Course Description

ECO111 Principles of Microeconomics

Course Objectives
This is an introductory course in microeconomics theory. During the course focus will be on examining the behaviors of individuals and firms in the market and how they make their choices, using basic economic principles and tools. This in addition will guide students toward evaluating evidence and applying it to solving problems through social science methods.

Theory Course Outline
The Principles of Microeconomics course addresses specific models of price or output determination. For example, students are introduced to concepts of opportunity cost in order to explain patterns of international trade and exchange. Students are acquainted with market models like the demand and supply model and asked to explain the impact of various types of public policy (e.g. rent control, price regulation, etc.), to forecast how exogenous events may affect market prices and output, discuss how differences in market structure affect price and output, and explain how consumers make purchasing choices. After completion of this course a student will be well prepared to understand the advanced concepts in microeconomics.

CSC101 Introduction to Computing

Course Objectives
This course is an introduction to a broad class of computer issues. It is designed for students who are not CS majors and who have had little or no previous experience with computers.

Theory Course Outline
Introduction to Computers and computing; Classification of computers; Elements of computers; Basic Computer Architecture; Control Unit; Arithmetic & Logical Unit (ALU operations); Main Memory (ROM,RAM, Cache);CPU Operation; The Registers; Input & Output Devices; Storage Media; Data Representation; Software Concepts; System Software ; Operating Systems; Basic Input Output Software (BIOS);Disk Operating system; Windows95/98/XP/2000;Application Software; Data base Management Systems; Communication System; Security Issues; Threats to computers & communication systems; Computer Networks; Internets; Artificial Intelligence-Commerce ;Computer Labs; Word processing tools & Internet; Databases ;Spreadsheet; Presentation tools; User Designed Application Software.

HUM110 Islamic Studies
Course Objectives
The subject introduces Islamic thought in comparison with other major world religions.

Theory Course Outline
The topics included are beliefs and actions: Islam and other world religions, basic sources of teaching, obligations towards God, self and others, and Islamic teachings of collectivism.

HUM100 English Comprehension and Composition

Course Objectives
The course will help students in developing the competencies to understand English and express themselves effectively in the same language both in writing and speaking.

Theory Course Outline
This course is designed to improve students' abilities to paraphrase, summarize, and synthesize and to correctly and effectively express them. Students learn to write more effectively through a variety of assignments that highlight the writing and revision process, effective sentence formation, paragraph development, and the format of essays. This course will emphasize the use of correct grammar, spelling, punctuation, and mechanics. Students will be required to apply these skills to all writing assignments.

ECO120 Principles of Macroeconomics

Course Objectives
Objectives of this course are that students should know that Macroeconomics is the study of the behavior of overall economy as opposed to the behavior of individuals, firms, or a particular market.

Theory Course Outline
This course is designed to introduce classic macroeconomic issues such as growth, inflation, unemployment, interest rates, exchange rates, technological progress, and budget deficits. The course will provide a unified framework to address these issues and to study the impact of different policies, such as monetary and fiscal policies, on the aggregate behavior of individuals. These analytical tools will be used to understand the recent experience of the countries and to address how current policy initiatives affect their macroeconomic performance. By the end of the course, students are expected to familiarize themselves with the fundamental macroeconomic concepts and principles, to be able to use those concepts and principles to critically analyze current macro level issues and situations and to develop a global awareness from an economic perspective.

ECO106 Mathematical Economics I
Course Objectives
The objective of this course is to develop technical skills to be used in economic theory and make students familiar with the importance of basic mathematical tools in economics and the interrelationship between economics and mathematics.

Theory Course Outline
Topics covered include: The real number system basic set theory, simple and simultaneous equations, linear and non-linear equations, their solutions and graphical presentations. Equations of supply and demand and equilibrium condition. Meaning of derivatives and rules of differentiation, partial and total differentiation, differential of two or more variables. Implicit functions rules. Application of derivatives in microeconomics and macroeconomics (elasticity of demand and supply, and market equilibrium; MPC, MPS, MR, AR, TR, TC, MC, AC). Matrices. After the completion of this course students are expected to learn some intermediary concepts of mathematics with some knowledge about graphical representation of economic concepts.

ECO112 Microeconomics-Intermediate

Course Objectives
The objective of the course is to clarify and extend further the microeconomics concepts and to develop analytical skills and solving minor problems.

Theory Course Outline
In this course, the students will get to combine simple mathematics and numerical tools with economic concepts. This course is concerned with the behavior of individual economic agents and their interactions. The topics include: Demand curve, individual and market demand curve, movement versus shift in demand curve, individual and market supply curve and market equilibrium, price, income and cross elasticity of demand, demand, total revenue and marginal revenue (MR), geometry of MR determination: MR, price and elasticity of demand, Cardinal and ordinal approaches, consumer equilibrium and income consumption curve, Engel’s curve and demand curve, Engel’s curve and income elasticity of demand, price consumption curve and demand curve, elasticity of demand and price consumption curve. This course also explains the substitution and income effect, Production function, Concept of costs.

ECO121 Macroeconomics-Intermediate

Course Objectives
The objective of this course is that students will be taught to develop tools which will help them to understand how exogenous shocks affect a country’s labor, asset and product market. It attempts to study theoretical models developed to analyze economics forces that drive economy in short run and long run. Emphasis is placed on the macroeconomic policies and government role in the economy. Also some basic features of an open economy would be taught.
**Theory Course Outline**
Topics include: Theories of Consumption, Saving and Investment, The Demand for and Supply of Money, Determination of National Income, Aggregate Supply and the Labor Market and Inflation and Unemployment. Successful completion of this course will make students to explore the limitations and potentials of macroeconomic theory with the real-world problems.

