

## SCHEME OF STUDIES FOR M. PHIL IN ECONOMICS

### Semester-I

Course Title	Credits
Core Course-I*	3
Core Course-II*	3
Core Course-III*	3
Optional Course**	3
	12

\*.- any course from the list of core courses for M.Phil can be selected as core course, \*\*.- any course from the list of M.Phil optional courses can be selected as optional course

### Semester-II

Course Title	Credits
Core Course-IV*	3
Core Course-V*	3
Core Course-VI*	3
Optional Course**	3
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\*.- any course from the list of core courses for M.Phil can be selected as core course, \*\*.- any course from the list of M.Phil optional courses can be selected as optional course

### Semester-III & IV

Research Work

Course Work = 24 Credits [Compulsory] Core and Optional

Research Work = Minimum 6 Credits (Compulsory)

  
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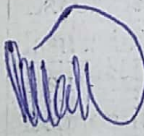
**LIST OF CORE COURSES**

S. No	Course Code	Subject	Cr. Hrs.	Status
1	ECON-711	Advance Microeconomics	3	Core
2	ECON-712	Advance Macroeconomics	3	Core
3	ECON-713	Advance Econometrics	3	Core
4	ECON-714	Research Methods and Scientific Writing	3	Core
5	ECON-715	Issues in Development Economics	3	Core
6	ECON-716	Topics in International Economics	3	Core
7	ECON-	Optional-1	3	Optional
8	ECON-	Optional-2	3	Optional
<b>G. Total Credit Hours</b>			<b>24</b>	

**LIST OF OPTIONAL COURSES FOR M. PHIL IN ECONOMICS**

S. No	Course code	Subject	Cr. Hrs.
1	ECON-717	Advance Mathematics for Economics	3
2	ECON-718	Labor Economics	3
3	ECON-719	Issues in Islamic Economics	3
4	ECON-721	Issues in Pakistan's Economy	3
5	ECON-722	Economics of Environment and Natural Resources	3
6	ECON-723	Health Economics	3
7	ECON-724	Monetary Economics	3
8	ECON-725	Economics of Public Sector	3

OPTIONAL COURSES  
 COURSE CODE Subject  
 ECON-717 Advance Mathematics for Economics  
 ECON-718 Labor Economics  
 ECON-719 Issues in Islamic Economics  
 ECON-721 Issues in Pakistan's Economy  
 ECON-722 Economics of Environment and Natural Resources  
 ECON-723 Health Economics  
 ECON-724 Monetary Economics  
 ECON-725 Economics of Public Sector

  
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## COURSE CONTENTS FOR CORE COURSES OF M.PHIL IN ECONOMICS

### Advance Microeconomics

Course Code: ECON-711

Cr. Hrs-3

#### Course Introduction:

The course covers basic tools and current topics of modern microeconomic theory. The course contains Consumer theory, Producer theory, Market Equilibrium, uncertainties and intertemporal choices.

#### Course Objectives:

The course has several objectives: (a) acquiring basic knowledge of modern microeconomic theory that can further pursuit in higher level; (b) getting familiar with the use of theoretical tools in other fields in economics and finance; and (c) developing the ability to set up a model and to formally analyze economic issues.

#### Learning Outcomes:

This course will enable students to acquire tools that will help in applying the microeconomic theory to real world issues.

#### Course Contents:

##### 1. Introduction & Mathematics Overview

##### 2. Consumer Theory:

Preliminaries of Consumer's Choice, Preference Ranking, Utility Representation, Utility Maximization Problem and Marshallian Demand, Indirect Utility Function, Expenditure Minimization Problem and Hicksian Demand, Expenditure Function, Duality, Comparative Static Analysis of Demand.

##### 3. Producer Theory:

Production Sets and Production Function, Cost Function and Cost Minimization Problem, Short Run Cost Functions, Long Run Cost Functions, Factor Demand Functions.

##### 4. Market Equilibrium:

Aggregate Supply, Aggregate Demand, Market Equilibrium.

##### 5. Decision under Uncertainty:

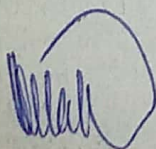
Objective and Subjective Uncertainty, Expected Utility Hypothesis and von Neumann-Morgenstern Utility Function, Allais Paradox, Alternative Models of Choice under Uncertainty, Attitude toward Risk, Measure of Risk Aversion, First and Second Order Stochastic Dominance

##### 6. Intertemporal Choice & Production:

Supply and Demand for Factor Market, Supply of Labor: The Labor-Leisure Decision, Supply of Capital: The Consumption-Saving Decision, Intertemporal Production: The Demand for Capital.

