Revised Scheme of Studies & Course Outlines for
BS Economics (8 semesters of 130 Credit Hours)
(For Morning & Afternoon Programs under Semester System, Session 2013-2017 & onwards)

First Semester

ECON-101 Functional English 3-Credit Hours (100 marks)
ECON-103 Islamic Studies/ Ethics (For Non Muslims) 2-Credit Hours (100 marks)
ECON-105 Principles of Microeconomics 3-Credit Hours (100 marks)
ECON-107 Calculus 3-Credit Hours (100 marks)
ECON-109 General Science 3-Credit Hours (100 marks)
ECON-111 Introduction to Psychology 3-Credit Hours (100 marks)
(All Compulsory)

Second Semester

ECON-102 English Comprehension and Composition 3-Credit Hours (100 marks)
ECON-104 Pakistan Studies 2-Credit Hours (100 marks)
ECON-106 Principles of Macroeconomics 3-Credit Hours (100 marks)
ECON-108 Mathematical Methods 3-Credit Hours (100 marks)
ECON-110 International Relations & Current Affairs 3-Credit Hours (100 marks)
ECON-112 Principles of Sociology 3-Credit Hours (100 marks)
(All Compulsory)

Third Semester

ECON-201 English Communication & Writing Skills 3-Credit Hours (100 marks)
ECON-203 Intermediate Microeconomics 3-Credit Hours (100 marks)
ECON-205 Introduction to Statistics 3-Credit Hours (100 marks)
ECON-207 Fundamentals of Geography 3-Credit Hours (100 marks)
ECON-209 Introduction to Business Studies 3-Credit Hours (100 marks)
ECON-211 Foreign Language: Arabic 3-Credit Hours (100 marks)
(All Compulsory)

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Fourth Semester
ECON-202 English Literature 3-Credit Hours (100 marks)
ECON-204 Intermediate Macroeconomics 3-Credit Hours (100 marks)
ECON-206 Introduction to Probability Distributions 3-Credit Hours (100 marks)
ECON-208 Computer Applications 3-Credit Hours (100 marks)
ECON-210 Principles of Entrepreneurship 3-Credit Hours (100 marks)
ECON-212 Economics of Pakistan 3-Credit Hours (100 marks)
(All Compulsory)

Fifth Semester
ECON-301 Microeconomic Theory 3-Credit Hours (100 marks)
ECON-303 Agricultural Economics 3-Credit Hours (100 marks)
ECON-305 Mathematical Economics 3-Credit Hours (100 marks)
ECON-307 Statistical Inference 3-Credit Hours (100 marks)
ECON-309 Development Economics 3-Credit Hours (100 marks)
(All Compulsory)

Sixth Semester
ECON-302 Macroeconomic Theory 3-Credit Hours (100 marks)
ECON-304 Economics of Money and Banking 3-Credit Hours (100 marks)
ECON-306 Optimization and Dynamic Analysis 3-Credit Hours (100 marks)
ECON-308 Fundamentals of Econometrics 3-Credit Hours (100 marks)
ECON-310 Issues in Pakistan Economy 3-Credit Hours (100 marks)
(All Compulsory)

Seventh Semester
ECON-401 Monetary Theory and Policy 3-Credit Hours (100 marks)
ECON-403 Econometric Methods 3-Credit Hours (100 marks)
ECON-405 Public Finance 3-Credit Hours (100 marks)
ECON-407 International Trade: Theory & Policy 3-Credit Hours (100 marks)
ECON-409 Islamic Economics 3-Credit Hours (100 marks)
(All Compulsory)
Eighth Semester

(Compulsory Courses)

ECON-402 Financial Economics 3-Credit Hours (100 marks)
ECON-404 Islamic Finance 3-Credit Hours (100 marks)
ECON-406 International Finance 3-Credit Hours (100 marks)
ECON-408 Research Methods in Economics 3-Credit Hours (100 marks)
ECON---- Elective Course 3-Credit Hours (100 marks)

- Elective Course will be selected from the list of following optional papers

Optional Courses

ECON-412 Thesis/ Research Project 3-Credit Hours (100 marks)
ECON-414 Applied Economics 3-Credit Hours (100 marks)
ECON-416 Corporate Governance 3-Credit Hours (100 marks)
ECON-418 Globalization and Economic Integration 3-Credit Hours (100 marks)
ECON-420 Transport Economics 3-Credit Hours (100 marks)
ECON-422 Energy Economics 3-Credit Hours (100 marks)
ECON-424 Environmental Economics 3-Credit Hours (100 marks)
ECON-426 History of Economic Thought 3-Credit Hours (100 marks)
ECON-428 Human Resource Management 3-Credit Hours (100 marks)
ECON-430 Industrial Economics 3-Credit Hours (100 marks)
ECON-432 Labor Economics 3-Credit Hours (100 marks)
ECON-434 Managerial Economics 3-Credit Hours (100 marks)
ECON-436 Population Economics 3-Credit Hours (100 marks)
ECON-438 Project Planning and Appraisal 3-Credit Hours (100 marks)
Detailed Course Outlines

First Semester

ECON-101  FUNCTIONAL ENGLISH

Basics of Grammar; Parts of speech and use of articles; Types of Sentences: Interrogative, Exclamatory, Negative and Declarative sentences (Definitions and its examples); Sentence structure; active and passive voice; Practice in unified sentence; Analysis of phrase, clause and sentence structure; Transitive and intransitive verbs; Punctuation and spelling; Dictionary Skills (Etymology and Origin); Paragraph writing (Types of Paragraphs and its examples).

Recommended Books:


ECON-103  ISLAMIC STUDIES


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Recommended Books:

1. Muhammad, Hameed ullah. Emergence of Islam, IRI, Islamabad
2. Muhammad, Hameed ullah. Muslim Conduct of State.
4. Islahi, Mulana Muhammad Yousaf and Hassan, Hussain Hamid, An Introduction to the Study of Islamic Law, leaf Publication Islamabad, Pakistan.

ECON-103  **ETHICS**  (For Non Muslims in lieu of Islamic Studies)

Elementary theories in normative ethics of behavior: core areas of ethics, cultural relativism, religious approaches to ethics; Intermediate theories in normative ethics of behavior: utilitarianism, Kant theory, social contract theory.

ECON-105  **PRINCIPLES OF MICROECONOMICS**

Economics; Different Economic Systems; Micro and Macro economics, scarcity; wants and social welfare Utility; demand; Supply-demand analysis demand elasticities and comparative static analysis; consumer and producer surplus and economic efficiency; Production in short and long run, stages of production; productivity and returns to scale; Short and long-run costs; economies and diseconomies of scale Welfare analysis of price controls and taxation; Public goods and externalities in supply-demand framework; Market structures: Basic analysis of perfect competition, monopoly and imperfect competition; Factor markets, wage and rents; Supply-demand analysis of trade and tariffs.

Recommended Books:

ECON-107  CALCLULUS

Functions: Real-number line, types of function and their graphs; Concave, convex, quasi-concave and quasi-convex functions; Equations: types of equations, solution of equations, absolute values and inequalities; Limit and Continuity: limit of function, left and right hand limit, continuity; Derivatives and their Applications: Differential functions, differentiation of polynomial, rational and transcendental functions, derivatives and partial derivatives; Integration: Indefinite and definite integrals, rules of integration, applications; Conic Section: circle, parabola.