**ECO109 Mathematical Economics II**

**Course Objectives**
The purpose of this course is to introduce students to the ‘modelling building’. Students are introduced to the methods and tools frequently used in economics models of firms and individual behaviours.

**Theory Course Outline**
Topics covered include: Optimum and extreme values, first and second derivatives tests for relative extremum and economic applications, Maclaurin and Taylor series, nth derivative test for relative extremum, The nature of exponential functions, natural exponential functions and the problem of growth, logarithms and logarithmic functions, derivatives of exponential and logarithmic functions, applications of exponential and logarithmic derivatives, The differential version of optimisation conditions, extreme values of a function of two variables, quadratic forms, objectives functions with more than two choice variables, concavity and convexity, economic applications, comparative static aspects of optimization, Lagrange-multiplier method, Total differential approach, second order conditions, Quasi-concavity and quasi-convexity, Utility maximization and consumer demand, Homogenous functions and least-cost combinations of inputs, Dynamics and integration, indefinite and definite integration, Improper integrals, some economic applications of integration. At the end of this course students are likely to get well equipped with the knowledge of modelling building in economics.

**HUM111 Pakistan Studies**

**Course Objectives**
The course seeks to provide an appreciation and understanding of the cultural, historical and socio-political heritage of Pakistan.

**Theory Course Outline**
The course will instills in the students a sense of sacrifices which have been made by many to establish Pakistan as an independent country. At the same time, students are encouraged to develop analytical and interpretative skills, and are challenged to evaluate and analyze points arising from the course contents in a balanced and logical manner.
**HUM103 Communication Skills**

**Course Objectives**
This course is designed to develop student’s reading, writing, listening and speaking skills at an advanced level through language experience, free writing, drafting, peer response, revising and editing.

**Theory Course Outline**
This course will enable the students to organize messages that are appropriate to the audience and situation. Students improve oral communication skills for professional and social interaction through extensive pronunciation and conversational practice. Individual pronunciation assessments help students refine their language skills. Practice includes forming and communicating opinions on contemporary issues, developing formal and informal oral presentations and reports, giving and following directions. Through readings and written exercises, students learn how to form, communicate, and support their opinions and ideas in academic and professional settings. Students strengthen their reading skills and expand their vocabularies by reading and discussing a variety of adapted and authentic texts. They also may present findings in research reports.

**ECO213 Microeconomic Analysis**

**Course Objectives**
The course is designed for senior undergraduates. The objective is to familiarize them to advanced theoretical concepts and rigorous analysis with mathematical tools at hand. They have to develop the analytical skills and to enhance the capabilities to solve somewhat complicated problems.

**Theory Course Outline**
This course the Topics include: Theory of Price in Perfectly Competitive Markets, Theory of Price in Imperfect Competition, Classical Oligopoly and Theory of Distribution. The successful completion of this course will master students with the advanced microeconomics topics and their application.

**ECO241 Money and Commercial Banking**

**Course Objectives**
The objectives of the course are to address classical and contemporary issues in the theory of money, banking, and financial institutions.

**Theory Course Outline**
Topics covered include: the gold standard, the structure of central banks and the Federal Reserve system, theories of money demand and money supply, the relationship between money supply and overall economic activity, the theoretical and practical aspects of monetary policies and money creation, the efficacy of fiscal policies versus monetary
policies, and the role the central bank plays in economic stabilization. We shall pay particular attention to the money creation process, to endogenous money versus exogenous money, and to the ability of the central bank to stabilize the economy. The contents are as follows: Why study money and banking, the financial system, interest rates and their behavior, the banking firm and bank management, the monopoly supply process and the tools and conduct of monetary policy. This is an important course for learning the monetary operations which take place in different macroeconomic scenarios.

ECO200 Introduction to Development Economics

Course Objectives
The objectives of this course are to give knowledge to the students with problem which are concerned with the economies of developing countries. The central focus is on how economic analysis can be used to explore the nature of some of the main problems which these economies face and possible policy solutions.

Theory Course Outline
The following topics will be covered: interpretation and differences between growth and development, principal determinants of growth, investment and savings, health and education, productivity, technology and innovation, integration and challenges of the international trading system for developing countries, role and importance of institutions, meaning and measurement of poverty and inequality, issues in agricultural development, structural adjustment and aid. The main make objective of this course is to make students demonstrate basic knowledge of a range of conceptual questions and policy issues relating to the economics of development, to be able to understand the analytical techniques which are used by economists, including simple graphs and equations and to diagnose some of the main problems of developing countries and discuss possible policy measures required for promoting growth and development.

MTH161 Introduction to Statistics

Course Objectives
At the end of this course the students will be able to understand the concept that Business Statistics is the science of good decision making in the face of uncertainty and is used in many disciplines such as financial analysis, econometrics, auditing, production and operations including services improvement, and marketing research. This course makes students understand the application of statistics in various fields of management sciences. The collection and analysis of quantitative data drives some of the most important conclusions that are drawn in today's business world, such as the preferences of a customer base, the quality of manufactured products, the marketing of products, and the availability of financial resources.

Theory Course Outline

**HUM102 Report Writing Skills**

**Course Objectives**
This course has been specifically designed to meet the writing needs of students aiming for a specialization in areas of Management. The aims and objectives of this particular course are to introduce course participants the importance, needs, varieties, and technicalities of business reports.

**Theory Course Outline**
Aspects of written business reports such as organization, contents, impact, and style will be highlighted. Students will aim for proficiency in writing letters, memos, messages, resumes and applications etc. Students will learn basic writing techniques such as: how to use an active voice, how to apply the 7 C's of writing, how to avoid using jargon or offensive phrases and how to write with a YOU attitude. They will also learn about the proper formats for letters, memos and proposals. By the end of this course, students will be able to write clear, concise business correspondence with style and confidence.