#### Recommended Readings/Books:

1. Nicholson, W., & Snyder, C. *Microeconomic theory: Basic principles and extensions*. Latest Edition Nelson Education.
2. Henderson, J. M. *Microeconomic theory: A mathematical approach* Latest Edition
3. Arrow, K., & Intriligator, M. *Handbook of mathematical economics* Latest Edition Elsevier.
4. Varian, H. R. *Microeconomic analysis*. Latest Edition New York: Norton.



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## Advance Macroeconomics

Course Code: ECON-712

Cr.Hrs-3

### Course introduction:

This is an advanced course in the field of macroeconomics built on intermediate level macroeconomics courses. The course starts with the mathematical treatment of traditional IS-LM model. Soon after a dynamic IS-LM model would be introduced there we learn how to solve dynamic macro models and draw the phase diagrams. Moreover, the course also attempts to introduce the micro foundations of the macro models.

### Course Objectives:

The objectives of the course are a). Understand how to develop theoretical models that help to understand the workings of the economy, b). Solve macro models by means of calculus and linear algebra and derive both short-run and long-run multipliers, c). Learn the role of difference and differential equations in developing and solving macro models and d). Understand the differences among various schools of thought.

### Learning Outcomes:

This course will enable the students to understand how to develop theoretical models that help to the workings of the economy and draw inferences and application to real world phenomena.

### Course Contents:

#### 1. Mathematical preliminaries:

Dynamic systems, continuous-time dynamic optimization, dynamic programming.

#### 2. Aggregate demand and supply:

Introduction, the structural equations, short run analysis, convergence or stability analysis, full equilibrium analysis, alternative government policies, implications of uncertainty, implications of non-linearities.

#### 3. Keynes and the Classics:

Introduction, the labor market with flexible wages, money wage rigidity, money wage and price rigidity, generalized disequilibrium.

#### 4. Expectations and the desirability of wage and price flexibility:

Introduction, adaptive expectations, inflationary expectations and the monetary instrument, Cagan's convergence requirement and Keynesian corridors, perfect foresight.

#### 5. Rational expectations and the Lucas critique:

Introduction, static and rational expectations, the Lucas critique, sticky wages and prices, sensitivity tests.

#### 6. Time inconsistency problem and rules vs. discretion debate:

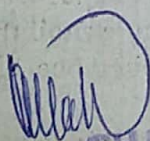
Time inconsistency problem, reputation and delegation, rules vs. discretion, issues in the design of monetary policy.

#### 7. Intrinsic dynamics:

Introduction, the Ricardian equivalence controversy, financing budget deficits: demand and supply considerations, the feasibility of bond financed budget deficits, deficit targets to guarantee stability.

#### 8. Open economy macroeconomics:

Introduction, the Mundel-Flemming model, fixed exchange rates and the impact period, fixed exchange rates and full equilibrium, flexible exchange rates, capital mobility.



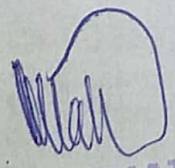
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**Recommended Readings/Books:**

1. Scarth, W. M. *Macroeconomics: An introduction to advanced methods*. Latest Edition Harcourt Brace Jovanovich Incorporated.
2. David, R. *Advanced macroeconomics*. Latest Edition The McGraw Hill.
3. McCallum, B. *Monetary Economics*. Latest Edition Macmillan.
4. Heijdra, B. J., & Fredrick Van der Ploeg. *The Foundations of Modern Macroeconomics*. Latest Edition Oxford University Press.



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**Advance Econometrics**

**Course Code: ECON-713**

**Cr. Hrs-3**

**Course introduction:**

Initially the course focuses on the theoretical background of Econometric theory and the problem faced in building an econometric model. Further, the course introduce the design and methods of different types of data available for estimation and their pros and cons.

**Course objectives:**

The main objectives of the course are to introduce students to basic econometrics techniques and to prepare them to do their own applied work. Students are encouraged to think of the course as a preparation toward their thesis research. This course is designed to teach students the econometric estimation and inferences at advance level.

**Learning Outcomes:**

This course will equip students with skills to carry out independent applied research as well as to develop new econometric methods and software skills.

**Course Contents:**

**1. Introduction to Econometrics:** The FAQs of economics research. Causal Relationships. Experiments and Quasi-experiments. Identification and Statistical Inference. The Selection Problem. Cross Section and Longitudinal Data. The Simple Regression Model Derivation of OLS estimates. Mechanics and Properties. Units of measurement and functional form. Unbiasedness and efficiency.

**2. Multivariate Regression Analysis Motivation:** multiple sources of variation. Mechanics and interpretation of OLS. The "partialling out" interpretation and linear projections. Unbiasedness and efficiency: The Gauss-Markov Theorem. Inference in the Multivariate Regression Model Sampling distributions of the OLS estimators. Testing Hypothesis. Confidence Intervals.