Recommended Books:


ECON-109  GENERAL SCIENCE


Recommended Books:


ECON-111  INTRODUCTION TO PSYCHOLOGY

Introduction of psychology: historical background and methods of psychology; Schools of Psychology; Observation; Case history method; Experimentation; Survey and Interviewing methods;
Characteristics and functions of sensations: reception, structure and functions of neuron, Eye and Ear Perception, Nature and factors of perception, subjectivity and objectivity, special and temporal perceptions; Defining learning; classical conditioning and operant conditioning Attention, subjective and objective attentions, distance and span of attention; Emotions: definition, nature and theories; Memory: definition, types, tools and process; Thinking: definition, types and tools, problem solving, decision making, reasoning; Personality: definition and development of personality; biological and environmental factors. Motivational theories; Developmental stages: infancy ,childhood, adolescence and adulthood, physically and morally and socially development, Erikson and Piaget theories of cognitive development, Kohlberg theory of moral development; Language development; defining personality ;psychodynamic approaches ,stages of personality development, Defense mechanism , the Neo-Freudian psychoanalysts, personality trades, skinner behaviorist approach, social cognitive approach, biological approach, humanistic approach, psychological disorder, Defining abnormality, classify DSM-IV-TR , Anxiety disorder, Phobic disorder, Panic disorder, Generalized anxiety disorder, Obsessive-compulsive disorder, Somatoform disorder, Mood disorder, Personality disorder, Schizophrenia disorder, Treatment of psychological disorder; Theories of intelligence : G-Factor theory, Fluid and crystallized intelligence theory, Gardner multiple intelligence theory, Assessing intelligence , Binet of IQ test, Achievement and Aptitude test; Defining Reliability and Validity: Types of Reliability and Validity. Life style and Health, Stress causes; coping strategies of stress; Industrial Organizational psychology; consumer psychology; Psychotherapy.

**Recommended Books:**


**SECOND SEMESTER**

**ECON-102 ENGLISH COMPREHENSION AND COMPOSITION**

Comprehension (Answers to questions on a given text); Précis Writing; Short paragraph writing; Correction of Sentences; Pair of words; Phrasal Verbs; Idioms; Commonly confused words; Effective word choice; Preposition; Letter writing (updated); Business letters; Email writing; Etiquettes of an Email (Ethics of an Email);

**Recommended Books:**


**ECON-104  PAKISTAN STUDIES**

Historical background of Pakistan; Muslim society in Indo-Pakistan, the movement led by the societies; The downfall of Islamic society; The establishment of British Raj-causes and consequences; Political evolution of Muslims in the twentieth century: Sir Syed Ahmed Khan; Muslim League; Nehru; Allama Iqbal Independence Movement; Lahore Resolution; Pakistan culture and society; Constitutional and administrative issues; Pakistan and its geo-political dimension; Pakistan and international affairs; Pakistan and the challenges ahead.

**Recommended Books:**


**ECON-106  PRINCIPLES OF MACROECONOMICS**

Micro and macro economics; economic aggregates and flow of economic activities; Macroeconomic issues: economic growth, stability and social welfare; Macroeconomic policy framework; National income and product accounts; Theories of consumption/saving and investment; Money, bonds and interest; Macroeconomic equilibrium and policy effectiveness; Inflation-unemployment; trade-off; International trade; balance of payments and exchange rates.

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Recommended Books:


ECON-108 MATHEMATICAL METHODS

Basic Algebra; Set Theory: Real number system, complex numbers, sets and their types, set operations; Matrices: Matrices Linear Algebra, Matrix and Vectors, Systems of simultaneous linear equations and solution methods; Matrix Inverse, Determinants, system of linear equations, Cramer’s Rule; Quadratic Equation: Qualitative analysis of roots of a quadratic equation, equation reduce to quadratic equation, cube root of unity, relation b/w roots and coefficients of quadratic equation, partial fraction; Sequence and series: Arithmetic progression, geometric progression, harmonic progression; Taylor Series; Binomial theorem: Mathematical induction, binomial theorem with rational and irrational indices; Trigonometry: Fundamental of trigonometry, trigonometric identities; Analytical Geometry: Coordinates plane and concept of slope.

Recommended Books:


ECON-110 INTERNATIONAL RELATIONS & CURRENT AFFAIRS

Introduction to International Relations (IR): What is International Relations?; Scope and nature of IR; Approaches to IR; IR as social sciences (Science Or Arts); Core principles of IR. History of International Relations: Legacy of Rome; Westphalia and nation-state system; Evolution of Nation-State. Theories of International Relations: Realism; Liberalism; Marxism; Feminism. Foreign Policy & Diplomacy: What is foreign policy?; Determinants & Objectives of foreign policy; What is Diplomacy?; Functions and types of Diplomacy; Foreign offices & embassies; Decision making in World Politics. International Political Economy (IPE): What is international Political economy;
Theories of IPE; Eras of finance; Dependency theories/ development of underdevelopment; Imperialism and types of imperialism; North-South Gap. Globalization and Regional Blocs: What is Globalization?; History of Globalization; Regional Blocs; Clash of civilization; Multinational Corporations; Consumer culture. Theories of peace and conflict; Trade and environment; Ethnicity and peace/conflict. Current Affairs: Kashmir issue; Afghanistan issue; Palestine issue; Human security and Nuclear Proliferation; Peace & conflict in the Middle East; any other issue of current affairs.

**Recommended Books:**

1. Andrew Heywood, Global Politics (Palgrave: Basingstoke, 2011)
4. Readings from various Newspapers, internet and research journals.

**ECON-112 PRINCIPLES OF SOCIOLOGY**

Introduction to Sociology; Nature; scope and subject matter of Sociology; Society and community; Relationship with other Social Sciences; Social groups; Definition and functions; Types of social groups; Social institutions (Family, Economic, Religious); Definition; Structure and function of social institutions; Culture and related concepts; Definition and aspects of culture; Elements of culture; Sub cultures; cultural lag; Ethnocentrism; Socialization and personality; Role and status; Social stratification; Caste class and race as basics of social stratification; Social and cultural change; Definition of social change; Impact of globalization on society and culture; Resistance to change.

**Recommended Books:**


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THIRD SEMESTER

ECON-201  ENGLISH COMMUNICATION & WRITING SKILLS

Report Writing: Formal writing, Informal writing, Advantages and disadvantages of report writing, Types of report writing; Memorandum: Parts of Memorandum, Significance of Memorandum, Practice of Memorandum; Letter writing: Personal letters, Official letters, Difference between personal and Official Letters; Minutes of Meetings; Applications for Job with C.V; Essay Writing; Translation Skills; Speaking Skills; Listening Skills; Interview Skills; 7 C’s of Communication; Presentations Skills.

Recommended Books:

2. Functional English by Prof. Mumtaz Ahmad, Published by Books and Books.
3. An Introduction to Business Communication by Noorullah Shafiq.

ECON-203  INTERMEDIATE MICROECONOMICS

Preference structure; indifference curves analysis and consumer’s equilibrium; Demand functions and their properties; Production functions; cost functions and market structure; Short and long run analysis of perfectly competitive markets; Monopoly: natural monopoly, multi-plant monopoly, price discrimination; Monopsony and bilateral monopoly; Monopolistic competition; product differentiation branding; packaging and service; advertising; Market concentration; Oligopoly and Price Discrimination; General Equilibrium; Welfare Economics.