**ECO222 Macroeconomic Analysis**

**Course Objectives**
The objectives this course is this that students will be introduced to the methods and tools of economic analysis, and these analytical tools will be applied to questions of current policy interest.

**Theory Course Outline**
Broadly, the course focuses on the determination of national income, on unemployment, inflation, and economic growth in the context of a global economy, and on how monetary and fiscal policy, in particular, influences the economy. The course also deals with the keynesian, classical and neo classical debate over different macroeconomic issues such as saving, investment, consumption, unemployment, inflation. Demand and supply side of economy will be discussed in detail which include, demand for and supply of labor, the wage rate determination, Rigidity versus flexibility of nominal wage rate, The short-run Production function, Derivation of Aggregate Supply under the Classical and Keynesian assumptions. It will also focus on The IS/LM/BP Model - the BOP Curve, international trade and fund movements: the positions of curves, open economy macro policy under
fixed and floating exchange rates, and the effectiveness of monetary and fiscal policy (again), the impact of devaluation with fixed exchange rates.

**ECO212 Economics of Pakistan**

**Course Objectives**
The objective of this course is to give connections with Pakistan’s economic development and effectiveness from 1947 to up to date, the role of agriculture and industry in Pakistan’s economy, balance of payments, monetary policy, fiscal policy, foreign economic assistance, and infra-structural services and communication. Special importance is given to the financial sector.

**Theory Course Outline**
In this course students will study concepts of foreign aid and debt, borrowing verses domestic reserve mobilization (failure), size of foreign debt, debt saving and its impacts, strategies to combat with high debt, saving policy, foreign trade promotion, cutting non-development expenditures, rescheduling and its impacts, debt management in Pakistan and its impacts, debt modeling and future implications. This course will also explore the development and export of development thinking, implementation of structural adjustment programme in Pakistan, sap standard requirements, fiscal policy, trade and financial sector, evaluation of SAP, the political economy of SAP in Pakistan.

**ECO251 Economics of Population**

**Course Objectives**
The objectives of the course are to provide students information on the basics of population economics.

**Theory Course Outline**
Topic covered are nature and importance of the study of population, basic demographic concepts, Population characteristics, age sex composition of population, rural, urban, economic and education composition, religious and marital composition with special reference to population of Pakistan according to the latest census of population. Major demographic process will be discussed, The theory of demographic transition, the Malthus theory of population, the micro economic theory of fertility, general consideration and some policy approaches, population pressure and its political implications, economic development and population growth.

**MTH264 Statistical Inference**

**Course Objectives**
At the end of this course the students will be able to understand the common statistical practices by presenting real-world applications from the fields of business, economics,
finance, operations research, and management science, understand the application of statistics in various fields of management sciences, e.g. quality control or total quality management, data analysis etc. The collection and analysis of quantitative data drives some of the most important conclusions that are drawn in today's business world, such as the preferences of a customer base, the quality of manufactured products, the marketing of products, and the availability of financial resources. As a result, it is essential for the students of management science to have the knowledge and skills to interpret and use statistical techniques in various scenarios.

**Theory Course Outline**

Role of inferential statistics in Management sciences Applications of sampling theory and types of sampling, Methods of drawing sample by using different sampling techniques. Theory and applications of Central limit theorem, Role of estimation in business, point estimates, properties of point estimate, Interval estimates, confidence interval and its applications, interval estimates for population mean from large sample. Interval estimates for population mean from small sample, Interval estimates of the population proportion for large sample. Determining the sample size in estimation, Introduction to testing of hypothesis, basic procedure for testing of hypothesis. Forecasting by regression models. Analysis of regression model. Correlation Study, Applications of Chi-Square, Chi-Square as a test of independence, Inference about the population variance, ANOVA, Applications of non-parametric tests, Applications of decision theory in the field of business, Decision tree analysis, Statistical quality control. Statistical analysis by SPSS.

**ECO206 Economics of Environment**

**Course Objectives**

The objectives of this course is that the students will learn the supply and demand issue: cost of controlling environment benefit – cost and its estimation, willingness to pay, equilibrium principle technology and equi marginal principles, marginal cost and supply, economic efficiency and markets, equity and social efficiency, external costs and external benefits.

**Theory Course Outline**

In this course the areas of environmental economics will be of importance which is The Economics of Environmental Quality, Economic Development and the Environment, The Global Environment, Ozone depletion, the economics of global warming, keyoto – protocol and issues, international environmental agreements, un and environmental cooperation, international trade and the environment, impacts of awareness policy. Concentration will also be given to issues pertaining to environmental issues in Pakistan and how do they affect economy. This area will cover the issues like 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, public policies and awareness to control pollution, environmental policy and strategy in Pakistan.
ECO332 Basic Econometrics

Course Objectives
Objectives of the course are to provide students with a basic foundation in econometrics combining theoretical underpinnings with practical problems.

Theory Course Outline
This course introduces regression analysis: the basic idea behind the classical linear regression model (CLRM), the underlying assumptions, and the problem of estimation. Building on the two-variable model, it analyses a few extensions, the multiple regression model and hypothesis testing and interval estimation, both on the two-variable and multivariate regression models. Finally, it examine the nature of dummy variables, the ANCOVA models, Dummy variables & Chow test, Interaction effects using dummy variables, technical aspect of dummy variables.

ECO353 Monetary Economics

Course Objectives
The objectives of this course are to examine the theory and implementation of monetary policy.