**3. Asymptotic Properties of OLS:** Consistency, asymptotic normality and asymptotic efficiency. The LM test. Sources of endogeneity: omitted variables, measurement error, simultaneity. Further Issues in OLS estimation Data scaling and beta scores. Quadratic and interaction terms. Prediction. Dummy Variables. Proxy variables. Missing data and outliers.

**4. Heteroscedasticity:** Consequences for OLS. Heteroscedasticity-robust inference. Breusch-Pagan and White tests. WLS and FGLS. Instrumental Variables and 2SLS Instruments as a solution to endogeneity. Reduced form equations. Exclusion restrictions. Rank condition. Two-stage least squares and GMM. Consistency and other asymptotic properties. Potential pitfalls. Local Average Treatment Effects. Introduction to Panel Data Methods Why panel data is necessary. Problems with panel data: attrition. Pooled OLS, random effects and fixed effects estimators.

**5. Maximum Likelihood ML Estimators:** Likelihood ratio, Wald and LM tests. GLS and 2SLS as ML estimators.

**Recommended Readings/Books:**

1. Wooldridge, J. M. *Introductory econometrics: A modern approach*. Latest Edition Nelson Education.
2. Johnston, J., & DiNardo, J. *Econometric methods* Latest Edition New York.
3. Greene, W. H. *Econometric analysis*. Latest Edition Pearson Education India.
4. Davidson, R., & MacKinnon, J. G. *Estimation and inference in econometrics*. Latest Edition OUP Catalogue.

  
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## Research Methods and Scientific Writing

Course Code: ECON-714

Cr.Hrs-3

### Course Introduction:

This course is a general introduction to social research methods and will cover four broad topics: the foundations of social science, research design, data collection, and data analysis. In discussing each topic, we will also consider the ethical implications of social research.

### Course Objectives:

Social research is a craft, and like any other craft, it takes practice to do it well. Therefore, our approach will be hands-on right from the start. Students will have opportunities to learn by doing in all aspects of the course—in class meetings, the computer lab, and out-of-class assignments.

### Learning Outcomes:

On completion of this module, students should have knowledge and understanding of Social research methods, the process of social research, Sampling, Research Design, Interviewing and how to write research proposal.

### Course Contents:

Why social research methods? What is social science? The Process of Social Research, Social problems v. research problems, Theory and methods. Basic research strategies, The literature search, Ethics in social research, Conceptualization and Measurement, Variables, Concepts and measurement, Levels of measurement, Units of analysis, Validity and reliability, Sampling, Why sample? Types of sampling, Sampling distributions, Causation and Research Design, Kinds of explanation, establishing causation, Types of research design, Experiments and Experimental Thinking, Kinds of experiments, Internal and external validity, Threats to validity, Controlling for threats to validity, Interviewing I, About the qualitative/quantitative split, Unstructured/semi structured interviewing, Interviewing I, Focus groups, Interviewing II, Structured interviewing, Survey research, Questionnaire development, Observation of Behavior, Participant observation, Direct and indirect observation, Evaluating research designs, Using multiple methods, Research Proposal Presentation.

### Recommended Readings/Books:

1. Schutt, R. K. *Investigating the social world: The process and practice of research*. Latest Edition Pine Forge Press.
2. Collis, J., & Hussey, R. *Business research: A practical guide for undergraduate and postgraduate students*. Latest Edition Macmillan International Higher Education.
3. Gastel, B., & Day, R. A. *How to write and publish a scientific paper*. Latest Edition ABC-CLIO.

  
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## Issues in Development Economics

Course Code: ECON-715

Cr.Hrs-3

### Course Introduction:

This course is designed to deepen students' knowledge in productivity effects of health, private and social returns to education, education quality, education policy and market equilibrium, gender discrimination, public finance, decision making within families, firms and contracts, technology, labor and migration, land, and the markets for credit and savings.

### Course Objectives:

The objective of the course is to familiar the students with the issues that are in front of growth and development.

### Learning Outcomes:

Studying this course will enable students to Identify and analyze key development economic theories affecting a number of contemporary issues, such as poverty, and socioeconomic problems and mobility. Review the policy implications of these key development economic theories. Reflect on and critically examine the links between various development economic theories and approaches.

