Course Contents for Subjects with Code: ECON

This document only contains details of courses having code **ECON**.

Code	Subject Title	Cr. Hrs	Semester
ECON-101	Principles of Micro Economics	3	I
Year	Discipline		
1	Business Administration, Economics		

Objectives

The course is designed for the beginners with either no formal background or very little acquaintance with economics. The objective is to give the students with a clear understanding of the basic concepts, tools of analysis and terminologies used in microeconomics. Emphasis will be on the use of graphs, diagrams and numerical tables/schedules for exposition. The teacher is expected to draw examples from the surrounding world to clarify the concepts.

Course Contents

Introduction

An overview of the social system, Economy as integral part of the social system, Economic agents and economic problem, Economics as a science of choices between competing wants and limited resources, Classification of economics, Importance and scope of micro-economics, Basic concepts: Commodities, Income and Resources, Production and Consumption, Exchange and Distribution.

The Price Mechanism

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

Consumer's Behaviour

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

Firms and Industries

Business enterprises, Forms of business organization: Proprietorship, Partnership, Joint stock companies, Multi-national corporations, Classification of the firms, Production and supply of commodities (goods and services), Objectives of the firm: The profit motive, Output maximization and cost minimization, Industrial structure & market supply.

Production and Cost Functions

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

Market Structure

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

Recommended Book

- Mankiw, G. - Principles of Economics - 2nd Edition (2001), South- West Publishers.

- Samuelson and Nordrons - Economics –18th Edition (2004)- McGraw Hill.

- McConnel and Bruce - Principles of Economics -17th Edition (2006)- McGraw Hill.

- Lipsey and Goerant-Principles of Economics-10th Edition (2003)- Oxford University Press

Code	Subject Title	Cr. Hrs	Semester
ECON-102	Principles of Macro Economics	3	II
Year	Discipline		
1	Business Administration, Economics		

Objectives

The course is designed for the beginners with no formal background or little acquaintance with economics. The objective is to give the students with a clear understanding of the basic concepts, tools of analysis and terminologies used in macroeconomics. Emphasis will be on the use of graphs, diagrams and numerical tables/schedules for exposition. The teacher is expected to draw examples from the surrounding world to clarify the concepts.

Course Contents

Introduction

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

National Income

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

Components of Aggregate Demand

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

Money and Banking

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

Public Finance and Taxation

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

International Trade

Global distribution of resources, Concept of imports and exports, Theory of absolute and comparative advantage, Currency exchange rates, Balance of Payments: causes of

deficits in BOP of Pakistan and remedial measures, Custom Unions, The problem of external debt, Commercial Policy: objectives and scope.

Recommended Books

- Mankiw,G–Principles of Economics-2ndEdition (2001)- South- West Publishers.
- Samulson and Nordrons - Economics –18th Edition (2004)- McGraw Hill. Inc.
- Parkin, Michael - Macroeconomics, 7th Edition (2004)- Prentice Hall.
- Miller, R.L.– Economics Today -14th Edition (2005) – Addison Wesley.

Code	Subject Title	Cr. Hrs	Semester
ECON-111	Fundamentals of Economics	3	I
			II

Year	Discipline
1	Statistics-II, Applied Psychology, Social Work, Urdu
	Sociology & Sociocultural Studies, Political Science

Introduction
Nature, scope and importance of Economics, Microeconomics vs Macroeconomics, Scarcity and choice, Opportunity cost, Factors of production, Production possibility frontier.

Demand, Supply and Equilibrium
Concepts of demand and supply, Laws of demand and supply, Market equilibrium, Shifts in demand and supply curves, and market equilibrium.

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

Utility Theory
Consumer behavior, Preferences, Utility function, Laws of Increasing and diminishing marginal utility, Law of Equi-marginal utility.

Theory of Firm
Factors of production and their rewards, Total, average, and marginal products, Laws of returns, Cost of production, Total, average, and marginal costs, Total, average, and marginal revenue. Concept of profit maximization/Cost minimization.

Market Structure
Perfect competition & imperfect competition: assumptions and Price/Output determination.

National Income
Concepts of national income, GDP & GNP, Real vs. nominal GNP, NNP, NI, PDY, Saving and Personal Consumption.

Macroeconomic Issues
Concept of inflation, unemployment, Balance of payment, Exchange rate and Business cycles. Monetary Policy and Fiscal Policy and their role in the economy.

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

Code	Subject Title	Cr. Hrs	Semester
ECON-121	Basic Economics-I	3	I
Year	Discipline		
1	Statistics-III		

Objective

The course is designed for the beginners with either low formal background or very little acquaintance with Economics. The objective is to give the students a clear understanding of the basic concepts, tools of analysis and terminologies used in economic theory on the theoretical side and to acquaint them with the economic problems being faced on national and international level on practical frontiers.

Course Contents

1. Human Wants, Utility, Scarcity and Definition of Economics, Micro vs Macro Economics, Economic Laws and Positive Vs Normative Economics.
2. Utility, Relationship of Marginal and Total Utility, Scarcity, Good and Services Law of Diminishing Marginal Utility, Law of Equi-Marginal Utility, indifference Curves and Consumers equilibrium (ordinal approach)
3. Demand, Law of Demand, Extension Contraction, Rise and fall of Demand and Elasticity of Demand
4. Supply, Law of Supply, Extension Contraction, Rise and fall of Supply and Elasticity of Supply
5. Market Equilibrium (Determination of Price)

Recommended Books:

1. Mankiw, G. - Principles of Economics – 2nd Edition (2001), South-West Publishers.
2. Samuelson and Nordrons - Economics –18th Edition (2004)- McGraw Hill.
3. McConnel and Bruce - Principles of Economics -17th Edition (2006)- McGraw Hill.
4. Lipsey and Goerant-Principles of Economics-10th Edition (2003)- Oxford University Press

Code	Subject Title	Cr. Hrs	Semester
ECON-122	Basic Economics Lab-I	1	I

Year	Discipline
1	Statistics-III

Inflation, Un-employment, Growth and other Economics issues being faced during the time period of each semester (First, Second, Third & Forth) available on TV and print media

Code	Subject Title	Cr. Hrs	Semester
ECON-123	Basic Economics-II	3	II

Year	Discipline
1	Statistics-III

Objective

The course is designed for the beginners with either low formal background or very little acquaintance with Economics. The objective is to give the students a clear understanding of the basic concepts, tools of analysis and terminologies used in economic theory on the theoretical side and to acquaint them with the economic problems being faced on national and international level on practical frontiers.

Course Contents
1. Production, Factors of Production and Production Function.
2. Organization. Roll of Entrepreneur and Type of Organization.
3. Large scale production, Small Scale Production and Law of Variable proportions.
4. Kinds of Market, Revenue Curves under Perfect Competition and imperfect Competition.
5. Short Run Cost Curves and Long Run Cost Curves.
6. Equilibrium of Firm (Maximization of Profit), TC-TR Approach and MC-MR Approach.
7. Short Run and Long Run Equilibrium of Firm and industry under Perfect Competition and Monopoly

Recommended Books:
1. Mankiw,G–Principles of Economics-2nd (2001)- South-West Publishers.
2. Samulson and Nordrons - Economics –18th Edition (2004)- McGraw Hill. Inc.
3. Parkin, Michael - Macroeconomics, 7th Edition (2004)- Prentice Hall.
4. Miller, R.L.– Economics Today -14th Edition (2005) - Addison Wesley.

Code	Subject Title		Cr. Hrs	Semester
ECON-124	Basic Economics Lab-II		1	II
Year	Discipline			
1	Statistics-III			

Inflation, Un-employment, Growth and other Economics issues being faced during the time period of each semester (First, Second, Third & Forth) available on TV and print media

Code	Subject Title	Cr. Hrs	Semester
ECON-131	Economics (Micro) for Commerce	3	II

Year	Discipline
1	Commerce

1. **Introduction**
   a. Nature and Scope of Economics
   b. Difference in Microeconomics & Macroeconomics

2. **Consumer Behavior:**
   a. Utility-kinds and aspects.
   b. Cardinal and ordinal approaches of utility.
   c. Laws of diminishing and Equi-marginal utility.
   d. Indifference curve analysis and consumer equilibrium.
   e. Price effect, income effect and substitution effect.

3. **Demand, Supply and Price Determination**
   a. Demand- Determinants of demand, law of demand, shifts and shift factors in demand
   b. Elasticity of demand, Price, income and cross elasticity, Point and Arc Elasticity
   c. Measurement of elasticity of demand: Percentage, Graphic and Total Outlay methods
   d. Determinants and importance of elasticity of demand.
   e. Stocks and supply. Determinants of supply, law of supply, shifts & shift factors in supply.
   f. Elasticity of supply, Measurement & Determinants of elasticity of supply.
   g. Market equilibrium-surplus and shortage conditions.
   h. Consumer and Producers surplus.

4. **Production & Cost**
   a. Production function, Economies of Scale
   b. Laws of Return and Law of Variable proportions
   c. Traditional theory of Costs, Average, Marginal and Total Costs
   d. Long run Average Cost

5. **Market Structures**
   a. Perfect Competition: Price and output determination in the short and long run
   b. Monopoly: Price and output determination in the short and long run, Price discrimination
   c. Monopolistic Competition: Price and output determination in the short and long run
   d. Introduction to Oligopoly

6. **Factor Pricing**
   a. Marginal productivity theory
   b. Recardian theory of rent

7. **Mathematics for microeconomics**
   a. Derivative and their application in microeconomics
   b. Introduction to optimization

Recommended Books:
1. Samuelson, Paul A.: William D Nordhaus, Economics, McGraw-Hill
2. Pindyck, Robert S.; and Daniel L. Rubinfeld. Microeconomics. Prentice Hall, 7th Edition: 2008.

3. Varian, Hal R. ntermeditate Microec onomics. & Company, 7th Edition
4. Rizavi, Dr. Sayyid Salman, "An Intorduction to Ecomomics", Syed Mubeen & Co., Lahore
5. Nasir, Saeed, "Text Book of Economics", Ilmi Kutab Khana, Lahore.

Code	Subject Title	Cr. Hrs	Semester
ECON-201	Intermediate Micro Economics	3	III
Year	Discipline		
2	Economics		

Objectives

The objective of the course is to clarify and extend further the microeconomic concepts and to develop analytical skills and solving petty problems. In addition to diagrammatic approach, the students ought
to get accustomed to simple mathematics and numerical tools. The teacher is expected to draw examples from surroundings for exposition. The students may be given assignments to collect information from the markets and to analyze the data. They may have tours to the industrial units and to observe the process of production and problems in supply and demand.

Course Contents

Introduction

Scope of Microeconomics and areas of its concern, Economic agents and decision making, Brief account of the Theory of Value, The relationship between production and consumption, The role of markets and importance of price signals in efficient allocation of resources, Economic models as abstraction from the reality, Introduction to mathematical functions used in economics: Utility, Demand, Supply and Production functions etc.