Theory Course Outline
Topics include the transmission mechanism of monetary policy, Debate on neutrality and non-neutrality of money, classical dichotomy and Keynesian integration of nominal and real sectors, role of money in the IS-LM framework, money in aggregate demand & aggregate supply analysis, demand for and supply of money, structure and functions of central bank interest rate rules, the credibility of policymakers, and exchange rates. Consideration is also given to empirically measuring the impact of money on real economic variables and optimal monetary policy, conduct of monetary policy in fixed and flexible exchange rates.

ECO343 International Economics I

Course Objectives
The objectives of this course are to give students the knowledge on the area of international economics and the topics which are related to it.

Theory Course Outline
The themes of the course are topical and spread over the area of international economics, current international economic problems, basis of trade, gains from trade, absolute advantage, comparative advantage, overview of comparative advantage and pattern of trade comparative, advantage and opportunity costs trade under constant costs, students will be well equipped with the standard trade model, Factor Endowment and Heckscher–

**ECO333 Applied Econometrics**

**Course Objectives**
The objective of this course is to provide the students with an advanced training in econometric theory.

**Theory Course Outline**
This course enables students to apply most of the modern econometric tools in empirical studies and, also, to understand and evaluate important econometric issues such as multicollinearity, Heteroscedasticity, Autocorrelation, nature, causes and consequences of autocorrelation, The Breusch-Godfrey LM test, Durbin-Watson and other tests, resolving autocorrelation, computer applications, Time Series Econometrics, Stationary Time Series, Unit Roots and Cointegration, Vector Auto regression (VAR), problems with VAR, unit root tests, cointegration, augmented Engle-granger test, VAR and cointegration, cointegration and error-correction models, the short run and long run causality.

**ECO340 Public Finance**

**Course Objectives**
The objective of this course is to focuses on the application of economic theory to analysis of the issues pertaining to public expenditures and taxation.

**Theory Course Outline**
This course include the extensive issues include, categories of taxes: income and corporate taxes, wealth tax, sales tax, excise and custom duties and surcharges, direct and indirect taxes, tax criteria: efficiency criteria, equity criteria, the benefit principle, ability to pay principle and limitations of tax effort and the laffer curve, tax structure of Pakistan – a critical analysis. The course explores the process of budget making, development and non-development budget, budget procedure: balanced budget, deficit and surplus budget, budget procedure in Pakistan.

**ECO344 International Economics II**

**Course Objectives**
The objective of this course is to gave the advances knowledge to the students as this course is the second part of the undergraduate series in international economics (following the International Economics-I).

**Theory Course Outline**
Topics which will be covered in this course, include, Theory of Protection, Trade Policies and Protection Major Contemporary International Economic Issues such as WTO, GATT and emergence of WTO. Why necessary to join WTO? WTO: major trade rules and their expected impacts on trade, BoPs deficit and its Implications for LDCs, free trade, terms of trade and international financial institutions issues. Benefits and costs of economic integration, economic integration among developed and developing countries, International Trade and Economic Development, International Resource Transfer, Motives and Effects of Capital Flows, Theory of Multinational Corporations (MNCs), The debate Over MNCS—Global and Specific Issues, Motives and Effects of International Labour Migration.

**ECO471 Economic Analysis of Project Planning and Management**

**Course Objectives**
The objective is to provide knowledge about the projects and their management.

**Theory Course Outline**
Topics enclosed in this course are, Introduction, phases of project management, principles of project management, network planning, critical path method (CPM), programme evaluation and review technique (PERT), Precedence Method (PM). Furthermore, Concept of Project and Evaluation, Stages of Project planning/Project Cycle, Various Aspects of Project Evaluation, Project Analysis, Private vs. Social Profitability and Cost and Benefit Analysis will be covered in this course. Students will be able to learn financial mathematics involved in project management and planning, like Net Present Value, Benefit Cost (B/C) ratio, Internal Rate of return (IRR), Discounted Payback Period / Break-even Point, Annuity, Present Value of annuity, Future Value of annuity, Sinking Fund, Amortization of Loan.

**ECO481 Research Methods**

**Course Objectives**
Objectives of this course are to presents a concentrated introduction to the conceptual theories and practical mechanics that students deal with while doing research. This course is to explain students with different methods of data collection, processing and analysis, and to be able to make decisions about the consistency of various methodological approaches.

**Theory Course Outline**
This course deals with the topics such as meaning and importance of research, nature of research: positivism and normatism, types of research: theoretical research, empirical research and pragmatic research, formulation of research problem, methodology, meaning and importance of research, nature of research: positivism and normatism, types of research: theoretical research, empirical research and pragmatic research, importance of research proposal, characteristics of research proposal, steps of research proposal: introduction, identification/ statement of the problem, literature review: studying
background material for problem exploration, methodology, justification and objectives of the study.

**ECO490 Issues in Development Economics**

**Course Objectives**
The objective of this course is to explore the concepts of historic growth & contemporary development, gender and gender inequality, the relationship between gender inequality and poverty, and discuss the importance of gender issues in economic development, importance of agriculture and rural development, the structure of third world agrarian system, the important role of women, stages of agricultural development, agriculture and rural development strategy, the importance of international trade & finance, basic questions about trade & development, the terms of trade & the prebisch-singer theories, some criticisms of traditional free-trade theory, third world debt crisis.

**Theory Course Outline**
The course will covers the latest issues in developing countries like, Financing & reducing payments deficits, the third world debt crisis, IMF stabilization policies and their evaluation, monetary & fiscal policies in the developing countries.

**ECO488 Theory of Islamic Economics**

**Course Objectives**
The objective is to provide an overview of Islamic economic system, also an overview of capitalism, communism, Islamic view of consumption, production, and factors of production and their ownership, forms of business organizations, saving and investment functions in an Islamic economy.