Recommended Books:


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ECON-205 INTRODUCTION TO STATISTICS

Introduction: Meaning, characteristics, importance, uses and limitation of statistics descriptive and inferential statistics in economic planning of Pakistan, Primary and secondary data, method of collection, Variables and attributes, Measurement scales, error of measurement significant digit, rounding of numbers. Presentation of Data: Classification its types aims and basic principle of classification. Tabulation, its types, contraction of statistical tables contraction of frequency distribution, stem-and-leaf display, graphs of frequency distribution. Common shapes of frequency curves, charts and diagrams the stem and leaf display. Measures of central tendency and measures of dispersion: Types of averages (Mean, GM, HM Medium and Mode) their methods of competition in case of grouped and ungrouped data, properties advantages and disadvantages. Quartiles, deciles and percentiles, graphic location of median and mode, weighted arithmetic mean. Empirical relation between mean, median and mode, Measures of dispersion (range, Q.D, M.D, variance, standard deviation) methods of competition in case of ungrouped and grouped data) properties, advantages, disadvantages, uses of different types of measures of dispersions. Absolute and relative measures of dispersions measures of Skewness and Kurtosis Sheppard is correction for grouping error. Index numbers: Introduction, types, uses of index numbers steps taken in the construction of whole sale price Index and consumer price index numbers. Competition of un-weighted (Simple aggregative and simple average of price relatives) weighted (weighted aggregative and weighted average of price relatives) index numbers. Volume index numbers value index, theoretical tests for index numbers. Index numbers constructed in Pakistan. Time series analysis: Introduction, component of time series, analyzing the secular trend and seasonal variation, De-trending and de-seasonalization of data analysis of time series. Simple and Multiple Regression and Correlation: Deterministic and probabilistic relations / models modern interpretation of regression. Simple linear regression model, The method ordinary least squares and its assumptions, Precision or standard errors of least squares estimators (The GAUSS-MARKOV THEOREM) coefficient of determination and its properties correlation, properties of correlation coefficient, Rank correlation. Interpretation of simple regression equation, Definition, assumption and interpretation of multiple regression, model, the meaning of partial regression coefficients, Properties of OLS estimators, Multiple coefficient of determination and multiple coefficient of correlation, Interpretation of $R^2$, partial coefficient of correlation and its interpretation.

Recommended Books:


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Chairman, Department of Economics


12. Dr M. Afzal Beg, Statistics theory and method, Pakistan.


ECON-207  FUNDAMENTALS OF GEOGRAPHY

THE EVOLUTION OF GEOGRAPHY: Geography what is it?: The “purpose” of geography, Geographers, how do we view the world; Environmental Determinism vs. Possibilism; Schools of geography and branches of the discipline; The four traditions of geography; The field today: different approaches, e.g., quantitative and qualitative; geography, environmental studies and systems; The scientific method; Models and data collection. THE TOOLS OF GEOGRAPHY: Maps, and its properties -symbols and scales; The many different way maps can be constructed, map projections; Air photos; Satellite imagery; Visual presentations; diagrams, sketches, tables, geographic data; The use of computers in Geography. INTRODUCTION TO LANDFORMS (GEOMORPHOLOGY): The earth's crust (SIMA, SIAL) and classes of rocks (Rock Cycle); The shaping of landforms: exogenous and endogenous processes; Evidence for plate tectonics; Weathering processes: physical and chemical; Mass wasting processes; processes of devastation and human response; earthquakes, Tsunami and volcanoes. FLUVIAL ACTION AND THE WORK OF MOVING WATER: Water on the Earth’s surface; Some basic concepts of hydrology: velocity, slope, volume, load, gradient; The erosion cycle; Stream patterns to hydrology; Flooding: our response to devastation and seeking for control; Water and its availability; Shorelines: A special case of water in motion; Waves generation
and movements; Coastal environment and movements of sediments; Human impacts on coastal environments. Physical Geography of Pakistan; Political Geography of Pakistan; Landscaping of Pakistan; Rivers in Pakistan. BASIC ELEMENTS OF WEATHER AND CLIMATE: The earth's atmosphere –properties and composition of gases; Classification of the atmosphere; Energy movements and the heat balance; Absolute and relative humidity; Atmospheric stability; Atmospheric circulation and winds, pressure gradient force, Coriolis force, pressure belts and winds; Global circulation; Weather forming systems, lake effect snows, lifting mechanisms; Formation of mid-latitude cyclones and fronts, Air masses, warm and cold fronts, Cyclogenesis; Weather systems, thunderstorms, tropical cyclones, tornadoes. CLIMATES OF THE WORLD: The characteristics of world climates; Factors controlling climates. CLIMATIC CHANGE (Environmental Change): Evidence for climatic (environmental) change; Dating of evidence, dating techniques, 14C, Pollen, Dendrochronology; The past glacial periods, Milankovitch; Environmental change -what does the evidence say?; Disappearing mountain glaciers, Arctic sea ice, atmospheric CO2 changes; global temperature increases; Glaciers and landforms from moving ice; Glacial landforms, Periglacial landscapes. ECONOMIC GEOGRAPHY: A matter of classification, and the development of a mindset; Adam Smith, David Ricardo, Karl Marx; The conservative, the liberal, the radical mindset; Von Thunen: model of agricultural land use; Weber: Location theory. POPULATION GEOGRAPHY: What is Population Geography?; What is population growth?; Basic demographic processes; The impact of the Fertility Rate; Demographic Transition; Population Prospects. AN INTEGRATED LOOK AT A HUMAN ENVIRONMENT COMPLEX: Geography of Natural Resources and Human Impact on the Environment. ORDER IN THE SYSTEM: CENTRAL PLACES: An Introduction to Urban Geography; Characteristics of urban settlements, major urban functions; Abstracting reality, the role of models; The morphology of cities; Christaller’s Central place theory; A hierarchy of central places; Rank size rule.

Recommended Books:


ECON-209 INTRODUCTION TO BUSINESS STUDIES

The Nature of Business; Basic Forms of Business Ownership; The Environment of Business; Types of Businesses; Management in the Business Enterprise; Finance in Business; Marketing in Business; Accounting in Business; Communication in Business; Market research in business, Entrepreneurship and the Business Enterprise; Control and Regulation of Business; Legal Issues in Business: Law of Contract; Legal Issues in Business: Sale of Goods; Business Social Responsibility; Business Ethics.

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Recommended Books:


ECON-211 FOREIGN LANGUAGE: ARABIC/CHINESE

Alphabet; make up words and phrases; reading and writing; with special emphasis on unfamiliar sounds; Greetings and introductions; Forms of titles and address in the feminine and masculine; Talking about oneself and one’s family; Expressing thanks and making requests; Learning numerical; the time and counting; Etiquette in private and public places; Daily routines: work, shopping, leisure; Basics of grammar; Key vocabulary; Reading; writing and speaking; Practical drills to learn reading and writing; Listening comprehension; Drills of unfamiliar alphabet; Insight into cultural differences between regions where the language is spoken.