Theory of Consumer Behavior

Axioms of Rationality, The utility function and its arguments, Laws of diminishing marginal and equi-marginal utility, Indifference curves and their properties, Concepts of imperfect substitutes and complements, Marginal rate of (commodity) substitution (MRCS), Convexity of indifference curve and diminishing MRS, The budget constraint, Consumer's equilibrium and law of equi-marginal utility, Income & Substitution effects of a price change: diagrammatic representation, Normal, Inferior and Giffen goods, Gross substitutes and net substitutes, The indirect utility function, Non-homothetic Preferences, Introduction to the Revealed Preference Theory.

Demand & Elasticity

Derivation of demand functions using indifference curves, Ordinary and Compensated demand functions, Engel's law and classification of goods, Market demand as horizontal summation of individual demands, Elasticity of demand, Importance and types: Own-Price, Cross-Price and Income elasticity, Relationships among different demand elasticities.

Production Functions

Definition, classification and problems of firms, Production and value- added functions, Fixed and variable-coefficient functions, Some commonly used production functions: Cobb Douglas and CES etc., Average and marginal products of variable factors and their inter- relationship, Iso-quant maps, Marginal rate of (technical) substitution (MRTS), The cost line and equilibrium of the firm, Output maximization subject to given cost/budget, Demand for variable factors, Elasticity of substitution, Returns to scales and Economies of

scales.

Cost of Production
Types of costs: Economic and Accounting costs, Opportunity costs, Fixed and Sunk costs, Total and variable costs, average and marginal costs, Short-run and Long-run cost functions, Decreasing, Constant and Increasing cost industries, Cost minimization subject to given/pre-determined level of output, Input cost and demand for factors of production.

Behaviour of the Firm
Profit maximization (loss minimization) as the sole objective of all firms, Equilibrium of the firm when it faces the market, Total, Average and Marginal Revenues, Equality of marginal revenue and marginal costs, Economic profit and rent, Short-run and Long-run position of a price taking and price seeking firm, The controversy over the profit maximization hypothesis.

Market Structure and Price Determination
(i) The Perfectly Competitive Market
Assumptions of the model, Pure and Perfect Competition, Short-run and Long-run equilibrium of competitive firms, Supply functions in the short and long-run, Constant-cost and increasing-cost industries, Derivation of equilibrium Prices and Quantity using simple equations.

(ii) Monopoly and Monopsony
The market power of a firm, Sources of monopoly power: why do monopolies exist, Decreasing-cost industries and natural monopolies, Comparison between monopoly and monopsony, Short-run and Long-run Equilibrium of a firm with monopoly power, Price discrimination, Bi-lateral monopoly, Multi-plant monopoly, The social costs of monopolies, Public utilities and marginal cost pricing, Market regulation and anti-trust policies, Market equilibrium with monopoly power.

(iii) Monopolistic Competition and Oligopoly
Characteristics of monopolistic competition, Short-run and Long-run equilibrium, The basic theories of monopolistic competition, Comparison with pure competition & monopoly, The role of advertisement and media, Models of non-collusive Oligopoly: Cournot, Bertrand, Chamberlain, Sweezy etc. Price leadership and cartel formation.

Pricing of the Factors of Production
Derived Demand for Variable Inputs, The marginal productivity theory and its criticism, Modern theory of factor demand with emphasis on the labour and capital markets, The labour supply function, Wage determination and the role of government and labour unions, Input price elasticity, Pricing of factors that are fixed in the short-run: Rents & Quasi- rents, Stock prices.

Recommended Books
- Pindyck and Rubinfled with Mehta- Microeconomics- 6th Edition (2005)-Pearson Education, Singapore
- Walter Nicholson- Intermediate Microeconomics- 6th Edition (1994) or latest

–The Dryden Press: Harcourt Brace College Publishers

- Koutsoyiannis, A.- Modern Microeconomics- 2nd edition (1979)- Macmillan.
- Varian Hall R.- Intermediate Microeconomics: Modern Approach- 6th edition (2002)- W. W. Norton Publishing Company, New York.
- Leftwich, Eckert – The Price System and Resource Allocation –10th Edition (1988) or latest- The Dryden Press, New York.
- Dowling, Edward – Mathematics for Economists -(1980) - (Schaum's Outline Series) McGraw Hill Inc.

Code	Subject Title	Cr. Hrs	Semester
ECON-202	Development Economics	3	III
Year	Discipline		
2	Economics		

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. Terms of Trade Issue and Subsidies, etc. and Competitiveness. Land Holdings, Green Revolution and it's Performance. Need for Industrialization. Industrialization and its financing mechanism. Problem of Sectoral Dualism. Why Green Revolution? The Spread of Green Revolution in Pakistan and its Status / Contributions.

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 Overhang and threat to growth. Policies to combat debt problem: Forecasting debt and solution for debt burden, saving mobilization/Domestic resource mobilization, Debt rescheduling etc. Debt Modeling and Forecasting Future Implication.

6. WTO, Liberalization and International Trade

Trade vs. Aid. Liberalization of Trade and its impacts/gains etc., Foreign Exchange Constraints and Balance of Payment deficit. Role of GATT and its Failure. WTO and LDC's. Trade Instability, Distribution of gains from Trade liberalization. Regional Trade Associations (RTA's): their role and contributions. Basis for trade and benefits: Gains from Trade: Static and Dynamic Gains. Comparative Advantage, Revealed Comparative Advantage and Competitiveness. Trade as an engine of growth. Product Cycle. Determinants of exports growth. Transfer of Technology: Sources & Need. Technology Centered Development and Appropriate technology issue.

7. Poverty and Income Distribution

Definitions and Measurement of Poverty/Poverty Line. Poverty concepts/definitions. Absolute Poverty, Relative Poverty, Income approach, Expenditure approach, Basic needs
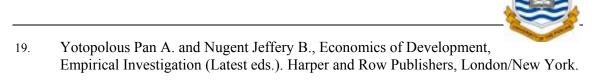
approach, Poverty of Opportunities Index (POPI) and Calorie-based approach etc. Poverty Indicators. Poverty by socio-economic groups. Sources, impacts and policies to combat poverty. Strategies and tools to combat poverty. Growth and Income Inequality in the world. Empirical evidences on poverty. Redistribution with growth. How to combat income inequality. Basic Needs, Social Action Programs and Poverty alleviation.

8.   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. Economic thoughts and Environment. International Agencies: Environmental concerns and programs. Urbanization and environmental issues. Sustained development, Ecology and economic progress.

Recommended Books:

1.   Balasubramanyam V. and Lall, S. (Latest eds.), Current Issues in Development Economics. McMillan , London.
2.   Chaudhary M. Aslam and Hamid, A., (1989). Human Resource Development and Management in Pakistan. Ferozsons, Lahore.
3.   Chaudhary M. Aslam and Eatzaz, A., (2004), Globalization: WTO, Trade and Economic Liberalization in Pakistan, Ferozsons, Lahore, Pakistan.
4.   Chenery H. B. and Srinivasen. Hand Book of Development Economics, vol. I & II, Amsterdam (1988, eds.). North Holland.
5.   Cypher J. M. and Dietz James L., (2004), The Process of Economic Development, Routledge. Tayl or Francis Group, London/New York.
6.   Ghatak Subarta, (2003), Introduction to Development Economics, Routledge, Taylor and Francis Group, London/New York.
7.   Herrick B. and Kindleberger C., (latest eds.). Economic Development. McMillan, New York.
8.   Hirshman A. O., (1960). Strategy of Economic Development, Yale University, Press.
9.   Jones H. G., An Introduction to Modern Theories of Economic Growth, (Latest Edition), McGraw Hills.
10.   Mahboob-ul-Haq Center for Human Development (MHCHD). Human Development in South Asia, Annual Reports, Islamabad.
11.   ------------- (1999), A Profile of Poverty In Pakistan, (In Collaboration with UNDP).
12.   Meier Gerald M., Leading Issues in Economic Development, (Latest Issue),Oxford University Press.
13.   Thirlwall, A.P., (2003), Growth and Development, With Special Reference to Developing Economies 7th edition, Palgrave Publisher.
14.   Todaro M. P., Economic Development in the third World. Latest Edition, Heinemann, London.
15.   UNDP, Human Development Reports , Annual Reports.
16.   Van Den Berg H., (2001), Economic Growth and Development,* McGraw Hills.
17.   William, Easterly, Growth without Development, A Case Study of Pakistan, World Bank.
18.   World Bank, World Development Reports, Annual reports, 1986, 1987, 1990, 1991, 1992, 1994, 1995, 1998/99, 2000/2001 and 2004.

19.   Yotopolous Pan A. and Nugent Jeffery B., Economics of Development,
       Empirical Investigation (Latest eds.). Harper and Row Publishers, London/New York.

Code	Subject Title	Cr. Hrs	Semester
ECON-203	Intermediate Macro Economics	3	IV
Year	Discipline		
2	Economics		

1.   Introduction

The Keynesian revolution and growth of Macroeconomics, Actual vs. Potential Output, Analytical approach to macroeconomics, Oken's Law and unemployment, Price Indices and Inflation, The simple macroeconomic models, Lead and Lagged variables, Exogenous and Endogenous variables and their functional relationships, Introduction to the Classical and Keynesian Schools of Thought.

2.   Measurement of National Income

The circular flow of National Income, GDP and GNP, Measurement of GNP: Expenditure (demand), Product (supply) and Income (factor rewards) approach, Value added at factor cost and market prices, Personal and disposable income, Per capita income, GNP as measure of welfare, Injections into and Leakages from the economy: Saving and Investment, Exports and Imports, Domestic Absorption, Nominal and Real income, The GDP deflator, Problems in computation of national income, The underground economy, Components of Aggregate Demand: The closed and open economy models.

3.   Theories of Consumption

Consumption as a function of income, Theories of Consumption: The Absolute income, Relative income, Permanent income and Life-cycle income hypotheses, Kuznet's findings and Reconciliation of Marginal and Average Propensity to Consume,

4.   Saving and Investment

Definition of Investment, Real and Financial investment, Autonomous and Induced investment, Determinants of investment: The Present Value, IRR and benefit-cost ratio Criteria, Investment Demand and capital formation, Tobin's Q-Theory, Lags in Investment Demand, Volatility of Investment, Investment by the Public sector, Equilibrium in the goods market, Derivation of IS curve (graphic), Factors affecting the position and slope of the IS curve, The Saving-Investment gap in developing countries.

5.   The Demand for and Supply of Money

The demand for money, The Quantity Theory of money, The Liquidity Preference/ Portfolio Balance Approach, The supply of money: M1, M2, M3 concepts, The money supply multiplier and the role of banking system, Instruments of credit control and the role of central bank, Equilibrium of the money market, Derivation of LM Curve (graphic), Factors affecting the position and slope of the LM curve.