**Theory Course Outline**
Topic which are include in this course is Islamic concept of money and Western rationale of interest, the concept of “riba”, its interpretation and implications, alternatives to interest in an Islamic economic system, commercial banking in interest free economy, Islamic modes of financing. The role of Islamic state, zakat, usher and insurance, theory of fiscal policy in an Islamic state, zakat and fiscal policy, inflation and the Islamic economy. It also explores the application of Islamic banking in Pakistan, introduction of zakat, and usher in Pakistan, evaluation of Islamization process in Pakistan and other Muslim countries (Iran, Sudan, Malaysia, Egypt).

**ECO448 Financial Economics**

**Course Objectives**
The objective of this course is to develop the microeconomics theory relevant to these types of transactions.

**Theory Course Outline**
This course will explain the economic principles which are applied for the determination of the value of basic financial instruments such as stocks and bonds, types of bonds, relationship between interest rate and bond’s price, introduction to stock market, selling of ownership through stock/share, valuation of stock as well as to more complicated derivative securities, such as futures and options. Valuation concepts, in turn, allow for the analysis of various issues of interest to policy makers as well as portfolio managers and investors, such as the term structure of interest rates, portfolio theory, the capital structure of the firm, and risk management. Course further explains the topics included in investment decisions under certainty cases such as pay-back method, accounting rate of return, net present value, internal rate of return, projects with unequal lives, least-cost decision, inflation and investment decision. Finally, it will explore the concepts of Portfolio Analysis and the Capital Asset Pricing Model.

**ECO469 Political Economy and Global Change**

**Course Objectives**
The objective of this course is to examine the global context in which the economy works. Global Political Economy incorporates different fields such as individual disciplines of politics, economics, and international relations.

**Theory Course Outline**
It includes brief introduction of basic concepts of political economy, economic and political integration, policy reform and popular organization, key social and economic indicators, political and economic institutions and their role in decision making, linkages of politics and economics, theories of global political economy. The organization of this course encompasses topics like 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. multinationals: objectives, contribution and their mobility. Emerging world financial order, the group of seven and political management of the global economy, big business and new trade blocks, external debt issues.

**ECO352 Agriculture Economics**

**Course Objectives**
The objective of this course is to explain the concepts of agricultural economics to the students.

**Theory Course Outline**
In this course students will study the logic of economic theory, economic theory as abstraction consumption versus production economics versus agricultural economics, Production function, fixed versus variable inputs, law of diminishing return, marginal physical product (MPP) and average physical product (app), MPP and marginal product function, neo-classical production function, MPP and APP for the neo-classical function, sign, slope and curvature, single-input production elasticity, elasticity of production for the neo-classical production function. It also covers Original Cobb–Douglas production function, characteristics of Cobb–Douglas type of function, isoquants for the Cobb–Douglas type of function, profit maximization with the Cobb–Douglas function, duality and the Cobb–Douglas function, constrained output or revenue maximization, multiple inputs and a single product, many outputs and a single input, many outputs and many inputs.

**ECO347 Financial Markets and Institutions**

**Course Objectives**
The objective is to provide knowledge about role and functioning of financial system growth and stability of financial system.

**Theory Course Outline**
In this course students will study the financial institutions and current issues markets and current issues risk of financial intermediation financial in fracture. Information asymmetric and the need for the role of financial sector. Some Basic concepts like adverse selection, moral hazard, free rider and principal-agent problems in financial sector to understand puzzles of financial markets. Why there is need to regulate the financial sector? Why financial sector is most regulated one in an economy? Scheduled Banks and their role in economic development of Pakistan Interest Rate Risk, Market Risk, Credit Risk, Off Balance Sheet Risk, Country or sovereign Risk, Liquidity Risk, Insolvency Risk.

**ECO354 History of Economic Thought**

**Course Objectives**
The objective of this course is to give students an in depth knowledge about the history of economic thoughts and to study the contributions of major economic thinkers of the West from the late scholastics to the present.

**Theory Course Outline**
When free markets first emerged as the dominant means of resource allocation, political philosophers tried to describe the remarkable efficiency of the mechanism they were observing. As they succeeded in identifying the key components of a market allocation system, the discipline of economics was born. This course honors the tradition of scholarship by showcasing the advances in economic theory that have paralleled the improvement in our living standards as market economies have transformed the world.
This course is designed to provide an introduction to the contributions of major economic thinkers of the West from the late scholastics to the present. Students will examine the origins of ideas that continue to support the framework of economic theory. In addition, the course will highlight reasons for controversies, which have arisen among economists as the discipline evolves. As such, it is necessary to look at the historical context in which various economic theories have been applied. The course will equip students with a perspective that allows them to compare their own theories with those widely accepted in the economics profession, and to anticipate the direction of further intellectual progress.

Students will consider various ideas as their originators first presented them; and they will also follow the impact of those ideas as they were applied and developed by others. As part of this endeavor, students will explore the historical circumstances under which innovative theories arose. The relationship between the philosopher and his subject of inquiry is a dominant theme of the course. Upon completion of the course, the student will be able to explain the need for understanding the origins of economics as a science, differentiate between the views of the Physiocrats and the standard Classical approach.

**ECO360 Natural Resource Economics**

**Course Objectives**
The objective is that economics students should know about the important issue which are included in the course of natural resource economics.

**Theory Course Outline**
This course will include the review of market system Supply, demand, prices, opportunity costs, efficiency, producer and consumer surplus, and property rights, materials balance model, market failure – externality, public goods, and government failure, institutions, institutional innovation. Optimum level of pollution, tax and regulation solutions, property rights and institutions revisited: Coase theorem. Non-market valuation: indirect methods Inter-temporal allocation and scarcity rent, renewable resources: static fishery example, open access problems, and renewable resources: dynamic fishery example, preservation, extinction, safe minimum standard, and policy, exhaustible resources revisited.