### Course Contents:

Introduction, The capacity curve, Demand for health and calories, Productivity effects of health, Education quality, Private and social returns to education, Education policy and market equilibrium, Gender discrimination, The family: theory, The family: testing household models, Decision making within families, Firms and contracts, Technology Adaptation, Labor (Human Capital), Labor migration, Issues in labor markets, Land and Property Rights, Land reforms in Pakistan, The markets for credit and savings. Public finance and economic development, Micro models for development, some of the key economic issues in poor countries, The theory of asymmetric information, Why perfect competition models are inadequate when dealing with developing economies. Information-based market failures and fragmentation, Incomplete and imperfect markets, dynamic externalities, multiple equilibria, and self-reinforcing mechanisms. Rural land and labor markets, Rural credit and insurance institutions, Inter-sectoral complementarities. Institutions and economic development.

### Recommended Readings/Books:

1. Mukherjee, a., & Chakrabarti, s. *Development economics: a critical perspective*. Latest Edition Phi Learning Pvt. Ltd..
2. Bardhan, P., & Udry, C. *Development microeconomics*. Latest Edition OUP Oxford.
3. Deaton, A. *The analysis of household surveys: a Microeconometric approach to development policy*. Latest Edition the World Bank.
4. Ray, D. *Development economics* Latest Edition Palgrave Macmillan UK.

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Topics in International Economics

Course Code: ECON-716

Cr.Hrs-3

Course Introduction:

This course offers an introduction to the main theoretical tools and policies that are central to the study of international trade, but with an emphasis on application to the trade flows, trading blocks and international macroeconomic events that characterize the global economy today.

Course Objectives:

This course covers, with a focus on theory and empirics, advanced topics in international trade. It includes the study of positive as well as normative issues such as: Is trade openness beneficial to a representative agent? And, are there winners and losers from trade and if so, can we identify them? Throughout, these issues are approached in neoclassical settings as well as those with market failures, at the industry-level as well as the firm-level, and in the presence of both mobile and immobile factors (e.g., FDI, off shoring of tasks, multinational firms and immigration

Learning Outcomes:

The course will enable students to use economic analysis to reach a deeper understanding of international trade. How one can formulate policies for the achievements of competitiveness in international trade.

Course Contents:

Introduction, International trade and economics, Terms of Trade, Gains From Trade and the Law of Comparative Advantage (Theory), The Ricardian Model (Theory, Part I), The Ricardian Model, (cont.) (Theory, Part II), The Assignment Model Approach (Theory), Gains From Trade and the Law of Comparative Advantage (Empirics), The Ricardian Model (Empirics), The Assignment Model Approach (Empirics), The Heckscher-Ohlin Model (Theory, Part I). The Heckscher-Ohlin Model, (cont.) (Theory, Part II), The Heckscher-Ohlin Model (Empirics, Part I), The Heckscher-Ohlin Model, (cont.) (Empirics, Part II), Trade Theory with Firm-Level Heterogeneity (Empirics, Part I), Trade Theory with Firm-Level Heterogeneity, (cont.) (Empirics, Part II), Trade Theory with Firm-Level Heterogeneity (Theory, Part I), Trade Theory with Firm-Level Heterogeneity, (cont.) (Theory, Part II), Gravity Models (Theory), Gravity Models (Empirics), Trade Costs (Empirics), Offshoring and Fragmentation of Production (Theory, Part I), Offshoring and Fragmentation of Production, (cont.) (Theory, Part II), Economic Geography (Empirics, Part I), Economic Geography, (cont.) (Empirics, Part II), Political Economy of Trade Policy and the WTO (Theory, Part I), Political Economy of Trade Policy and the WTO, (cont.) (Theory, Part II), Political Economy of Trade Policy and the WTO (Empirics).

Recommended Readings/Books:

1. Dixit, A., & Norman, V. *Theory of international trade: A dual, general equilibrium approach*. Latest Edition Cambridge University Press.
2. Feenstra, R. C. *Advanced international trade: theory and evidence*. Latest Edition Princeton university press.
3. Obstfeld, M., Rogoff, K. S., & Wren-lewis, S. *Foundations of international macroeconomics* Latest Edition Cambridge, MA: MIT press.
4. Paul Krugman *International Economics: Theory and Policy* Latest Edition

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## COURSE CONTENTS OF OPTIONAL COURSES FOR M. PHIL IN ECONOMICS

### Advance Mathematics for Economics

Course Code: ECON-717

Cr.Hrs-3

#### Course Introduction:

This course provides an introduction to some important math topics in the area of calculus, linear algebra, real analysis.

#### Course Objectives:

The aim of this course is to equip students with good math intuitions and skills which are of great importance in their future graduate study. Throughout the course emphasis will be placed on basic math theories and problems of economic importance, including some classical microeconomics and macroeconomics models.

#### Learning Outcomes:

The above-mentioned areas have widespread applications in the field of economics.

#### Course Contents:

##### 1. Linear Algebra:

Basic Linear Algebra, Vectors and Vector Projections, Gram-Schmidt Orthogonalization Algorithm, Linear Independence, The Rank of a Matrix, Eigen values and Eigen vectors, Matrix Diagonal Decomposition, Quadratic Forms, Partitioned Matrices and their Inverses.