6.   Determination of National Income

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

7.   Aggregate Supply and the Labour Market

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

8. Inflation and Unemployment

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

Recommended Books:
1. Shapiro, Edward – Macroeconomic Analysis- 7th Edition (2000) –Harcourt Brace Inc.
2. Froyen, Richard–Macroeconomics: Theories and Policies–7th Edition (2002) – Macmillan
3. Mankiw, Gregory N.- Macroeconomics -6th Edition (2007), Worth Publishers, NY.
4. Blanchard, Oliver – Macroeconomics -2nd Edition (2000)- Prentice Hall International.
5. Dornbusch & Fisher – Macroeconomics- 9th Edition (2004) - McGraw Hill Inc.
6. Pakistan Economic Survey (latest), Annual reports of the State Bank of Pakistan, Federal and Provincial Budgets (latest).

Code	Subject Title	Cr. Hrs	Semester
ECON-204	Agriculture Economics	3	IV
Year	Discipline		
2	Economics		

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.

4. 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.

5. 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.

6. 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.

7. 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 labour Market, Specifically in Pakistan. The Concept of ' Marketed Surplus': Some Methods of Estimation.

Some Criticisms of Krishna's Method and the Alternative Approach of Behrman Perennial Crops and Marketed Surplus in Pakistan. Green Revolution in Pakistan and Responses.

Present Status of Green Revolution in Pakistan: Empirical Analysis.

8. 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 Books:

1. Brown, Lester, The Social Impact of Green Revolution, New York, The Greogie Endownment for International Peace, 1971.
2. Capstick Margret. The Economics of Agriculture, London George Allen Unwin Ltd., latest edition.
3. Chaudhary M. Aslam, (1989), Agricultural Development and Public Policies, Izhar Sons, Lahore.
4. Ghatak S., and Ingersent K., Agriculture and Economic Development, (Latest Edition), Harvester Press.
5. Johnston, Bruce, F & Fellir Kily. Agricultural and Structural Transformation, Economic Strategies in late Developing Countries.
6. Khan Mahmood-ul-Hassan. The Economics of Green Revolution in Pakistan, New York, Published 1975.
7. Karamat, A., Political Economy of Rural Development in Pakistan, Lahore Vanguard Book House, 1981.
8. Shafi M., (1995), Pricing of Farm Produce in Pakistan, Objectives, Practices, and Experiences. Print Associates International, Islamabad.
9. Thorbake Erike. The Role of Agriculture in Economic Development, New York, Columbia University Press (1971).
10. Upton Marlin, Agricultural Production and Resource Use.
11. Colman D. and Young T., Principals of Agricultural Economics, Markets and Prices in Less Developed Countries, (1989), Cambridge University Press.
12. Yujiro Hayami and Vernon W. Ruttan, Agricultural Development, John Hopkin University Press, London. (Latest edition).

Code	Subject Title	Cr. Hrs	Semester
ECON-221	Basic Economics-III	3	III
Year	**Discipline**		
2	Statistics-III		

Objective

The course is designed for the beginners with either low formal background or very little acquaintance with Economics. The objective is to give the students a clear understanding of the basic concepts, tools of analysis and terminologies used in economic theory on the theoretical side and to acquaint them with the economic problems being faced on national and international level on practical frontiers.

Course Contents

1. National Income and Its Different Concepts, Macro Economic Problems (Unemployment, Inflation and Growth)
2. Determination of National Income and Employment
   a. The classical theory of Employment
   b. Keynesian Theory of Income and Employment with the help of Aggregate demand - Aggregate Supply Approach and Saving -investment Approach
   c. Monitory Policy, Its Nature, Objectives and Instruments, Fiscal Policy, Its Nature, Objectives and Instruments

Recommended Books:

1. Mankiw,G–Principles of Economics-2nd (2001)- South-West Publishers.
2. Samulson and Nordrons - Economics –18th Edition (2004)- McGraw Hill. Inc.
3. Parkin, Michael - Macroeconomics, 7th Edition (2004)- Prentice Hall.
4. Miller, R.L.– Economics Today -14th Edition (2005) - Addison Wesley.

Code	Subject Title	Cr. Hrs	Semester
ECON-222	Basic Economics Lab-III	1	III
Year	Discipline		
2	Statistics-III		

Inflation, Un-employment, Growth and Other Economics Issues being faced during the time - period of each semester (First, Second, Third & Forth) available on TV and print media.

Code	Subject Title	Cr. Hrs	Semester
ECON-223	Basic Economics-IV	3	IV
Year	Discipline		
2	Statistics-III		

Objective

The course is designed for the beginners with either low formal background or very little acquaintance with Economics. The objective is to give the students a clear understanding of the basic concepts, tools of analysis and terminologies used in economic theory on the theoretical side and to acquaint them with the economic problems being faced on national and international level on practical frontiers.

Course Contents

1. Balance of Trade and Balance of Payments, Disequilibrium in balance of payments, Relative importance of Agriculture and industrial Sector in Economic
2. Development of Pakistan, Need an role of Economic Planning
3. The Need and Roll of Manpower planning

Recommended Books:

1. Mankiw,G–Principles of Economics-2nd (2001)- South-West Publishers.
2. Samulson and Nordrons - Economics –18th Edition (2004)- McGraw Hill. Inc.
3. Parkin, Michael - Macroeconomics, 7th Edition (2004)- Prentice Hall.
4. Miller, R.L.– Economics Today -14th Edition (2005) - Addison Wesley.

Code	Subject Title		Cr. Hrs	Semester
ECON-224	Basic Economics Lab-IV		1	IV
Year	Discipline			
2	Statistics-III			

Inflation, Un-employment, Growth and Other Economics Issues being faced during the time period of each semester (First, Second, Third & Forth) available on TV and print media

Code	Subject Title	Cr. Hrs	Semester
ECON-231	Economics (Macro) for Commerce	3	III
Year	Discipline		
2	Commerce		

Introduction to Macroeconomics
1. **National Income Accounting**
   a. Circular flow of income
   b. Concepts and Measurement of National Income
   c. Difficulties and importance of National income accounting
2. **Keynesian Macroeconomics**
   a. Consumption function, Fundamental Psychological law, Saving function, MPC, APC, MPS & APS
   b. Keynesian theory of investment & MEC
   c. Keynesian theory of income and employment, Inflationary and deflationary gap
   d. Taxation, Canons of taxation, types of taxes
   e. Fiscal policy; its objectives and tools
3. **International Trade**
   a. Theory of absolute and comparative advantages
   b. Heckscher-Ohlin Modern theory o f Trade
4. **International Institutions**
   a. The World Bank
   b. IMF
   c. WTO

Recommended Books:
1. Samuelson, Paul A.; William D Nordhaus, Economics, McGraw-Hill
2. Blanchard, Olivier (2000), Macroeconomics, Prentice Hall, ISBN 013013306X.
3. McConnell, Campbell & Stanley Brue, and Sean Flynn, Macroeconomics (McGraw-Hill Economics) (Oct 28, 2008)
4. Rizavi, Dr. Sayyid Salman, "An Introduction to Economics", Syed Mubeen & Co., Lahore
5. Nasir, Saeed, "Text Book of Economics", Ilmi Kutab Khana, Lahore

Code	Subject Title	Cr. Hrs	Semester
ECON-232	Economics of Pakistan	3	IV

Year	Discipline
2	Commerce

1. Introduction to the economy of Pakistan
2. Review of Economic Development in Pakistan
   a. Economic growth and development
   b. Characteristics of developed and developing countries
   c. Characteristics of Pakistan's Economy
3. Economic resources of Pakistan: Mineral, Power, Water and Human Resources
4. Agricultural Sector: Main products, Review of past performance, Agricultural price policy, Agricultural Credit, Agricultural Marketing
5. Industrial Sector: Past performance and present status, Industrial development in Pakistan, Cottage and small scale industry
6. Services Sector: Past performance and present status, Banking sector, Transport and communication
7. Fiscal and Monetary Policy in Pakistan
8. International Trade: Past performance and present status, Pakistan's Export performance, Pakistan's Balance of Payments, Pakistan's trade partners
9. Debt Management: Historical review of Internal and external debt, Foreign Direct investment, external debt management, Foreign Exchange Management, Financial Sector Management
10. Economic Planning: Review of Pakistan's five year plans, Analysis of the latest Federal Budget
11. International institutions: Pakistan's relations with IMF, World Bank arid WTO
12. Current Issues: Kalabagh Darn, Thar Coal Project, Balochistan's Reko-Diq Mines

Recommended Books:
1. Hussain, Ishrat, "Economic Management in Pakistan, 1999-2002", Oxford University Press
2. Matthew McCartney, "Pakistan - the Political Economy of Growth, Stagnation and the State, 1995
   2009 (Routledge Studies in the Growth Economies of Asia) ", Routledge (May 13, 2011), ISBN-3: 978-0415577472
3. Saeed, Kh. Amjad "Economy of Pakistan",
4. Nasir, M. Saeed, "Economic Problems of Pakistan". Ilmi Book House, Lahore
5. Akbar Zaidi, Issues in Pakistan Economy.
6. Waqar Ahmad & Rashid Amjad, The Management of Pakistan Economy.
7. Anjum Nasim, Financing the Development Priorities of Pakistan in 1990's
8. Government of Pakistan. Pakistan Economic Survey.
9. Government of Pakistan. The Five—year plan (latest).
10. State Bank of Pakistan, Quarterly and Annual Reports.

Code	Subject Title	Cr. Hrs	Semester
ECON-301	Micro Economics	3	V
Year	Discipline		
3	Economics		

Objectives

The course is designed for senior undergraduates. The objective is to confront them to advanced theoretical concepts and rigorous analysis with mathematical tools at hand. They have to develop the analytical skills and to enhance the capabilities to solve somewhat complicated problems. As usual, the teacher is expected to draw examples from the surrounding world for exposition.

The students may be given frequent assignments and exercises from the texts, which may be discussed by the teacher in the class after submission. The students should be motivated to use computer for solving the assignments.

Course Contents

The Theory of Consumption and Demand

Axioms of Rational Behaviour, The utility function and budget line, Constrained optimization and the Lagrange function, Utility maximization and ordinary (Marshallian) demand functions, Cost minimization and compensated (Hicksian) demand functions, The inter-relationship between ordinary and compensated demands, The indirect utility function and expenditure function, Homogeneity of demand functions, Elasticity of Demand, Euler's relation and demand elasticities, Engel's Law and income elasticity, Impact of a price change on demand, Bifurcation of the price effect into income and substitution effects, The Slutsky Equation: derivation and interpretation, Gross and net substitutes, Classification of goods: Normal, Inferior and Giffen goods, Clarification of the concepts by using Cobb-Douglas and CES utility functions.