FOURTH SEMESTER

ECON-202 ENGLISH LITERATURE

Short stories: The Kite by Somerset Maugham, The Necklace by Maupassant; Poetry: Ode to a Nightingale by John Keats, Break, Break, Break by Alfred Tennyson, Across the Indus by Taufeeq Rafat, Meeting at Night by Robert Browning, We are Seven by William Wordsworth, Echoing Green by William Blake; Drama: The Merchant of Venice by Shakespeare (Court Scene: Act-IV Scene 1), Hamlet by Shakespeare (4th Soliloquy: Act-III Scene 1); Prose and Essays: Three Days to See by Helen Keller, Of Marriage and Single Life by Francis Bacon, Of Parents and Children by Francis Bacon. Novel: Joseph Andrews by Henry Fielding

Recommended Books:

1. Shakespearian Tragedy by A.C. Bradley
2. Critical Notes on Keats by Famous Books Lahore.
3. Case Book Series (On Short Stories) by Middleton Murray
4. Critical Notes on Joseph Andrews, Published by Famous Books
5. English for Undergraduates, Oxford University Press.

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ECON-204  INTERMEDIATE MACROECONOMICS

National Income Accounting; Classical & Keynesian Economy of Income and Output Determination; IS-LM framework and AS-AD analysis; Monetary and fiscal policies under Classical and Keynesian settings.

**Recommended Books:**

ECON-206  INTRODUCTION TO PROBABILITY DISTRIBUTION

The concepts of set theory; Venn diagram set operations; The concept of probability; fundamental principle of counting; Concepts of permutation and combination; Random experiment; sample space; event and its types; Objective and subjective definitions of probability; Additional laws of probability; Multiplicative laws of probability; Complementary law; conditional probability; Concept of random variable; discrete and continuous random variables; discrete probability distribution and its mean and variance; Distribution function for discrete probability distribution; Mathematical expectation; laws of expectation; Binomial probability distribution; Hypergeometric probability distribution; the poison distribution; the normal distribution

**Recommended Books:**
12. Dr M. Afzal Beg Statistics theory and method

ECON-208 COMPUTER APPLICATIONS

Introduction to Computers; Concepts (Types of Computers, Generations of Computers, Classification of Computers etc.); The Basic Computer Architecture: Input and Output Devices, Storage Media, Introduction to Data Communication and Networking, Operating System (Windows): What is an Operating System? Introduction; What is Windows? Starting Windows; Organizing your Files and Folders: Making new Folders, Moving and Copying Items between Folders, Copying Files and Folders to and from Floppy Disks, Copying, Moving and Deleting; Block of Files and Folders; Word Processing (MS Word) & its functions and tools; Spread Sheet (MS Excel) & its functions and tools; Presentations (MS PowerPoint) & its functions and tools; Internet; Searching; Browsing; Searching Economic data; Downloading Articles.

Recommended Books:


ECON-210 PRINCIPLES OF ENTREPRENEURSHIP

Introduction to Entrepreneurship; Introduction to Entrepreneurial Processes and Entrepreneurs Innovation; creativity and business idea; Identifying Opportunities and Generate Business Ideas; Business start-up process and stages of starting a business; Business start-up; The concept and content of the business plan; Preparation of marketing plan; Financial plan of business firm; Production and management plan of the business firm; Business plan writing and presentation; Social entrepreneurship and female entrepreneurship.

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Recommended Books:

4. Any latest Book covering above topics.

ECON-212  ECONOMICS OF PAKISTAN

Growth and Investment; Agriculture; Manufacturing & Mining; Fiscal Development; Money and Credit; Capital Markets; Inflation; Trade and Payments; Public Debit; Education; Health & Nutrition; Population, Labour Force and Employment; Transport and Communications; Energy; Poverty and Social safety nets; Environment; Contingent Liabilities; Tax Expenditures; Economic and Social Indicators; Overview of the Economy.

Note: This course covers state of the economy, trends and profiles.

Recommended Books:

4. Pakistan Economic Surveys, Published by Government of Pakistan, (latest issues).

FIFTH SEMESTER

ECON-301  MICROECONOMIC THEORY

Microeconomics: Comparison with other branches of economics; The uses and limitations of Microeconomic theories; Consumer’s equilibrium under Cardinal Approach and consumer demand curve; Ordinal Approach axioms and Consumer’s equilibrium under Ordinal Approach; Effects on consumer equilibrium; Marginal rate of consumer substitution; Properties of indifference curves; Graphical derivation of Marshallian; Hicksian and Slutsky demand curves; Theory of Revealed Preference; Implication of Elasticities and Problem Solving Approach; Identification of Inferior goods; Griffin goods and normal goods.
The Concept of Production Function; Production with one variable and two variable inputs; Laws of Returns and Returns to scale; The substitution and Resource effects of change in input prices; Euler’s Theorem; The elasticity of substitution; Some special production functions: Cobb Douglas Production function; CES Production Function; Translog Production function; Homogenous Production Function. Traditional; Modern and Engineering costs Theories; Economies of Scale and Scope.

Theory of the Market: Perfect competition, pure monopoly, Monopolistic Competition & Theories of Oligopoly; Factor Pricing Models; General Equilibrium Theory and Social Welfare; Concepts of Game Theory

Recommended Books:


*Strongly Recommended

ECON-303 AGRICULTURAL ECONOMICS

Agricultural Revolution; Importance of Agriculture; Food Safety; Agriculture vs. Industrial development Debate- Current Stale of Agricultural Development; Brief Overview of Sources of Growth; Introduction to issues in Agriculture; Traditional Agriculture and Productivity; A framework of Analysis; Product Contribution; Market Contribution; Factor Contribution; Foreign Exchange Contribution. Agriculture vs. Industry Debate of Development; Economic Rent; The Theory of Rent; Rent and Quasi-Rent; The Ricardian 'Corn Rent; The Rental Market; Agricultural Surplus; Characteristics of Landownership in Underdeveloped Agriculture and Pakistan; The Theory of Share Tenancy; Some Extensions of the Share Tenancy Model; Tenure Status in Pakistan; Agricultural productivity in Pakistan and use of inputs; The Lewis Model; The Fei-Ranis (FR) Model; The Jorgenson Model; Kelley, Williamson, Cheetham Model: Criticism; Dual Economy Models; Agricultural Adequacy; Mellor's Model.

The Cobweb Model: An Illustration; Price-Supply Response in. Backward Agriculture; A simple Supply Response Model; Supply Response in the Underdeveloped Agricultural labour Market; Specifically in Pakistan; The Concept of Marketed Surplus: Some Methods of Estimation; Some Criticisms of Krishna's Method and the Alternative Approach of Behrman Perennial Crops and
Marketed Surplus in Pakistan; Green Revolution in Pakistan and Responses; Present Status of Green Revolution in Pakistan: Empirical Analysis; Inequitable Landownership and Land Reform; Capital and Finance in Underdeveloped Agriculture; Marketing Imperfections and Marketing Policies in Pakistan; Measures to Improve Marketing System in Pakistan; Support Price Policy in Pakistan; Determinants of support prices; Impacts of support prices; Main Features of Trade in Agricultural Goods; Trade Policies in Developed Countries and their Impacts.

