

CURRICULUM FOR TWO-YEAR ASSOCIATE DEGREE / BS (4-YEAR) IN ECONOMICS



**DEPARTMENT OF ECONOMICS
UNIVERSITY OF MALAKAND
2023- ONWARDS**


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CONTENTS

Agenda Items No	Descriptions	Page No
Item No 1	Approval of Vision and Mission Statement of the Department of Economics	02
Item No 02	Approval of Course Codes and Course Contents for other Departments	03-07
Item No 03	Approval of Revised Scheme of Studies and Curriculum of Associate Degree/BS (4-Years) Economics Program under the HEC-Undergraduate Education Policy 2023 and onwards	08-72

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Agenda Item-1: Approval of Vision and Mission Statement of the Department of Economics

Vision:

To be a recognized center of excellence in economic education and research that fosters intellectual growth, innovation, and socioeconomic development.

Mission:

Our mission is to empower students with a rigorous and comprehensive education in economics, equipping them with the analytical tools and critical thinking skills needed to address complex economic challenges. We are committed to enhancing economic understanding through innovative research and academic contributions to serve the community, region, and nation by promoting economic literacy, informed policy decisions, and sustainable socioeconomic development.

Agenda Item-2: Approval of Course Codes and Course Contents for other Departments

- (i) Fundamentals of Economics
- (ii) Introduction to Econometrics

Course Code	Title of Course	Credit Hours
ECON 111	Fundamentals of Economics	02
ECON 112	Introduction to Econometrics	03

Fundamentals of Economics

Course Code: ECON 111

Credit Hours: 2

Course Description:

A fundamental of Economics is an introductory undergraduate course that teaches the fundamentals of microeconomics and macroeconomics. This course introduces microeconomic concepts, supply and demand analysis, theories of firm and individual behavior, competition, and monopoly. Students will also be introduced to the use of microeconomic applications to address problems in current economic policy throughout the semester. Further the course covers macroeconomic indicators and issues such as national income, unemployment, inflation etc. The course will establish the students understanding on the behavior and performance of the economy as a whole.

Course Objectives:

- By the end of the course, students will be able to understand introductory microeconomic and macroeconomic theories
- To sharpen the problem-solving tactics required to solve basic microeconomic and macroeconomic problems
- To train the students to work with others as a part of team to solve problems

Learning Outcomes:

After completing this course, students should have developed a range of skills enabling them to understand economic concepts and use those concepts to analyze specific questions. By the end of this course, students should be able to:

- **Acquire** the basic knowledge of terminologies used in microeconomics and macroeconomics and the key elements involved in the business decision
- **Understand** the meaning and components that determine the individual behavior and aggregate behavior within the economy.
- **Apply** the tools of policies to understand the advantages and drawbacks of microeconomic and macroeconomic policies and how these policies operate.

Course Contents:

1. Introduction

Definition, scope and importance of Economics, Microeconomics vs. Macroeconomics, Scarcity and choice, Opportunity cost.

2. Consumer Behavior

Cardinal and Ordinal utility approaches, Concepts of demand and supply, Laws of demand and supply, Market equilibrium, Shifts in demand and supply curves, and market equilibrium.

3. Elasticity

Concept of elasticity, Price elasticity of demand, Income elasticity of demand, Cross Elasticity of Demand, Price elasticity of supply, Application of elasticity.

4. National Income

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

5. Public Finance and Taxation

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

6. Macroeconomic Issues

Concept of inflation, unemployment, Balance of payments. Monetary Policy and Fiscal Policy and their role in the economy.

Core Readings/ Recommended Books:

1. Michel Parkin. 2004. Economics, 5th Ed., Addison Wesley.
2. Paul A. Samuelson and W.D. Nordhaus. 2004. Economics, 18th Ed., McGraw Hills, Inc.
3. John Sloman, Economics (Latest edition).
4. Lipsey and Crystal, Economics, (Latest edition).

Introduction to Econometrics

Course Code-ECON 112

Cr. Hrs-3

Course Description:

This course basically focuses on techniques for estimating linear regression models, problems commonly encountered in estimating these models, and on interpreting the estimates of models.

Course Objectives:

This course is designed to develop basic understanding in students about econometrics and provide working knowledge of its basic tools.

Learning Outcomes:

After completion of this course, students

- Can apply econometric tools for modeling, estimation, inference, and forecasting in the context of real-world economic problems.
- Be capable to apply appropriate estimation techniques under different types of data/model problems
- Can evaluate critically the results and conclusions of other researchers.

Course Contents:

1. An Introduction to Econometrics

- Why Study Econometrics?
- Methodology of Econometrics
- Types of Econometrics
- Data types and its sources

2. The Classical Linear Regression Model (CLRM)

- Simple Regression function
- Population regression function
- Linear regression function
- Linearity in variables and linearity in parameters
- Simple Regression Analysis
- Statistical properties of OLS estimators (BLUE)
- Classical Linear Regression Model (CLRM) and its assumptions
- Estimation of the coefficient of determination

3. The Multiple Linear Regression Model (MLRM)

- Multiple Regression Analysis
- Difference between simple and multiple regression analysis
- OLS estimation of multiple regression equation
- Properties of OLS estimators
- Coefficient of determination (R^2) and Adjusted R^2
- Testing the significance of Regression coefficients (t-test)
- Testing the overall significance (F-test) of the model

Core Readings/Recommended Books:

1. Gujarati, D. Basic Econometrics, McGraw Hill Latest Edition.
2. Koutsoyiannis, A. Theory of Econometrics, McMillan Latest Edition.
3. R. Carter Hill, William E. Griffiths, George G. Judge Undergraduate Econometrics-Wiley, Latest Edition
4. Dougherty, Christopher Introduction to Econometrics Oxford University Press, Latest Edition

Agenda item No. 03: Approval of Revised Scheme of Studies and Curriculum of Associate Degree/BS (4-Year) Economics Program under the HEC-Undergraduate Education Policy 2023 and Onwards

THE STRUCTURE OF UNDERGRADUATE/EQUIVALENT DEGREE PROGRAMS IN ECONOMICS SHALL CONSIST OF THE FOLLOWING:

S.No	Courses to be selected	Fixed	Minimum	Remarks
1.	General education	30 CH Fixed	No choice in increase or decrease of CH.	30 CH Fixed
2.	Disciplinary Requirements (Major, Subject specific courses)	Not fixed	Min-72	A total of 84 CH courses have been adjusted in the entire BS degree program with: 36 CH in the first two years (from Semester-1 through Semester-4) and 48 CH in the last two years (from Semester-5 through Semester-8)
3.	Interdisciplinary/Allied courses requirements	Not Fixed	Min-12 CH	Mandatory set of minimum 12 credit hours for interdisciplinary/allied courses have been adjusted from 5 th semester and onward.
4.	Practical requirements (3+3) to enhance the likelihood of student success.	Fixed	3+3 credit hours	One field work of 3 CH (offered in 6 th semester) and 3 CH of thesis/project (offered in 8 th semester)
5.	Min Req-120-144			Total Credit Hours: BS (4-year) Economics 132

List of Major Courses (Disciplinary Requirements)

Course Name	Course Code	Course Name	Course Code
Principles of Microeconomics	ECON 113	Econometrics	ECON 363
Principles of Macroeconomics	ECON 121	Econometrics of Time Series and Panel Data	ECON 471
Intermediate Microeconomics	ECON 231	Islamic Economics	ECON 472
Development Economics	ECON 232	Research Methods in Economics	ECON 473
Public Sector Economics	ECON 233	Managerial Economics	ECON 474
Agricultural Economics	ECON 234	International Trade Theory	ECON 475
Intermediate Macroeconomics	ECON 241	Energy Economics	ECON 481
History of Economic Thought	ECON 242	International Finance	ECON 482
Mathematical Economics-I	ECON 243	Issues in Pakistan's Economy	ECON 483
Economic Growth	ECON 244	Economics of Financial Markets	ECON 484
Political Economy	ECON 245	Money and Banking	ECON 356
Project Appraisal & Investment Analysis	ECON 246	Health Economics	ECON 364
Microeconomics Analysis	ECON 351	Labor Economics	ECON 365
Environmental and Natural Recourse Economics	ECON 352	Population Economics	ECON 476
Industrial Economics	ECON 353	Comparative Economic System	ECON 477
Mathematical Economics-II	ECON 354	Ethics and Economics	ECON 485
Macroeconomics Analysis	ECON 361	Public Policies	ECON 486
Monetary Economics	ECON 362	Experimental & Behavioral Economics	ECON 487

List of Interdisciplinary/Allied Courses

Course Name	Course Code
Principles of Management	MGT 111
Principles of Marketing	MGT 113
Business Finance	MGT 211
Financial Management	MGT 214

FRAMEWORK FOR ASSOCIATE DEGREE/BS (4-YEAR) PROGRAM (132 CH WITH SINGLE MAJOR) IN ECONOMICS 2023 & ONWARDS

Semester 1			
Code	Title	Cred. Hrs.	Remarks
ENG 101	Functional English	3	Gen-Ed-04
CHEM 110/ GS 117	Chemistry in Everyday Life/General Science	3	Gen-Ed-02
PSY 113/SOC 116/PSC 112	Introduction to Psychology/Introduction to Sociology/Introduction to Political Science	2	Gen-Ed-03
CS 110	Introduction to Information and Communication Technologies	3(2+1)	Gen-Ed-09
ISL 112/ETH 118	Islamic Studies/Ethics (For Non-Muslims)	2	Gen-Ed-07
ECON 113	Principles of Microeconomics	3	Major
Non- Credit Course	Teaching of the Holy Quran with Translation (For Muslim Students Only)		
Total Credit Hours: 16			

Semester 2			
Code	Title	Cred. Hrs.	Remarks
ISL 113	Seerah and its Contemporary Application سیرت رسول ﷺ اور اس کی عصری معنویت/ Any course from Arts & Humanities (For Non-Muslims)	2	Gen-Ed-01
ENG 102	Introduction to Expository Writing	3	Gen-Ed-05
QR 101	Quantitative Reasoning-I (Mathematics)	3	Gen-Ed-06
PSC 111	Ideology and Constitution of Pakistan	2	Gen-Ed-08
SOC 319/ SOC 227	Population Dynamics of Pakistan/Social Problems of Pakistan	2	Gen-Ed- 11
ECON 121	Principles of Macroeconomics	3	Major
Non- Credit Course	Teaching of the Holy Quran with Translation (For Muslim Students Only)		
Total Credit Hours: 15			

Semester 3			
Code	Title	Cred. Hrs.	Remarks
MGT 215	Entrepreneurship	2	Gen-Ed-10
QR 102	Quantitative Reasoning-II (Statistics)	3	Gen-Ed-06
ECON 231	Intermediate Microeconomics	3	Major
ECON 232	Development Economics	3	Major
ECON 233	Public Sector Economics	3	Major
ECON 234	Agricultural Economics	3	Major
Non- Credit Course	Teaching of the Holy Quran with Translation (For Muslim Students Only)		
Total Credit Hours: 17			

Semester 4			
Code	Title	Cred. Hrs.	Remarks
ECON 241	Intermediate Macroeconomics	3	Major
ECON 242	History of Economic Thought	3	Major
ECON 243	Mathematical Economics-I	3	Major
ECON 244	Economic Growth	3	Major
ECON 245	Political Economy	3	Major
ECON 246	Project Appraisal and Investment Analysis	3	Major
Non- Credit Course	Teaching of the Holy Quran with Translation (For Muslim Students Only)		
Total Credit Hours: 18			

Semester 5			
Code	Title	Cred. Hrs.	Remarks
ECON 351	Microeconomic Analysis	3	Major
ECON 352	Environmental and Natural Resource Economics	3	Major
ECON 353	Industrial Economics	3	Major
ECON 354	Mathematical Economics-II	3	Major
MGT 111	Principles of Management	3	Inter-Disciplinary
MGT 211	Business Finance	3	Inter-Disciplinary
Non- Credit Course	Teaching of the Holy Quran with Translation (For Muslim Students Only)		
Total Credit Hours: 18			

Semester 6			
Code	Title	Cred. Hrs.	Remarks
ECON 361	Macroeconomic Analysis	3	Major
ECON 362	Monetary Economics	3	Major
ECON 363	Econometrics	3	Major
MGT 113	Principles of Marketing	3	Inter-Disciplinary
MGT 214	Financial Management	3	Inter-Disciplinary
ECON 399	Field Experience/Internship	3	Major
Non- Credit Course	Teaching of the Holy Quran with Translation (For Muslim Students Only)		
Total Credit Hours: 18			

Semester 7			
Code	Title	Cred. Hrs.	Remarks
ECON 471	Econometrics of Time Series and Panel Data	3	Major
ECON 472	Islamic Economics	3	Major
ECON 473	Research Methods in Economics	3	Major
ECON 474	Managerial Economics	3	Major
ECON 475	International Trade Theory	3	Major
Non- Credit Course	Teaching of the Holy Quran with Translation (For Muslim Students Only)		
Total Credit Hours: 15			

Semester 8			
Code	Title	Cred. Hrs.	Remarks
ECON 481	Energy Economics	3	Major
ECON 482	International Finance	3	Major
ECON 483	Issues in Pakistan's Economy	3	Major
ECON 484	Economics of Financial Markets	3	Major
ECON 500	Capstone Project/Thesis	3	Major
Non- Credit Course	Teaching of the Holy Quran with Translation (For Muslim Students Only)		
Total Credit Hours: 15			

Note:

Courses included in the General Education Category are designed by the respective departments including their course codes, credit hours and titles (reflected in the scheme of studies). All such courses approved by the Syndicate are available on the university website (www.uom.edu.pk). For any query the office of the Registrar Academics may be approached for clarification/guidance.

SEMESTER 1

General Education Courses (Annexure-A)

Principles of Microeconomics

Course Code: ECON 113

Cr. Hrs-3

Course Introduction:

Microeconomics studies the behavior of specific economic units that make up the economic aggregates. Microeconomics is the subject matter of this course explaining the behavior of specific economic units. The main focus will be on theories of consumption, production, distribution and role of the government. The course will rely heavily on graphical analysis and simple numerical calculations.

Course Objectives:

To introduce students with the basic tools of microeconomics.

Learning Outcomes:

Students will be able to understand demand, supply, household behavior, consumer choice, the cost structure of the firms, market structures, market failures and externalities, economic regulations and Good governance.

Course Contents:

1. Introduction to Economics:

Studying Choice in a World of Scarcity: The No-Free- Lunch Principle, The Cost -Benefit Principle, Reservation Prices, Economic Surplus, Opportunity Cost, The Role of Economic Models. To What Extent should an Activity be Perused? Micro Economic Versus Macro Economics, Economic Naturalism, Positive Versus Normative Economics, Some common Pitfalls for Decision Makers, Conclusion.

2. Consumer Behavior:

Cardinal Approach/Utility Analysis, Marginal Utility, Law of Diminishing Marginal Utility, Law of Equi-Marginal Utility, Consumer Equilibrium Ordinal Approach of Consumer Behavior, Indifference Curves, Features of Indifference Curves, Budget Line, Consumer Equilibrium, Comparison between two approaches Conclusion.

3. Demand & Supply:

Demand Function, Law of Demand, Shift in Demand, Change in Demand Factors Affecting Demand, Supply Function, Law of Supply, Changes in Supply Price Equilibrium, Market Equilibrium.

4. Elasticity of Demand & Supply:

Price Elasticity of Demand & Supply, Point Elasticity of Demand & Supply Arc Elasticity of demand & Supply, Income Elasticity of Demand & Supply, Cross Elasticity of demand & Supply, Conclusion.

5. Efficiency and Exchange:

Market Equilibrium and Efficiency, Economic Surplus, the Cost of Preventing Price Adjustments, Taxes and Efficiency, Conclusion.

6. The Theory of production & Theory of Cost:

The Production Function , Total, average and marginal product, Laws of Returns to Scale , Short run Theory of Cost , Seven family cost curves, Relationship between Production and Cost Curves

7. Long- run Theory of Cost:

Graphical Representation of Long Run Cost Economies, Diseconomies and Constant Returns to Scale.