The Theory of Production and Supply

The Production function: components, different forms, Properties of Cobb-Douglas and CES production functions, The iso-quant and its slope, The marginal rate of technical substitution, Diminishing MRTS and convexity of iso-quant, The cost function in relation to production function, Relationship between Average and Marginal cost functions, The short-run marginal cost and supply function, Relationship between the short-run and long-run average cost functions, Relationship between marginal revenue and marginal cost functions, Equilibrium of the firm in the short and long run, Demand for variable factors, Expansion path and returns to scales, Elasticity of substitution, The role of technical progress and shifting of production function overtime.

Market Structures and Price Determination

Critical appraisal of the competitive market assumptions, Efficiency of competitive market, Factors responsible for shifting of demand and supply functions overtime and impact on price, Govt. intervention in the market: price and quantity restriction and impact of taxation on price and consumer's surplus, The imperfect competition: Monopoly and Monopsony, Duopololy and Oligopoly, Monopolistic competition, The economic cost of imperfect competition, Elasticity of demand and Lerner index of market power, The case of public utilities and marginal cost pricing, Natural monopolies and the global markets, The multinational corporations, Introduction to: Game theory and strategic behaviour, Market with uncertainty and imperfect information.

Recommended Books

- Nicholson, Walter - Microeconomic Theory: Basic Principles and Extensions- 8th Edition (2002) or latest -Thomson & Learning Inc.
- Henderson & Quandt - Microeconomic Theory: A Mathematical Approach-
- 3rd Edition (1980)– McGraw Hill International
- Silberberg, E. & Suen, W.- The Structure of Economics: A Mathematical Analysis- 3rd Edition (2001) – McGraw Hill International
- Layard & Walters – Microeconomic Theory- (1978) – McGraw Hill Book Company.
- Perloff, Jeffrey – Microeconomics – (1999) - Addison Wesley Longman, Inc.
- Pindyck & Rubinfeld – Microeconomics- 6th Edition (2004) – Pearson Education Asia.

Code	Subject Title	Cr. Hrs	Semester
ECON-302	Econometrics I	3	V
Year	Discipline		
3	Economics		

Objectives

The course is designed to enable the students derive relationship between economic variables from the available data. The students should be in a position to apply statistical methods to data via simple mathematical models and to interpret the results by using economic theory. The students are encouraged to learn the use of simple computer programs and econometric packages in handling data and to understand the print outs.

The teacher should expose the students to the use of computer in solving simple econometric problems and assignments.

Course Contents

Introduction

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

The Classical Linear Regression Model (CLRM)

(a) The Simple Two-Variables Model

Variables and parameters, Meaning of the explained and explanatory variables, Estimators and estimates, Correlation and Regression theory, Mathematical versus econometric model, Structure of the linear econometric model with two explanatory variables, Rationale for inclusion of the disturbance term, Assumptions of the model with special reference to the disturbance term, The least squares principle, BLUE properties of the OLS estimators, The estimation procedure, The economic interpretation of the estimated coefficients, Hypothesis testing and the use of Z, t, F, test statistics, The confidence interval and tests of significance approaches, The ANOVA technique, The explanatory power of the model, Coefficient of determination vs. correlation coefficient: comparing regression and correlation theory, Econometric forecasting and confidence interval for the dependent variable against future value of the independent variable, Important features of a good forecast, Extensions of the model: Time as explanatory variable, Dummy variables, Estimation through the origin.

(b) The Multiple Linear Regression Model (MLRM)

The general format of MLR model, Assumptions of model with special reference to independence of the explanatory variable, Estimation of model with 3-4 explanatory variables using the OLS procedure, Interpretation of the estimated coefficients, Computation of elasticities, The degree of freedom and adjusted R^2, The explanatory power of the model and 'Goodness of Fit', Hypothesis testing in MLR, Overall significance of the regression and the use of F-statistics, Economic theory and econometric modeling.

Deviation from the Classical Assumptions

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

(i) Multicollinearity

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

(ii) Heteroskedasticity

Meaning of Heteroskedasticity, The nature of the problem with reference to economic theory, Cross-section data and the problem of non-constant variances, Consequences for OLS estimators, Detection of the problem and remedial measures in brief, 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, The AR(1) process, Consequences of Autocorrelation for OLS estimators, Detection of the problem and remedial measures in brief.

The Simultaneous Equations Models

Why Simultaneous Equations Models: Deviation from the classical assumptions, The simultaneous equations bias, Various types and general format of simultaneous equations models, Exogenous Endogenous variables, The structural and reduced-form models, The identification problem, Formal rules for identification: The Order and Rank conditions, The Indirect Least Squares (ILS),The Instrumental Variables and Two-Stage Least Square(2-SLS).

Recommended Books

- Gujrati, D.J. - Basic Econometrics – 4th Edition (2003)- McGraw Hill Company.
- Dougherty, Christopher – Introduction to Econometrics – 2nd edition (2002)
- Oxford University Press.
- Koutsoyiannis, A.- Theory of Econometrics - 2nd Edition (1977) - McMillan.
- Wonnacot & Wonnacot –Econometrics – 2nd Edition (1970)-John Wiley, New York.
- Pindyck & Rubinfeld- Econometric Models & Economic Forecasts- 3rd Edition (1992)- McGraw Hill Inc.
- Maddala, G.S. – Econometrics - (1988) - McGraw Hill Company.

Code	Subject Title	Cr. Hrs	Semester
ECON-303	Mathematical Economics I	3	V
Year	Discipline		
3	Economics		

Objectives

The course is designed to enable the students use mathematical tools in clarifying their economic concepts and solving problems. This is because economic analysis requires extensive use of mathematics in the present day world of complexity. Mere logical reasoning and diagrammatic approach is perhaps not sufficient. This is true for positive economics in particular. As such, the students of economics have to learn and apply mathematics along side their theoretical underpinnings.

Homework: The students may be given assignments and exercises from the texts and weekly or fortnight class tests including MCQ's and confronted to extensive practice.

Course Contents

The Nature of Mathematical Economics

Pure and applied mathematics, The use of mathematical tools in social sciences, particularly in economics, Economic theory (logical argument) as description of some kind of relationship between variables, Mathematical Support: Expression of theory in functional form, Explaining properties of economic parameters like elasticity, propensity to consume etc., Verification of hypotheses and the use of mathematical models, Parameters and variables (dependent and independent), Linear and non-linear functions: quadratic, polynomial, circular, Types of functions: constant, rational, non-algebraic, logarithms & exponential, Rules of logarithms and exponents, Functions of more than two independent variables, Graphs of various functions, The importance and limitations of mathematical models.

Equilibrium Analysis

Equation of a straight line: Intercept and Slope parameters and their economic interpretation, Partial and general equilibrium analysis, Single and Simultaneous equation models, Examples from market models: Demand and supply equations, Determination of price and quantity, Calculation of elasticities at equilibrium, The effect of an excise tax on market equilibrium, National Income determination: Closed economy with goods and money markets.

Linear Models and Matrix Algebra

Simultaneous equations models and the use of matrices, Types of matrices: Square, identity, null, idempotent, diagonal, transpose and their properties, Laws of matrix operations: addition/subtraction, scalar and vector multiplication, Conditions for non singularity of a matrix, Determinant & its properties, Minors and cofactors, Ad-joint and inverse of a matrix, Properties of inverse of a matrix, Solution of linear equations: the Gaussian method, the Cramer's rule and Inverse matrix method, Economic applications: Solution of market models, national income models, and the normal equations of the Least-Squares econometric model via matrix approach.

Differentiation

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

derivative tests, point of inflection, Free and Constrained optimization, Partial differentiation & its rules, Hessian and Jacobian determinants, Higher order & cross partial derivatives (Young's theorem), Total differentials & total derivatives, Optimizing cubic functions.

Economic Applications of Differential Calculus

Analysis of Utility, Demand, Production, Cost and Supply functions, Lagrange function: Profit maximization and cost minimization under perfect competition and monopoly, Maximizing excise tax revenue in monopolistic competitive market, Comparative static analysis: Partial equilibrium market model, National Income model, Partial and Substitution elasticities, Optimization of unconstrained functions and their economic applications, Profit maximization by a multi-product and multi-plant firms, Price discrimination and monopoly, Optimization by using Cobb- Douglas, CES and Translog functions with interpretation of the results.

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.

Recommended Books

- Chiang, A. C. - Fundamental Methods of Mathematical Economics – 3rd Edition (1984) - McGraw Hill Publishing Company.
- Frank, Budnick - Applied Mathematics for Business, Economics and Social Sciences- 4th Edition (1993) or latest – McGraw Hill Publishing Company.
- Dowling E. T.- Mathematics for Economists, Schaum's Outline Series- 3rd Edition
- (2001) – McGraw Hill Publishing Company.
- George, Alvery et al – Essentials of Mathematics with Business Applications-
- 5th Edition (1995) - McGraw Hill Publishing Company.
- Weber E. Jean - Mathematical Analysis: Business and Economic Applications- (Latest Edition) -Harper and Row Publishers, New York.
- Colin, Glass – An Introduction to Mathematical Methods in Economics- (Latest Edition) - McGraw Hill Publishing Company.

Code	Subject Title	Cr. Hrs	Semester
ECON-304	General Equilibrium and Welfare Economics	3	V
Year	Discipline		
3	Economics		

General Equilibrium and Welfare Economics

The concept of efficiency and welfare, Conditions of allocative efficiency: consumption, production and product mix, Theorems of optimality/welfare, The efficiency of competitive market system, Equity and efficiency trade off, Partial versus general equilibrium, The pure exchange economy, Two sector economy (consumption and production), Diagrammatic approach: The Edgworth Box, Production possibility frontier and Social indifference curve, Introduction to computation of general equilibrium in a 2x2x2 (two consumers, two sectors/ commodities, two factors) economy.

Recommended Books

- Nicholson, Walter - Microeconomic Theory: Basic Principles and Extensions- 8th Edition (2002) or latest -Thomson & Learning Inc.
- Henderson & Quandt - Microeconomic Theory: A Mathematical Approach-
- 3rd Edition (1980)– McGraw Hill International
- Silberberg, E. & Suen, W.- The Structure of Economics: A Mathematical Analysis-3rd Edition (2001) – McGraw Hill International
- Layard & Walters – Microeconomic Theory- (1978) – McGraw Hill Book Company.
- Perloff, Jeffrey – Microeconomics – (1999) - Addison Wesley Longman, Inc.
- Pindyck & Rubinfeld – Microeconomics- 6th Edition (2004) – Pearson Education Asia.