##### 2. Real Analysis:

Sets, Relations, Functions, and Metric spaces, Sequences and Convergences, Compactness, Cauchy Sequences, Continuity, Weierstrass's Theorem, Limits of Functions.

##### 3. Multivariate Calculus:

Derivatives, Gradients and Directional Derivatives, Homogeneity and Homotheticity, Mean Value Theorem and Intermediate Value Theorem, Convex Sets, Concave and Convex Functions, Quasiconcave and Quasiconvex Functions, Taylor's Expansion, Implicit Function Theorem.

##### 4. Integration:

One-Variable Integration, Leibniz's Formula, Multiple Integrals, Jacobian Determinant.

##### 5. Static Optimization:

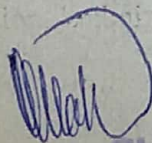
Envelop Theorem, Equality Constraints: The Lagrange Problem, Local Second-Order Conditions, Inequality Constraints: The Kuhn-Tucker conditions, Comparative Statics Analysis.

##### 6. Fixed Points and Separation Theorem:

Contraction Mapping, Fixed Points Theorem (Banach/Brower/Kakutani), Separation Theorem.

#### Recommended Readings/Books:

1. Simon, C. P., & Blume, L. *Mathematics for economists*. Latest Edition New York: Norton.
2. Høy, M., Livernois, J., McKenna, C., Rees, R., & Stengos, T. Latest Edition *Mathematics for economics*. MIT press.
3. Chiang, A. C. *Fundamental methods of mathematical economics* Latest Edition.
4. Jean e. Weber *Mathematical analysis: Business and Economics applications* Latest Edition



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## Labor Economics

Course Code: ECON-718

Cr.Hrs-3

### Course Introduction:

The course is designed to demonstrate a theoretical understanding of how labor markets operate, use quantitative data and qualitative analysis to explain and critique the way labor market outcomes change over time, understand how institutional and historical forces shape labor market performance and apply theoretical and Empirical analysis to current events and policy recommendations.

### Course Objectives:

Students will study to understand: a). Labor market institutions (e.g., unions), public policy labor market issues (e.g., immigration or the minimum wage), and the wage structure (e.g., income inequality); and b). The economics of human resource management (turnover, incentive pay).

### Learning Outcomes:

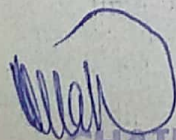
This course will enable students to formulate policies for labor organization. To identified the issues in policies and come up with some solution sets.

### Course Contents:

Introduction to the subject, Life-cycle human capital accumulation; Supply of Labor and Work, Leisure Preferences and Salaried Professionals, Earlier wage Theories, The Demand for Labor, Wage Determination, Efficiency Wage Payments, The Wage Structure, The Theory of Wage Differentials, Employment and Unemployment, Reactions to the Marginal Productivity Theory: An Institutional Approach, The Economic Impact of Unions, The Job Competition Model, Collective Bargaining, Chamberlain's Bargaining Model Steven's, Negotiation Model and Accident Model, Monopsony, Monopoly and labor issues, Models of learning and sorting, Patterns of wage growth and mobility decision; Intergenerational transmission of inequalities in human capital; Link between specialized human capital; Coordination costs and extent of the market; Rates of return to education and income inequality; Wage structure and income distribution; Allocation of time within households; Empirical aspects of female labor supply. Utility Preferences and Indifference Curves.

### Recommended Readings/Books:

1. Smith, S. W. Latest Edition *Labour economics*. Routledge.
2. Flanagan, R. J., Ehrenberg, R. G., & Smith, R. S. Latest Edition *Labor economics and labor relations*. Pearson Scott Foresman.
3. Ehrenberg, R. G., & Smith, R. S. *Modern labor economics: Theory and public policy*. Latest Edition Routledge.
4. Richard p. Chaykowski *Modern labor Economics: theory and public policy* Latest Edition

  
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Issues in Islamic Economics

Course Code: ECON-719

Cr.Hrs-3

**Course Introduction:**

This course is designed to enlighten the students with the rules of shariah and help students the working of an Islamic state under Islamic rules and regulation. The course compares the conventional economic wisdom with that of Islamic economics.

**Course Objectives:** The aim of this course is to introduce the basic tools of Islamic thoughts and rules to the conventional economic system.

**Learning Outcomes:**

The students will be enabled to understand the difference between Islamic and major non-islamic economic activities, to identify the role of an Islamic state and to identify Islamic modes of financing.