**Recommended Books:**


**ECON-305 MATHEMATICAL ECONOMICS**


**Recommended books:**


*Strongly Recommended*

**ECON-307 STATISTICAL INFERENCE**

Sampling and its advantages sampling frame; sample design probability and non probability sampling frame; sample design probability and non probability sampling; Simple random sampling; stratified random sampling; systematic sampling; cluster sampling; purpose sampling; quote sampling; sampling and non sampling error; sampling distribution of mean with properties; Sampling distribution of differences between two sample mean with properties bias; Point estimation; properties of good estimator; Internal estimation; Confidence interval for population mean when $\sigma^2$ known and when $\sigma^2$ unknown (large sample size); Interpretation of confidence internal; **Test of hypotheses:** Null and alternative hypotheses; Simple and composite hypotheses; critical and acceptance region; Type one error and type two error; Tests of hypotheses concerning population mean; differences between two means; **The student t distribution introduction:** Properties and assumption of student to distribution; Confidence interval for population means and differences between two population means (small samples); Small samples tests of means; Testing hypotheses about $\rho$=0; **The chi-square distribution:** Introduction; Properties and assumption of the chi square distribution; Pearsons chi square; goodness of fit testing hypothesis about independence of two variable; Concept of degree of freedom; **Analysis of variance:** The F Distribution; Properties and assumption of F distribution; Testing hypothesis about the equality of two variances; assumption of analysis of variance; One way analysis of variance two way analysis of variance without interaction; the least significant difference test

**Recommended Books:**

10. Dr M. Afzal Beg Statistics theory and method

**ECON-309 DEVELOPMENT ECONOMICS**

The nature of development economics; Why study development economics? Some critical questions; The important role of values in development economics. Traditional economic measures; The new economic view of development; Three core values of development; The three objectives of development; Diverse Structures and Common Characteristics of Developing Nations; Some classifications of developing countries; common characteristics of developing nations.

Nurkse’s Model of Vicious Circle of Poverty; Nelson’s low level equilibrium trap; Leibenstein’s critical minimum theory; Rosenstein Rodan’s Big Push theory; The linear stages theory: Rostow growth model and Harrod Domar growth model; Structural change models; International dependence revolution: Neocolonial Dependence Model; The False-Paradigm Model; The Dualistic-Development Thesis; Dualistic theories; The Neo-classical counter revolution: Challenging the Statist Model: Free Markets; Public Choice; and Market-Friendly Approaches. The Growth Game; The Economics of Growth: Capital; Labor; and Technology; Capital Accumulation; Population and Labor Force Growth; Technological Progress; The Historical Record: Kuznets's Six Characteristics of Modern Economic Growth.

The Growth Controversy; Some Basic Concepts: Size and Functional Distributions of Income; Size Distributions; Lorenz Curves; Dualistic Development and Shifting Lorenz Curves: Some Stylized Typologies; GINI Coefficients and Aggregate Measures of Inequality; Functional Distributions; A Review of Evidence: Inequality and Absolute Poverty in Third World Countries. Inequality: Variations among Countries; Absolute Poverty: Extent and Magnitude; The Human Poverty Index;
Economic Characteristics of Poverty Groups; The Kuznets Hypothesis and Other Tests Redefining Development Goals: Growth with Improved Income Distribution.

The Basic Issue: Population Growth and the Quality of Life; A Review of Numbers: Population Growth—Past, Present and Future; World Population Growth through History; Structure of the World's Population; The Hidden Momentum of Population Growth; The Demographic Transition; The Causes of High Fertility in Developing Countries: The Malthusian and Household Models; The Malthusian -Population Trap; Criticisms of the Malthusian Model. The Microeconomic Household Theory of Fertility; The Demand for Children in Developing Countries: Some Empirical Evidence; Implications for Development and Fertility; The Consequences of High Fertility: Some Conflicting opinions; Goals and Objectives: Toward-a Consensus Some Policy Approaches.


The Migration and Urbanization Dilemma; Urbanization: Trends and Projections; The Urban; Informal Sector; Women in the informal Sector; Urban Unemployment Migration and Development; Toward an Economic Theory of Rural-Urban Migration: A Verbal Description of the Todaro Model, A Diagrammatic Presentation, Five Policy Implications; The Shape of a Comprehensive Migration and Employment Strategy.

Education and Human Resources; Education in Developing Regions; Public Educational Expenditure; Enrollments; Literacy; Costs and Earnings; The Gender Gap: Women and Education; The Economics of Education and Employment; Educational Supply and Demand: The Relationship between Employment Opportunities and Educational Demands; Social versus Private Benefits and Costs; Education, Society, and Development; Some Issues in Education and Economic Growth; Inequality and Poverty; Education and Internal Migration; and the Brain Drain; Education of Women; Fertility and Child Health; Education and Rural Development: Summary and Conclusions; International issues in development economics: foreign Aid; BOP; Debt Problem.

**Recommended Books:**

10. Mahboob ul Haq, Poverty Curtain.
11. A profile of Poverty in Pakistan (In collaboration with UNDP).

*Strongly Recommended

SIXTH SEMESTER

ECON-302  MACROECONOMIC THEORY

Theories of Consumption: Duesenbury Hypothesis; Keynesian Consumption Function. Permanent Income Hypothesis / Life Cycle Hypothesis; Beyond Permanent Income Hypothesis; Kuznet's findings and Reconciliation of Marginal Propensity to Consume and Average Propensity to Consume and Evidences; Mathematical derivation of Consumption Models; The MPS Model; Wealth effect in the Static Model; Implications of Consumption Theories for Policy Formulation and Stabilization Policy; Random Walk Model. Investment and its theories

Aggregate supply models; The sticky wage model; the imperfect information model; the sticky – price model; The Worker Misperception Model. The concept of inflation; Demand pull and Cost push inflation; hyperinflation; social cost of inflation; theory of stagflation; The Relation of Wages Changes to Unemployment; The Philips curve – the theoretical basis for the Philips curve. Unemployment and price expectations; The long-run Philips curve; Deriving the Philips curve from the aggregate supply curve; Adaptive expectations and inflation inertia; The Natural Rate Theory; Monetarist View of the Philips Curve; Keynesian view of the Philips curve. The size of Government

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Debt; Measurement Problem: Inflation; Capital Assets; Business Cycle etc; Ricardian view or Debt: Ricardian Equivalence; Consumers and Future Taxes; Tax shooting; Delayed Stabilization; Ricardo and Ricardian Equivalence and Debate; Model or Debt Crises.

The theory of real business cycles; interpretation; labor market; technology shocks; household behavior; the persistence of output fluctuation; limitations of the models Samuelson’s multiplier – accelerator interaction theory of trade cycles; Kaldor’s model of the business cycle. Hicks’s theory of business cycle; AD-AS theories of output functions; Basic neoclassical growth model/Solow growth model – the accumulation of capital; determination of steady state equilibrium in the long-run; how savings affects growth; the golden rule level of capital; how population affects the steady state level; technological progress in the Solow model; policies to promote growth endogenous growth theory.

**Recommended Books:**


*Strongly Recommended*

**ECON-304  ECONOMICS OF MONEY AND BANKING**

Money and its functions; kinds of money; evolution of monetary system; Monetary Standards; Monetary Aggregates; Demand for money: meaning of holding money; demand for money; and recent development theories in demand for money; Quantity theory of money; Supply Of Money: Definition of supply of money (M1; M2; M3); exogenous and endogenous determinants of money supply; Money Multiplier; Deposit Multiplier; Credit Multiplier; Central bank as monetary base; Banking: Commercial bank: structure and functions of commercial banks; money / credit creation. Functions of commercial banks; Central Bank: structure and functions of central bank; control of money supply; tools to control of money supply; Monetary policy and independence of monetary authority: targets; goals of monetary policy; management determinant; and role of monetary policy; short and; long run aspects Determination of interest rates; Lags in Monetary Policy; Efficiency of Monetary Policy; Islamic Banking.