8. Market Structure:

Perfect Competition vs. Pure Competition, Different Possibilities of SR firm Equilibrium, Profit Maximization in the Short-run and long-run

9. Monopoly:

Short run and Long run Equilibrium under Monopoly. Conclusion (Comparison of both) Imperfect Competition: Monopolistic Competition, Price and output determination in monopolistic competition, Comparison perfect competition with monopolistic competition Oligopoly: Definition, Strategic behavior and game Theory, Price Rigidity and the kinked demand curve, Conclusion (Comparison of both). Labor Markets: The Market Demand for Labor, Supply of labor, Shifts in the market demand for and supply of labor, Inefficiency wages, monopsony

Recommended Readings/Books:

1. Mankiw. G, *Principles of Economics*, Southwest Publishers, Latest Edition.
2. Miller, R. L, *Economics Today*, Addison Wesley, Latest Edition.
3. Samuelson Nordons –*Economics*, McGraw-Hill, Inc, Latest Edition.
4. McConnell and Bruce-*Principles of Economics*, McGraw-Hill, Latest Edition.
5. Koutsoyiannis, A.; *Modern Microeconomics*, New York, The MacMillan Press Ltd, Latest Edition.

SEMESTER 2

General Education Courses (Annexure-A)

Principles of Macroeconomics

Course Code: ECON 121

Cr. Hrs-3

Course Introduction:

The course is designed for the beginners with no formal background or little acquaintance with economics. The course includes topics on national income, components and aggregate demand. The teacher is expected to draw examples from the surrounding world to clarify the concepts.

Course Objectives:

The objective is to give the students with a clear understanding of the basic concepts, tools of analysis and terminologies used in macroeconomics

Learning Outcomes:

At the end of the course, the students will learn the basics of macroeconomics, national income accounts, and open economy macroeconomic aggregates.

Course Contents:

1. Introduction:

The economy in aggregate, Complexities of the world of business, Scope of macroeconomics, Brief account of classical and the development of macro-economic after the World War-II, Concept of business cycles: Boom and Depression, three concerns of macroeconomics, Inflation, GDP growth and unemployment, Macroeconomic variables and their mutual relationship, Macro-models as abstraction from the real economy.

2. National Income:

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

3. Components of Aggregate Demand:

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

Recommended Readings/Books:

1. Mankiw, G – *Principles of Economics*. Latest Edition.
2. Samulson and Nordrons – *Economics*. Latest Edition.
3. Parkin, Michael – *Macroeconomics*. Latest Edition.
4. Miller, R.L. – *Economics Today*. Latest Edition.
5. Sloman, John, *Economics*. Latest Edition.

SEMESTER 3

General Education Courses (Annexure-A)

Intermediate Microeconomics

Course Code: ECON 231

Cr. Hrs-3

Course Introduction:

This course is designed to teach the concept of economic models, utility, market structure, production function and game theories. It also emphasizes upon the welfare concept in economics.

Course Objectives:

The course seeks to provide an understanding of the core economic models for the analysis of decisions by consumers, markets and firms.

Learning Outcomes:

It would provide some illustrations of the applications of some models to contemporary issues in economics.

Course Contents:

1. An introduction to Economic models:

Optimization techniques, Constructing a model, Optimization and equilibrium,

2. Utility:

Constructing a Utility Function, Maximization of function of one variable Functions of several variables, Constrained maximization, utility maximization Axioms of rational choice, Utility, Indifference curves and marginal rate of substitution Utility functions for specific preferences, Utility maximization: optimization principle Indirect utility function, Income and substitution effects, Demand relationship among goods Demand functions, Changes in income, Changes in goods price, Individual demand curve Compensated demand curve, Mathematical development response to price changes, Consumer surplus revealed preferences, Substitutes and compliments Substitutability with many goods composite commodities.

3. From Individual to Market Demand:

The Inverse Demand Function, the Elasticity of a Linear Demand Curve Elasticity and Demand, Elasticity and Revenue, Elasticity and Marginal Revenue.

Supply: Market supply, Market equilibrium, Effect of tax Taxation with Linear Demand and Supply

Passing along a Tax, Consumer and producers' burden of tax, deadweight Loss of a Tax.

4. Production function:

Marginal productivity, Iso-quant maps and the rate of technical substitution Returns to scale, the elasticity of substitution, Cost functions Cost functions and the shifts in the cost curves, Short run long run distinction, Profit maximization.

5. Firms:

The nature and behavior of firms, Profit maximization, Marginal revenue, and short run supply by a price taking firm, Profit functions, Profit maximization and input demands.

6. Monopoly:

Linear Demand Curve and Monopoly, Markup Pricing, The Impact of Taxes on a Monopolist, Inefficiency of Monopoly, Deadweight Loss of Monopoly, Price Discrimination, First Degree Price Discrimination, Second-Degree Price Discrimination, Third-Degree Price Discrimination

7. Oligopoly:

Choosing a Strategy, Quantity Leadership, the Follower's Problem, the Leader's Problem Price Leadership Comparing Price Leadership and Quantity Leadership, Simultaneous Quantity Setting Cournot Equilibrium, Simultaneous Price Setting, Collusion.

8. Game theory:

Basic concepts, Nash equilibrium, Existence of Nash equilibrium, the prisoners' dilemma, A two period game, Pricing in static games, Entry exit and strategy, Games of incomplete information.

9. The Edge Worth Box:

Trade, Pareto Efficient Allocations, Market Trade, The Algebra of Equilibrium Walras' Law, Relative Prices, Equilibrium and Efficiency, Pareto Efficiency, Social Welfare Functions Welfare Maximization, Individualistic Social Welfare Functions, Fair Allocations.

Recommended Readings/Books:

1. Varian, Hal. R. *Intermediate Microeconomics: A Modern Approach*. Latest Edition.
2. Pindyck and Rubinfeld. *Microeconomics*. Latest Edition.
3. Nicholson, Walter and Snyder, Christopher. *Microeconomic theory Basic Principles and Extensions*. Latest Edition.
4. Frank, Robert. H. *Microeconomics and Behavior*. Latest Edition.

Development Economics

Course Code: ECON 232

Cr. Hrs-3

Course Introduction:

This is a first course in development economics that studies the economics of low and middle income countries. Topics include the structure of developing countries, their institutions, the policies their governments follow, the contours of poverty and inequality, and the ongoing struggles with economic growth.

Course Objectives:

To introduce the concept of growth and development and familiar students with different growth theories.

Learning Outcomes:

Students are expected to learn about the theoretical foundations for different policy issues such as-- What is the role of markets? Is government intervention in a market is a good thing? Do we need to be concerned about inequality? And why? What are institutions, and how do they facilitate or hinder economic development? Is development necessarily uneven, with some sectors growing and others stagnating? How do we think about the political economy of development: from voting or lobbying all the way to conflict? What are local problems and policies and what are international problems and

policies?

Course Contents:

1. Scope and New Developments:

Definitions: Economic Development and Growth, Identification of Development variables. Scope and Significance of Development Economics. Characteristics of LDC's. Measurement of Economic Development and Growth. Per Capita Income approach, Quality of Life Index / HDI etc. Historical overview of world development and emerging major issues pertaining to Less Developed Countries (LDC's). Why the whole world is not developed?

2. Major Theories of Development:

Classical and Neo-classical Theories, Adam Smith and Competitive Capitalism, Vicious Circle of Poverty, Stages of Economic Growth, Balanced and Unbalanced Growth, Big Push Theory. Dependency Theory, Structuralist's View Point. Endogenous Growth Theory: New growth Theory. Income Convergence/Divergence debate. Market Friendly Approach.

3. Agriculture and Industry:

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

4. Population, Education and Human Capital:

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

5. International Debt, Aid/Assistance:

Why international borrowing? 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., Latin American Debt Crises, ASEAN Crises, Debt Problem of LDC's and South Asia, Debt rescheduling etc.

6. Poverty and Income Distribution:

Definitions and Measurement of Poverty/Poverty Line. Poverty concepts/definitions. Absolute Poverty, Relative Poverty, Income approach, Expenditure approach, Basic needs approach, Poverty of Opportunities Index (POPI) and Calorie-based approach etc. Poverty Indicators. Poverty by socio-economic groups. Sources, impacts and policies to combat poverty. Strategies and tools to combat poverty. Growth and Income Inequality in the world.

7. Economic Growth and Environment:

Model of Environment and Economic Activity. Market Based Approach and Externalities. Deforestation and Renewable Resources, Measuring environment values. Deforestation and Macroeconomic Environment. Industrialization and its environmental cost, Use of Pesticides and Environmental Impacts. Natural resources degradation. Cost of Pollutions/Environmental degradation. International awareness about environment, production and need for Reforms.

Notes: Students shall visit Planning commission of Pakistan to observe process of planning and development.

Recommended Readings/Books:

1. Balasubramanyam V. and Lall, S. *Current Issues in Development Economics*. McMillan London. Latest Edition.
2. Cypher J. M. and Dietz James L. *The Process of Economic Development*. Routledge. Taylor Francis Group, London/New York. Latest Edition.
3. Todaro M. P., *Economic Development in the third World*. Heinemann, London. Latest Edition.
4. Chenery H. B. and Srinivasen. *Hand Book of Development Economics*. Latest Edition.
5. Herrick B. and Kindleberger C. *Economic Development*. McMillan, New York. Latest Edition.

6. Jones H. G. *An Introduction to Modern Theories of Economic Growth*. McGraw Hills. Latest Edition.
7. Meier Gerald M. *Leading Issues in Economic Development*. Oxford University Press. Latest Edition.

Public Sector Economics

Course Code: ECON 233

Cr. Hrs-3

Course Introduction:

The course aims to develop an understanding of the impact of government policies on resource allocation and equitable distribution of income. Public economics helps to analyze and identify the effect of public policy on various macroeconomic indicators.

Course Objectives:

The course facilitates to develop the economic and social intuition of government expenditures, Taxes and various social security benefits associated with public financing.

Learning Outcomes:

It will help in understanding the effects of public policies and enables students to envisage the consequences of these policies even before they are implemented.

Course Contents:

1. Introduction and Role of Public Sector:

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

2. The Theory of Public Goods:

Fiscal Principles and Concepts: The Traditional Principle of Tax Neutrality is Expended Principle of Fiscal Neutrality. Exhaustive Vs. Non-Exhaustive Public Expenditures, Income Elasticity of Government Expenditures, Tax Vs. Non-tax Revenues, Microeconomic Vs. Macroeconomic Regulatory Taxes, Tax Base, Tax Rate Relationship; Progressive, Regressive and Proportional Taxes, Marginal Propensity to Tax and Marginal Vs. Average Tax Rates; Income Elasticity of a Tax Integral Fiscal Non-Neutrality. Tax Efforts and Tax Collection Performance in Pakistan

3. Public Revenue and Taxes:

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

4. The Theory of Public Goods:

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

5. Distributional Equity in Taxation:

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

6. Tax Structure: General Equilibrium Vs. Partial Equilibrium: Tax Incidence Analysis. Determinants of Tax Shifting under Partial Equilibrium Conditions. Impacts of Tax Shifting on Price

7. Fiscal Policy: Public Expenditure and Budget:

Theories of Public Expenditures, Wagner's Law, Efforts of Public Expenditures. Components of Public Expenditures in Pakistan, Sources and Direction of the Growth of Public Expenditures. Kinds of Budget, Surplus, Deficit and Balanced: Preparation of Budget Cycle in Pakistan, Development and Non-Development Budget and its Patterns. Zero Based Budget, Planning, Programming Budgeting System.

8. Fiscal Relations:

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

Note: Students should visit Federal Bureau of Statistics to observe the actual tax system of Pakistan

Recommended Readings/Books:

1. Herber, Bernard P. *Modern Public Finance*. Latest Edition.
2. Chellieah R.J. *Fiscal Policy in Less Developed countries*. Latest Edition.
3. Govt. of Pakistan, Economic Survey, Yearly Publication, Ministry of Finance, Economic Advisory Wing, Islamabad. (Latest Surveys)
4. Rosen and Harvey S. *Public Finance*. McGraw Hill. Latest Edition.
5. Musgrave R.A. and B.P., Musgrave. *Public Finance in Theory and Practice*. McGraw Hill. Latest Edition.
6. Stiglitz E. *Economics of The Public Sector*, W. W. Norton & Co. Latest Edition.

Agricultural Economics

Course Code: ECON 234

Cr. Hrs-3

Course Introduction:

The course aims to develop an understanding of the impact of government policies on agriculture sector and its role in economic development. Agriculture economics helps to analyze and identify the effect of public policy on the development of agriculture sector in general and Pakistan in particular.

Course Objectives:

The course facilitates to understand the agriculture sector of underdeveloped countries, problems faced by them and how to overcome these problems in a broader perspective.

Learning Outcomes:

It will help in understanding the effects of agriculture policy and enable students to understand the agriculture sector of underdeveloped countries.

Course outline:

1. Introduction and Importance of Agriculture:

Agricultural Revolution, Importance of Agriculture, Food Safety, Agriculture vs. Industrial development Debate. Current State of Agricultural Development. Brief Overview of Sources of Growth. Introduction to issues in Agriculture etc.

2. Structure and Characteristics of Agriculture in LDCs:

Traditional Agriculture and Productivity. Access to non-labor resources. The Framing Environment: Natural Hazards and Economic Uncertainties. The Food problem. Farm Size and Productivity. Farm Size in Pakistan and Productivity Commercial Farms. Impact of Agricultural Reforms on Farm Size.

3. Role of Agriculture in Economic Development:

A framework of Analysis. Product Contribution, Market Contribution, Factor's Contribution. Foreign Exchange Contribution. Agriculture vs. Industry Debate of Development.

Theory of Rent and the Concept of 'Surplus':

Introduction. 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.

Tenant's Status in Pakistan. Agricultural productivity in Pakistan and use of inputs.

4. Agriculture in Dualistic Development Models:

Introduction. The Lewis Model. The Ranis-Fei (FR) Model. The Jorgenson Model. Kelley, Williamson, Cheetham Model. Criticism: Dual Economy Models. Agricultural Adequacy; Mellor's Model.

5. Resource Use Efficiency and Technical Change in Peasant Agriculture:

Efficiency of Resource Utilization. Technological Change in Agriculture. Generation of new Agricultural Technology. Factor-biased Technological Change and its Distributional Consequences. Agricultural Technical Change and Agricultural Employment: Empirical Evidences. Agricultural Resources and Technical Change in LDCs: with Special Reference to Pakistan.

6. Supply Response:

Introduction. The Cobweb Model: An Illustration. Price-Supply Response in Backward Agriculture. A simple Supply Response Model. Supply Response in the Underdeveloped Agricultural labor 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.

7. Population and Food Supplies:

The Classical Model. Contra-Malthusian Model. Ecological Disequilibrium. Synthesis of Population and Food Supply Theories. Malnutrition in Developing Countries like Pakistan and Remedial Manners. Choice of Planning Strategy for Agriculture Development, Agricultural Project Planning.

Recommended Readings/Books:

1. Brown, Lester, The Social Impact of Green Revolution, New York, The Greogie Endowment for International Peace. Latest Edition.
2. Capstick Margret. The Economics of Agriculture, London George Allen Unwin Ltd., latest edition. Latest Edition.
3. Ghatak S., and Ingersent K., Agriculture and Economic Development, Harvester Press. Latest Edition.
4. Johnston, Bruce, F & Fellir Kily. Agricultural and Structural Transformation, Economic Strategies in late Developing Countries. Latest Edition.
5. Thorbake Erike. The Role of Agriculture in Economic Development, New York, Columbia University Press. Latest Edition.
6. Colman D. and Young T., Principals of Agricultural Economics, Markets and Prices in Less Developed Countries, Cambridge University Press. Latest Edition.

SEMESTER 4

Intermediate Macroeconomics

Course Code: ECON 241

Cr. Hrs-3

Course Introduction:

The course is designed for the intermediate students having studies principles of Macroeconomics.

This course includes the data of macroeconomics, national income, money, prices and unemployment, economy in the short as well as long run and open economy macroeconomic aggregates.