**Course Contents:**

**1. Introduction to Islamic Economics:**

Definition, nature and theoretical foundations of Islamic Economics, conceptual differences between Islamic and Conventional (Neoclassical) Economics, Positive versus Normative Economics, the Islamic value system and economic behavior.

**2. Consumer's Behavior:**

Absolute versus limited freedom, restricted set of preferences, distinction between lawful and prohibited activities (Halal- Mubah and Haram-Makruh), moderation in consumption, altruism, disposable income after charitable donations (Zakah, and Sadaqat). Utility function and consumer's equilibrium in an Islamic framework.

**3. Behavior of the Firm:**

Business Ethics in Islam, Permissible and prohibited activities, Cooperation and Coordination for social advantage, behavior of the firm,

**4. Forms of business organization:**

Proprietorship, Partnership (Muzara'h, Mudharbah, Musharakah), Joint Stock Company (Sharikah), Factor pricing, the status and role of labor in Islamic perspective, market structure and resource allocation.

**5. Money and Banking, The concept of Riba (interest):**

Its interpretation and implications, rationale for prohibition of interest based transactions and gambling, models of interest-free commercial banking, financial instruments, Principles of financial contracts, insurance in Islamic perspective,

**6. Distribution in Islamic Perspective:**

Functional versus personal distribution, distributive justice as the pre-requisite for social justice, Islamic emphasis on wider circulation of wealth, share of the poor and destitute in wealth of others, guarantee for basic needs and sustenance, importance of Zakah. Monetary Policy in Islamic Framework. The role of central bank: its powers and limitations, rudiments of a just monetary system, issues in interest-free financial system,

**7. Islamic banking practice:**

Problems and prospects, formulation and implementation of monetary policy in Islamic State, Inflation and indexation.

**8. Fiscal Policy and Role of the State:**

Sources of revenue and heads of expenditure of an Islamic state, the scope for taxation, Objectives of fiscal policy: Justice in distribution and elimination of poverty.

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### 9. Economic impacts of Zakah & Usher:

The multiplier effect, efficiency, equity, growth. Economic Development and Planning. The extended role of an Islamic State, Economic growth as a component of the overall social development, Goals and strategies of development planning, emphasis on education and skill development, balance between moral and material growth, the problem of unemployment and remedial measures.

### 10. Islamization of the Economy:

Islamic revival movement, efforts towards Islamization of the economies in Islamic world with special reference to Pakistan, reports of the CII and implementation issues, the role of various organizations for coordination among Muslim countries: OIC and ECO, the role of IDB (Jeddah) toward Islamization of the financial system, issues in Islamic Economics and Finance.

### Recommended Readings/Books:

1. Muhammad Akram Khan, What Is Wrong with Islamic Economics?:Analysing the Present State and Future Agenda, Latest Edition Edward Elgar Publishing,
2. Khurshid Ahmed (Ed) Studies in Islamic Economics Latest Edition King Abdul Aziz University Jeddah and The Islamic Foundation UK
3. Muhammad Arif (Ed) Monetary and Fiscal Economics of Islam: Latest Edition King Abdul Aziz University, Jeddah KSA.
4. Ziauddin et al Money and Banking in Islam: Latest Edition King Abdul Aziz University Jeddah & Institute of policy Studies Islamabad

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## Issues in Pakistan's Economy

Course Code: ECON-721

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. Mid Term Examination. 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



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## Economics of the Environment and Natural Resources

Course Code: ECON-722

Cr.Hrs-3

### Course Introduction:

This course explores the theory behind and evidence on regulatory, tax, and other government responses to problems of market failure. Special emphasis is given to developing and implementing tools to evaluate environmental policies. Other topics include cost-benefit analysis, measurement of the benefits of non-market goods and costs of regulations, and the evaluation of the impact of regulations in areas such as financial markets, workplace health and safety, consumer product safety, and other contexts.

### Course Objectives:

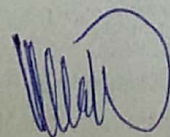
The objective of the course is to critically evaluate the impacts of different economics activities on the environment and natural resources. Further, the course aim to develop the understanding level of students to define and differentiate between market and non-market goods, policies for environmental protection etc.

### Learning Outcomes:

This course shall enable students; a). To do cost-benefit analysis; b). To evaluate nonmarket goods; c). Environmental policy instruments and d). Environmental and development economics.