Code	Subject Title	Cr. Hrs	Semester
ECON-305	Labor Economics	3	V
Year	Discipline		
3	Economics		

Course Contents
Importance of Labor Economics
Introduction: Industrialization and Emergence of Labor Economics. Tools to Analyze Labor Markets and Conditions. Overview of Labor Issues in Developing and Developed World.
Labor Markets Analysis: Demand for Labor
Labor Market Indicators, Demand for Labor, Decision Making and Labor Hiring. Labor Migration: Reasons and Impacts. Demand for Labor by Firms, Short Run and Long Run Demand for Labor, Industry and Market Demand.
Labor Market: Supply of Labor and Wages
Determinants of Labor Supply. Concepts of Human Capital, Human Capital, Productivity and Wages. The Determinants, Labor Force Participation. Supply of Labor and Household Productions. Labor – Skill, Training and Productivity. The Dual Labor Market Theory. Labor Unions and Wages. Supply and Demand for Labor and Wage Determination. Backward bending Supply Curve of Labor.
Wages, Unemployment and Inflation
Determinants of Wages, Market Determination of Wages and Marginal Productivity, High Wages and Involuntary Unemployment. Stagflation and Unemployment, Structural Adjustment and Wages. Major Sources of Unemployment, Wages and Phillip Curve. Wage Rigidity, Labor Unions and Unemployment. Unemployment and Social Protection.
Labor Market Discrimination
Discrimination in Labor Market: Gender, Race and Ethnicity. Efficiency Wage Theories and Coordination Failure.
Labor Market Information System
Labor Market Information System and Efficiency, Labor Statistics and Labor Policy. Human Welfare and Labor Policy, Minimum Wages, Rationale and Impacts.
Theories of Labor Movements
The Marxist, The Wells, Selling and Pearlman's contributions. Trade Unions in Pakistan, Labor Legislation in Pakistan. Impacts of Labor Union. Labor Policies in Pakistan: Critical Evaluation.
Definition and extent of child labor. Child labor; moral aspects. Child labor an international issue: Extent of Child labor in developing countries. Child labor in Pakistan. Policies to combat child labor. Child labor and international trade issue.

Recommended Books
- Comith Stephen (2003) Labour Economics, Routledge Publishers.
- Bruce, Kaufman; e. Kaufman, Julie L; Hotchkiss, (2002), Economics of Labour Markets, Thomson Publisher.
- Current Issues in Labour Economics (1989) Palgrave Mcmillan.
- Reynolds, Labor Economics and Labor Relations.
- Orley, Ashenfelter (ed) Layard, P. R. G. (ed) Hand Book of Labour Economics, Elsevier Science Pub. Co. (1986).

Code	Subject Title	Cr. Hrs	Semester
ECON-306	Macro Economics	3	VI
Year	Discipline		
3	Economics		

Objectives

The course is designed for senior level undergraduate students. The objective is to enhance their analytical skills and to clarify further their macroeconomic concepts with quantitative tools at hand. They must have a strong theoretical foundation so as to understand the real problems of the economy with particular emphasis on inflation, unemployment, instability, deficit and debt etc. to which the developing countries are confronted at present.

Homework: The students may be given frequent assignments and exercises from the texts, Economic Survey, reports of the State Bank as well as from articles appearing in the press. The students should be motivated to use computer for solving the assignments.

Course Contents

Macroeconomics: The Classical Framework

Ingredients of the Classical model: The Says law of markets, The Quantity theory of money, The Marginal Productivity theory, Equilibrium in the goods and money markets, A critical appraisal of the Classical model, Dichotomy in the economy.

The Demand Management Economy

The Keynesian framework, Characteristics of a depression economy, Innovations due to Keynes: The consumption function, The liquidity preference function, Wage rigidity in the labour market, The ISLM model, Mathematical derivation of the IS and LM functions, The interaction of the goods and money markets in a closed economy, The role of public sector investment, The multiplier effects of fiscal and monetary actions, Derivation of the aggregate demand curve/function, Stabilization and the relative effectiveness of fiscal and monetary policies, The Neoclassical critique of the Keynesian model: the Keynes effect, the Pigou effect, the Real Balances effect, The Keynesian-Neoclassical Synthesis.

The Supply Side Economics

Demand for and Supply of Labour, The wage rate determination, Rigidity versus flexibility of nominal wage rate, The short-run Production function, Derivation of Aggregate Supply under the Classical and Keynesian assumptions, The notions of full-employment and under-employment, Scarcity of raw material and energy, The supply side disturbances leading to stagflation, The problems of developing countries: shortage of supply vs. deficiency of demand, The scope for structural changes (instead of fine tuning) in developing economies.

The Open Economy Macroeconomics

Balance of Payments: Current and Capital account, The IS-LM-FB model due to Mundell and Fleming, The case of a small open economy with special reference to developing economies, The relative effectiveness of Fiscal and Monetary policies under the Fixed and Floating exchange rate regimes, The Managed exchange rates system, Determinants of the Exchange Rates, Devaluation and its impacts for developing countries, Perfect and imperfect capital mobility, Problems of stabilization in a global framework..

Macroeconomic Policy Debate

Policy Actions: Active or Passive, Ignorance, Expectations and the Lucas Critique, Conduct of Policy: Formula/Rule vs. Discretion, Distrust of Policy makers and Political Process, Macroeconomics Policy: the Fiscal, Monetary and Commercial policies, Policy formulation

and implementation in a world of uncertainty, Seignorage and Inflation: Monetarists vs. Activists, the short-run and long-run analysis of the Phillips Curve, The expectation-augmented Phillips Curve, The Perfect Foresight and adjustment.

Growth and Business Cycles

The accumulation of capital, Acceleration principle and the concept of steady state growth path, The steady state conditions, The basic Neoclassical (Solow) growth model, Golden rule for consumption and investment (capital accumulation), The role of technical progress in growth, Introduction to the theory of Real Business Cycles: Interpretation, Labor market, Technology shocks, Household Behaviour, the persistence of output Fluctuations, Limitations of the Model.

Recommended Books

- Branson, Willium – Macroeconomics: Theory and Policy – 3rd Edition (1989) or latest Harper and Row, New York.
- Froyen, Richard–Macroeconomics: Theories and Policies – 7th Edition (2002)
- Prentice Hall
- Gupta, G.S.- Macroeconomics: Theory and Applications- 2nd Edition (2004)
- Tata McGraw Hill Publishing Company, New Delhi
- Scarth, Willium,M – Macroeconomics: An Introduction to Advanced methods-
- 2nd Edition (1996)- Dryden Press: Harcourt Brace & Company.
- Romer, David - Advanced Macroeconomics -(2001)- McGraw Hills, New York.
- Mankiw, Gregory- Macroeconomics- 5th Edition (2003)- Worth Publisher, New York.

Code	Subject Title	Cr. Hrs	Semester
ECON-307	Econometrics II	3	VI
Year	Discipline		
3	Economics		

Objectives

The course is designed for senior undergraduates more inclined towards quantitative studies. The objective is to enable the students dive deep into complex problems of the real world economic life. They have to understand data problems, to have good grasp over advanced estimation techniques and to have the capability of inferring results accurately. The students have to learn certain computer packages like SPSS, E-views and Strata besides Excel.

Laboratory work: The students are required to devote at least one hour per week to computer laboratory. They have to develop the capacity to read and understand papers that appear in research journals.

Course Contents

Overview of the Classical Regression Model

The multiple regression (K-variable) model in matrix format, Assumptions of the model, The Least-Squares estimation procedure in matrix notation, Properties of the OLS estimators, Interpretation of the Beta coefficients (β_1, β_2,...., β_k), Hypothesis testing using matrix approach, Forecasting in OLS model, Time as an explanatory variable, Regression on Dummy variables, Dummy variable trap, Chow test, Specification bias and Errors in variables, Estimation with endogenous lagged variables, Restricted Least Squares,

The Generalized Least-Squares Model

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

The Maximum Likelihood Estimators

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

Time Series Analysis

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

Recommended Books

- Johnston, J & John Dinardo- Econometric Methods – 4th Edition (1997) The McGraw Hill Companies, Inc, Singapore.
- Intrilligator, M - Econometric Models: Techniques and Applications- N. J. Prentice Hall, (Latest).
- Judge, George G. et al - The Theory and Practice of Econometrics- (1988)
- John Willey and Sons.
- Maddala, G.S. & Kim –Unit Roots, Co-integration and Structural Change -(1998)

Code	Subject Title	Cr. Hrs	Semester
ECON-308	Mathematical Economics II	3	VI
Year	Discipline		
3	Economics		

Objectives

Objectives: The course is designed for senior undergraduates more interested in quantitative economics. The objective is to confront the students to advanced mathematical techniques so as to enable them handle economic models, interpret the results and solve complex problems. The students may be given assignments and exercises from the texts and weekly or fortnight class tests and quizzes including MCQ's.

Course Contents

Complex Number and Circular Functions

Imaginary and Complex Numbers, Complex Roots, Circular Functions, Properties of Sine & Cosine functions, Eular and Maclaurin series, Alternative representation of Complex Numbers.

Integral Calculus

Comparative Dynamics and Integration, The Nature of Indefinite Integrals, Rules of Integrations and Operation: Substitution Rule, Integration by parts. Definite integrals and their properties, Definite Integrals and Area under a curve, Improper integrals, Economic Applications of Integrals: Finding total functions from marginal functions, Investment & capital formation, Present value of cash flow, P.V. of a Perpetual Flow, The Domar growth model.

Differential Equations

(i) First Order Linear Differential Equations

Meaning and Definition; Homogenous & non-Homogenous cases, Solution of first order linear differential equations: with constant coefficient & constant term, with variable coefficient and variable terms, Qualitative approach: Concept of phase diagrams, types of time paths and the dynamic stability of equilibrium, Exact differential equations: Solution and Verification, Non-linear differential equations of the first order and first degree, Bernoulli Equation, Separable Variables, Economic Application: Dynamics of market models, Solow growth model.

(ii) Higher Order Differential Equations

Solution and Verification of second order linear differential equations with constant coefficients and constant terms, Real and imaginary roots, Distinct, repeated roots and complex roots, Dynamic stability of equilibrium, Economic applications: Market models with price expectations, The Interaction of inflation and unemployment in continuous time, Higher order differential equations, Convergence and the Routh theorem, Solution of simultaneous difference equations.

Difference Equations

(i) First Order Difference Equations

Meaning and definition, First order linear difference equations: Solution and verification of results, Conditions for dynamic stability of equilibrium, Types of time paths, Economic applications: The Cobweb model, Market model with inventory, Model with price ceiling, Nonlinear difference equations, The qualitative/graphic approach and phase diagrams.

(ii) Higher Order Difference Equations

Solution and verification of second-order linear difference equations with constant coefficients and constant terms, Real and imaginary roots, Distinct, repeated and complex roots, The convergence and divergence of the time paths. Economic applications: Models of business cycles, The Multiplier-Acceleration interaction model, inflation-unemployment model in discrete time, Higher order difference equations and their solutions, Convergence and the Schur's theorem, Solution of simultaneous difference equations.