Course Objectives:

The objective is to provide students with a clear understanding of the intermediate concepts, tools of analysis and terminologies used in macroeconomics

Learning Outcomes:

The student is expected to learn the intermediate concepts of macroeconomics and open economy macroeconomic aggregates.

Course Contents:

A. Introduction to Macroeconomics

1. The Science of Macroeconomics (Mankiw Ch#1, ABC Ch#1, Williamson Ch#1)

- 1.1 What Macroeconomists Study
- 1.2 How Economists Think

2. The Data of Macroeconomics (Mankiw Ch#2, ABC Ch#2, Williamson Ch#2)

- 2.1 Measuring the Value of Economic Activity: Gross Domestic Product
- 2.2 Measuring the Cost of Living: The Consumer Price Index
- 2.3 Measuring Joblessness: The Unemployment Rate
- 2.4 From Economic Statistics to Economic Models

3. National Income: Where it comes from and where it goes? (Mankiw Ch#3, ABC Ch#3, Williamson Ch#4)

- 3.1 What Determines the Total Production of Goods and Services?
- 3.2 How Is National Income Distributed to the Factors of Production?
- 3.3 What Determines the Demand for Goods and Services?
- 3.4 What Brings the Supply and Demand for Goods and Services into Equilibrium?

B. Money, Prices, and Unemployment

4. The Monetary System: What it is and How it Works? (Mankiw Ch#4, ABC Ch#7, Williamson Ch#11, 16)

- 4.1 What Is Money?
- 4.2 The Role of Banks in the Monetary System
- 4.3 How Central Banks Influence the Money Supply

5. Inflation: It Causes, Effects, and Social Costs (Mankiw Ch#5, ABC Ch#7,12, Williamson Ch#18)

- 5.1 The Quantity Theory of Money
- 5.2 Seigniorage: The Revenue from Printing Money
- 5.3 Inflation and Interest Rates
- 5.4 The Nominal Interest Rate and the Demand for Money
- 5.5 The Social Costs of Inflation
- 1.6 Hyperinflation

6. Unemployment (Mankiw Ch#7, ABC Ch#3,12, Williamson Ch#17)

- 6.1 Job Loss, Job Finding, and the Natural Rate of Unemployment
- 6.2 Job Search and Frictional Unemployment
- 6.3 Real-Wage Rigidity and Structural Unemployment
- 6.4 Labor-Market Experience: The United States
- 6.5 Labor-Market Experience: Europe

C. The Economy in the Short Run: Economic Fluctuations

7. Introduction to Economic Fluctuations (Mankiw Ch#10, ABC Ch#8, Williamson Ch#3)

- 7.1 The Facts about the Business Cycle
- 7.2 Time Horizons in Macroeconomics

- 7.3 How the Short Run and Long Run Differ
- 7.4 The Model of Aggregate Supply and Aggregate Demand
- 7.5 Aggregate Demand
- 7.6 The Quantity Equation as Aggregate Demand
- 7.7 Why the Aggregate Demand Curve Slopes Downward
- 7.8 Shifts in the Aggregate Demand Curve
- 7.9 Aggregate Supply
- 7.10 The Long Run: The Vertical Aggregate Supply Curve
- 7.11 The Short Run: The Horizontal Aggregate Supply Curve
- 7.12 From the Short Run to the Long Run
- 7.13 Stabilization Policy
- 7.14 Shocks to Aggregate Demand
- 7.15 Shocks to Aggregate Supply
- 8. Aggregate Demand I: Building the IS-LM Model (Mankiw Ch#11, ABC Ch#9)**
 - 8.1 The Goods Market and the IS Curve
 - 8.2 The Money Market and the LM Curve
 - 8.3 The Short-Run Equilibrium
- 9. Aggregate Demand II: Applying the IS-LM Model (Mankiw Ch#12, ABC Ch#11)**
 - 9.1 Explaining Fluctuations with the IS–LM Model
 - 9.2 IS–LM as a Theory of Aggregate Demand
 - 9.3 The Great Depression
- 10. Aggregate Supply and the Short-run Tradeoff between Inflation and Unemployment (Mankiw Ch#14, ABC Ch#11, and Williamson Ch #13)**
 - 10.1 The Basic Theory of Aggregate Supply
 - 10.2 Inflation, Unemployment, and the Phillips Curve
- 11. A Dynamic Model of Aggregate Demand and Aggregate Supply (Mankiw Ch#15)**
 - 11.1 Elements of the Model
 - 11.2 Solving the Model
 - 11.3 Using the Model
 - 11.4 Two Applications: Lessons for Monetary Policy
 - 11.5 Toward DSGE Models
- 12. Classical Business Cycle Analysis: An Equilibrium Business Cycle Model (ABC Ch#10, Williamson Ch#12)**
 - 12.1 Business Cycles in the Classical Model
 - 12.2 Money in the Classical Model
 - 12.3 The Misperceptions Theory and the non-neutrality of Money

Recommended Readings/Books:

1. Mankiw, N. Gregory. *Macroeconomics*. Worth Publishers. Latest Edition.
2. Abel, Andrew, B., Bernanke, Ben S. & Croushore, D. *Macroeconomics*. Addison-Wesley. Latest Edition.
3. Williamson, Stephen D. *Macroeconomics*. Prentice Hall. Latest Edition.
4. Dennis W Jansen, Robert Ekelund. *Intermediate Macroeconomics*. Latest Edition.

History of Economic Thought

Course Code: ECON 242

Cr. Hrs-3

COURSE DESCRIPTION:

The course gives an overview of the history of Economic Thought. It touches the development of economic theories and ideas from earliest times to the present. The emphasis is on `thought' rather than on `history'. It provides a survey of economic thoughts from Adam Smith.

COURSE OBJECTIVES:

1. To give a historical consciousness of economic ideas
2. To give an overview of developments in economics

COURSE LEARNING OUTCOMES:

Upon Successful Completion, the Students Should be able to:

- Understand key models and concepts of the history of economic thought
- Understand scholarly articles concerned the history of economic thought
- Have a historical consciousness of economic ideas

COURSE CONTENTS:

1) Classical Economics

- Adam Smith; The framework of Classical Economics
- Thomas Robert Malthus; Elaborations and Cleavages within the Classical system
- John Stuart Mill; Postscript to Classical Economists

2) Marxian Economics

- Karl Marx and the Economics of Das Kapital; Post script to Marxian Economics

3) Neo-Classical Economics

- Alfred Marshall; Framework of Neo Classical Economics
- Pre 1914 variations to Neo-Classical Themes; Post script to Neo-Classical Economics

4) Keynesian Economics

- The Economics of Keynes general Theory
- Post Script to Keynesian Economics

5) Post Keynesian Economics

Recommended Readings/Books:

1. William J. Barber, *A History of Economic Thought, (latest edition)*, Wesleyan University Press, Middletown.
2. Sandmo, A., *Economics Evolving: A History of Economic Thought, (latest edition)*, Princeton University Press,
3. Medema, S. G., and Samuels, W. J., *A History of Economic Thought: The LSE Lectures (1998)*, Princeton University Press

Mathematical Economics-I

Course Code: ECON 243

Cr. Hrs-3

Course Introduction:

This course includes the nature of mathematical economics, equilibrium analysis, linear models and matrix algebra, differentiation, and economic applications of differentiation.

Course Objectives:

The objective of this course is to transmit the body of basic mathematics that enable the students of economics at the undergraduate level to understand the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus.

Learning Outcomes:

The students are expected to learn the method of applying mathematical techniques to economic theory in general.

Course Contents:

1. The Nature of Mathematical Economics:

Ingredients of mathematical models. Derivations: Equation of a straight line and its forms: Two point, intercept, point slope and slope intercept. Types of functions: constant, polynomial, rational, non-algebraic. Relationships and functions. Indices & their rules. Functions of more than two independent

variables. Logarithms & the rules of logarithms.

2. Equilibrium Analysis in Economics:

A linear partial equilibrium market model. The effect of an excise tax in a competitive market. Non-linear market model. General Market Equilibrium. Equilibrium in a linear National Income Model.

3. Linear Models and Matrix Algebra:

Theory of matrix multiplication. Laws of matrix operations. Types of matrices: Square, identity, null, idempotent, diagonal, transpose and their properties. Conditions for non-singularity of a matrix. Minors and cofactors. Determinant & its properties. Solution of linear equations through Gaussian method, Cramer's rule and Inverse of a matrix method. Properties of inverse of a matrix. Use of matrix approach in market & national income models.

4. Differentiation:

Rules of differentiation. Differentiation of a function of one variable. Sum-difference, product, quotient, chain, power, inverse, logarithmic & exponential functions Combinations of rules. Higher order derivatives. Economic applications of derivative. Concept of maxima & minima, elasticity and point of inflection. Profit & revenue maximization under perfect competition, under monopoly. Maximizing excise tax revenue in monopolistic competitive market, Minimization of cost etc.

5. Partial & Total Differentiation:

Partial differentiation & its rules. Higher order & cross partial derivatives (young's theorem). Total differential & total derivatives. Implicit functions rule of differentiation. Optimizing cubic functions & their economic application.

6. Economic Applications of Partial & Total Differentiation:

Comparative static analysis: a linear Partial equilibrium market model, a linear National Income model. Partial elasticities. Production functions Analysis. Maximization & Minimization of unconstrained functions & their economic applications: Profit maximization by a multi-product firm under perfect Competition & monopoly, Price discrimination, Multi-plant monopoly, input decisions etc.

Recommended Readings/Books:

1. Chiang A.C. *Fundamental Methods of Mathematical Economics*. McGraw Hill. Latest Edition.
2. Dowling Edward T. *Mathematics for Economics*. Schaum Series. Latest Edition.
3. Weber E. Jean, *Mathematical Analysis, Business and Economic Application*. Harper and Row Publishers, Netherlands. Latest Edition.
4. Glass Colin J. *An introduction to Mathematical Methods in Economics*. McGraw Hill. Latest Edition.
5. Haung David, S., *Introduction to the set of Mathematics in Economic Analysis Graphical Approach, Simplex Method, Economic Application of linear Programming* N-Y John Wiley and Sons. Latest Edition.
6. Allen R.G.D., *Mathematical Economics*, London, Macmillan English Language Book Society. Latest Edition.

Economic Growth

Course Code: ECON 244

Cr. Hrs-3

Course Introduction:

This is an advanced undergraduate course in Economics, dealing with theoretical and empirical examination of economic growth and income differences between countries. Topics include underlying determinants of economic growth, including population growth, accumulation of physical and human capital, technological change, natural resources, income distribution, geography,

government, and culture.

Course Objectives:

To familiarize students with the concept of economic growth and its different theories.

Learning Outcomes:

The students are expected to learn about the historical experience of countries that are currently rich and the process of catch-up among poor countries.

Course Contents:

1. Introduction and Overview:

This section includes discussions on the facts about economic growth, differences in the level of income among countries, differences in the rate of income growth, growth before and after 19th century, the production function and the lessons from data.

2. Factors of Production: Physical Capital:

The nature of capital, capital's role in production, the Solow growth model, the relationship between investment and saving, and exogenous versus endogenous factors.

3. Population and Economic Growth:

Population and output in the long-run, the Malthusian model, population growth in the Solow model, demographic transitions, future population trends, and the economic consequences of demographic change.

4. Human Capital:

Human capital in the form of health, human capital in the form of education, modeling the interaction of health and incomes, changes in the level of education, education and variation in income across countries.

5. Productivity and Technology:

Measuring productivity, differences in productivity and growth rates of productivity among countries, the role of Technology in growth, the nature, transfer and determinants of technology, research and development, patents, modeling the relationship between Technology creation and growth, barriers to technology transfers, the cutting edge technology, the industrial revolution, the technology production function, differential technological progress, efficiency, differences in efficiencies, types of inefficiencies, misallocation of factors.

6. Fundamentals behind Economic Growth:

i. Government:

Government's role in economy, governance and rule of law, taxation, efficiency and the size of government, planning and policies, corruption and Kleptocracy, democracy and economic growth, causation from government quality to income.

ii. Income Inequality:

Facts about income equality, the Kuznet Hypothesis, effects of income inequality on the accumulation of physical and human capital, and economic growth.

iii. Culture:

The effect of culture on economic growth, openness to new ideas, hard work, saving behavior, trust, social capital, cultural change, determinants of cooperation.

Recommended Readings/Books:

1. David N. Weil, *Economic Growth*. Pearson Addison-Wesley. Latest Edition.
2. Charles I. Jones and Dietrich Vollrath. *Introduction to Economic Growth*. W. W. Norton & Company. Latest Edition.
3. Elhanan Helpman. *The Mystery of Economic Growth*. Belknap Press of Harvard University Press. Latest Edition.
4. William R. Easterly. *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*. The MIT Press. Latest Edition.

Political Economy

Course Code: ECON 245

Cr. Hrs-3

Course Introduction:

This course is designed to provide students with an introduction to the field of political economy. Political economy seeks to understand and explain policy outcomes and political behavior. The approach taken is an interdisciplinary one that utilizes tools and concepts from economics to study politics and political behavior.

Course Objectives:

Political economy seeks to understand and explain policy outcomes and political behavior. The course will presume that political actors are rational and goal oriented. Political outcomes are explained by the interaction between these actors within the (institutional) constraints of their environment.

Learning Outcomes:

This course aims to enable students to apply economic theories and concepts to the study of political action and the formation of policy. Students will learn how economic and political forces may shape the incentives and constraints of policymakers and other political actors. Furthermore, this course will enable students to recognize the role of institutions in shaping both political action and policy outcomes.

Course Contents:

A. Introduction to Political Economy

1. Course Introduction, Overview
2. Approaches to the Study of Political Economy (Shepsle Chapters 1 and 2)
3. Analyzing Group Choice (Shepsle Chapters 3 and 4)
4. Spatial Models of Majority Rule (Shepsle Chapter 5)
5. Strategic Behavior and Majority Rule (Shepsle Chapter 6)
6. Voting and Elections (Shepsle Chapter 7)

B. Understanding Collective Action

1. Cooperation (Shepsle Chapter 8)
2. Collective Action (Shepsle Chapter 9)
3. Market Failures and Collective Action (Shepsle Chapter 10)

C. What Role Do Institutions Play?

1. Institutions and Their Impact (Shepsle Chapter 11)
2. Legislatures (Shepsle Chapter 12)
3. Bureaucracy, Delegation, and Principal Agent Theory (Shepsle Chapter 13)
4. Courts and Judges (Shepsle Chapter 15)

D. Topics in the Political Economy of Pakistan

1. The Economics of Patronage
2. Seven Pillars of Good Governance
3. The Political Economy of Reforms
4. Pakistan - Dynamics of Elitist Model
5. Strategies for Self-preservation
6. A military Theocracy
7. Different Regimes
8. Economic Development
9. Ethnic conflict
10. The Role of State

11. Emerging Economic and Political Issues and their Linkages
12. Regionalism
13. Poverty
14. Governance

Recommended Readings/Books:

1. Shepsle, K.A. *Analyzing Politics: Rationality, Behavior, and Institutions*. W. W. Norton & Company. Latest Edition.
2. Kardar, S. *The Political Economy of Pakistan*. Progressive Publishers. Latest Edition.
3. Riker, W.H. *Liberalism against Populism: A Confrontation between the Theory of Democracy and the Theory of Social Choice*. Waveland Press. Latest Edition.
4. Nadeem, A.H. *Pakistan: The Political Economy of Lawlessness*. Oxford University Press. Latest Edition.

Project Appraisals and Investment Analysis

Course Code: ECON 246

Cr. Hrs-3

Course Introduction:

This course is related to the methodologies used in the selection and appraisal of investment decisions in both the private and the public sectors. Course will focus on the theory and practice of project appraisal and cost-benefit analysis and will discuss their theoretical underpinnings and practical limitations.

Course Objectives:

To provide students with deeper understanding of a project appraisal and investment decisions.

Learning Outcomes:

It will provide practical exposure in financial and economic appraisal techniques, which helps the students to make right decisions about their future investment.