### Course Contents:

Introduction, Environmental Economics, Causation and Empirical Strategies to Estimate Causal Relationships, Externalities, Pigovian Taxes, the Coasian Solution. Defining Welfare Changes and Cost-Benefit Analysis, Defining Welfare Changes and Cost-Benefit Analysis (continue). Valuation of Nonmarket Goods with an Emphasis on Environmental Goods: Hedonic Method (Theory), Valuation of Nonmarket Goods with an Emphasis on Environmental Goods: Hedonic Method (Applications to Housing Markets). Valuation of Nonmarket Goods with an Emphasis on Environmental Goods: Hedonic Method (Applications to Housing Markets) (continue). Valuation of Nonmarket Goods with an Emphasis on Environmental Goods: Hedonic Method (Applications to the Value of a Statistical Life), Valuation of Nonmarket Goods with an Emphasis on Environmental Goods: The Health Effects Approach (Theory), Valuation of Nonmarket Goods with an Emphasis on Environmental Goods: The Health Effects Approach (Estimating Dose-Response Relationships), Valuation of Nonmarket Goods with an Emphasis on Environmental Goods: The Health Effects Approach (Empirical Estimates of Avoidance Behavior), Valuation of Nonmarket Goods with an Emphasis on Environmental Goods: The Household Production Function Approach, Valuation of Nonmarket Goods with an Emphasis on Environmental Goods: Locational Equilibrium and Other "Structural" Approaches, Environmental Policy Instruments: Prices vs. Quantities, Permits and Trading, Environmental Policy Instruments: Public Goods and Externalities, Inspections and Fines, Voluntary Regulations, Costs of Environmental Regulations: Indirect and Direct Measurement, Double Dividend Hypothesis, Topics at the Intersection of Environmental and Development Economics, Regulation of Financial Markets, Regulation of Labor Markets: US Labor Market Regulations, Regulation of Labor Markets in Europe and Developing Countries Workplace Safety Regulations, Regulation of Labor Markets: US Labor Market Regulations, Regulation of Labor Markets in Europe and Developing Countries Workplace Safety Regulations. Offsetting Behavior in the Context of Traffic Safety, Advertising, Other Regulations.



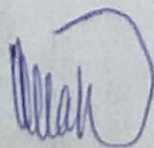
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**Recommended Readings/Books:**

1. Hanley, N. *Environmental economics: in theory and practice*. Latest Edition Macmillan International Higher Education.
2. Kolstad, C. *Intermediate Environmental Economics: Latest Edition International Edition. OUP Catalogue*.
3. Tietenberg, T. H., & Lewis, L. *Environmental and natural resource economics*. Latest Edition Routledge.
4. Loomis, J. *Valuing environmental and natural resources: the econometrics of non-market valuation*. Latest Edition



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## Health Economics

Course Code: ECON-723

Cr.Hrs-3

### Course Introduction:

This course is an introduction to the field of Health Economics. Health Economics is an active field of Microeconomics with a large and growing literature. In the past three decades, some of the most controversial policies considered by state and federal governments have involved issues that have been analyzed by health economists.

### Course Objectives:

The goal of this course is twofold. One is to better understand the economic theory of health and healthcare. We will study several economic models in detail, including models of health, addiction, demand for healthcare and demand for insurance. The emphasis will be on key economic concepts that health economists use to analyze health and healthcare markets. The second goal of the class is to learn to evaluate and interpret empirical findings in health economics. We will read some of the papers in detail, spending a lot of time understanding the econometric models and the findings reported in those papers.

### Learning Outcomes:

Topics covered in the course include measurement and determinants of health, health disparities, unhealthy behaviors and health insurance. This will enable the students to deeply study the issues pertaining to the health system and its consequences along with remedial measures.

### Course Contents:

Course Overview and Microeconomics Introduction, Microeconomic Tools for Health Economics. Goals of Economic Systems: Efficiency and Equity. Role of Government in Healthcare: Market Failures and Economic Theory of Regulation. Economics of Health Insurance. Functions of Health Insurance and its Demand and Supply. Adverse Selection within Health Insurance. Incidence of a Tax Theory Applied to Employer-Sponsored Health Insurance. Target Effectiveness and Target Efficiency Applied to Covering the Uninsured. Economics of Healthcare Payment Models. Economics of Managed Care. Economics of the Demand for Health. Demand for and Production of Health. Markets for the Health. Workforce and Medical Education. Hospital Markets and Monopoly Power. Innovation in Healthcare. Government-Provided Health Insurance and Healthcare Reform.

### Recommended Readings/Books:

1. Bhattacharya, J., Hyde, T., & Tu, P. *Health economics*. Latest Edition Macmillan International Higher Education.
2. Folland, S., Goodman, A. C., & Stano, M. *The economics of health and health care* Latest Edition Upper Saddle River, NJ: Pearson Prentice Hall.
3. Jones, A. M., Rice, N., d'Uva, T. B., & Balia, S. *Applied health economics*. Latest Edition Routledge.
4. Briggs, A., Sculpher, M., & Claxton, K. *Decision modelling for health economic evaluation*. Latest Edition OUP Oxford.