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Recommended Books:


ECON-306 OPTIMIZATION AND DYNAMIC ANALYSIS

Concept of Optimization; Optimization: Special Variety of Equilibrium Analysis; The nature of exponential functions; Nature exponential functions and the problem of growth; Logarithms; Logarithmic functions; Derivatives of Exponential and Logarithmic Functions; Optimal Timing; Further Application of exponential and Logarithmic Derivatives; The Differential version of optimization conditions; Extreme values of a function of two variables; Objective functions with more than two variables; second order conditions in Relation to Concavity and Convexity; Economic applications; Comparative Static aspects of optimization; Effects of Constraint; Finding the Stationary values; Second Order Conditions; Quasiconcavity and Quasiconvexity; Non linear programming and Kuhn Tucker Conditions; The Constraint Qualification; Economic Applications; Sufficiency Theorems in Non linear Programming; Maximum Value functions and the Envelope Theorem; Duality and the Envelope Theorem.

Economic Dynamics and Integral Calculus: Dynamics and Integration: Indefinite Integrals: Definite Integrals: Improper Integrals: Some Economic Applications of Integrals: Domar Growth Model; First Order linear differential equations with constant coefficient and constant term; Dynamics of Market price; Variable coefficient and variable term; Exact Differential equations; Non linear Differential equations of the first order and first degree; The Qualitative Graphic Approach; Solow Growth Model; Second Order linear differential equations with constant coefficients and constant term; Complex numbers and circular Functions; The interaction of inflation and unemployment; Differential equations with a variable term; Discrete time; differences and difference equations; Solving a first order difference equations; The dynamic stability of equilibrium; The Cobweb model; Second order linear difference equations with constant coefficients and constant term; Samuelson Multiplier Acceleration interaction model; Inflation and Unemployment in Discrete time; Game Theory.

Recommended Books:
4. Intrilligator; M.D, Mathematical Optimization and Economic Theory

ECON-308  FUNDAMENTALS OF ECONOMETRICS

Definition and scope of Econometrics; Methodology of Econometrics; Types of Econometrics; The Role of the Computer; Some basic ideas of Regression analysis; OLS estimation; Interpretation and economic meanings of the Results; Goodness of fit; Properties of the OLS estimator; Scaling and Units of Measurement; Functional Forms of Regression Models; Interval estimation; Hypothesis Testing; Prediction; Some extensions of the simple linear regression model; Some basic ideas; OLS estimation; Interpretation and economic meanings of the Results; Multiple Coefficient of Determination; Hypotheses testing; $R^2$ and F; Testing for parameter stability; Prediction. Illustration of the use of a Dummy Variable; Extension to more than two categories and to multiple sets of dummy variables: ANOVA models; ANCOVA models; Dummy variable alternative to Chow test ; Interaction Effects; Seasonal Analysis; Piecewise linear regression.

Recommended Books:


ECON-310  ISSUES IN PAKISTAN ECONOMY

Pakistan’s Development Experience; Agriculture Development; Agricultural Pricing Issues; Rural Development Policy; Resource Mobilization; Industrial Development; Policy and Issues; Internal and External Migration; Urban Informal Sector; Income Distribution and Poverty; Unemployment Issue; Foreign Aid and Debt Burden; Commercial Policy; Planning Process in Pakistan; Balance of Payments Issues; Trade Regimes; Issues of Fiscal and Monetary Policies; Financial & Capital markets; Structural Adjustment Policies.

Recommended Books:
3. Government of Pakistan, Pakistan Economic Survey (Various Issues including Latest One)

SEVENTH SEMESTER

ECON-401 MONETARY THEORY AND POLICY

Introduction to monetary theory and policy; Theories of Demand for money; Supply of money models; Inflation and money; Economic growth and money; Role of money in international trade; Monetary policy and its effectiveness through AD-AS & IS-LM framework.

Recommended Books:

2. Frederic S. Mishkin, Monetary Policy and Strategy , 2009

ECON-403 ECONOMETRIC METHODS

Concept of Multicollinearity; Consequences of Multicollinearity problem; Methods for detection of Multicollinearity problem; Remedial measures for Multicollinearity problem; Estimations and Interpretations; Heteroscedasticity and its Implications; OLS estimation in the presence of heteroscedasticity; Generalized least squares (GLS); Detection of heteroscedasticity; Remedial measures; The nature of autocorrelation; OLS estimation in the presence of autocorrelation; Detection of autocorrelation; Remedial measures; Misspecification vs pure autocorrelation; Newey-West procedure; Forecasting with auto-correlated disturbances; Introduction to Model specification; Types of Specification errors; Consequences and Tests of Specification Errors; Errors of Measurement; Approaches in Choosing an Appropriate Model; Distributed Lag Models and Estimations: The Koyck Transformation; The Almon Transformation; Other models of Lag Structures; Autoregressive Models and estimation: The Partial Adjustment Model; The Adaptive Expectations Model; Tests of Autocorrelation in Autoregressive Models; Simultaneous Equation Models; Introduction of Qualitative Response Regression Models; The linear probability model; The
Logit model; The Probit model; The Tobit model; Introduction to Time series data handling techniques; Panel Data Analysis Techniques.

**Recommended Books:**


**ECON-405 PUBLIC FINANCE**

Public Finance defined; importance of the study of public finance; need for the public sector; main functions of the public sector; The Theory of Public Goods; Public & Private goods; pure public goods; semi public goods; merit goods; free rider problem; externalities. Revenue; Tax and non tax revenue; categories of taxes; income and cooperate taxes; wealth tax; sales tax; excise and custom duties; surcharges; Direct and in direct taxes; Tax Criteria: Efficiency Criteria; the benefit principle; Ability to pay; limitation of tax effort: Laffer Curve approach: Tax Structure of Pakistan. Tax Reforms in Pakistan and Problem of tax evasion; Tax Incidence; Impact and incidence of taxes; partial equilibrium in view of product tax; partial equilibrium view of factor tax; general equilibrium in view of tax incidence; Public Expenditure; Components of public expenditure in Pakistan; causes of growth of public expenditure in Pakistan. Budget; Preparation of budget cycle in Pakistan; Development and non-development budget; budget procedures; balanced budgets; deficit and surplus budget; zero based budget; program budget; planning programming budgeting system; Public Debt; Structure of public debt in Pakistan; who bears tax burden; to tax or to borrow; Fiscal Policy; Fiscal policy defined; analytical foundations of fiscal policy; static and dynamic theory of fiscal policy; techniques of measuring influence; the role of fiscal policy in developing countries with emphasis on resource allocation; income redistribution; capital formation and stabilization; analysis of means of financing economic development including capital imports; domestic savings; inflation and taxation; fiscal policy in Pakistan;

**Recommended Books:**

5. Chellieah R.J., Fiscal policy in less developed countries.

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ECON-407  INTERNATIONAL TRADE: THEORY & POLICY

Introduction to International Economics; The scope and significance of international economics; International Economic Theories and Policies; Current International Economic Problems and Challenges; Various Classical Theories of International Trade and Critical appraisals; Demand and Supply, Offer Curves, and the Terms of Trade; Factor Endowments and the Heckscher-Ohlin Theory: Empirical evidences and critical appraisal; Economies of Scale, Imperfect Competition and International Trade; Economic Growth and International Trade.