Course Contents:

1. Introduction and Overview:

Investment – an Overview, Investment Appraisal – Nature and Scope, Investment Appraisal and Financial Decision Making, Cost-Benefit Analysis – Issues and Evolution, Projects and Project Appraisal, Public and Private Sector Appraisal

2. Investment Appraisal – Basic Evaluation Techniques:

Introduction, Traditional Methods, Time Value of Money methods. Cash Flows, Capital Budgeting and Investment Decisions:

Introduction, Identifying and Using Cash Flows, Capital Market Imperfections, Simple Ways to Cope with Risk

3. Social and Economic Cost-Benefit Analysis:

Cost Benefit Analysis – an Illustration, Identifying Costs and Benefits, Valuation of Costs and Benefits, A Case Study in Valuation – Putting Money on Human Life

4. Discount Rate, Risk and Uncertainty in Cost Benefit Analysis:

Introduction, The Discount Rate, Theoretical Consistency and Derivation of a Social Rate of Discount, The Social Discount Rate in Practice: A Case Study on Discount Rate Policy in the UK, Risk and Uncertainty, Methods for Handling Risk and Uncertainty. A case study depicts the situation of Pakistan

5. Different Criteria for Project Evaluation:

Discounted Measures, Like NPV, IRR, BCR, and Net Benefit-Investment Ratio. Undiscounted

measures for project worth. Comparative Analysis for Discounted Measures.

6. Income Distribution through Project Appraisal within and between Generations: Introduction – Income Distribution and Thorny Questions, Diminishing Marginal Utility of Income and Intergenerational Welfare Weights, Income Classes for Distributional Weights, Further Issues, Intergenerational Distribution, Case Study.

Recommended Readings/Books:

1. Steve Lumby and Chris Jones. *Corporate Finance: Theory & Practice*. Latest Edition.
2. Potts, David. *Project Planning and Analysis for Development*. Latest Edition.
3. Tan. *Economic Analysis of Investment Operations*. Latest Edition.
4. Richard Layard and Stephen Glaister. *Cost-Benefit Analysis*. Latest Edition.

SEMESTER 5

Microeconomic Analysis

Course Code: ECON 351

Cr. Hrs-3

Course Introduction:

This is an intermediate undergraduate course in Microeconomic Theory. It encompasses the study of strategic behavior and individual decision-making, market organization, information, public goods and externalities, and general equilibrium.

Course Objectives:

To impart the advance theories of microeconomics.

Learning Outcomes:

This course will make students comfortable with the tools and methods of microeconomic analysis. Moreover, they are expected to have learned how to structure and analyze problems on these areas from a quantitative perspective.

Course Contents:

1. Methodology and Course Overview:

2. Games of Strategy: Game Theory (Perloff Chapter 14):

- 2.1 An Overview of Game Theory
- 2.2 Static Games, Normal-Form Games, Predicting a Game's Outcome, Multiple Nash Equilibria, No Nash Equilibrium, and Fixed Strategies Cooperation
- 2.3 Dynamic Games, Sequential Game, Repeated Game
- 2.4 Auctions, Elements of Auctions, Bidding Strategies in Private-Value Auctions, Winner's Curse

3. Market Organization: Oligopoly and Monopolistic Competition (Perloff Chapter 13)

- 3.1 Market Structures
- 3.2 Cartels, Why Cartels Succeed or Fail? Maintaining Cartels Mergers
- 3.3 Non-cooperative Oligopoly
- 3.4 Cournot Oligopoly Model, the Cournot Equilibrium with Two or More Firms, the Cournot Model with Non-identical Firms
- 3.5 Stackelberg Oligopoly Model, Why Moving Sequentially is Essential Strategic Trade Policy: An Application of the Stackelberg Model
- 3.6 Comparison of Collusive, Cournot, Stackelberg, and Competitive Equilibria
- 3.7 Bertrand Oligopoly Model, Bertrand Equilibrium with Identical Products, Nash Bertrand Equilibrium with Differentiated Products
- 3.8 Monopolistic Competition, Monopolistically Competitive Equilibrium, Fixed Costs and the Number of Firms

4. General Equilibrium (Perloff Chapter 10)

- 4.1 General Equilibrium, Competitive Equilibrium in Two Interrelated Markets, Minimum Wages with Incomplete Coverage
- 4.2 General Equilibrium Exchange Economy: Trading Between Two People, Endowments, Mutually Beneficial Trades, Deriving the Contract Curve, Bargaining Ability
- 4.3 Competitive Exchange, Competitive Equilibrium, The Efficiency of Competition, Obtaining Any Efficient Allocation Using Competition
- 4.4 Production and Trading, Comparative Advantage, Efficient Product Mix, Competition

5. Externalities and Public Goods (Perloff Chapter 18)

- 5.1 Externalities
- 5.2 The Inefficiency of Competition with Externalities, Supply-and-Demand Analysis, Cost-Benefit Analysis
- 5.3 Regulating Externalities, Emissions Fees versus Standards under Uncertainty
- 5.4 Market Structure and Externalities, Monopoly and Externalities, Monopoly Versus Competitive Welfare with Externalities, Taxing Externalities in Noncompetitive Markets
- 5.5 Allocating Property Rights to Reduce Externalities, Coase Theorem, Markets for Pollution
- 5.6 Open-Access Common Property, Overuse of Open-Access Common Property, Solving the Commons Problem
- 5.7 Public Goods, Types of Goods, Markets for Public Goods, Free Riding, Reducing Free Riding, Valuing Public Goods

Recommended Readings/Books:

1. Perloff, J.M. *Microeconomics: Theory & Applications with Calculus*. Latest Edition.
2. Nicholson, W. & Snyder, C. *Intermediate Microeconomics and Its Application*. Cengage Learning. Latest Edition.
3. Geoffrey A. Jehle and Philip J. Reny *Advance Microeconomic Theory*. Latest Edition
4. David M. Kreps. *A course in Microeconomic Theory*. Latest Edition.

Environmental and Natural Resource Economics

Course Code: ECON 352

Cr. Hrs-3

Course Introduction:

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies.

Course Objectives:

To provide students with essential knowledge, theories and policies of environmental and natural resource economics.

Learning Outcomes:

Students are expected to learn about the economic implications of environmental policy as well as valuation of environmental quality, quantification of environmental damages, tools for evaluation of environmental projects such as cost-benefit analysis and environmental impact assessments.

Course Contents:

1. Introduction:

What is environmental economics; review of microeconomics and welfare economics.

2. Limitation of market:

Excludable and rival goods, common pool resources and public goods

3. The Theory of Externalities:

Pareto optimality and market failure in the presence of externalities; property rights and the Coase theorem.

4. Valuing the Environment: Methods:

Introduction: theoretical aspects, Economic valuation of the environment: methodologies and applications

5. Benefit–Cost Analysis and Other Decision-Making Metrics:

Framework of BCA and its applications, Divergence of Social and Private Discount Rates, Cost-Effectiveness Analysis, Impact Analysis

6. The Design and Implementation of Environmental Policy:

Overview; Pigouvian taxes and effluent fees; tradable permits; choice between taxes and quotas under uncertainty; selection of environmental policy instruments; implementation of environmental policy.

7. International Environmental Problems:

Trans-boundary environmental problems; global pollution; economic significance of biodiversity; economics of climate change; trade and environment.

8. Measuring the Benefits of Environmental Improvements:

Non-Market values and measurement methods; risk assessment and perception.

9. Contemporary Issues in Environmental Economics with Reference to Pakistan:

Energy crisis, Water footprints, Forests, Fisheries, Economics of Pollution.

10. Sustainable Development:

Concepts; Sustainability of Development, The Growth–Development Relationship measurement (conventional and alternative).

Recommended Readings/Books:

1. Tietenberg, Tom and Lewis, Lynne. *Environmental & Natural Resource Economics* Pearson Education, Inc. Latest Edition.
2. Kolstad, Charles. *Intermediate Environmental Economics*. Oxford University Press. Latest Edition.
3. Stavins, Robert N. *Economics of the Environment: Selected Readings*. Latest Edition.
4. Perman, Roger. Ma, Yue, McGilvray, James and Common, Michael. *Natural Resource and Environmental Economics*. Pearson Education/Addison Wesley. Latest Edition.
5. Wills, Ian. *Economics and Environment; A signaling and incentive approach*. Latest Edition.

Industrial Economics

Course Code: ECON 353

Cr.Hrs-3

Course Introduction:

This course provides a graduate level study of industrial organizations. Primarily, this course provides theoretical and empirical basis for appraising the implications of alternative market structural conditions for economic performance of industrial organizations.

Course Objectives:

This course is design to prepare students to conduct dissertation research in the area. The course integrates theoretical models and empirical work.

Learning Outcomes:

Once completing the course, the students are expected to a). Explain the major elements of the market structure approach to the analysis and solution of marketing problems, b). Identify expected structure-conduct-performance cause and effect relationships, c). Employ several empirical measures of structural parameters, and d). Analyze remedial implications of various performance findings.

Course Contents:

1. Introduction:

Market structure characteristics, degree of seller concentration, degree of buyer concentration, degree of product differentiation, advertising, manufacture reputation, sales and service operations, conditions of entry, vertical conglomerate integration, conditions of exit, cost conditions, demand conditions, legal factors.

2. Market conduct of firms:

pricing and output, coordination, cross-adaptations and sales promotion policies of firms, predatory or exclusionary tactics, product variation policy, sales promotion policy.

3. Market performance:

Price and average cost, relative efficiency in production, relative efficiency in distribution, product characteristics such as design, quality, durability, reliability, and variety. Conservation of resources.

4. Implications for market remedies:

Public policy, price collusion, price discrimination, patent laws, contracts, bureau of standards, SME loans, tariffs, government research, compulsory licensing, government ownership.

5. Industrial policy:

Vertical integration, countervailing power, self-imposed standards of good practice.

Note: Students should visit to different industrial zones.

Recommended Readings/Books:

1. Tirole, J. *The theory of industrial organization*. Latest Edition MIT press.
2. Martin, S. *Industrial economics: economic analysis and public policy*. Latest Edition Prentice Hall.
3. Scherer, F. M. Ross, *Industrial Market Structure and Economic Performance*. Latest Edition A., Boston.
4. Louis Philips *Applied Industrial Economics* Latest Edition Cambridge University Press Publishers

Mathematical Economics-II

Course Code: ECON 354

Cr. Hrs-3

Course Introduction:

This course is the second part of a two-course sequence. This course will study optimization, linear programming and integral calculus and partial and total differentiation.

Course Objectives:

To equip students with analytical skills of optimization, linear programming and integral calculus.

Learning Outcomes:

The students are expected to learn the essentials of linear algebra and optimization techniques required for the analysis of functions of several variables that are commonly used in economics.

Course Contents:

1. Partial & Total Differentiation:

Partial differentiation & its rules. Higher order & cross partial derivatives (young's theorem). Total differential & total derivatives. Implicit functions rule of differentiation. Optimizing cubic functions & their economic application.

2. Economic Applications of Partial & Total Differentiation:

Comparative static analysis: a linear partial equilibrium market model, a linear National Income model. Partial elasticities. Production functions analysis. Maximization & Minimization of unconstrained functions & their economic applications: Profit maximization by a multi-product firm under perfect competition & monopoly, Price discrimination, Multi-plant monopoly, input decisions etc.

3. Optimization: Constrained & Extrema:

Free and constrained optimization, extrema of a function of two variables: graphical analysis, Lagrange method. Utility maximization & cost minimization. Homogenous production function, Cobb Douglas production function. Jaccobian determinants. CES Production Function. Translog Function.

4. Linear Programming:

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

5. Integral Calculus:

Dynamics and Integration. The Nature of indefinite integrals, Basic rules of integrations & Rules of operation. The substitution rule and the rule of integration by parts. Definite integrals. Major properties of definite integral. A definite integral as an area under a curve. Economic applications of integrals – Finding total functions from marginal functions, investment & capital formation.

Recommended Readings/Books:

1. Chiang A.C. *Fundamental Methods of Mathematical Economics*. McGraw Hill. Latest Edition.
2. Dowling Edward T. *Mathematics for Economics*. Schaum Series. Latest Edition.
3. Weber E. Jean. *Mathematical Analysis, Business and Economic Application*. Harper and Row Publishers, Netherlands. Latest Edition.
4. Glass Colin J. *An introduction to Mathematical Methods in Economics*. McGraw Hill. Latest Edition.
5. Haung David, S., *Introduction to the set of Mathematics in Economic Analysis Graphical Approach, Simplex Method, Economic Application of linear Programming* N-Y John Wiley and Sons. Latest Edition.
6. Allen R.G.D. *Mathematical Economics*, London, Macmillan English Language Book Society. Latest Edition.

Principles of Management

Course Code: MGT 111

Cr. Hrs-3

Course Introduction:

The course is designed to learn fundamental principles of management, managing people and **Organization in a historical as well as contemporary world.**

Course Objectives:

This course is aimed at highlighting the theoretical aspects of management and then translating these concepts into practical frameworks. Major focus would be on making students comprehend the functional areas, such as, planning, organizing, staffing, leading and controlling. Brief overview of the latter managerial branches would also be given.

Learning Outcomes:

Students are expected to develop analytical and conceptual framework of how people are managed in small, medium and large public and private national and international organizations.

Course Contents:

Module 1: Basics of Management

Introduction:

Management, management functions, Management roles and skills

Organizational Environment (Internal and external)

Approaches/Evolution of management

Module 2: Planning

Foundations of Planning:

Types of goals and plans, Approaches to establishing goals/plans, Steps in goal setting_

Decision Making Process:

Perspectives of decision making- Decision making conditions & style, Decision making tools-

Strategic Management:

Strategy, Strategic management process, Types of strategies

Module 3: Organizing

Organizational Structure and organizational design:

Organizational Communication:

Formal vs. informal communication, Communication networks

Staffing:

(Concepts/Process of HRM)

Module 4- Motivation & Leadership

Motivation:

Theories of motivation

Leadership:

definitions and types

Controlling:

- definitions and process
- types
- importance

Recommended Readings/Books:

1. Management by Stephen P. Robbins, Mary Coulter, 8th Edition
2. Management by James A.F. Stoner, R. Edward Freeman, Daniel R. Gilbert, Jr. Latest Edition
3. The New Management by Robert M. Fulmer
4. Management by Ricky Griffin 12th edition

Business Finance

Course Code: MGT 211

Cr. Hrs-3

Business Finance course aims at imparting knowledge about the very basic concepts and tools of Business Finance. It emphasizes the importance of Business Finance skills to individuals and enterprises. It deals with the finance function in an organization, the role of the finance manager and the financial environment in which the firm operates. The financial environment covers the understanding of financial and capital markets along with the broad orientation of macro-economic factors affecting the business. The emphasis will remain on developing the skills for planning, appraising and evaluating the investment, financing and operating decisions.

Learning Outcomes

On completion of the course, students will be able to understand:

1. Functions of business finance and finance manager.
2. The basics of finance theory and its applications to corporate financial decisions.
3. Analysis of financial statements.
4. Tools and techniques of time value of money for investing decisions.
5. Concepts of risk and return for portfolio management.
6. The principles of capital structure.

7. The concept of cost of capital.

Course Contents

<p>Week 01</p>	<p>An Overview of Business Finance:</p> <ul style="list-style-type: none"> • Finance a quick look. <ul style="list-style-type: none"> • Business finance and financial manager. • Forms of business organization. • Goals of business finance. • Agency problem.
<p>Week 02</p>	<p>Understanding financial statements and cash flows:</p> <ul style="list-style-type: none"> • The balance sheet. • The income statement. • Cash flow.
<p>Week 03 & 04</p>	<p>Analyzing the financial statements Ratio analysis:</p> <ul style="list-style-type: none"> • Liquidity ratios • asset management ratios • debt management ratios • profitability ratios • Market value ratios
<p>Week 05 & 06</p>	<p>Time Value of Money</p> <ul style="list-style-type: none"> • Meaning and role of time value of money • Future values • Present values • Annuities and its types • Present and future value of annuities • Future and present values of cash flows under high compounding frequency
<p>Week 07</p>	<p>Bond and Their Valuation Definition and its types Key features of bonds Valuation of bonds (the basic process)</p>
<p>Week 08</p>	<p>Stocks and Their Valuation</p> <ul style="list-style-type: none"> • Shares and their basic features • Benefits from a share investments • Preferred shares and their characteristics
<p>Week 09</p>	<p>Mid Semester Examination</p>
<p>Week 10 & 11</p>	<p>Net present value and other investment Criteria</p> <ul style="list-style-type: none"> • Net present value. • The payback rule. • The average accounting return. • The internal rate of return. • The profitability index.