**ECO403 Managerial Economics**

**Course Objectives**
The objectives of this course is to integrate various principles and concepts from different fields of economics with typical problems of managerial decision-making and policy formulation in business organizations whether in a local or global context.

**Theory Course Outline**
Topics include Demand concepts for decision making demand estimation and demand forecasting price elasticity of demand & decision making income elasticity of demand & decision making cross elasticity of demand & decision making. Production analysis &
estimation, roles of revenues & cost in productions, cost analysis & estimation, cost-volume, profit analysis/break even analysis. Furthermore, it covers more wide areas of pricing analysis & decisions, capital budgeting & investment decisions, location decisions.

**ECO430 Advanced Econometrics**

**Course Objectives**
The objective of this course is to give advanced knowledge to the students regarding Econometric.

**Theory Course Outline**
This course extends the topics in econometrics which include The linear Probability Model (LPM), The Logit Model, The Logit Model for ungrouped or individual data, The Probit Model, Advantages of panel data, estimation of panel data regression models the common constant method, the fixed effects method, the random effects methods, fixed effects versus random effects model, bias in dynamic panels, and solution to the bias problem, and evidence from traditional panel data estimation, Stationarity, autoregressive time series models, moving average models, ARMA and ARIMA models, ARCH-GARCH models, VAR models and causality tests, cointegration and error-correction models.

**ECO441 Labor Economics**

**Course Objectives**
The objective of this course is to cover the important elements of labor economics using microeconomics theoretical tools.

**Theory Course Outline**
The course will begin with a discussion of what labor markets are and the determinants of the supply of and demand for labor. The course will then cover special topics of policy interest such as the existence of labor shortages, the effects of the minimum wage on employment, the effects of tax policy on labor supply and demand, investments in education and training, the effects of welfare policy on labor supply and demand, the effects of international trade on labor demand, worker mobility, pay and productivity, the labor effects of outsourcing, the role of trade unions, unemployment, and income inequality, the decision to work, the family and the life-cycle and child labor. All of these abovementioned topics will be taught with reference to Pakistan’s labor economics. On the successful completion of this course the students will be able to use economic concepts to explain certain labor market issues in Pakistan.

**ECO450 General Equilibrium and Welfare Economics**
Course Objectives
The objective of this course is that students should know adequately about the important topics in microeconomics.

Theory Course Outline

ECO455 Health Economics

Course Objectives
The objective of the course is to give knowledge to the students about health problems.

Theory Course Outline
In this course the students will study the particular problems of health and the economics of health. What makes individuals and populations healthier or unhealthier health? Is health care really different from other commodities? How health and health care has changed in the last century, the last two decades, the last year: an international overview. Demographers’ measures, particularly life expectancy. The pharmaceutical market. Health in transition. The future of health care reform in the world, and particularly Pakistan. Alternate forms of health care provision in the world, and recent changes.

ECO464 Comparative Economic Systems

Course Objectives
This course aims to develop some basic idea about these core economic systems. The course is designed such that it will not only provide them with the history of these systems but also what future they hold.

Theory Course Outline
This is a course that seeks to develop concepts enabling us to differentiate economic systems from one another. What are the ways of thinking that will allow us to find the key differences between feudal, slaves, capitalist, socialist and communist and Islamic economic systems?. The learning goals of the course are to sharpen the ability of students to articulate the differences between economic systems, to understand and evaluate
underlying theoretical arguments that support the different economic systems that have existed and still exist, to build a new conceptual vocabulary that will allow students to better read the social science literature, to evaluate our own beliefs regarding capitalism, socialism and communism and to understand when characterizations of these social formations are mere polemical and when they're based on accepted definitions.

**ECO468 Development Planning and Policy**

**Course Objectives**
The objectives of this course is to provide students with the in depth knowledge about planning and policy, and to tell them why international borrowing takes place.

**Theory Course Outline**
In this course students will learn about two gap model, aid commitments and disbursement, sources of borrowing, debt cycle theory/stages, debt burden: debt servicing, debt Laffer curve, debt buy back etc LDC’s inflation and deficit BOP problem, savings and forced savings, direct and indirect taxation, transfer of resources from agricultural to industry, migration and its role, urban unemployment, industrialization and small manufacturing enterprises (SME’s), human capital and its development / productivity. Multinational corporations (MNC’s): objectives, role and contributions, long term cost of TNC’s, transfer of technology Trade vs aid, liberalization of trade and its impacts/gains etc, trade led growth, foreign exchange constraints and balance of payment deficit, role of GATT and its failure, WTO and LDC’s.

**ECO470 Transport Economics**

**Course Objectives**
The objectives of this course will provide students with the basic concepts and tools for economic evaluation of transportation projects and related investments.

**Theory Course Outline**
In this course students should obtain basic skills in the analysis of travel demand and in the valuation and analysis of transportation system benefits. Students should also be able to understand different components of the costs of transportation, basic pricing principles, and how these factors affect the market for transportation infrastructure and services. Finally, students should be able to apply these concepts to analyze transportation investment decisions.

**ECO472 Agricultural Production Economics**

**Course Objectives**
The objective of this course is to teach important topics that help them understand the issues faced in agriculture.
**Theory Course Outline**

In this course students will learn about consumption versus production economics versus agricultural economics. Production function, fixed versus variable inputs, law of diminishing return, marginal physical product (MPP) and average physical product. An isoquants and the marginal rate of substitution (MRS), isoquants and ridgelines, MRS and marginal product, partial and total derivatives and the MRS. Economies and diseconomies of size, economies and diseconomies of scale, homogeneous production functions. The Cobb–Douglas function, duality and the Cobb–Douglas function, constrained output or revenue maximization, the CES production function General multiple product and multiple - input conditions.