Recommended Books:


ECON-409  ISLAMIC ECONOMICS

Introduction of Islamic Economics; Nature of Islamic Economics; Need and Importance of Islamic Economics; Islamic economic system and Other Economic Systems; Brief Introduction of Basic Vales of Islam; Taqva; Halal and Haram; Justice; Benevolence; Equality; Brotherhood and Cooperation as Determinants of Economic Behaviour and Policies; Sources of Islamic economics: the Holy Quran; The Sunnah of Allah's Apostle (S.A.W).

Meanings and Importance; Islam and Consumption of Wealth; Moderation; Theory of Consumer's Behaviour in an Islamic Society. Islamic Approach to Production; Ownership of land. Tenancy (Muzarat).Partnership (Shirakat). Modarbah; Objectives of an Islamic Firm; Al-Hisba and Islamic Firm; Islamic Firm under different market conditions; Islam and Price Mechanism; Meaning; Quranic Emphasis on the Circulation of Wealth; Rent; Profit; Wages; Dignity of Labour; Measures to Stop Concentration of Wealth: Legal Measures; Optional Measures. Islamic Law of Inheritance; Definition of Interest; Riba in the period of Ignorance; Definition of Riba or Interest in Islam; Kinds
Meaning; Objectives; Instruments of Fiscal Policy; Islamic State and its Fiscal Policy; Zakat as an Instrument of Fiscal Policy; Effects of Zakat on the Allocation; Zakat and Economic Stability. The Institution of Bait-ul-Mal; Principles of Tax Policy in Islam; Public Expenditure in Islamic Economy; Zakat and Ushr Ordinance 1980; Central Banking and Monetary Policy in Islam. Inflation VS Design of Capital market; Monetary Policy in an Islamic Framework; Effects and Causes of inflation in Islamic Economy; Consumption; saving and Investment Functions in Islamic Environment; Determents of Islamic Consumption Function; The Islamic State: Its Meaning; Aims and Functions; Concepts of Economic Planning and Development in Islam

Recommended Books:

3. M. Fahim Khan, Consumption Function in an Islamic Economic Framework, International Centre for Research in Islamic Economics, King Abdual Aziz Univ, KSA.

EIGHTH SEMESTER

ECON-402 FINANCIAL ECONOMICS

Introduction to Financial Economics; Scope and Subject matter of the financial economics; Real Assets versus Financial Assets; The Role of Financial Assets in the Economy; Users of the Financial System; Types of Financial Instruments; Characteristics of Financial Instruments; Financial Innovation; Theories of Term Structure – The Expectations Hypothesis, Liquidity Preference, Market Segmentation Theory, Preferred Habitat Theory, Interpreting the term structure, Measuring the term structure; Defining options and futures; Understand rights and obligations of the parties involved in various types of options; Familiarity with the basic taxonomy used in options analysis; Types of Markets; Types of Traders; The Trading Process; Defining Financial Intermediation; Different Types of Financial Intermediaries; The Role of Banks in Financial Intermediation; Moral Hazard; Adverse Selection; Solutions; Defining Capital Structure; Modigliani and Miller Propositions I and II; How taxes affect financing choices; Dividend policy issues; The Regulatory Role of the Government; How the Legal Environment Affects Access to External Finance; How the Legal Environment Affects Financial Decisions.


Recommended Books:

1. Charles P. Jones, Investments latest Edition

ECON-404 ISLAMIC FINANCE

The basis of Islamic Finance; An Introduction to Islamic Finance; Islamic Finance - a historical perspective; Islamic Law of Contracts; Financial Contracts and Techniques Applied by Islamic Banks; Modes of Shari'ah-Compliant Transactions; Modes of Islamic Finance and Comparison with Conventional Financing modes; Risk and Return in Classical Islamic law; Islamic Asset and Fund Management; Sukuk Market; Financial Statements; Islamic Corporate Governance; Islamic Insurance; Takaful Element; Islamic Finance today - Challenges and Opportunities.

Recommended Books:

4. Any Latest Book covering above contents can be recommended.

ECON-406 INTERNATIONAL FINANCE

Introduction of International Finance; International Financial Markets: The basis of the foreign exchange market; Organization of the market; Exchange rate systems; The international character of the foreign exchange market; Exchange risk; Forward exchange; Covered interest arbitrage; Balance of Payments Problem: Balance of payments accounts. Autonomous and accommodating items; Disequilibria in balance of payments of corrective measures; Price Adjustment Mechanism; The partial equilibrium model; Price elasticities of demand for imports and exports; The J-Curve Effect; Theory of Exchange Rate Determination: Determination of fixed and flexible exchange rates; Debate

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on fixed and flexible exchange rates; Devaluation and its effects; appreciation and depreciation; Expenditure switching policies; Elasticity and absorption approaches to devaluation and their synthesis; Monetary approach to balance of payment; Income Adjustment Mechanism: Income determination in an open economy. The foreign trade multiplier; Foreign repercussions; National income and the balance of payments; The world Debt Crisis; Fiscal and Monetary Policies for internal and external balance; Flexible versus Fixed Exchange Rates: Models; The Monetary Approach: Basic Model, Policy Implications, PPP Theory; The International Monetary System.

**Recommended Books:**


**ECON-408 RESEARCH METHODS IN ECONOMICS**

Introduction; Research, research in business; scientific thinking; Research Designs; the research process; research design; what is research design; classification of design; exploratory research; casual inference; Sample Design; the nature of sampling, probability sampling; complex probability sampling; non-probability sampling; Measurement and Scaling; measurement scales; the characteristics of sound measurement; the development of measurement tools; scaling; the nature of scaling; response methods; scale construction; Data Collection Methods; Survey Instruments and Field Procedures; survey instrument designs; the survey situations; the instrument development process; questionnaire development; field procedures; personal interviewing; telephone interviewing, interviewing by mail; observations; Data collection, experimentation and Simulations; experimentation and simulation; experimental Research design; simulation; observation; observation designs; Use of Secondary Data; the nature of secondary data sources; the use of secondary data; types of secondary data sources; statistical sources; data research procedures; evaluating secondary data; Data presentation and Analysis: elements of analysis; data preparation; special data problem; tabulation; data presentation; and data analysis; Report writing; the research proposal; the research report; research report format; writing the research report.

**Recommended Books:**


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OPTIONAL COURSES

ECON-412  THESIS/RESEARCH PROJECT

The approval of the thesis (Title of the thesis, name of supervisor and name of examiner) would be obtained from the Board of Studies in Economics and through other concerned bodies of the university before the commencement of the semester.

ECON-414  APPLIED ECONOMICS

Basic Data Handling Techniques and Descriptive data analysis, Estimation of econometric models, hypothesis testing and diagnostics and solutions of econometric problems, Diagnostics and estimation of univariate time-series models, Diagnostics and estimation of multivariate time-series models (VAR models, causality, impulse response analysis, variance decomposition and co-integration), Survey data analysis of household consumption, Survey data analysis of manufacturing production, Survey data analysis of agricultural production, Analysis of macroeconomic and financial time-series data with applications in consumption, investment, budget and international trade, money, inflation, interest rate, exchange rate and stock prices, Writing an empirical project/research.

Recommended Books:


ECON-416  CORPORATE GOVERNANCE

The corporate Governance: An Overview and Introduction; The Theory and practice of Corporate Governance; Corporate Governance Models; Rights and Privileges of Shareholders; Conflict between managers and shareholders; Corporate Governance and Other Stakeholders; Board of Directors; Role, Duties and Responsibilities of Auditors; Business Ethics; Corporate Social Responsibility; Environmental Concerns; The role of Media; Capital Market Regulator in Pakistan; Issues in Corporate Governance.