Week 12, 13 & 14	Risk and Return <ul style="list-style-type: none"> • Expected returns and risk defined • Calculating expected return • Variance and Standard deviation • Systematic and unsystematic risk • Diversification
Week 15	Presentations + Assignments + Quizzes
Week 16	Final Term Examination

RECOMMENDED TEXTBOOKS (Latest available edition)

1. James C. Vanhorne: Fundamentals of Financial Management
2. Ross, Westerfield, Jordan: Corporate Finance Essentials.
3. Eugene F. Brigham: Fundamentals of Financial Management
4. Brealey, R. A. & Myers, Principles of corporate finance.

SEMESTER 6

Macroeconomic Analysis

Course Code: ECON 361

Cr. Hrs-3

Course Introduction:

This course is designed to deliver advance macroeconomics including the microeconomic foundations of macroeconomics, international macroeconomics, open economy and macroeconomic policy.

Course Objectives:

To familiarize student with macroeconomic tools to study, investigate and suggest counter measures to macroeconomic issues.

Learning Outcomes:

The students will learn growth models, macroeconomic policy and open economy.

Course Contents:

A. The Economy in the Very Long Run

1. Economic Growth I: Capital Accumulation and Population Growth (Mankiw Ch#8, Weil Ch#3, 4, Williamson Ch#6)

- 1.1 The Accumulation of Capital
- 1.2 The Golden Rule Level of Capital
- 1.3 Population Growth

2. Economic Growth II: Technology, Empirics, Policy, and Human Capital (Mankiw Ch#9,

Weil Ch#7, 8, 9, 6, Williamson Ch#7)

- 2.1 Technological Progress in the Solow Model
- 2.2 From Growth Theory to Growth Empirics
- 2.3 Policies to Promote Growth, Beyond the Solow Model: Endogenous Growth Theory

3. Economic Growth III: Beyond the Correlates of Economic Growth (Weil Ch#14 &15)

- 3.1 The Effect of Culture on Economic Growth
- 3.2 What Determines Culture?
- 3.3 Cultural Change
- 3.4 Geography
- 3.5 Climate
- 3.6 Natural Resources

B. Towards Microeconomic Foundations of the Macro Economy

4. Understanding Consumer Behavior (Mankiw Ch#16, ABC Ch#4, Williamson Ch#8)

- 4.1 John Maynard Keynes and the Consumption Function
- 4.2 Irving Fisher and Intertemporal Choice
- 4.3 Franco Modigliani and the Life-Cycle Hypothesis
- 4.4 Milton Friedman and the Permanent-Income Hypothesis
- 4.5 Robert Hall and the Random-Walk Hypothesis
- 4.6 David Laibson and the Pull of Instant Gratification

5. The Theory of Investment (Mankiw Ch#17, ABC Ch#5, Williamson Ch#10)

- 5.1 Business Fixed Investment
- 5.2 Residential Investment
- 5.3 Inventory Investment

C. International Macroeconomics: The Open Economy

6. The Open Economy (Mankiw Ch#6, ABC Ch#13, Williamson Ch#14)

- 6.1 The International Flows of Capital and Goods
- 6.2 Saving and Investment in a Small Open Economy
- 6.3 Exchange Rates

7. Open Economy Revisited: The Mundell-Fleming Model and the Exchange Rate Regime (Mankiw Ch#13, ABC Ch#13, and Williamson Ch #15)

- 7.1 The Mundell–Fleming Model
- 7.2 The Small Open Economy under Floating Exchange Rates
- 7.3 The Small Open Economy under Fixed Exchange Rates
- 7.4 Interest Rate Differentials
- 7.5 Should Exchange Rates Be Floating or Fixed?
- 7.6 From the Short Run to the Long Run: The Mundell–Fleming Model with a Changing Price Level

D. Macroeconomic Policy

8. Alternative Perspectives on Stabilization Policy (Mankiw Ch#18, ABC Ch#12)

- 8.1 Should Policy Be Active or Passive?
- 8.2 Should Policy Be Conducted by Rule or by Discretion?
- 8.3 Making Policy in an Uncertain World

9. Government Debt and Budget Deficits (Mankiw Ch#19, ABC Ch#15)

- 9.1 The Size of the Government Debt
- 9.2 Problems in Measurement
- 9.3 The Traditional View of Government Debt
- 9.4 The Ricardian View of Government Debt
- 9.5 Other Perspectives on Government Debt

10. The Financial System: Opportunities and Dangers (Mankiw Ch#20, Williamson Ch#9)

10.1 What Does the Financial System Do?

10.2 Financial Crises

Recommended books:

1. Mankiw, N. Gregory. *Macroeconomics*. Worth Publishers. Latest Edition.
2. Weil, David N. *Economic Growth*. Pearson. Latest Edition.
3. Williamson, Stephen D. *Macroeconomics*. Prentice Hall. Latest Edition.
4. Romer, David. *Advanced Macroeconomics*. McGraw Hills, New York. Latest Edition.

Monetary Economics

Course Code: ECON 362

Cr. Hrs-3

Course Introduction:

This course includes introduction to monetary mechanism, role of money in the economy, demand for money, supply of money, the conduct of monetary policy, money and interest, money and inflation.

Course Objectives:

This course is intended to provide the students a thorough understanding of monetary theory, financial markets, importance of money and interest rates along with the conduct of monetary policy in closed and open economy

Learning Outcomes:

Students will learn about the understanding of monetary theory, financial markets, importance of money and interest rates along with the conduct of monetary policy in closed and open economy

Course Contents:

1. Introduction and Development of Monetary Mechanism:

Evolution of Money and Payment System, Definition of Money, Function of Money & Measurement of Money, Demand for Money & Supply of Money. Definitions of Money, M1, M2, M3 etc.

2. Role of Money in the Economy:

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. Keynesian Vs. Monetarist views of Equilibrium Output, Employment and Prices.

3. Demand for Money:

Quantity Theory of Money. Transaction Theories of Demand for Money. Portfolio Theories of Demand for Money. Baumol – Tobin Model of Cash Management. Friedman's Restatement of Quantity Theory of Money.

4. The Money Supply Process:

Monetary Base, Keynesian Liquidity Preference Framework, Friedman's Modern Quantity Theory of Money. Multiple Deposit Creation: Introducing the Money Supply Process. Determinants of the Money Supply: Exogenous and Endogenous. Understanding Movements in the Monetary Base, Money Multiplier. Velocity of Money and its variability. Explaining Depositor and Bank Behavior: the Complete Money Supply Model. Regressive Expectation Model.

5. The Conduct of Monetary Policy (Central Bank):

Structure and Functions of Central Bank. Independence of Central Bank and its role in Economic Growth. Tool of Central Bank for Money Control. Monetary Base. The Conduct of Monetary Policy: Goals and Targets. Tools of Monetary Policy: Three Major Tools of Monetary Policy. Required Reserve Ratio, Discount Window Loans and Open Market Operation. Advantages and Disadvantages and Impact Analysis of each Policy Tool. Central Bank as a lender of last Resort. Financial Intermediaries. Monetization of Public Debt. Ineffectiveness of Stabilization Policies. Targeting interest

rate and inflation.

6. Money & Interest Rates:

Determinants of interest rates. Kinds of Interest Rates. The Behavior of Interest Rates. Understanding & Measuring the Interest Rates. Real & Nominal Interest Rates, Theories of Interest Rate Determination. The Risk and Term Structure of Interest Rates. The Distinction Between Interest Rates and Returns. Maturity & Volatility of Bond Returns. Portfolio Choice: the Theory of Asset Demand.

7. Money and Inflation:

What is Inflation & Causes of Inflation? Demand – pull Inflation, Cost – push Inflation, Stagflation & Hyperinflation. Inflation as a Monetary Phenomenon. The Philips Curve and Accelerating Inflation.

Recommended Readings/Books:

1. Mishkin, Frederic. *The Economics of Money, Banking and Financial Markets*. Addison Wesley, New York. Latest Edition.
2. Mishkin, Fredric. *Financial Markets and Money*. Harper & Row Publishers. Latest Edition.
3. Laider, David E.W. *The Demand for Money: Theories, Evidence and Problems*. Harper & Row, Publishers, New York. Latest Edition.
4. Miller, R. L. and David Van Hose. *Money, Banking & Financial Markets*. South Western, Singapore. Latest Edition.
5. Vanish, K. *Monetary Theory*. Vikas Publishing House, Delhi. Latest Edition.

Econometrics

Course Code: ECON 363

Cr. Hr-3

Course Introduction:

This is a foundation course on Econometrics. The students will learn about the classical linear regression model, the simple two variable model and multiple linear regression model.

Course Objectives:

To enable the students of Economics to analytically formulate and statistically estimate the economic problems for verifying the empirical validity of theoretical models.

Learning Outcomes:

The students are expected to learn the analytical skills which are supported by the usage of different Econometrics Soft-wares.

Lab work:

The students are required to devote at least two hours per week to computer laboratory. They have to attend classes to learn various Econometrics soft-wares for practical application of Econometric models they have learnt so far.

Course Contents:

1: An Introduction to Econometrics

- Why Study Econometrics?
- Methodology of Econometrics
- Types of Econometrics
- Data types and its sources

2. The Classical Linear Regression Model (CLRM)

- Simple Regression function
- Population regression function
- Linear regression function
- Linearity in variables and linearity in parameters
- Simple Regression Analysis

- Estimation of regression equation using OLS
- Statistical properties of OLS estimators (BLUE)
- Classical Linear Regression Model (CLRM) and its assumptions
- Estimation of the coefficient of determination

3. The Multiple Linear Regression Model (MLRM)

- Multiple Regression Analysis
- Difference between simple and multiple regression analysis
- OLS estimation of multiple regression equation
- Properties of OLS estimators
- Coefficient of determination (R^2) and Adjusted R^2
- Testing the significance of Regression coefficients (t-test)
- Testing the overall significance (F-test) of the model

4. Regression with Qualitative Explanatory Variables

- Regression with Single Qualitative Explanatory Variable
- Regression with multiple Qualitative Explanatory Variables
- Regression with both Quantitative and Qualitative Explanatory Variables
- Other Uses of Qualitative Variables: Piecewise Linear Regression
- Estimation of Seasonal Effects
- Testing for Structural Change

5 Econometric Modeling: Model Specification:

- Model selection criteria
- Types of specification errors
- Consequences of model specification errors
- Tests of specification errors
- Errors of measurement
- Model selection criteria
- Endogeneity and nature of Endogeneity
- OLS estimation in presence of Endogeneity
- Detection of Endogeneity
- BLUE estimators in the presence of Endogeneity
- Consequences of Endogeneity in OLS estimation
- Remedial measures.

7. Deviation from the Classical Assumptions:

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

(i) Multicollinearity

- Nature and severity of the problem
- OLS estimation of regression equation in the presence of perfect multicollinearity
- Causes of multicollinearity
- Distinction between perfect and partial multicollinearity
- Detection and remedial measures.

(ii) Heteroscedasticity

- The nature of the problem with reference to economic theory
- Cross-section data and the problem of non-constant variances
- Consequences for OLS estimators
- Detection and remedial measures

Introduction to the Generalized Least-Squares model (GLS).

(iii) Autocorrelation

- Autocorrelation and its causes
- Time-series data and emergence of the problem with reference to economic theory
- Serial correlation
- Consequences of autocorrelation for OLS estimators
- Detection and remedial measures

Recommended Readings/Books:

1. Gujrati, D. J. *Basic Econometrics*. McGraw-Hill Company. Latest Edition.
2. Maddala, G. S. *Econometrics*. McGraw-Hill Company. Latest Edition.
3. Koutsoyiannis, A. *Theory of Econometrics*. McMillan. Latest Edition.
4. Dougherty, Christopher. *Introduction to Econometrics*. Oxford University Press. Latest Edition.
5. Wonnacot & Wonnacot. *Econometrics*. John Wiley, New York. Latest Edition.
6. Pindyck & Rubinfeld. *Econometric Models & Economic Forecasts*. McGraw-Hill Inc. Latest Edition.
7. Stock H. J. and M. W. Watson. *Introduction to Econometrics*, India: Pearson Education. Latest Edition.

Principles of Marketing

Course Code: MGT 113

Cr. Hrs. 3

Course Description/Objective

This course is designed to introduce foundations of marketing as they relate to the whole business enterprise. This course will focus on developing an understanding of key marketing concepts. The objective of this course, specifically, is to enhance the conceptual knowledge of marketing as applicable to decision making process with a focus on tactical marketing mix decisions. Further it will provide the student with a comprehensive framework to evaluate marketing decisions and to create successful marketing initiatives. The course, will therefore, provide an understanding of the principles of marketing in relation to the product and services including the planning process, organizing the marketing functions, implementing the marketing decisions keeping in mind the ethical, legal and societal consideration.

Learning Outcomes

By the end of this course it is expected that the student will be able:

1. Understand the marketplace and the consumers.
2. Understand the elements in marketing mix and their application in marketing decisions.
3. Outline the functions of marketing communication.
4. Discuss social responsibility and ethics in marketing.
5. Understand the importance of customer relationship in marketing and the creation of customer value.

Course Content

Week 01	Introduction To Marketing <ul style="list-style-type: none">• Marketing and the Society• Importance and scope of marketing• Definition of marketing
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	<ul style="list-style-type: none"> • Nature and concept of marketing
Week 02	Marketing Environments <ul style="list-style-type: none"> • The Marketing environment • Macro environment • Micro environment • Environmental scanning and monitoring
Week 03	Marketing & Strategy <ul style="list-style-type: none"> • Strategic planning • Strategic marketing planning • Forecasting marketing demand
Week 04	Marketing Decisions <ul style="list-style-type: none"> • Information required for marketing decisions • Reasons for obtaining information • Marketing research
Week 05	Consumer Behaviour <ul style="list-style-type: none"> • Information for purchase decisions • Consumer decision process • Influence of social and psychological factors • Market implications
Week 06	Market Segmentation And Targeting <ul style="list-style-type: none"> • Factors for Segmentation • Selecting the target market • Developing the positioning and target market strategies
Week 07	Products And Services <ul style="list-style-type: none"> • Definition of product and services • Classification of consumer goods • Classification of business goods
Week 08	Product Development And Life Cycle <ul style="list-style-type: none"> • Product development process and commercialization • Product life cycle stages and its implications
Week 09	Pricing <ul style="list-style-type: none"> • Overview of pricing • Importance of pricing • Break even analysis • Factor effecting pricing decisions
Week 10	Setting The Price And Relating Strategies <ul style="list-style-type: none"> • Pricing objectives • Sale based objectives • Profit based objectives • Status quo Pricing • Price strategy
Week 11	Pricing Techniques And Their Applications <ul style="list-style-type: none"> • Cost based pricing • Cost plus pricing • Target pricing • Floor pricing

Week 12	Distribution <ul style="list-style-type: none"> • Importance of distribution channels • Selecting a channel of distribution • Retail functions in distribution • Recent trends in wholesaling and retailing
Week 13	Promotion <ul style="list-style-type: none"> • Importance and types of promotion • Channels of communication • Objectives, budgeting and promotional mix • Legal environments of promotion
Week 14	Advertisement And Publicity <ul style="list-style-type: none"> • Scope of advertisement and publicity • Characteristic of advertisement and publicity • Development, planning and implementation of advertising plan • Evaluating the success and failure of promotional plan
Week 15	Introduction To E-Business <ul style="list-style-type: none"> • Introduction • Different trends • Rules of doing e-business • E-business application in the market
Week 16	<ul style="list-style-type: none"> • Conclusion Session • Final Exam

RECOMMENDED BOOKS

1. Philip Kotler, Principles of Marketing (Latest Edition)
2. David Jobber, Principles of Marketing (Latest Edition)
3. Jerome McCarthy & William, D. Pareanah, Basics Marketing, (Latest Edition)
4. Fundamentals of marketing by William J. Stanton.