**ECO473 Applied Economics**

**Course Objectives**

The objective of this course is to develop some technical implications of economics and statistics.

**Theory Course Outline**

The topic concerned are: Introduction to Windows 2000 and Ms-Word, PowerPoint and MS-Access (XP) SPSS and E-Views, Estimation of Demand and Supply using E-View / SPSS. Aggregate Demand – Aggregate Supply and Equilibrium. 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 (softwares), e-view etc. for cost-benefit analysis, estimation of present values, and estimation of economic and social benefits. Project appraisal using e-view etc. estimation of cost functions and decision making 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. By the end of this course students will be able to demonstrate their knowledge of economics in research and will be able to make them use their analytical abilities with their technical skills of managing and calculating different data sets.

**ECO476 International Monetary System**

**Course Objectives**

The objective of this course is to provide students with the understanding of the principles and applications of international finance, well as the impacts of financial and political news, government policies and changes in global economic environment on these asset prices; understand major international macroeconomic issues, the adjustment mechanism of various exchange rate systems and the role of exchange rate and other macroeconomic policies; and evaluate Pakistan’s exchange rate policy and its challenges in the future.
Theory Course Outline
The course will cover balance of payments, exchange rates and foreign exchange market, exchange rate in the long run and in the short run, macroeconomic policies under fixed and floating exchange rates, optimum currency areas, global capital market and growth, crisis and reform in developing countries.

ECO477 Urban and Regional Planning

Course Objectives
The objective of this course is to make the students learn about different problems of Urban and Regional Planning so that due to rapid growth of population and the resultant migration to urban centres demands planning to meet the growing demand of housing, transport, health and environment.

Theory Course Outline

ECO482 Open Economy Macroeconomics

Course Objectives
The objective of the course is to provide students the knowledge about the current account and macroeconomic adjustment in the 1970s, the global saving glut and the US current account deficit, Bretton -Woods system.

Theory Course Outline
This course includes the topics of expectations and exchange rate dynamics, targeting the real exchange rate: theory and evidence. Financial intermediation, loanable funds, and the real sector, credit cycles, exchange rate volatility and growth: the role of financial development, financial fragility and economic performance, the causes and propagation of financial instability: lessons for policymakers. Bank runs, deposit insurance and liquidity, liquidity and twin crises, currency crises and monetary policy in an economy with credit constraints, international financial crises: causes, prevention and cures. North-South lending and endogenous capital market inefficiencies. Why doesn’t capital flow from rich to poor countries.
**ECO484 Project Planning and Monitoring**

**Course Objectives**
The objectives of this course are to give students a good understanding of methods and techniques used for planning, monitoring and controlling projects.

**Theory Course Outline**
This course give students an up to date knowledge of approaches to project identification, project preparation: components of a project report, case studies on the above, preparation of a feasibility report on development analysis, choice of technology, size and location, identification of costs and benefits, case studies on the above. It also provides further awareness on Investment profitability analysis, financial analysis and shadow pricing, social profitability and distributive goals in project planning, sensitivity and risk analysis, environmental impact analysis, Organizational design, identification of implementing agency/ agencies, clarification of their authorities’ responsibilities and relationship, scheduling and activity analysis; giant charting; project break down structure, network analysis, critical path method, project support: resource allocation, logistics and administrative support, case studies on the above.

**ECO485 Government, Markets and Globalization**

**Course Objectives**
The objective is to design this course in a way that students know how the governments can function in the wake of globalization and changing structure of the market.

**Theory Course Outline**
In this course students must complete four (4) case study papers. These papers provide a link between theory and practice allowing students to demonstrate not only an understanding of key frameworks, techniques and insights, and key challenges facing policy makers, but also how they might go about addressing them. The final paper provides the opportunity for students to demonstrate that they have understood key approaches from each discipline, the power of combining these analytically, and how this helps us to understand the challenges faced by policymakers.

**ECO487 Urban Economics**

**Course Objectives**
The objective of this course is to provide students with the knowledge of urban economics i.e. that what are the various problems of urban areas.

**Theory Course Outline**
It deals with the nature and development of urban areas. The analytical sections of the course deal with the location of firms and households in an urban spatial context, the size
distribution of urban areas, the theory of land rent, and optimal city size. Various urban problems such as poverty, racial segregation and discrimination, pollution and environmental quality are discussed. Other policy questions deal with congestion tolls and efficient highway investment, land use regulation, central city fiscal problems, and alternative educational policies. Local government spending, local government revenue—endogenous maintenance, A Commodity Hierarchy Model, Maintenance, Comparative Statics with Durable Housing.

**MGT100 Introduction to Business**

**Course Objectives**
The objective of the course revolves around the development of a business plan. The contents of the course are focused on the structure of a business plan, and are organized in to the different parts. It explains how to establish a business, how to choose a type of business, and how to establish ethics guidelines for the business.

**Theory Course Outline**
This course describes how the business environment (economic, industrial, and global conditions) can affect a business. It also focuses on the management of a business, including marketing and financial management aspects along with other business topics.

**MGT101 Introduction to Management**

**Course Objectives**
Objective of the course is to give the students an understanding of the complexity of organizations and management.

**Theory Course Outline**
The course covers both micro & macro perspectives which include the Manager’s role, the historical context of organization & management, the external environmental and competitive analysis, putting an organization together. It purports to inculcate the problem solving process approach and to develop the strategic and tactical thinking amongst the students.