Recommended Books

2. A. C. Fernando. Corporate Governance (Principles, Policies and Practices)

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GLOBALIZATION AND ECONOMIC INTEGRATION

Introduction and Overview; The Previous Waves of Globalization: The First Wave of Globalization (The end of the XIX century and the beginning of the XX Century), The Second Wave of Globalization (1945-80’s); The Present Wave of Globalization; The forces that drive the trade flows: the role of the WTO; Regional Economic Integration Processes; Global Capital Flows: FDI flows, Portfolio Flows and others, Financial Crises: Banking and Balance of Payments Crisis; Multinational Enterprises; The Labour Markets; Globalization and Culture; Globalization and Environment: A new challenge; Globalization and Politics

Recommended Books:


TRANSPORT ECONOMICS


Recommended Books:

1. Kockelman and Chen’s (2012), The Economics of Transportation Systems: A Reference for Practitioners.
ECON-422  ENERGY ECONOMICS

Introduction to Energy Economics and the interrelationship between energy, the economy, society, and the environment. Natural resource economics: static criteria and dynamic criteria for efficient allocation, Techniques for overall cost determination, marginal cost determination, life cycle cost, economic comparison of energy technologies, financial analysis of renewable energy projects, financial vs. economic analysis, Consumer behavior and demand elasticity, Procedure to determine the best economic choice of energy technology for specific applications, Environmental impacts of conventional and renewable technologies, Environmental Impact determination and economic of pollution control, expressing Impacts in economic and social terms.

Recommended Books

3. Any other latest book covering above contents can be recommended.

ECON-424  ENVIRONMENT ECONOMICS

Introduction to Environment Economics; The Economy and Environment; Analytical Tools. Benefits and costs; supply and demand; willingness to pay, benefits; costs; technology the equimarginal principle; marginal cost and supple; Economic efficiency and markets; Economic efficiency; equity; social efficiency; external costs and benefits; The Economics of Environmental Quality; Pollution Control; General model; the equi marginal principal applied to emission reduction; long run sustainability; Environmental Analysis: Impact analysis, cost effective analysis, benefit cost analysis, risk analysis; Benefit cost analysis; risk analysis; measuring damages directly; Environmental Policy Analysis; Criteria for evaluating environmental policies; federal policies; centralized policies; Command and control strategies; incentive based strategies; emission taxes and subsidies; transferable discharge permits; International Environmental Issues; Environmental policies in industrialized countries; economic development and the environment; the global environment; international environmental agreements.

Recommended Books:


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ECON-426  **HISTORY OF ECONOMIC THOUGHT**

Introduction; Ancient and Medieval Economic Thought; Mercantilism; Harbingers of Adam Smith; Adam Smith I: Value Theory; Adam Smith II: Growth and Income Distribution; Adam Smith III: Political Economy and Ideology; Malthus and Ricardo I: Population and Scarcity; Malthus and Ricardo II: The Theory of Value and Distribution; Malthus and Ricardo III: Accumulation and Gluts; Karl Marx I: Value Theory, Karl Marx: Accumulation, Growth and Crises.

**Recommended Books**


ECON-428  **HUMAN RESOURCE MANAGEMENT**


**Recommended Books:**

5. Any other latest book covering above course outlines.
ECON-430   INDUSTRIAL ECONOMICS

The scope and method of industrial economics; the welfare economics of competition and monopoly; the determinants of market structure; economic theories of oligopoly pricing and conditions facilitating as well as limiting oligopolistic co-ordination; the dynamics of monopoly and oligopoly pricing; price discrimination market structure; administrated prices and macroeconomic stability; product differentiation, market structure and competition; factors influencing the industrial location choice; policy approaches to monopoly and oligopoly.

Recommended Books:


ECON-432  LABOR ECONOMICS

Importance of Labor Economics; Introduction: Industrialization and Emergence of Labor Analyze Labor Markets and Conditions; Labor Markets Analysis: Demand for Labor; Labor Market Indicators; Demand for Labor; Decision Making and Labor Hiring; Labor Migration: Reasons and Impacts. Determinants of Labor Supply; Concepts of Human Capital; Human Capital productivity and Wages; The Determinants of Labor Force Participation; Supply of Labor and Household Productions; Labor- Skill, Training and Productivity; The Dual Labor Market Theory; Labor Unions and Wages; Labor Unions and Underemployment; Underemployment and Social Protection; 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; Rationale and Impacts; Theories of Labor Movements; 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 and moral aspects; Child labor an international issue: Extent of Child labor in developing countries; Child labor in Pakistan; Policies to combat child labor; Child labor and international trade issue.

Recommended Books:


ECON-434 MANAGERIAL ECONOMICS


Recommended Books:


ECON-436 POPULATION ECONOMICS

The Nature of Population Study; Analytics; Demographic Research in Action; Variables, The Sources of Information for Demographers; The Growth of Population; The Distribution of Population; Mortality; Fertility; Migration; International Migration; Internal Migration; The Composition of Population; The Socioeconomic Effects of Population Change; Population Policy.

Recommended Books:


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Overview of project appraisal and capital budgeting; Capital investments: Importance & Difficulties; Types of capital investments; Phases of capital budgeting; Levels of decision making; Facets of project analysis; Feasibility study; Objectives of capital budgeting; Common weaknesses in capital budgeting; Strategy & Capital Allocation; SWOT/WOTS UP Analysis; Strategic Planning & Capital budgeting; Generation of ideas; Porter Model; Different types of strategies; Scouting for project ideas; Preliminary screening; Project rating index; Credit rating of projects and financing proposals; Sources of positive net present value; Analysis: Situational Analysis, Collection of Secondary Information, Market Survey, Demand Forecasting, Market Planning, Technical Analysis, Manufacturing Process / Technology, Product Mix, Plant Capacity, Location and Site, Machineries and Equipment, Structures and Civil works, Environmental Aspects, Project Charts and Layouts, Schedule of Project Implementation, Need for Considering Alternatives, Financial Estimates and Projections; Project Selection, Time Value of Money, Investment Criteria; Project Cash Flows, Cash Flow Estimations, Cost of Capital & Capital Budgeting Techniques, Risk Analysis of Single Investments, Advanced Techniques, Risk Analysis, Firm Risk & Market Risk, Portfolio Related Risk Measures, Portfolio Theory and Capital Budgeting, CAPM and capital Budgeting, Choice Between Mutually Exclusive Projects of Unequal Life, Inflation and Capital Budgeting, SCBA (basics only), Judgmental, Behavioral, Strategic and Organizational Considerations; Decision tree analysis; Pareto Analysis; Financing of Projects – Capital Structure, Different Forms of Financing, Raising Venture Capital, Raising Capital in International Markets, Financing Infrastructure Projects; Project Implementation and Management – Project Planning, Project Control and Implementation, Network Techniques for Project Management, Development of Project Network, Time Estimation, Determination of the Critical Path, Scheduling when Resources are Limited; PERT Model; CPM Model, Network Cost System, Project Review and Administrative aspects, Control of In-Progress Projects, Post-completion Audits; International project management

**Recommended Books:**

8. P.S.Nambiar – All About Finance- Puliani & Puliani.
10. Institute of Bankers, Pakistan, Financial Management and Project Appraisal

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