Financial Management

Course Code: MGT 214

Cr. Hrs-3

Objective

The objective of this course is to establish foundation of financial management. It provides theoretical and conceptual knowledge of finance to the students. The course covers wide areas of finance. We will show managers how to interface with accounting and finance departments, help them to understand how firms meet their financial objectives utilizing financial decision-making. This course will also explain financial tools and techniques, which can be used to help firms maximize value by improving decisions relating to capital budgeting, capital structure, and working capital management.

Course

Outcome:

- After successful completion of this course students will be able to
- Understand the different basic concept of financial management
- Describe how different financial markets function.
- Estimate the value of different financial instruments (including stocks and bonds)

- Make capital budgeting decisions under different evaluation techniques like NPV, IRR, PI and Payback Period
- Apply the capital assets pricing model in practical scenario
- Discuss the capital structure theory of a firm.
- How companies manage working capital

Week	Contents
1	An Overview of Financial Management; Careers in Finance; How are Companies Organized; Finance in the Organizational Structure of the Firm; The Goals of the Corporation; Social Responsibility; Agency Relationships
2-3	Financial Markets: An Overview: Money market: Institutional framework with reference to Pakistan, Capital Markets, Primary vs secondary markets, Organized vs over the counter market, Investment banking & public securities issue, Private placement, Role of financial markets in Pakistan.
4-5	The Valuation Concepts: the valuation process, the fundamental valuation model, Valuation of securities: Bond, preferred stock. Yield over bonds and stocks.
6-8	Risk and Return; Investment Returns; Stand-Alone Risk; Risk in Portfolio Context; Calculating Beta Coefficient; The Relationship between Risk and Rates of Return; Physical Assets versus Securities; Some Concerns about Beta and the CPM; Volatility versus Risk; Portfolio Theory and Asset Pricing Models; Measuring Portfolio Risk; Efficient Portfolios; Choosing the Optimal Portfolio; The Capital Asset Pricing Model; The Capital Market Line and Security Market Line; Calculating Beta Coefficient; Empirical Tests of the CAPM
9-10	Working Capital Management: Concepts and components, Determinants of working capital requirements, Working capital conversion cycle and identification of business risk. Optimal level of working capital, Strategies of financing working capital.
11-12	Credit and Collection Policies, Credit, Standards, Credit Terms Analyzing the Credit, Applicant, Default Risk, Collection Policy and Procedures Inventory Management and Control, Economic Order Quantity, Just-in Time, Inventory and the Financial Manager.
13-14	Capital Budgeting Techniques, Payback Period, Internal rate of return, net present values, Profitability index. Capital rationing.
15-16	Dividend Policy, Passive versus Active Dividend Policies, Factors Influencing Dividend Policy, Dividend Stability, Stock Dividends and Stock Splits, Stock Repurchase, Administrative Considerations

Recommended Texts:

- Van Horne, J. M., & Wachouicz J. M. (2008). *Fundamentals of Financial Management (illustrated)*. Financial Times/ Prentice-Hall.
- Reference Texts:
- Brigham, F. E., & Houston, F. J. (2014). *Fundamentals of Financial Management*. CengageLearning.
- Gallagher, Timothy J. & Joseph, D Andrew. 2003. *Financial Management, Principles and Practice*, Third Edition, Prentice Hall: New Jersey.
- Brooks, M. R. (2012). *Financial Management: Core Concepts*, 2nd Edition. NJ, USA:Prentice- Hall.

SEMESTER 7

Econometrics of Time Series and Panel Data

Course Code: ECON 471

Cr. Hrs-3

Course Introduction:

Econometricians use econometric tools to forecast future developments in the economy. They can measure past relationships among variables such as consumer spending, household income, tax rates, interest rates, employment, etc., in order to forecast how changes in some variables will affect the future outcomes of others. This course is designed to develop an understanding among students about simultaneous equation models, panel data models and time series analysis.

Course Objectives:

This course is designed to teach the model building approach, and students will learn methods to conduct independent analysis of real world economic data. After completion of this course, students would be able to:

1. Estimate and interpret the non-linear regression models.
2. Understand the issues related to the estimation of limited dependent variable and time series models.
3. Identify appropriate simultaneous equations technique for estimation.
4. Appraise econometric analysis with respect to choice of model, estimation method and interpretation

Learning Outcomes:

Upon successful completion of the course, student will be able to:

- APPLY appropriate tools for analyzing economic data.
- INTERPRET and CRITICIZE the estimates of the outcomes of empirical analysis.
- VALIDATE models using elementary procedures.

Lab work:

The students are required to devote at least two hours per week to computer laboratory. They have to attend classes to learn various Econometrics software for practical application of Econometric models they have learnt so far.

Course Contents:

1. Pool and Panel Data

- Why panel data regression models
- Estimation of pool data regression models
- Common intercept method
- Fixed-effects model
- Least Squares Dummy Variables Approach
- Random-effects model
- Generalized Least Squares Approach
- Fixed-effects model Vs. Random-effects model
- Hausman Specification Test

2. Simultaneous Equation Models and Estimation Methods

- Simultaneous equation models
- Nature of simultaneous equations
- Examples of simultaneous equation models from economic theory
- Inconsistency of OLS estimators
- Identification problem
- Unidentified, exactly identified and over identified
- Rules for identification
- Simultaneous equations approach to estimation
- Indirect least squares
- Two-stage least squares
- Instrumental Variables
- Seemingly unrelated regression (SUR)
- Nature of SUR equations
- Method of Generalized Least Squares

3. Time-Series Econometrics

- Stationarity
- Tests for Stationarity

- Transforming Non-stationary Time Series
- ARMA and ARIMA Models
- Comparison of forecast based on ARIMA and regression models,
- Cointegration and Error Correction Models (ECM)
- ARCH and GARCH models

Recommended Readings/Books:

1. Gujarati, D. J. *Basic Econometrics*. McGraw-Hill Company. Latest Edition.
2. Dimitrios, A. and Hall, S.G. *Applied Econometrics: A Modern Approach using Eviews and Microfit*, Palgrave, Macmillan
3. Wooldridge J. M. *Econometric Analysis of Cross Section and Panel Data*, The MIT Press, Latest edition
4. Hill, R.C., Griffiths, W.E. and Lim, G.C. *Principles of Econometrics*, John Wiley, New York.
5. Stock H. J. and M. W. Watson. *Introduction to Econometrics*, India: Pearson Education. Latest Edition.
6. Stewart G. K., *Introduction to Applied Econometrics*, United States of America: Curt Hinrichs. Latest Edition.

Islamic Economics

Course Code: ECON 472

Cr. Hrs-3

Course Introduction:

This course includes the foundation of socio-economic system of Islam, the institutional framework, functioning of an Islamic economic system, economic development in Islamic banking, comparative economic system and the strategy for Islamization of the economy.

Course Objectives:

The aim of this course is to introduce different Islamic thoughts to the students and its relationship with conventional economic theories and strategies.

Learning Outcomes:

The students will learn about the foundations of Islamic economics and development in Islamic banking.

Course Contents:

1. The Foundations of the Socio-Economic System of Islam:

Fundamental beliefs: Unity of Allah, Prophet-Hood and the Eternal Message of the Holy Quran, Resurrection and the Day of Judgment – the Concept of Accountability.

2. The Institutional Framework:

Private Ownership and Property Rights, Family System and the Law of Inheritance, The Institution of Zakah and Bait-ul-Mal, The Institution of Interest and its Inconsistency, Role of the State in an Islamic System

3. Functioning of an Islamic Economic System:

Forms of Business Organization, Financial System: Central and commercial banking, Financial instruments, The Fiscal System: Taxation, Zakah & Usher, Revenues and Expenditure, Equity and Efficiency in Islamic Economic System, International Relations: the concept of Ummah, Economic cooperation among Muslim countries, responsibilities towards International pacts.

4. Economic Development in Islamic Framework:

Goals and Strategies, Poverty alleviation and equity in distribution, Balance between moral and material growth.

5. Comparative Analysis of Economic Systems:

Brief comparison with the conventional capitalist system and Socialism.

6. The Strategy for Islamization of the Economy:

A brief account of various initiatives towards Islamization of the economies with special reference to

Pakistan, Iran, Sudan and other Muslim countries.

Recommended Readings/Books:

1. Ahmed, Khurshid. *Studies in Islamic Economics*. King Abdul Aziz University Jeddah and The Islamic Foundation UK. Latest Edition.
2. Ziauddin et al., *Money and Banking in Islam*. Selected parts King Abdul Aziz University and Institute of Policy Studies Islamabad. Latest Edition.
3. Iqbal, Munawar. *Distributive Justice and need Fulfillment in an Islamic Economy*. International Institute of Islamic Economics. Latest Edition.
4. Yasin, Hafiz M. *Economic System of Islam*. Mimeographed. Latest Edition

Research Methods in Economics

Course Code: ECON 473

Cr. Hrs-3

Course Introduction:

This course is designed to provide students, enrolled in the undergraduate program of Economics, with the skills required to understand different scientific research tools, using for academic as well as professional investigation of the information. Topics, which will be covered, are scientific method, research design; measurement; sampling; quantitative, qualitative, and mixed data collection techniques; data analysis and interpretation; and research proposal development.

Course Objectives:

To provide students in depth knowledge of research methods.

Learning Outcomes:

Students will learn how to define a research question, explore the strengths of various methods, and experience different data collection methods.

Course Contents:

1. Introduction to Research

Why study research methods? Aims and Assumptions of this course, Central Issues of Research, Descriptions vs Explanation, Different ways to answer the situations.

2. Research Ethics

Plagiarism, Data Collection and Analysis, Treatment of Human Subjects, Making Ethical Decisions, The Uses of Research: Science and Society

3. Planning the Research

The research project proposal, elements of research proposal, evaluating research proposals, Importance of flexibility, Importance of writing, Writing guidelines and tips

4. The Research Problem and Objectives

The research problem Identification, Developing problem and Objective statements

5. The Literature Review

Purpose of the literature review, the literature search process, Writing the literature review, Referencing

6. The Conceptual Framework

Role of conceptual framework, Source material for the conceptual framework, Hypothesis and Hypothesis testing

7. Methods and Procedures

Purpose of Methods and Procedures, Models in Economic Research, Types of empirical methods, The descriptive methods, statistical and econometric tools, Data considerations; Primary and secondary data, creative solutions for data problems, procedural suggestions

8. Closure of Research

process Reporting the research, Types of reports, Components of research report, Writing the methods and findings, Writing conclusions, Publishing, Authorship

Recommended Readings/Books:

1. Singleton & Straits, "Approaches to Social Research. Oxford University Press. Latest Edition.
2. Keith F, Punch. *Introduction to Social Research: Quantitative and Qualitative Approaches*. Sage Publication. Latest Edition.
3. Bryman, Alan. *Social Research Methods*. Latest Edition.
4. Newman, William. *Social Research Methods: Qualitative and Quantitative Approaches*. Latest Edition.

Managerial Economics

Course Code: ECON 474

Cr. Hrs-3

Course Introduction:

This course of managerial economics will help to understand the concept of this economic efficiency and will explain the procedure, how to measure it.

Course Objectives:

The course will sharpen analytical skills of students through integrating their knowledge of the economic theory with decision making techniques.

Learning Outcomes:

Through this course, student will enable to discuss the effects of policy intervention on efficiency of resources as well as effects of government intervention on it. Students who successfully complete the course will have a good understanding of economic concepts and tools that have direct managerial applications.

Course Contents:

1. The Fundamentals of Managerial Economics:

What Is Managerial Economics? The Nature and Scope of Managerial Economics, Firms and Managerial Objectives, The Managerial decision making process, Economic Optimization, Firms and Profits, Tools of Economic Analysis, Marginal Analysis, Theory of the firm. Profit maximization, Cost Minimization. Economic optimization. Economic relations of variables. The Incremental concept in Economic Analysis. Demand, Supply and Equilibrium

2. Market Forces: Demand and Supply, Quantitative Demand Analysis:

Demand, Supply, Demand Analysis, Elasticity, Price elasticity of demand and supply and use of derivative in finding elasticity of demand & supply, Point elasticity & Arc elasticity, income elasticity of demand, cross elasticity of demand, Promotional elasticity of demand, Concept of partial elasticity, Measuring Economic Relationships, Statistical Relations and Regression Analysis, Forecasting, Methods of demand forecasting. Trend projections, smoothing techniques, Exponential smoothing. Econometric models, Simple linear regression model, estimation etc, Multiple linear regression model estimation. Business Cycle, Time Series Trends

3. Marginal Analysis:

Consumer Behavior, Constraints, Consumer Equilibrium, Indifference Curve Analysis & Demand Curves

4. Production and Cost:

Theory of Production, Production functions. Total, Marginal and Average Product. Revenue and Cost in Production. Production function estimation. Productivity Measurement. Homogenous and Homothetic Production Function. Short run and long run cost curves. Cost estimation, Learning curves and application. Cost and Profit Analysis, Empirical Analysis of Production and Cost, Cost-value-profit analysis.

5. Market Structure:

Perfect Competition, Monopolies, Monopolistic Competition. Oligopoly. Selected Pricing Models. Marginalist Pricing. Mark up pricing. New Product Pricing. Oligopoly Model. Contestable Markets. Pricing Strategies for Firms and Market Power. Monopolistic Competition. Price Discrimination, Monopsony and Price Product. Measuring Firms' Performance, Making

Decisions under Noncompetitive Conditions, Oligopolies, Game Theory: Inside Oligopoly, Pricing Methods, Pricing Strategies for Firm with Market Power.

6. Managerial Theories and Models of the Firm:

Baumol's Theory of Sales Revenue Maximization. Marris's Model of Managerial Enterprise. Williamson's Model of Managerial Discretion Topics, Behavioral Model by Cyert and March.

7. Regulating the Market Economy:

Economies of Scale, Taxes and Subsidies, Costs of Regulation

8. Public Sector Production and Pricing of Goods:

Public and Private Goods and their pricing mechanism. Decreasing cost Industry and pricing. Externalities and Market Pricing issues. Rent seeking and control. Government Policy and International Trade, tariff and pricing. Import Competitiveness and tax, International pricing Techniques /Strategies.

9. Capital Budgeting and Investment:

Pre- requisites of Capital Budgeting. Investment Criteria and Decisions. Cash flow estimation, Internal Rate of Return, Profitability-Index Criterion and another criterion. Optimal Capital Budget.

10. Decision Making:

Decision Making under Uncertainty: Risk Analysis, Advanced Topics in Business Strategy.

Recommended Readings/Books:

1. Baye, Michael, Managerial Economics and Business Strategy. Sixth Edition. Boston: McGraw-Hill Irwin, latest edition
2. Mark, Hirschey, Managerial Economics, latest edition, Thomson/South-Western College Publishing:
3. Peterson, Craig, H., Lewis, W. Cris and Jain, Sudhir, K., Managerial Economics, latest Edition Pearson Education:
4. Samuelson, William. Managerial Economics. Latest Edition

International Trade Theory

Course Code: ECON 475

Cr. Hrs-3

Course Introduction:

This course includes topics such as the Ricardian model, the specific factor model, the Heckscher-Ohlin model, the standard trade model, economics of scale and imperfect competition, international factor mobility and international trade policy.

Course Objectives:

The main objective of the course is to offer a detailed introduction to the economics of international trade.

Learning Outcomes:

The students are expected to develop an analytical framework for studying international trade.

Course Contents:

1. Introduction:

The gains from trade, The pattern of trade, Protectionism, The balance of payments, Exchange rate determination, International policy coordination, The international capital market.

2. The Ricardian Model:

The concept of comparative advantage, Trade in one factor world, Misconception about comparative advantage, Comparative advantage with many goods, Empirical evidence on the Ricardian model.

3. The Specific Factors Model:

Assumptions of the model, International trade in the specific factors model, Income distribution and

the gains from trade.

4. The Heckscher Ohlin Model:

A model of a two factor economy, Effects of international trade, Empirical evidence.