Non-Linear Programming

The nature of non-linear programming, Non-linearities in Economics, Kuhn-Tucker conditions and their interpretation, The Kuhn-Tucker Sufficiency theorem: Concave programming, The Arrow-Enthoven Sufficiency theorem: Quasi-concave programming, Economic applications: Utility maximization, Least-cost combination,

Recommended Books

- Chiang A.C and Kevin Wainwright - Fundamental Methods of Mathematical Economics- 4th Edition (2005) McGraw Hill Publishing Company.
- Gandalfo, G – Economic Dynamics: Methods and Models – (1983 or Latest Edition)
- North Holland Publishing Company
- Dowling Edward T. -Mathematics for Economics: Schaum Series – (1981).
- Weber E. Jean, Mathematical Analysis, Business and Economic Application (latest edition), Harper and Row Publishers, Netherlands.
- Hoy M., Livermois J, Rees R, Stengos T. - Mathematic for Economics – (1996) - Addison & Wesley Publishers.
- Shone, R – Economic Dynamics: Phase Diagrams and their Economic Applications- (1997)- Cambridge University Press.

Code	Subject Title		Cr. Hrs	Semester
ECON-309	Population Economics		3	VI
Year	Discipline			
3	Economics			

Course Contents

History of Population Growth Population/labor as a factor of production: Population theories; Components of population changes: Sources of demographic data; National Population survey. Economic and Social Determinants of population trends and their consequences; Population policies and their impacts; Population programs in Pakistan and their impacts; Regional / provincial distribution of population in Pakistan; Impact of Population Growth on Economic Development.

Recommended Books

- Deaton, A., (1986). Demand Analysis, in Z. Griliches & M. Intrilligator, (eds.) *Handbook of Econometrics*, North Holland, Amsterdam.
- Blundell, R. and T. MaCurdy (1999), ALabor Supply: A Review of Alternative Approaches,@ in *Handbook of Labor Economics*, Vol. 3A, 1999, 1560-1695.
- Killingsworth, M. and J. Heckman, (1986), ALabor Supply of Women,@ in Ashenfelter and Layard (eds.) *Handbook of Labor Economics*, Vol. 1, 1986.
- Pencavel, J. (1986), ALabor Supply of Men: A Survey,@ in *Handbook of Labor Economics*, Vol. 1, 1986.
- Gronau, R., "Home ProductionCA Survey," in O. Ashenfelter and R. Layard, eds., *Handbook of Labor Economics*, Volume I, Amsterdam: North-Holland, 1986.

Code	Subject Title	Cr. Hrs	Semester
ECON-310	Major Issues in Pakistan Economy	3	VI

Year	Discipline
3	Economics

Overview of Pakistan Economy

Development Experience, Approaches, Policies and Outcomes. Identification of Issues: The era of 1950's, 1960's, 1970's, 1980's 1990's and 2000's. Structural Change and Sources of Growth. Emergence of Economic Issues, Human Resource Development, Unemployment, Poverty, Income Distribution, Debt, Deficit etc. Growth with limited development in Pakistan.

Development Planning and Resource Mobilization

Agricultural Development Policies and Priorities, Major Targets of Develop Plans and Emerging Issues; Neglects and Successes: Mobilization of Domestic Resources; Shortages, Deficits and Role of Foreign Aid. Agricultural Vs. Industrial Development Debate. Agricultural Adequacy.

Agriculture and Industrial Development: Emerging Issues

Pattern of Agricultural and Industrial Development, Land Reforms and Its Impacts, the Role of Green Revolution and its Impacts: Present Status. Agricultural Price Policy and Income Tax. Sectoral Terms of Trade. Industrial Development Policies and Strategies. Development of Large and Small Industries. Value Added: Manufacturing Goods Vs. Primary Goods Production. Agriculture Vs. Industry: Development Debate.

Sectoral Development, Employment Pattern and Unemployment

Sectoral Priorities and Development Issues. Human Resource Development and Emerging Issues: Population Growth, Labor Force Participation Rate and Employment Pattern, Unemployment and Underemployment, Forecasting Manpower Needs and Employment. Strategies to combat unemployment. Criteria to Measure Unemployment / Underemployment: Time Criterion, Productivity Criterion and New Index of Unemployment: Application to Pakistan and Empirical Evidences. Good Governance, Social Action Plan and its Impact. Role of Institution in Development. Social Sectors development Vs. High Return Sectors: Growth trade off.

International Debt and Dependency

Concepts of Foreign Aid and Debt. Borrowing Vs. Domestic Reserve Mobilization (failure). Size of Foreign Debt, Debt Saving and its Impacts. Strategies to combat with High Debt: Saving Policy, Foreign Trade Promotion, Cutting non-development Expenditures, Rescheduling and its Impacts. Debt Management in Pakistan and Its Impacts. Debt Modeling and Future Implications.

Poverty and Income Distribution

Pattern of Income Distribution: Rural and Urban. Definitions and Approaches to Measure Poverty: Income Approach, Expenditure Approach, Basic Needs Approach, Poverty of Participatory Index (POPI). How to Combat Poverty; Growth Strategy, Basic Needs, Labor Intensive Investment: Education / Training etc. and Social Action Plan (SAP) , its Role and Critical Review, Evasion of Policies / Strategies to Combat

Poverty and Improving Income Distribution: Critical Evaluation. Neglect of Human Resource Development. Child Labor. Factors Productivity Issues.

Inflation, Foreign Trade Deficit and Emerging Issues

Sources of Inflation in Pakistan. Policies to Combat Inflation and their Impacts. Trade Performance, Instability and its Impacts. Policies to Combat Deficit and Trade Instability.

WTO and Its Impacts. Reforms and Further Needs. Expected Impacts of WTO and Challenges. Terms of Trade Issues, Market Access and Health Related Rates.

Recommended Books

- Aslam M., Perspective on Development Planning In Pakistan, Allied Book Centre, Lahore, 2001-2002.
- Chaudhary M. Aslam and Ahmad Eatzaz: Globalization, WTO and Trade Liberalization in Pakistan, FerozSons, Lahore (2004).
- Chaudhary M. Aslam, Human Resource Development and Management in Pakistan, Ferozsons, Lahore (1989).
- Khan, Shahrukh R., 50 Years of Pakistan's Economy – Traditional Topics and Contemporary Concerns. Oxford Univ. Press, Karachi (2000).
- Mahbool-ul-Haq Centre for Human Development (MHCHD), Poverty Profile of Pakistan, (1989) Oxford University Press.
- Human Development In South Asia, Annual Report.
- Saeed, Khawaja Amjad, The Economy of Pakistan, Karachi: Oxford University Press, 2004.
- Zaidi, Akbar, (1999), Issues in Pakistan Economy, Oxford Univ., Press, Karachi.
- World Development Reports, World Bank.

Code	Subject Title	Cr. Hrs	Semester
ECON-401	**International Trade Theory**	**3**	**VII**
Year	Discipline		
4	**Economics**		

Objectives

To teach the theories of I Trade to interrelate other branches of economics

Course Contents

Importance and Bases of Trade

Why Study International Economics? The Changing World and Interdependence: Basis of Trade, Gains from Trade. Absolute vantage, Comparative Advantage, Overview of Comparative Advantage and Pattern of Trade. Offer Curves and Free Trade Equilibrium. Disagreement son Free Trade: Overview of Emergency of International Trade Issues. The Elasticity of Exports Demand and Balance of Payment. Substitution and Income Effects, Impacts of Rise in Exports Demand.

Growth and Trade

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

Technology and Factor Endowment

Ricardian Trade Model, World Production and Gains. Comparative Cost and Trade Pattern. National and World Gains from Trade. International Wage differentials and Productivity. Technical Progress and International Gains. WTO and Gains from Technical Progress: Impacts on Prices. Equilibrium Production and Consumption: Non-traded and Tradable, Costs, Marginal Physical Product and Production Possibilities. Production Possibilities with Diminishing Returns, Increasing Opportunity Cost. Free Trade and Income Distribution, Relative Demand, Supply and Pattern of Trade. Dutch Disease and its application.

Factor Endowment and Heckscher –Ohlin Theory

Output and Factors Rewards in 2*2 Model. Factor Intensity Comparison. Heckscher-Ohlin (H.O) Model, The Role of Demand, Factor's Prices and Commodity Prices, Factor Price Equalization, and Factor Intensity Reversal. Newly Industrializing Countries (NIC's) and Footloose Production Process. NIC's and H.O Theorem. The Product Cycle, Critical Analysis of Traditional Trade Theories. Rybescky Theorem and its critical review.

Markets, Cartels and International Trade

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

Share, Gains from Migration. WTO and Factor's Movements and the Commodity Movement. Multinationals Firms and Foreign Direct Investment, Transfer of Capital, Technology, Skill and other Gains, Transfer of Resources and Transfer Problem.

Tariff, Quota, Trade Policies and WTO

Tariff and Small Country: Effects of Tariff, Price and Demand for Imports, Welfare Impacts. Impacts of Tariff on Government Revenue, T.O.T Production and Welfare. Impact of Tariff on Domestic and World Welfare. The Optimal Tariff. Tariff and Distribution of Income. Brief Introduction of Tariff and WTO Laws, Tariff and Second Best Choice, Subsidies and Quota, Voluntary Quota, Growth with Protection vs. Free Trade Gains and WTO. Managed Trade, Quantitative Restrictions, Voluntary Export Restrictions and Their Impacts Trade Diversion and Preferential Arrangements. WTO: Injury, Anti-dumping Duties, Tariff and B.O.P Support. Success and Failure of WTO Agenda. WTO Rules: Sanitary, Phytosanitary, Dumping, Anti-Dumping etc Rules and Emerging New Issues and Their Impacts.

Major Contemporary International Economic Issues:

WTO: GATT and Emergency of WTO. Why necessary to Join WTO? WTO: Major Trade Rules and Their Expected Impacts on Trade, B.O.P Deficit. WTO and Fair Trade / Free Trade. Free Trade will it be? Issue of "Are Free Trade Gains more than Restricted Trade"? Emerging Regional Trading, Blocks, Special Preference and their Impacts. Issues relating to the Contributions of International Financial Institutions and Their Evaluations. Is there need to Reform International Institutions? Monetary Integration and Their Impacts. Terms of Trade Issue.

Recommended Books

- Caves Richard, E., and Jones Ronald W., World Trade and Payments: An Introduction, Latest Editions. Little, Brown and Company, Boston, Toront. Latest edition.
- Chacholiades, Miltiades, International Trade Theory and Policy (Latest Edition). McGraw Hill Book Company, New York, London, Latest edition.
- Donomick Sal Vatore B., International Economics (Latest Edition), Prentice Hal, Latest edition.
- Grubel Herbert C., International Economics, (Latest Edition) Richard D. Irwin Inc., Honewood, Illinois.
- Peter Holinder & Thomas A., Pugel., International Economics Latest edition.
- Sodersten B. and Geoffry Read., (1994).International Economics, MacMillan Press Ltd. Latest edition.
- The Global Competitiveness, Report 1999, World Economic Forum, Oxford University Press, Oxford, New York.
- World Bank. World Development Report, 1986.Oxford University Press.
- Baldwin Robert L. and Richardson David J., (1986).
- International Trade and Finance, Little Brown and Company, Boston, Toronto.
- Moran Theodore H.,(1985). Multinational Corporations: The Political Economy of Foreign Direct Investment. Lexington Books. Toronto, Massachusetts.
- Krugman and Obstfeld, International Economics: Theory and Policy, Addison Willey (1998).