  
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## Monetary Economics

Course Code: ECON-724

Cr.Hrs-3

### Course Introduction:

The course is divided into three parts. The first part of the course presents some basic models of money and credit, emphasizing the methods used to solve and analyze equilibrium allocations. The second part focuses on the role of government policy in alleviating liquidity shortages. The third part studies the interplay between liquidity provision and asset markets.

### Course Objectives:

The goal of this course is to provide students with the tools to analyze how alternative monetary and credit policies affect the equilibrium allocation of economies in which credit and monetary arrangements play an important role in facilitating trade and commerce. Since the onset of the global financial crisis in 2008, several central banks and other policymaking bodies around the world have resorted to a variety of unconventional policies aimed at supplying enough liquidity to financial markets to prevent significant and protracted disruptions in the functioning of the credit and payment mechanisms.

### Learning Outcomes:

The outcome of the course is twofold. It enables the student to understanding how alternative policies influence the equilibrium allocation in economies with financial frictions which is crucial for the evaluation of the effectiveness of current and future policies.

### Course Contents:

#### 1. Basic concepts:

The functions of money, empirical measures, monetary standards (fiat versus commodity money), legal tender, money credit and financial intermediation.

#### 2. The demand for money:

A formal model, uncertainty, empirical money demand functions, velocity, the Baumol-Tobin model.

#### 3. The Supply of money:

Basic relationships, monetary control, alternative control procedures, algebraic analysis.

#### 4. The static classical and Keynesian models:

The IS function, the LM function, the aggregate demand function, the classical aggregate supply function, the classical model, the Keynesian aggregate supply function, the Keynesian model.

#### 5. Steady Inflation:

Real vs. nominal interest rates, inflation in the classical model, comparative steady states, analysis with real balance effects, analysis with output growth, the welfare cost of inflation.

#### 6. Inflationary dynamics:

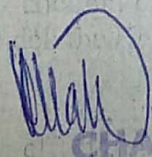
The Cagan model, hyperinflation, Cagan's estimates, stability analysis, weaknesses of adoptive expectations. Rational expectations, basic properties, application to the Cagan model, solution procedures, properties of the solution.

#### 7. Analysis of alternative policy rules:

Monetary policy ineffectiveness, the Lucas critique, money stock control. Rules vs. discretion in monetary policy, effects, extensions of the basic model.

### Recommended Readings/Books:

1. McCallum, B. *Monetary Economics*. Latest Edition Macmillan.
2. Handa, J. *Monetary Economics*. Latest Edition Routledge.



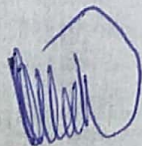
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3. Walsh, C. E. Monetary Theory and Policy. Latest Edition The MIT Press.
4. Frederic S. Mishkin *The Economics of Money Banking and Finance* Latest Edition Pearson Addison-Wesley

Walsh, C. E. Monetary Theory  
Frederic S. Mishkin *The Economics of Money Banking and Finance*  
Pearson Addison-Wesley



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Economics of the Public Sector

Course Code: ECON-725

Cr.Hrs-3

Course Introduction:

This course uses microeconomic tools and theory to examine the efficiency of markets and to enumerate potential roles for government when markets fail.

Course Objectives:

The efficiency and equity of government expenditures and tax policies are examined by looking at their impact on individual behavior and the distribution of income. Current policies of state, local and federal governments are examined to see how real-world complications (like politics and information problems) can lead to outcomes that are very different from economic prescriptions. The main aim of the course is to develop analytical tools and their application to key policy issues relating to the spending, taxation and financial activities of the government.

Learning Outcomes:

After studying the course students should know main theoretical concepts and models, be able to analyze the influence of taxation and public spending on the economy, discuss different questions, connected with public sector economics, and solve problems.

Course Contents:

Why Study Public Finance? Theoretical and Empirical Tools of Public Finance. Externalities. Public Goods and Common Resources. Cost-Benefit Analysis. State and Local Government Expenditures. Education. Government and Health Care Market. The Design of the Tax System. The Equity Implications of Taxation: Tax Incidence. Tax Inefficiency and Optimal Taxation. Tax on Labor Supply. Taxes on Savings. Taxes on Risk Taking and Wealth. Corporate Taxation.

Recommended Readings/Books:

1. Hindriks, J., & Myles, G. D. *Intermediate public economics* Latest Edition Cambridge: MIT press.
2. Cullis, J., Jones, P., & Jones, P. R. *Public finance and public choice: analytical perspectives*. Latest Edition Oxford University Press.
3. Stiglitz, J. E., & Brown, E. P. *Economics of the public sector* Latest Edition.
4. Stiglitz, J. *Lectures on public economics*. Latest Edition London; Montréal: McGraw-Hill Book Company.

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