5. The Standard Trade Model:

A standard model of a trading economy, Economic growth, International transfers of income, Tariff and export subsidies

6. Economics of Scale and Imperfect Competition:

Economies of scale and international trade, Economy of scale and market structure, the theory of imperfect competition, Monopolistic competition and trade, Dumping, The theory of external economies, External economy and international trade

7. International Factor Mobility:

International labor mobility, International borrowing and lending, Direct foreign investment and multinational firms.

8. Instruments of Trade Policy:

Tariff, export subsidies, import quota, voluntary export restraints, the effects of trade policy

9. Trade Policies in Developing Countries:

Import substituting industrialization, Problem of the dual economy, Export oriented industrialization

Recommended Readings/Books:

1. Krugman, Paul R. and Obstfeld, Maurice. *International Economics: Theory and Policy*. Addison Wesley. Latest edition.
2. Salvatore, Donomick. *International Economics*. Prentice Hal. Latest edition.
3. Robert. J.C. *International Economics*. Latest Edition.
4. James, Gerber. *International Economics*. Latest Edition.

SEMESTER 8

Energy Economics

Course Code: ECON 481

Cr. Hrs. 3

Course Introduction:

This course is the study of economic relationships in energy production, consumption, demand and supply, pricing and conservation, energy policy and the development of new and renewable energy sources.

Learning Outcomes:

This course aims to provide students with the opportunity to study and develop a broader understanding of the economics of energy. There is mounting evidence that the current global energy system has been growing far beyond what is globally sustainable and already poses a serious, and potentially irreversible, threat to global environmental quality and stability in future decades.

Course Objectives:

To familiarize students with the concepts of energy economics.

Course Contents:

1. Overview and Fundamental Concepts:

Energy in the Economy; Global Energy Problems and Issues, Fundamental Concepts: Energy, Power; Measuring energy: units and conversion factors, Laws of Thermodynamics, 1st Law and Entropy law, Input and output energy, energy efficiency, Energy conversions (technologies), Global Energy system sustainability issues, Energy markets and energy prices; competitive market valuation and social valuation, Market Failures: Market power (monopoly, oligopoly, and cartels), Externalities, Public goods and common property resources.

2. Oil Resources and Economic Issues:

Discounted cash flow analysis, reserve and resources, resource substitution, forecasting prices and speculation, Natural resource (oil) demand and supply, OPEC.

3. Overview of Energy Economics and Global Energy Sustainability:

Primary energy supply, secondary energy and energy end use demand/consumption, Energy, economic activity, and growth: energy intensity, global energy use forecasts, Energy conversion, energy transportation and/or transmission, and clean energy use, Conditions for a sustainable global energy system, climate change and clean energy

4. Clean Energy Supply from Non-Conventional, Alternative and Renewable sources:

Climate change and primary and secondary energy use, Energy Conservation policies, demand side

management, Non-conventional and renewable alternative energy: Solar, Biomass, Wind, Geothermal, Tidal & other, Hydrogen energy, fuel cells

5. Energy Supply from Non-Renewable Fossil Fuel Resources:

Fossil fuel resources and reserves model, Cartel models of global energy markets, Overview of Oil, Natural gas, and Coal industries, Backstop technologies and Non-renewable resource Pricing (Hoteling model), Clean fossil fuel use; carbon sequestration

6. Energy Conversion and Supply by Electric Utility Industries:

Electric Power demand and load duration vs. Electric energy consumption, time-of-use, Electricity production technologies and electricity production cost trade-offs, Thermal, hydro, nuclear and renewables production and transmission of electricity, Electricity pricing issues, regulation and deregulation issues, Nuclear energy issues and prospects.

7. Sustainable Energy Policy:

Jaccard's Sustainable Energy System in 2100, Energy Policy of Pakistan, Sustainable energy options and criteria for comparison, Sustainable Energy Policy Alternatives and Climate Change, International Policy Initiatives.

Note: Students may visit different oil refiners, conventional energy production units, dams etc.

Recommended Readings/Books:

1. Mark Jaccard, *Sustainable Fossil Fuels: The Unusual Suspects in the Quest for Clean and Enduring Energy*, Cambridge University Press. Latest Edition.
2. Subhes C. Bhattacharyya *Energy Economics Concepts, Issues, Markets and Governance* Springer-Verlag London Limited. Latest Edition.
3. M. Griffin, and H. B. Steele, *Energy Economics and Policy*, Academic Press. Latest Edition.
4. Tom Tietenberg and Lynne Lewis *Environmental & Natural Resource Economics* Pearson Education, Inc. Latest Edition.

International Finance

Course Code: ECON 482

Cr. Hrs-3

Course Introduction:

This course includes foreign exchange market and the exchange rate determination, purchasing power parity and balance of payment, open economy, monetary and fiscal policy, international institutions and trade.

Course Objectives:

To understand the international economy and enable students to learn how economic models are applied to real world problems.

Learning Outcomes:

The text will provide detailed descriptions of major macroeconomic variables, covers the interest rate parity and purchasing power parity theories of exchange rate determination, takes an exhaustive look at the pros and cons of trade imbalances and presents the well-known AA-DD model to explore the effects of fiscal and monetary policy under both fixed and flexible exchange rates.

Course Contents:

1. Introduction:

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

2. Foreign Exchange Market and Exchange Rate Determination:

Foreign Exchange Rates (F.E.R): What it represents? Real, Nominal and Effective Rates. Determinants of Foreign Exchange Rate. Efficient F.E.R Market. Dynamic Theory of Interest and Exchange Rate. The Theory of Spot Exchange Rate Determination. Capital Flow and Speculations.

Forward Exchange Market, Interest Arbitrage, Interest Parity Theory, Speculators, Hedgers and Traders, Forward Exchange Rate Policy.

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

Purchasing Power Parity (PPP): Non-Trade Goods, Balance of Payment Effect. Test of Exchange Rate Instability. Impacts of F.E.R. Rate Instability. B.O.P: Income Absorption Approach to B.O.P. Elasticities of Exports and Imports and Impact on B.O.P. The Marshall- Lerner Conditions. Monetary Approach to B.O.P. Monetarist Critique to the Keynesian Closed Economy Model. B.O.P. Effects of Stabilization Policies. Empirical Tests of Monetary Approach to the B.O.P. WTO and B.O.P Support. Adjustment with Short-run capital Flow. Methods dealing with undesired Short-run Capital Flow.

4. Open Economy: Monetary and Fiscal Policy:

Monetary and Fiscal Policies: Internal and External Balance. Monetary and Fiscal Policy with Fixed Exchange Rates. Problems of Small Country: Fixed Exchange Rate, Free Floating Exchange Rate, Managed Exchange Rate and Critical Review of The Fiscal – Monetary Mix Models. Fiscal Policy and Temporary Payment Imbalances. Monetary Policy and Permanent Payments Imbalances, A Random Walk Model of Payment Imbalances. Critical Review of the Modern Theory and Adjustment Mechanism.

5. International Institution: Trade, Capital and B.O.P:

Introduction of International Institutions, Role and Major Activities of IMF. IMF Credit Facilities. Loan Mechanism, Value of SDRs. The Optimum Quantity of Reserves, Optimum Interest Rate. Euro-Dollar, Dollar Exchange and Impacts. Role of IMF in B.O.P Support and Stabilization.

6. International Movements of Factors and Welfare (Impacts / Issues):

Facts on International Capital Flow: ASEAN Crisis and Role of International Institution and Criticism. Motive for Capital Movement: Return and Risk Diversification. Globalization, Pros and cons of globalization, Impact of globalization on developing countries.

Recommended Readings/Books:

1. Imad A. Mosa. *International Finance: An Analytical Approach*. McGraw Hills, Australia. Latest Edition.
2. Maximo V. Eng, Francis A. L. & Laurence J. Maur. *Global Finance*, Harper Collins College Publishers. Latest Edition.
3. Salvatore, Donomick. *International Economics*. Prentice Hal. Latest Edition.
4. Grubel Herbert C. *International Economics*. Latest Edition.
5. Peter Holinder & Thomas A., Pugel. *International Economics*. Latest Edition

Issues in Pakistan's Economy

Course Code: ECON 483

Cr.Hrs-3

Course Introduction:

This course introduces undergraduate students to key social policy issues in Pakistan. It satisfies the information and analyzes the needs of future managers and practitioners in the public and development sectors.

Course Objectives:

It covers a wide range of topics, including poverty, social exclusion, social safety nets, education, health, food security, demography and housing. Students use recent data to critically analyze policy goals, delivery mechanisms and available policy choices on each of these topics.

Learning Outcomes:

The course is designed to make students understand the key sectors of economy of Pakistan and contemporary issues in agriculture, industry and financial and social sectors.

Course Contents:

Introduction to major economic issues of Pakistan, Development pattern, Policy and emergence of

economic issues, Poverty, Unemployment, Inflation, Negligence of human development, tax structure: Direct and indirect excess, Financial restructuring in Pakistan: Financial allocation, strategies and priorities. Financial reforms, Autonomy of central bank, Resource mobilization and public debt, Privatization of financial institutions. Resource mobilization and public debt, Text structure: direct and indirect, Deficits and inflation crises. Public debt sustainability, Fiscal responsibility law. Fiscal relations after devolution plan. Neglect of institutions development and its impacts: state, market and civil institutions. Balance of payment, deficit, Trade stability, foreign trade and development. Export competitiveness and diversification. Recent trends in international trade. Major sources of economics growth in Pakistan, Governance issues. Politics and economic development. Research and development poverty and income distribution. Current economic policies and economic development. HDI and Pakistan economy. Recent empirical studies in Pakistan.

Recommended Readings/Books:

1. Zaidi, S. Akbar, "Issues in Pakistan Economy", Latest Edition Oxford University Press.
2. Saeed, K. Amjad "Economy of Pakistan, Latest Edition Institute of Business Management, Lahore.
3. Economics Survey of Pakistan, Economic Advisor's Wing, Ministry of Finance, Government of Pakistan Latest Edition
4. Economics of Public Issues, Latest Edition by Roger Miller, Daniel Benjamin, Douglass North.

Economics of Financial Markets

Course Code: ECON 484

Cr. Hrs-3

Course Introduction:

This course includes topics on financial markets, theory of the role and functioning of financial system, growth and stability of financial system, and current issues in financial institutions and markets.

Course Objectives:

The aim of this course is to provide a solid foundation on financial markets and institutions.

Learning Outcomes:

Students will learn about financial markets, theory of the role and functioning of financial system, growth and stability of financial system, and current issues in financial institutions and markets. The course is expected to create an additional interest in financial markets, as well as enhance learning among students.

Course Contents:

1. Theory of the Role and Functioning of Financial System:

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. Financial system and its relationship with the rest of the economy. Functions of financial sector: mobilization and allocation of resources; pooling, diversification and trading of risk; advisory role; financing technological innovation and development. Financial Repression vs Financial Liberalization.

2. Growth and stability of financial system:

Why there is need to regulate the financial sector? Why financial sector is most regulated one in an economy? State Bank of Pakistan and its main functions: conduct of monetary policy; promotion, establishment, regulation and supervision of depository institutions; exchange rate policy and management of foreign exchange reserves; Payment System (NIFT and its functions. Relating to payments system). Securities and Exchange Commission of Pakistan and its functions: promotion,

establishment, regulation and supervision of various components of capital market.

3. Financial Institutions and Current issues:

- i) Scheduled Banks and their role in economic development of Pakistan: Introduction to commercial banking; structure of commercial bank in Pakistan; Assets and Liabilities of a commercial bank; performance indicators for commercial banks; recent issues in commercial banking.
- ii) Non-bank Financial Institutions: Development Financial Institutions, Investment Banks, Modarbas, Leasing companies, Mutual Funds, Housing Finance Corporations, Discount Houses, Venture Capital Companies.
- iii) Micro Finance Institutions, SME Banks
- iv) Insurance Companies – the rationale and role.

4. Financial Markets and Current Issues

- i) Functioning of Money Market (Primary and Secondary Dealers
- ii) Capital Market (Stock exchanges and Various Components of capital markets – Securities, equities, bonds, debentures)
- iii) Foreign Exchange Market and its evolution, dollarization of the economy.

5. Financial Infrastructure

Legal Framework (SBP Act 1956, BCO, 1984, SBP Prudential Regulations), Accounting Standard, Auditing, Corporate governance of banks and other financial institutions. Human Resource Development|(Skill and Training) – Importance for functioning of financial sector. Electronic Banking and its prospects

Note: Students may visit stock exchange of Pakistan, State Bank of Pakistan and other financial institutions.

Recommended Readings/Books:

1. Fabozzi, F. and Modigliani, F. Capital Markets. Prentice- Hall London. Latest Edition.
2. Mishkin, The Economics of Money, Banking, and Financial Markets. Latest Edition.
3. Zaidi, Akber. "Issues in Pakistan Economy," Karachi. Latest Edition.
4. SBP Annual and Quarterly Reports (Latest)
5. SBP Financial Sector Assessment: (Latest)

CONTENTS OF REMAINING MAJOR COURSES

World Economic History

Course Code: ECON 355

Cr. Hrs-3

Course Introduction:

This course surveys the history of colonial expansion from the discovery of the America up to the colonization of the Middle East following the end of the First World War.

Course Objectives:

The course is intended to give students a chronological account of the rise of imperialism and the colonial expansion into Latin America, Asia and Africa.

Learning Outcomes:

The course attempts to provide an essential background to understand the historical processes by which modern developed nations became developed, and how the underdeveloped “Third World” originated as part of the same historical process.

Course Contents:

1. Module One:

The Discovery of the America to the Rise of Industrial Capital, 1492 – 1770, Introduction: Dependency Theories (Readings: Kuhnen – Causes of underdevelopment). The Discovery of America (Readings: Stavrianos, pp. 74-99), the Origins of the Slave Trade (Readings: Stavrianos, pp. 99-122). Overland trade routes and the Middle East (readings: Stavrianos, pp. 122-141), Origins of colonial expansion in Asia (Readings: Stavrianos, pp. 141-169).

2. Module Two:

Industrial Capitalism to Monopoly Capitalism, 1771–1870, the first industrial revolution (Readings: Stavrianos, pp. 169-177), the Latin American Revolutions (Readings: Stavrianos, pp. 177-196), the End of the Slave Trade (Readings: Stavrianos, pp. 196-205), Expansions into the Middle East (Readings: Stavrianos, pp. 205-230). The Conquest of India (Readings: Stavrianos, pp. 230-250)

3. Module Three:

Monopoly Capitalism to the First World War, 1870 – 1917, the Second Industrial Revolution. (Readings: Stavrianos, pp. 256-278), the Scramble for Africa (Readings: Stavrianos, pp. 278-309), the Opium Wars and the Onslaught on East Asia (Readings: Stavrianos, pp. 309-333), Russian Political and Economic Developments (Readings: Stavrianos, pp. 333-349), the Japanese Response (Readings: Stavrianos, pp. 349-367)

4. Module Four:

Nationalist Thought and Indigenous Responses to the West Origins of Nationalist Thought I (Readings: Stavrianos, pp. 367-390), Origins of Nationalist Thought II (Readings: Stavrianos, pp. 390-433), The Russian Revolution (Readings: Stavrianos, pp. 484-513). Rise of East Asia: (Readings: Arrighi p 59-77), (Re)-Globalization (Readings: pp. 496-540 from Findlay & O'Rourke also: Stiglitz p1-18).

Recommended Readings/Books:

1. Stavrianos, L. S.' *Global Rift: The Third World Comes of Age*, (New York: William Morrow and Company. Latest Edition.
2. Kuhnen, Frithjof. "*Causes of underdevelopment and concepts for development. An introduction to development theories.*" The Journal of Institute of Development Studies, NWFP Agriculture. Latest Edition.
3. Arrighi, Giovanni. *Globalization and the Rise of East Asia Lessons from the Past, Prospects for the Future*. Latest Edition.
4. Findlay, Ronald, and Kevin H. O'Rourke. *Power and plenty: trade, war, and the world economy in the second millennium*. Princeton University Press. Latest Edition.
5. Stiglitz, Joseph E. *Globalization and its Discontents*. Latest Edition.