Code	Subject Title	Cr. Hrs	Semester
ECON 402	**Research Methodology**	**3**	**VII**
Year	Discipline		
4	**Economics**		

Course Contents

Importance of Research Methodologies. Research techniques in social sciences and their limitations. Theory and basis of research. Empirical and theoretical research. Stages of research process. Identification of problem / issue, data, theory and estimation and related problems. Thinking, Field Research Designs; the process of field research, Exploratory Research, Casual Inference. Methods of communication in survey. Vision survey and communication techniques. Art of asking questions and getting quality information. Preparation of Research Proposal Questionnaire, Sample Design; the Nature of Sampling, Measurement and Scaling; Measurement, Measurement Scales, the Characteristics of Sound Measurement, the Development of Measurement Tools, Scaling, the Nature of Scaling, Response Methods, Scale Construction.

Data Collection Methods, Survey Instruments and Field Procedures; Survey Instrument Designs, the Survey Situations, the Instrument Development Process, Questionnaire Development, Field Procedures, Personal Interviewing, Telephone Interviewing, Interviewing by mail, observations. Data collection, Observation, Experimentation and Simulations; Experimentation and Simulation. Choice of Research Technique, Experimental Research Design, Simulation, Observation, Observation Designs. Use of Secondary Data; the Nature of Secondary Data Sources, the Use of Secondary Data, Types of Secondary Data Sources, Statistical Sources, Data Research Procedures, Evaluating Secondary Data. Vision Survey: Interpretation of Replies. Data Presentation and Analysis: Elements of Analysis, Data Preparation, Special Data Problem, Tabulation, Data Presentation, and Data Analysis. Report Writing; the Questions and analysis of Research Proposal. Organization of Research Paper. How to format and Write country Research Report. Executive summary yand abstract of are port. Conclusion and its basis. Evaluation of Research Work. The Research Report, Research Report Format, Writing and editing of research Report.

Recommended Books

- Birchen hall C. and Grout P., (latest edition), Mathematics for Modern Economics, Herifaq Publishers, New Delhi.
- Holt, Rinehart and Winston, Holt-Sounders Japan Ltd. Tokyo (Latest edition).
- Johnson, Glenew Research Methodology for Economists: Philosophy and Practice, McMillan Publishing Co. (Latest edition).
- Kidder Louise H., Research Methods in Social Relations.
- Lambert, P., (1985) Advanced Mathematics for Economists. Static and Dynamic Optimization, Basil Black Well.
- Neuman W. Lawrence, (1997) Social Research Methods, Qualitative and Quantitative

Approaches, Allynand Bacon; Boston.

- Sckaran Business Research Methods
- Uma, Sekarn, (1992), Research Methods for Business. A skill Building Approach, John Willey & Sons, Inc.
- Young Pauline V., (latest edition), Scientific Social Survey and Research, Prentice Hall Inc.
- Zikmund William, G., (1994), Business Research Methods, The drydem Press.

Code	Subject Title	Cr. Hrs	Semester
ECON 403	**Public Finance**	**3**	**VII**
Year	Discipline		
4	**Economics**		

Course Contents

Introduction and Role of Public Sector

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

The Theory of Public Goods

Fiscal Principles and Concepts: The Traditional Principle of Tax Neutrality is 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.

Public Revenue and Taxes

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

The Theory of Public Goods

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

Distributional Equity in Taxation

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

Tax Structure of Pakistan

Various Kinds of Taxes and their Objectives / Performance in Pakistan. Income and Sales Taxes, Excise and Custom Duties, Export and Import Taxes, Tax Reforms in Pakistan and their Impacts. General Equilibrium Vs. Partial Equilibrium: Tax Incidence Analysis. Determinants of Tax Shifting under Partial Equilibrium Conditions. Impacts of Tax Shifting on Price.

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.

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.

Recommended Books

- Bernard P. Herber, (1999), Modern Public Finance.
- Chellieah R.J. (Latest eds.), Fiscal Policy in Less Developed countries.
- David N. Hyman, (1996), Public Finance, A Contemporary Application of ---.Harcount Brace College Publishers.
- Govt. of Pakistan, Economic Survey, Yearly Publication, Ministry of Finance, Economic Advisory Wing, Islamabad.
- Rosen and Harvey S., (1999), Public Finance, McGraw Hill.
- Musgrave R.A. and B.P., Musgrave (Latest Eds.), Public Finance in Theory and Practice, McGraw Hill.
- Stieglitz E., (2000), Economics of the Public Sector, W. W. Norton & Co.

Code	Subject Title	Cr. Hrs	Semester
ECON 404	**History of Economic Thoughts**	**3**	**VII**
Year	Discipline		
4	**Economics**		

Course Contents

Introduction

Introduction: Importance of Economic History: Approaches to Study the Subject. Overview of Ancient Greek, Roman and Medieval Economic Thought. Overview of Ancient and medieval thoughts, Quensey's influential ideas, Feudalism, Mercantilism, Nature's Circular Flow, Process of modern theories and thoughts. Overview of Islamic thoughts: Ibne-Khuldoon and thereafter. Overview of Silent Features of Muslim School of Thought

Mercantilists and the Physiocrates

The Contributions of Mercantilists and the Physiocrates. A doctrine of economic process, transition to liberalization: Wage theory to natural price, the task of government. Overtime, Changing Role of Government.

Classical School

The Contributions of Classical School, Adam Smith; Malthus and Ricardo etc., the Labor Theory of Value. Bull in Debate. Ricardo's Monetary Thought. Evolutionists, Ricardo and Reformers of 18th Century. The Theory of Rent. Profit Concepts of Colonization. Economic

Socialism

Socialism before Marx. English Socialists. Anarchism. Karl Marx's Contributions. The Class Struggle. Criticism on Marx. Challenges to Capitalism. German Historical School, Weber's contributions. The Marginalist School, Neo-Classical Economics. Jeons Inference. The concept of Welfare State. Chamberlin and Robinson. Australian School of thought. Veber and Galberith's Contribution.

Keynesian and Post Keynesian School

The Keynesian and Post Keynesian School, the Great Depression: Economic Policies and Capitalist Instability between the World Wars. The 20th Century Paradigms. The Growth of International Economy. The Rise and fall of Post World War II. The American economic history and Lessons.

i) The Emergence of Modern Economic Growth, Building Blocks, Industrial Revolution, Structuralist and Dependency School of thought; Sunkel, Amir Samer, Frank and others' contribution. Technological Change and Impacts.

The Crisis of the 1970's and International Responses. Failure of Trickle down effects. Rational Expectation Revolution. Basic Needs Approach and welfare. Emergence Famine and Poverty.

ii) Modern Economic Thought. Comparison of Post Keynesian and Monetarist Thoughts. Supply side economics. Globalization, Liberalization and New Weave of Economic Growth and Welfare. New Growth Theory. Convergence and Divergence Debate. Future of Economics, Quality and International Trade and emergence of markets, New Regionalism, New directions of research. Environment and sustainable growth.

Recommended Books

- A History of Economic Ideas, (1959), Robert Lekachman, McGraw Hill Company. Economic Theory in Retrospect, Blaug, (1978), Cambridge University Press.
- Frank A.G., (1998), Global Economy in the Asian Age, Univ., of California Press.
- Henery John D., The Future of Economics, (1992), Black Wall Publishers.
- Marx k., and Engles F., The Communist Manifesto, Peoples Publishing House, Moscow, latest edition.
- Rima Ingrid, Development of Economic Analysis, Routledge Publishers (Latest Ed.).
- Spechler, Martin C., (1990), Perspective in Economic Thought, McGraw Hills.
- The Main Current in Modern Economics (latest edition), The Free Press of Glancer.
- Theories of Value and Distribution (latest Edition), Dobb M., Cambridge Univ. Press, Latest edition.
- Twenty Contemporary Economist ed. (1981). Schach and Locksley, MacMillan Press.

Code	Subject Title	Cr. Hrs	Semester
ECON 405	**Monetary Economics**	**3**	**VII**
Year	Discipline		
4	**Economics**		

Course Contents

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, L etc.

Role of Money in the Economy

Debate on neutrality and non-neutrality of Money. Classical Dichotomy and Keynesian Integration of Nominal and Re al Sectors. Role of Money in the IS-LM Frame work. Money in Aggregate Demand & Aggregate. Supply Analysis. Keynesian Vs. Monetarist views of Equilibrium Output, Employment and Prices.

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: Empirical Evidence on the Demand for Money.

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 Behaviour: the Complete Money Supply Model. Regressive Expectation Model.

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 To ols of Monetary Policy. Required Reserve Ratio, Discount Window Loans and Open Market Operation. Advantages and Disadvantages and Imp act Analysis of each Policy Tool. Central Bank as a lender of last Resort. Financial Intermediate rise. Monetization of Public Debt. Infectiveness of Stabilization Policies. Targeting interest rate and inflation.

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.

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. Inflation in Pakistan: Sources and Managing Policies. Sources of Inflation in Pakistan: Spiracle Evidences. Policies to Combat Inflation in Pakistan.

Monetary Policy in International Framework

Money Demand and Empirical Evidences. Money in Growth Models. Inflationary Spiral. Current Issues in Monetary and Financial Sector Reforms. Conduct of Monetary Policy in Fixed an d Flexible Exchange Rates. Perfect Mobility of Capital and Money Control, Effectiveness of Policy. Impact of Reserves on B.O.P and Exchange Rates. Targeting exchange rate. Managed Exchange Rate System and Monetary Policy. Targeting Inflation. Exchange Rate and Balance of Payment.

Recommended Books

- Bennett T. McCallum, (1989), Monetary Economics, Theory and Policy, McMillan.
- Fredric S. Mish kin, (199 5), Financial Markets and Money, Harper & Row Publishers.
- Laider, David E.W (1996), The Demand for Money: Theories, Evidence and Problems (Fourth edition), Harper & Row, Publishers, New York.
- Miller, R.L. and David Van Hose, (2001), Money, Banking & Financial Markets. South
- Western, Singapore.
- Mishkin, Frederic S., (2001), The Economics of Money, Banking and Financial Markets. (Sixth edition). Addison Wesley, New York.
- Vanish K., Monetary Theory, (2000), Vikas Publishing House, Delhi.
- Patinkin Don, Money, Interest and Prices, Harper and Row Publishers, (Latest Edition).

