unemployment. Stagflation and Unemployment, Structural Adjustment and Wages

### **Labor Market Discrimination**

Discrimination in Labor Market: Gender, Race and Ethnicity. Efficiency Wage Theories and Coordination Failure.

### **Labor Market Information System**

Labor Market Information System and Efficiency, Labor Statistics and Labor Policy. Human Welfare and Labor Policy, Minimum Wages

### **Theories of Labor Movements**

The Marxist, The Wells, Selling and Pearlman's contributions. Trade Unions in Pakistan, Labor Legislation in Pakistan. Impacts of Labor Union. Labor Policies in Pakistan: Critical Evaluation.

### **Child Labor**

Definition and extent of child labor. Child labor; moral aspects. Child labor an international issue: Extent of Child labor in developing countries.

## EC-411 International Finance

### **Introduction.**

Introduction to international finance, International institutions, Funding Mechanism of International Institutions, Mechanisms and institutions for financing.

### **Foreign Exchange Market and Exchange Rate Determination**

Foreign Exchange Rates (F.E.R): What it represents? Real, Nominal and Effective Rates. Determinants of Foreign Exchange Rate.

### **Purchasing Power Parity, Exchange Rates and Balance of Payments (B.O.P)**

Purchasing Power Parity (PPP): Non-Trade Goods, Balance of Payment Effect. Test of Exchange Rate Instability. Impacts of F.E.R. Rate Instability.

### **Open Economy: Monetary and Fiscal Policy**

Monetary and Fiscal Policies: Internal and External Balance. Monetary and Fiscal Policy with Fixed Exchange Rates.

### **International Institution: Trade, Capital and B.O.P.**

Introduction of International Institutions, Role and Major Activities of IMF. IMF Credit Facilities.

### **International Movements of Factors and Welfare: Impacts / Issues**

Facts on International Capital Flow: ASEAN Crisis and Role of International Institution and Criticism.

### **International Institutions and Flow of Capital**

WTO: GATT and Emergency of WTO. Why necessary to Join WTO? WTO: Expected Impacts on Trade, Liberalization and B.O. P

## EC-412 Corporate Finance

### **Introduction to the Course. Why is Finance Corporate? The Foundations for Proper Financial Analysis of the Firm**

The advantages of corporate firm over the sole traders and partnerships. The life-cycle of the corporation at the capital market:

### **The role of Efficient Market Hypothesis in Corporate Analysis: Theory and Evidence**

The types of information for investor's decision-making. The value of information for the investor. The efficient market hypothesis (EMH).

### **Fundamentals of Corporate Capital Valuation: Corporate Debt Capital**

The yield curves. Spot rates and forward rates. Defining the forward rate from the yield curve.

### **Fundamentals of Equities Valuation: Preferred and Common Stock**

Types of preferred stock by voting rights, dividend rates and dividend payments. Discounted dividend model (DDM) for preferred (preference) shares.

### **Risk and Expected Return: Principles of Portfolio Analysis**

Separation theorems. The principles and assumptions of mean-variance analysis. Asset's risk and variance of returns. Expected portfolio returns.

### **Capital Asset Pricing Theory: CAPM and its Use in Corporate Finance**

The role of CML in pricing model's derivation. Assumptions for capital asset pricing model. The market portfolio. Security market line (SML): the slope, the comparison to CML.

### **Capital Asset Pricing Theory: Arbitrage Pricing Theory**

The assumptions for factor pricing models. The single factor model (the market model). The multifactor models.

### **Corporate Investing Policies and Value Creation: The Analytical Toolkit for Riskless Projects**

What is risk-free investment project? Competitive advantage and value creation. Incremental cash flows and incremental value.

## EC-413 Project Appraisal and Investment Analysis

### **Introduction**

Meaning of Project Appraisal, usefulness and significance, Aspect of project appraisal with a special focus on economic versus financial analysis

### **Identify Project Benefits and Costs**

Objectives of Costs and Benefits, The Incremental/Net Benefits and “With” and “Without” Comparisons. Categories of Costs and Benefits.

### **Pricing Project Costs and Benefits**

Prices reflecting values, Market price and financial analysis, finding market prices and related problems, Change in relative prices and inflation:

### **Comparing Project Costs and Benefits (Measuring of a Project Worth)**

Undiscounted measures of project worth, Discounted measures of NPW, IRR, BCR, Net benefit – Investment Ratio, Comparative assessment of discounted measures.

### **Applying Discounted Measures of Project Worth**

Sensitivity analysis, switching value, Choice among mutually exclusive alternatives, Domestic resource cost of foreign exchange earning / saving.

### **Cost Effectiveness Analysis**

Areas and elements of analysis, Methods of analysis: Constant Effect Method, Constant Cost Method,

### **Financial (Investment) Analysis**

Theoretical and empirical examination and saving and investment, Concept of capitalization types of securities, non-banking financial institution.