Money and Banking

Course Code: ECON 356

Cr. Hrs-3

Course Introduction:

This course is designed to introduce the basic concepts of money, supply of money, demand for money, commercial and central banking.

Course Objectives:

An important objective of this course is to investigate the principal financial institutions involved in our macro economy.

Learning Outcomes:

This course will provide an overall perspective on the monetary and financial institutions. Monetary institutions can only be understood if one knows the magnitudes of the economic variables associated with them.

Course content:

1. Money and demand for money:

Definition and functions of money, types of money, evolution of fiat money, the transaction, precautionary, speculative motives, factor affecting the demand for money.

2. Supply of money, types of money and monetary theories:

The concept of M1, M2, M3 and M4. The process of money creation and sources. The crude quantity theory and modern quantity theory of money. Inventory theoretic approach.

3. Central and Commercial banking:

Functions of central bank, the central reserve system, modern banking and creation of money, control of credit and money by the central bank, and the instruments used for it. Commercial banks and its functions, commercial bank and payment system, commercial bank and money stock, the organization and structure of banks, lending to business firms, policies and procedure.

4. Foreign exchange and trade:

Foreign exchange determination, theory of international trade, import/exports and letters of credit, trade financing.

5. Islamic perspective of money and banking:

Introduction, types and comparison with conventional banking.

Recommended Readings/Books:

1. Mishkin, Frederic. *The Economics of Money and Banking and Financial Markets*. Pearson Education. Latest Edition.
2. Meenai, S. A. *Money and Banking in Pakistan*. Oxford University Press. Latest Edition.
3. Lockett, D. G., *Money & Banking*, McGraw Hill. Latest Edition.
4. Mc Connell & Brue, *Economics*. McGraw Hill, INC. Latest Edition.
5. Rose, Peter S., *Commercial Bank Management*, McGraw Hill. Latest Edition.
6. Zamir Iqbal & Abbas Mirakhos, *An introduction to Islamic finance*. Latest Edition.

Health Economics

Course Code: ECON 364

Cr. Hrs-3

Learning Outcomes:

This course is an introduction for advanced economics students to contemporary theoretical analysis of, empirical evidence on and policy debate about: What and who produces health, how it is produced, variations in its production, and consequences of its production or lack of production.

Course Contents:

1. Introduction:

The particular problems of health and the economics of health: great uncertainty, great irreversibility, major ethical/equity concerns throughout time, the near-impossibility of

separating production from distribution. Are there parallels?

2. Studies of the production of health:

What makes individuals and populations healthier or unhealthier? life expectancy mortality, morbidity and X-Adjusted Life. The distinction between the production of health and the production of health care also a distinction between the production of health and the production of utility.

3. The fundamental microeconomics of health care:

Is health care really different from other commodities? Is this market failure irreparable, and what does it imply for market versus social or state provision of health care? Have we learnt more since Arrow's basic insights? Health care insurance as a special sub-topic of insurance. The health care market: Supply, demand, industrial organization. Health care as a part of public economics. Why health care is almost everywhere a topic for public economics. The alternate private/public mix which has been developed in different countries. What is happening in Russia? What could happen? How should health care systems be compared? Cost-effectiveness and the role of the economist in the health sector: an introduction. (Students interested in further applications can find them in Cost-Benefit Analysis). Measuring Health : Adjusted Life Years: QALYs, DALYs, life years. How far have we come? Can we really measure cost-effectiveness. Can we produce a single objective function? The debate over WHO rankings. 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. What has happened to Russian mortality in the last century, the last two decades, the last few years? Trying to quantify health care: QALYs, DALYs and WHO rankings. How is it done? What should we do now? What is the research agenda? Problems of Health Care Insurance in theory. Alternate forms of health care provision in the world, and recent changes. Trade-offs in "American" versus "European" systems. Is Health care really different from all other commodities? Are there even partial cures for problems such as the agency problem? How much is inherent, how much is in-built institutionally?

4. The pharmaceutical market:

5. Health in transition:

6. The future of health care reform in the world, and particularly Pakistan:

Recommended Readings/Books:

1. Drummond MF, O'Brien BJ, Stoddart GL, Torrance GW. *Methods for the Economic Evaluation of Health Care Programmes*. Oxford University Press, Oxford. Latest Edition.
2. Petitti DB. *Meta-Analysis, Decision Analysis, and Cost-Effectiveness Analysis: Methods for Quantitative Synthesis in Medicine*, Oxford University Press, Oxford. Latest Edition. 90
3. Rychlik R. *Strategies in Pharmacoeconomics and Outcomes Research*. The Haworth Press, New York. Latest Edition.
4. Vogenburg, FR. *Introduction to Applied Pharmacoeconomics*. McGraw Hill, New York. Latest Edition.
5. Zweifel and Breyer, *Economics of Health*, North Holland. Latest Edition

Labor Economics

Course Code: ECON 365

Cr. Hrs-3

Learning Outcomes:

The objective of this course is to provide an introduction to the broad field of labor economics. Students will become familiar with models of how firms make decisions about their need for workers, how workers make labor supply decisions, and how wages and other benefits are determined. Historical labor market trends and other important issues that affect the labor market such as

immigration, discrimination, and unions are also discussed. Throughout the course we will investigate the effects of relevant public policies (such as minimum wage, employment subsidies, and unemployment insurance) on the labor market.

Course Contents:

1. **Introduction:** Overview of the Labor Market (C. McConnell et al., Chapter 1)
2. **Labor Supply:** (G. Borjas, Chapter 2)
3. **Labor Demand:** (G. Borjas, Chapter 4)
4. **Labor Market Equilibrium:** (G. Borjas, Chapter 5)
5. **Compensating Wage Differentials:**(G. Borjas, Chapter 6)
6. **Labor Quality:** Investing in Human Capital (C. McConnell et al., Chapter 4)
7. **The wage structure:** (C. McConnell et al., Chapter 8)
8. **Mobility, Migration, and Efficiency:** (C. McConnell et al., Chapter 9)
9. **Labor Market Discrimination:** (G. Borjas, Chapter 10)
10. **Labor Unions and Collective Bargaining:** (G. Borjas, Chapter 11/ C. McConnell et al., Chapter 11)
11. **Labor Market Contracts and Work Incentives:** (G. Borjas, Chapter 12)
12. **Unemployment:** (G. Borjas, Chapter 13)

Recommended Readings/Books:

1. G. Borjas, Labor Economics, McGraw-Hill. Latest Edition.
2. McConnell et al., Contemporary Labor Economics, McGraw-Hil. Latest Edition.
3. R. Ehrenberg and R. Smith, Modern Labor Economics, Addison Wesley. Latest Edition.
4. R. Elliott, Labor Economics: A Comparative Text, McGraw-Hill. Latest Edition.

Population Economics

Course Code: ECON 476

Cr. Hrs-3

Course Introduction:

This course introduces students to the subject of demography. The course aims to educate students regarding basic demographic theories, study of demographic processes and population characteristics, demographic trends, basic methods of demographic analysis and the important demographic transitions.

Course Objectives:

To equip students with the subject of population Economics.

Learning Outcomes:

The student will be able to learn the relationship between population and issues such as urbanization, family change, population aging and health.

Course Contents:

1. Introduction:

Understanding Demography, Importance of Demography, Sources of Demographic Data, Processes of Demography

2. Theories of Population:

Mercantilist Perspective, Malthusian Theory of Population, The Marxist Perspective, John Stuart Mill, Lujo Brentano's Theory, Emile Durkheim's Perspective, The Theory of Demographic Transition, Theory of Relative Income

3. Fertility:

Understanding the Concept; Intercourse, Conception & Gestation Variables, Measuring Fertility, Period Measures of Fertility, Cohort Measures of Fertility, Fertility Trends, Fertility & Population Growth in Pakistan

4. Mortality:

Components of Mortality; Lifespan, Longevity, Causes of Death, Measuring Mortality, Differentials in Mortality, Estimates of Mortality in Pakistan

5. Migration:

Definition & Measurement, Causes of Migration, Internal Vs International Migration, Individual & Social Consequences of Migration, Migration Trends in Pakistan: Causes & Consequences

6. Population Composition: Age & Sex Composition:

Measuring the Age Composition; Measuring the Sex Composition; Impact of Population Processes on the Age Composition; Impact of Age Composition on Population Processes; the Dynamics of Age/Sex Compositions; Age-Stratification Theory

7. Population Growth & Ageing:

Demographic Composition of the Elderly: Dynamic Scenarios, Biological & Social Aspects of Aging, Implications for the Society

8. Urbanization:

Demographic Components of Urbanization, Internal Rural-to-Urban Migration, Impact of Population Processes, and Urbanization in Pakistan: Trends, Causes & Consequences

9. Population Policy:

Need of Population Policy, Influencing Population Processes, Case Studies of Pakistan

Recommended Readings/Books:

1. Weeks J. R. *Population: An Introduction to Concepts and Issues*. Wadsworth Publishing Company, USA. Latest Edition.
2. Poston D. L. & L. F. Bouvier. *Population and Society: An Introduction to Demography*, Cambridge University Press, UK. Latest Edition.
3. Razin, Assaf and Sadka Efrain. *Population Economics*. Latest Edition.
4. Ehrlich, Paul. R. *The Population Bomb*. Latest Edition.

Comparative Economic System

Course Code: ECON 477

Cr. Hrs-3

Learning Outcomes:

Course Contents:

1. Evaluation of Economic Systems:

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

2. Capitalism:

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

3. Communism and Socialism:

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

Socialism. Present Status of Socialism.

4. Economic System of Islam:

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

5. Economic System in Pakistan:

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

Recommended Readings/Books:

1. Capitalism, Socialism and Islam by Syed A. Ala Maududi, Islamic Book Publisher, Lahore. Latest Edition.
2. William, Louks and William G *Comparative Economic System*. Whitney. Latest Edition.
3. Martin C. Schmelzter and James W. Hordyke *Comparative Economic Systems*. Latest Edition.
4. M. Omer Chapra. Economic System of Islam. Latest Edition.
5. Islam or Socialism by Wilicaynaki. Latest Edition.
6. Comparative Economic Systems by Gregory, Stuart, Houghton. Latest Edition

Ethics and Economics

Course Code: ECON 485

Cr. Hrs-3

Course Introduction:

This course includes topics on ethics and economics, ethics in welfare economics, utilitarianism and consequentialism, efficiency and welfare, liberty and rights, equity, justice, social choice theory, moral philosophy and pollution transfer.

Course Objectives:

The aim of this course is to provide ethical and moral foundations currently missing entirely from conventional treatments of economics.

Learning Outcomes:

Students will learn about the collective efforts to create resources in this direction which would be very useful to create additional interest and motivation, as well as enhance learning among students.

Course Contents:

1. Ethics and Economics? What Are Moral Questions and How Can They Be Answered? How Is Moral Philosophy Relevant to Economics?
2. Ethics in Welfare Economics: Two Examples
3. Ethics in Positive Economics: Two Examples
4. Rationality & Morality in Positive Economics
5. Rationality & Morality in Normative Economics
6. Utilitarianism and Consequentialism
7. Welfare & Preferences
8. Efficiency & Welfare
9. Liberty, Rights, and Libertarianism
10. Equality and Egalitarianism
11. Justice and Contractualism
12. Social Choice Theory

13. Moral Philosophy and Some Simple Games
14. Pollution Transfers and School Vouchers: Normative Economics Reconsidered
15. Economics and Ethics, Hand in Hand

Recommended Readings/Books:

1. Ethics, Universal Values and Economics, a manual of selected essays, KIE, University of AJK
2. Naqvi, Syed Nawab Haider. *Economics and Ethics*. The Islamic Foundation UK. Latest Edition.
3. Naqvi, Gul M. *Jami' al-Sa'adat (The Collector of Felicities)*. Latest Edition.
4. Hazlitt, Henry. *Economic Analysis of Ethical Doctrines and Behavior*. Latest Edition.
5. Kahenman, Daniel., Walker, Peter., and Sarin, Rakesh. *Back to Bentham? Explorations of Experienced Utility*. Latest Edition.

Public Policies

Course Code: ECON 486

Cr. Hrs-3

Learning Outcomes:

In this course the students will learn about the different types and approach to policy, the problem and vision approach to policy development, examine the policy development cycle and how other governments (provinces and federal government) typically develop policy. Policy matters because it affects people's lives. Public policy is defined as "the things government chooses to do or not to do" for "societal benefit." Public policy addresses questions on "who gets what, when and how." This course is designed for both leadership (i.e. decision-makers) and staff; as leaders, participants learn about the kinds of questions that should be asked when directing and reviewing the development of policy. Students will learn how to complete 'due diligence' in order to support the leadership to make informed and effective decisions.

Course outline:

1. Introduction:

Definition of Policy. Types of Policy: Broad, Specific and Operational Policy. Problem and Vision approach to policy development. Values, Vision and Policy: linkages and relationships. The policy development cycle and associated stages.

2. Policy Science:

Public Policy –Introduction, The Policy Problem, Approaches to Public Policy

3. Institutions, Actors and Instruments:

Policy Actors and Institutions, Issues in Public Economics, Market Failure and Intervention. Policy Instruments, Agenda Setting: Policy Determination, Policy Ideas and Policy Windows, Policy Formulation, Public Policy Decision Making

4. Implementation and Evaluation:

Policy Design and Implementation Styles, Policy Evaluation

5. Policy Development and Change in Practice:

Policy Regimes and Policy Dynamics Evaluation: Does Policy Matter?

Recommended Books:

1. Michael Howlett and M. Ramesh, *Studying Public Policy: Policy Cycles and Policy*. Latest Edition.
2. Michael E. Kraft and Scott R. Furlong. *Public Policy: Politics, Analysis, and Alternatives*. Latest Edition.
3. Michael C. Munger, *Analyzing Policy: Choices, Conflicts, and Practices* (New York:

Norton). Latest Edition.

4. Birkland, Thomas A. *An introduction to the policy process*. Latest Edition.

Experimental and Behavioral Economics

Course Code: ECON 487

Cr. Hrs-3

Learning Outcomes:

Course Outline:

1. Introduction to Basic Game Theory:

1. Extensive Form Games, solution by backwards induction,
2. Strategies
3. Normal Form Games, Dominance
4. Nash Equilibrium
5. Dominance Solvable Games

2. Why do we need Experiments?

1. Why do we need experiments?
2. Experimental Methods: Advantages and Limitations
3. Different types of experiments

3. Altruism and Fairness: Ultimatum Game:

1. Ultimatum Game: Theory and Results
2. What is altruism and Fairness?
3. Dictator Game and Altruism
4. Ultimatum Game: from Chapter 2 of Colin Camerer: Behavioral Game Theory
5. Public Gift Exchange mechanism
6. Reciprocity and Trust
7. Incentives and internal and External motivation
8. Crowding out of internal motivation
9. Monetary and Non-monetary incentives

4. Good Game and Free-Riding:

1. Public Good Game: theory and Practices
2. Free Riding and Voluntary Contribution Dilemma
3. Factors to Alleviate Free Riding

5. Experimental Labor Market:

1. Employment Relations
2. Incentives and Performance
3. Market vs. Social exchanges

6. Trust, reciprocity, Incentives and Crowd-Out: Bargaining and Auctions:

1. Structured and unstructured Bargaining
2. Bilateral Bargaining: Ultimatum Game
3. Multilateral Bargaining: Auction
4. Different Auctions

7. Social Norms and Economic Behavior:

1. Social Norms
2. Role of expectations
3. Self-Image

Recommended Readings/Books:

1. Cristina, Bicchieri and Erte Xiao. *Do the Right Thing: But Only if Others Do So*. Latest Edition.
2. Davis and Holt. *Experimental Economics*. Latest Edition.

3. Durlauf and Blume. *Behavioral and Experimental Economics*. Latest Edition.
4. Heyman and Ariely., Effort for payment. A tale of two markets, *Psychological Science*.15(11):787-93.

Note:

Courses included in the General Education Category are designed by the respective departments including their course codes, credit hours and titles (reflected in the scheme of studies). All such courses approved by the Syndicate are available on the university website. For any query the office of the Registrar Academics may be approached for clarification/guidance.