Code	Subject Title	Cr. Hrs	Semester
ECON 406	**Applied Economics**	**3**	**VIII**
Year	Discipline		
4	**Economics**		

Course Contents

Introduction to Windows 2000 and Ms-Word

Operating System, Performance Management, Desktop Management, Printer Management, Internet Explorer, E-mail. MS-Word, using Advanced Formatting Features, Sharing data with Word, Word Macros, Composing Models and Mathematical Equations.

Power Point and MS-Access (XP)

Database Concepts, File Linkages, Data Retrieval, Data Editing / Updating. Data Transferring.

SPSS and E-View

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

Estimation of Production Function

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

Computer Applications: Demand – Supply & Equilibrium

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

Model Building and Estimation

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

Project Appraisal and Computer Application

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

Econometric Analysis and Computer Applications

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

Recommended Books

- E-View Manual, (Learning help available with package (software)).
- Gimi, Carter and Annette, Marquis, with Karl Browning, Mastering Microsoft Office XP Premium, Selection B.P.B., Publishers, New Dehli , (2001).
- Robertson, D.F., Computer Applications and Programming, Har Brace Jovanovich Inc. USA (latest edition).
- SPSS-Manual

Code	Subject Title	Cr. Hrs	Semester
ECON 407	**Islamic/Ethics Economics**	**3**	**VIII**
Year	Discipline		
4	**Economics**		

Objectives

The course is designed for senior students having gone through some basic courses in economic theory and development economics. The objective is to let them realize that Islam provides full guidance to its followers in all spheres of social life. The students have to understand the Islamic injunctions ordained for economic behaviour, both in the individual as well as collective capacity. They have to compare the prevailing system with that devised by Islam, to capture the socio-economic problems faced by the present day Muslim countries and to find ways and means to reconstruct the system in vogue according to Islamic guidelines so as to achieve greater stability, equity in distribution and reduction in poverty as the primary goals of all developing nations.

Course Contents

Introduction

Islamic Economics: Definition, Nature, and Importance, Islamic Economics Versus Secular Economics, The foundations of Islamic Economics, Brief Introduction of the Basic Values of Islam; Piety (Taqva), The lawful and unlawful (Halal and Haram), Trusteeship, Accountability, Justice, Benevolence, Equality, Brotherhood and Cooperation, Determinants of Economic Behaviour and Policies in Islam.

Islamic Economic Thought

Contribution of prominent scholars towards development of Islamic Economic Thought (Imam Abu Yousuf, Imam Abu Ubaid Al-Qasim Ibn- e-Khuldoon, Imam Ibn-e-Taimiyah, Shah Walliullah Dehlawi, Maulana Maududi, Baqar-al-Sadar etc).

Microeconomics in Islamic Framework a. Consumer's Behaviour

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

b.   Behaviour of the Firm

Business Ethics in production and marketing, Permissible and prohibited activities, Hoarding and gains, Forms of business organization: Proprietorship, Partnership (Muzara'h, Mudharbah, Mushrakah), Joint Stock Company (Sharikah), Modes of investment
and financing.

c.   Market structure

The concept of fair trade, Resource allocation under Islamic environment, Emphasis on competition, The case of monopolies and cartels in an Islamic system, Behaviour of the retailers, stock holders and whole-sellers, Types of transactions (Bai Fasid, Bai Slalm, Bai Muajjal,

Murabaha), Principles of financial contracts, Determination of price and the rate of Normal profit, Meeting of losses, Price mechanism and role of the State in market regulation.

Macroeconomics in Islamic Framework

a.   Some Basic Macroeconomic Concepts

Consumption, saving and investment functions, Determinants of consumption and Investment functions in Islamic environment, Concept of helping others, The parameters of Publics pending in Islamic framework, International trade relations, Inflation and unemployment, Stabilization policies in Islamic framework.

b.   Money and Banking

Commodity money, Paper money and Credit money, The concept of Riba (interest): its interpretation and implications, Justification of interest in the conventional theory, Rationale for prohibition of interest-based transactions and gambling, Models of interest-free Commercial Banking, Modes of financing investment: leasing (Ijarah), partnership in capital (Musharka), principal-agent Murabaha, Bai-Salam, Bai Muajjal etc., Central Banking and monetary policy in Islamic framework: Combating inflation, Design of capital markets and Insurance.

c.   Public Finance and Fiscal Policy

Sources of revenue and heads of expenditure of an Islamic State, the scope for taxation, Objectives of fiscal policy: Social justice, Equity in distribution and elimination of poverty, Beneficiaries of Zakat, Exemption limits and rates of Zakah, Economic impacts of Zakah & Usher: the multiplier effect, Financing economic growth and development in Islamic perspective, The case of domestic and foreign borrowing,

Islamic Economic System

Salient features of an Islamic Economic System: Objectives, Economic Freedom, Equity and Efficiency, Social and distributive justice, The relative importance of Capital and Labour, Private ownership and property rights, Family system and the law of inheritance, The institution of Zakah and Bait-ul-Mal, Wider circulation of wealth, Fulfillment of basic needs, The institution of Interest and its inconsistency, Rationale for prohibition of interest, Role of the State in an Islamic system, Protection of faith and Islamic values, Economic and social welfare, Alleviation of poverty and reducing of inequalities, Comparison of Islamic economic system with Capitalism and Socialism.

Islamization Process in Pakistan

Islamization of the banking and financial system: Reports of the CII and implementation issues, The role of financial institutions in the private sector, Implementation of Zakah and Usher system: Prospects and Problems, A brief survey of changes that have taken place in economic and financial structure since 1980's, Islamic Banking practice and the role of the State Bank of Pakistan, The process of Islamization in other countries like Iran, Sudan, Malaysia.

Recommended Books

- Ahmed, Khurshid–Studies in Islamic Economics - (1980) King Abdul Aziz University Jeddah and The Islamic Foundation UK
- Ziauddinetal (Ed) – Money and Banking in Islam – (1983) – King Abdul Aziz University Jeddah and Institute of Policy Studies Islamabad.
- Ziaud din et al (Ed) – Fiscal Policy and Revenue Allocationin Islam – (1983) King Abdul Aziz University Jeddah and Institute of Policy Studies Islamabad.
- Siddiqui, M.N.- (1983) – Issues in Islamic Banking - Leicester, The Islamic Foundation, UK.

- Iqbal, Munawar (Ed) – Distributive Justice and Need Fulfillment in an Islamic Economy – (1986) – III E, International Islamic University Islamabad.
- Mannan, M.A.- Islamic Economics: Theory and Practice, A Comparative Study -(1986) - Cambridge, Hodder and Stoughton.
- Sayyid Tahir et al (Ed) – (1992) – Readings in Microeconomics: An Islamic Perspective – Longman Malaysia.
- Chapra, M. Umer–Just Monetary System–(1993)–IIIT New York and Islamic Research Institute, IIU Islamabad.
- Taqi Usmani, Justice M – (2000) - Introduction to Islamic Finance - Idarat-al- Ma'arif Karachi.
- Siddiqui, M.N. – (2001) - Economics: An Islamic Approach – Institute of Policy Studies Islamabad and The Islamic Foundation, UK.
- Yasin, Hafiz M.– Economic System of Islam–(1993)-Lecture Notes (mimeographed)–IIIE, International Islamic University Islamabad.
- Badawi, Muhammad A. Zaki-Zakat and Social Justice: English transliteration of the Book: Kitabul Amwal by Imam Abu Abaid Al-Qasim - (1979)- The Islamic Council of Europe, London.
- Chapra M. Umer (1991)- The Economic System of Islam- University of Karachi.
- Khan, M. Fahim – (1983) – Macro Consumption Function in an Islamic Economic Framework-International Centre for Research In Islamic Economics, King Abdul Aziz University, KSA.
- Khan M. Fahim – (1995) – Human Resource Mobilization through the Profit-Loss Sharing–IRTI, Islamic Development Bank Jeddah.
- Khan, Tariqullah, (1996), Practice and Performance of Mudarbah: A case study of Pakistan, IRTI, Islamic Development Bank, Jeddah.

- Mahdi, M. Ahmad, (1995), Islamic Banking Modes for House Building Finance - IRTI, Islamic Development Bank, Jeddah.
- Mannan M.A.-(1996)–Financing Development in Islam-IRTI, Islamic Development Bank, Jeddah.
- Naqvi, Syed Nawab Hyder-(1981)-Ethics and Economics-Leicester, The Islamic Foundation, UK.
- Ghazanfar S.M., (2003), Medieval Islamic Economic Thoughts- Routledge Publishers.
- Nomani, Farhad & Rehnuma., Ali-(1994)-Islamic Economic Systems – Zed Books Ltd., London.
- Nuti, D. Haris, (1995), The Economics of Participation, IRTI, Islamic Development Bank, Jeddah.
- Yusaf, Imam Abu, Kitabur Kharaj, Lahore, Islamic Book Centre, 1979.
- CII Reports–Consolidated Recommendations on the Islamic Economic System (1983, 1994)-the Council of Islamic Ideology, Govt. of Pakistan.
- Siddiqui, M.N.-(1985)-Muslim Economic Thinking- Leicester, The Islamic Foundation, UK.
- Mannan M.A. (1995), Developing a System of Financial Instruments IRTI, Islamic Development Bank, Jeddah

Code	Subject Title	Cr. Hrs	Semester
ECON408	**Research Paper**	3	VIII
Year	Discipline		
4	**Economics**		

Course Contents

The basic objective of the research paper is to train the students in the application of the different principles of economics.

Code	Subject Title	Cr. Hrs	Semester
ECON-409	**Fiscal Policy**	**3**	**VIII**
Year	Discipline		
4	**Economics**		

Course Contents

Fiscal Policy

This course will discuss the impact of Fiscal policy on individual behavior and the macro economy. The goal of this course is to develop and use a dynamic theoretical model of individual decisions and study how government tax and transfer policies, government debt and deficits affect these decisions.

Course Contents:

Facts about Deficits and Debt, Comparative Statics and Borrowing Constraints, The General Life Cycle Model, The Government Budget Constraint, Ricardian Equivalence: Origin, Results and Assumptions, Fiscal Situation of developing World, Consumption, Labor and Capital Taxation, Social Security and Social Insurance, Fiscal and social policy, Poverty, income distribution and socio-economic development in SA: fiscal and social policy issues, Public debt and budget deficits, Intergovernmental fiscal relations, Fiscal federalism

Recommended Books:

- Auerbach, A. and L. Kotliko (1987), Dynamic Fiscal Policy, Cambridge University Press.
- Burda, M. an d C. Wyplotz (200 1), Macroeconomics, A European Text, 3rd Edition, Oxford University Press.
- Lord, W. (2002), Household Dynamics, Economic Growth and Policy, Oxford University Press.
- Rosen, S. (2002), Public Finance, 6th Edition, Mc-Graw-Hill.