**MGT131 Financial Accounting**

**Course Objectives**
The major objectives of this course are to develop an understanding of the concepts, principles and conventions upon which financial accounting is based, and analyzing business transactions, their recording and preparing of end result through trial balance and adjusting entries leading to periodic financial statements.
Theory Course Outline
Financial Accounting is principally concerned with the construction and interpretation of financial reports prepared for external parties to the issuing firm or entity. The course further examines notes and accounts receivables; plant assets; liabilities; partnerships; corporations; international transactions; cash flow statements; and a review of the budget process and responsibility accounting. Consideration will be given to accounting techniques and the formulation of financial reports; however, the course will focus on understanding accounting policies, their rationale and the implications for users of the financial accounting information. The user orientation approach will include interpretation and assessment of financial statements.

MGT232 Business Finance

Course Objectives
The focus of the course is learning that how a corporate manager can evaluate prospective investments.

Theory Course Outline
This course involves learning the concepts and techniques necessary to evaluate the time value of money, compounding, annuities, perpetuities, bond prices, stock prices, net present value, concepts of risk and return, diversification, the Capital Asset Pricing Model, financial statement analysis, working capital management and leverage. The students will also learn about capital markets that provide these funds, in theoretical and practical frameworks in various developed and developing markets.

MGT330 Financial Management

Course Objectives
This course focuses on the study of the major principles and practices applied in business financial management and examining theoretical and practical issues in financial decision making process.

Theory Course Outline
In this course the Particular attention will be given to the areas of capital budgeting, capital structure and cost of capital, dividend policy and working capital management. Topics like risk analysis, long-term debt- and equity financing as well as lease financing will also be the part of course.

MGT350 Human Resource Management

Course Objectives
The objective of the course is to explore the central, strategic role that HR plays to make organizations more competitive.
Theory Course Outline
This course will examines personnel management concept and practices including recruitment and selection of employees, equal opportunities, training and development, performance appraisals, compensations and benefits, and labor relations. This course has a special focus on globalization and work force diversity in the high performance organization.

HUM220 Introduction to Psychology

Course Objectives
It is a study of the theories of human behavior, the psychological basis of behavior, the concept of mental health and processes of adjustment.

Theory Course Outline
The course provides a concept of psychological aspects at work, discusses factors improving efficiency at work, human aspects at work and factors determining satisfaction at work with emphasis on the anatomy of the modern company and the working environment.

HUM221 International Relations

Course Objectives
This course introduces students to the history and problems of international relations. Among the questions to consider are: Where does international order (and disorder) come from? What are the powers and limits of nations/states? What is globalization? What is the role of UN in the international affairs? Can international law be used to prosecute war criminals?

Theory Course Outline
Much of the attention will be focused on the concepts needed to think theoretically about international politics. Concepts such as sovereignty, interests, power, and identity are central. After an introduction to these concepts; three substantive issues areas in contemporary world politics are examined. These are: international conflict & war, international political economy, and international law and organization. For each, a set of contemporary problems will be examined and analyzed with the conceptual thinking of the first section. The course will be concluded with some direct attention to the ethical problems posed by international relations.

HUM223 Introduction to Philosophy

Course Objectives
This course is designed to introduce the student to key themes in the philosophical tradition - from the classical period, through the early modern period, to contemporary philosophy.

**Theory Course Outline**
In this course students will read some challenging but rewarding texts, as one of the main goals of the course is to learn how to read philosophy. The course will discuss different philosophical worldviews that address questions such as: what is the nature of the human soul and is it distinct from our body? How do we acquire knowledge? How should one live his or her life? What is the nature of existence?

**HUM310 Islamic History**

**Course Objectives**
Humanity at the dawn of Islam. Brief survey of major world civilizations, with special emphasis on their intellectual humanistic and special instructions, their impacts on world history. Advent of Islam: Light and teachings of Holy Prophet, Foundation of a new and revolutionary world order institutions of Islam; political, social, economic and legal structure of Islamic polity.

**Theory Course Outline**
In this course students will learn about the early conquests of the Khulafai Rashideen, administrative and legal structure of state political ideological differences and the emergence of Ummayyads, expansion and consolidation of the empire. The grandeur of Islam: philosophical, scientific and literary progress of the Muslims during the Abbasid period. Islam in Spain and Africa, Muslim achievements in natural and social sciences, schools of Baghdad, Spain and Iran, Muslim contribution to history, science, medicines and other branches of human civilization. Muslim arts: Muslim’s contributions in architecture, music, painting, handi crafts, and poetry. Renaissance and reformations: origin of this intellectual revelation, contribution of Muslim universities and seminars in Spain and Baghdad. Modern world: Impact of Islam on western thoughts, social institutions and economic policies.

**HUM320 Introduction to Sociology**

**Course Objectives**
The objectives of the course are to focuses on basic concepts, research, and theories involved in increasing the understanding of human behavior and human societies. Utilizing a sociological perspective, the interrelations among human societies, individuals, organizations, and groups are analyzed.

**Theory Course Outline**
Topics of analysis include culture, social interaction, social institutions, social stratification, community, and various social change strategies. Numerous contemporary
social problems and issues such as racial and ethnic relations, class bias, and homophobia are discussed.

**HUM300 Corporate Law**

**Course Objectives**
The objective of the course is to introduce the main principles governing the operation of companies. Students are to appreciate, inter alia, the rules governing the incorporation of companies, how this corporate personality operates, how this business vehicle fits in with the broader framework of the outside world, questions of funding and what comprises good corporate governance.

**Theory Course Outline**
Topics include the following: incorporation; relations between the company and the outside world, including ultra vires and agency; relations within the company, including the effect of the memorandum and articles, member's rights, director's duties, and enforcement of corporate rights; corporate finance; corporate insolvency and winding up.