

**1<sup>st</sup> Meeting of Board of Studies for BS (4 Year) Program  
in  
Economics (BS Economics)**

**Scheduled on: 31/10/2013**



**Institute of Economic, Social and Development Studies,  
University of Swat**



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## **Board of Studies Members:**

### **List of Board of study members for Institute of Economic, Social and development Studies, University of Swat**

- |     |  |          |
|-----|--|----------|
| 1.  | Dr. Fazli Rabbi, Assistant Professor<br>Director, Institute of Economic, Social and Development studies,<br>University of Swat | Convener |
| 2.  | Dr. Muhammad Naeem, Professor<br>Department of Economics,<br>University of Peshawar  | Member   |
| 3.  | Dr. Ijaz Majid, Professor,<br>Department of Economics,<br>University of Peshawar   | Member   |
| 4.  | Mr. Hazrat Bilal, Assistant Professor<br>Incharge, School of Management and Commerce,<br>University of Swat                    | Member   |
| 5.  | Mr. Gohar Ayub, Lecturer<br>Department of Mathematics and Statistics,<br>University of Swat                                    | Member   |
| 6.  | Mr. Asghar Khan, Associate Professor<br>Govt. Post Graduate Jahanzeb College,<br>Saidu Sharif Swat                             | Member   |
| 7.  | Mr. M. Younas, Lecturer<br>Govt. Post Graduate Jahanzeb College,<br>Saidu Sharif Swat  | Member   |
| 8.  | Mr. Haji Nawab, Associate Professor<br>Govt. Afzal Khan lala Post Graduate College,<br>Matta, Swat                             | Member   |
| 9.  | Mr. Azmat Hayat, Assistant Professor<br>Department of Economics,<br>University of Malakand                                     | Member   |
| 10. | Mr. Muhammad Imad Khan, Lecturer<br>Institute of Economic, Social and Development studies,<br>University of Swat               | Member   |

## **Function of Board of Studies**

1. There shall be a separate Board of Studies for each subject or groups, as may be prescribed by Bye-laws.
2. Each Board of the Studies shall consist of:
  - i. The Chairperson or Director of the Teaching Department or Institute;
  - ii. All Professors and Associate Professors in the Teaching Department/Institutes;
  - iii. Two University Teachers, other than Professors or Associate Professors, to be appointed by the Academic Council;
  - iv. Three teachers, other than the University teachers, to be appointed by the Vice Chancellor from affiliated colleges/ affiliated institutions; and
  - v. One Assistant Professor and one Lecturer to be appointed by rotation in order of merit from the Department concerned:

Provided that in the case of professional subjects which are taught in the affiliated colleges or affiliated institutions only and not in the University, the Board of Studies shall consist of:

- (a) Two Principals of the colleges, Directors of the Institutes, concerned; and
  - (b) Two experts to be appointed by the Vice Chancellor.
3. The term of office of members of the Board of Studies, other than ex-officio members, shall be three years.
4. The quorum for meetings of the Board of Studies shall be one-half of members, a fraction being counted as one.
5. The Chairperson of the Teaching Department concerned shall be the Chairperson and Convener of the Board of Studies. Where in respect of a subject there is no University Teaching Department, Chairperson shall be appointed by the Vice Chancellor.
6. The functions of the Board of Studies shall be to-
  - i. Advise the Authorities on all academic matters concerning instructions, publications, research and examinations in the subjects concerned;
  - ii. Propose the curricula and syllabi for all degree, diploma and certificate courses in the subjects concerned;
  - iii. Suggest a panel of names of paper setters and examiners in the subjects concerned; and
  - iv. To perform such other functions as may be prescribed by Bye-laws.

## **Annexure A:**

### **CURRICULUM BS ECONOMICS (04 YEAR)**

#### **SCHEME OF STUDIES**

##### **Main Features**

- 1) The BS Economics (4 Year) Program consist of Eight (8) Semesters. Semesters' duration will be within 130-144 credit hours as per HEC requirements. However a student must take 72 credit hours in Economics
- 2) Eligibility criteria for BS Economics (4 Year) Program: **Intermediate or Equivalent with at least 45% marks.**

##### **First Year**

###### **Semester-I**

<b>Course Codes</b>	<b>Name of Subject</b>	<b>Credit Hours</b>
ECON 101	Principles of Microeconomics	3
ECON 102	English I	3
ECON 103	Islamic Studies	2
ECON 104	Introduction to Computing	3
ECON 105	Mathematics I	3
	Optional (Non-Economics)(Introduction to Sociology)	3
<b>Total Credit Hours</b>		<b>17</b>

###### **Semester-II**

<b>Course Codes</b>	<b>Name of Subject</b>	<b>Credit Hours</b>
ECON 106	Principles of Macroeconomics	03
ECON 107	English II	03
ECON 108	Pakistan Studies	02
ECON 109	Mathematics II	03
	Optional (Non-Economics)	03
	Optional (Non-Economics)	03
<b>Total Credit Hours</b>		<b>17</b>



## Second Year

### Semester-III

Course Codes	Name of Subject	Credit Hours
ECON 201	Intermediate Microeconomics	3
ECON 202	Development Economics	3
ECON 203	English III	3
ECON 204	Statistics I	3
	Optional (Non-Economics)	3
	Optional (Non-Economics)	3
<b>Total Credit Hours</b>		<b>18</b>

### Semester IV

Course Codes	Name of Subject	Credit Hours
ECON 205	Intermediate Macroeconomics	3
ECON 206	Agriculture Economics	3
ECON 207	English IV	3
ECON 208	Statistics II	3
	Optional (Non-Economics)	3
	Optional (Non-Economics)	3
<b>Total Credit Hours</b>		<b>18</b>

## Third Year

### Semester V

Course Codes	Name of Subject	Credit Hours
ECON 301	Microeconomics	3
ECON 302	Econometrics I	3
ECON 303	Mathematical Economics I	3
	Optional ( Economics)	3
	Optional (Economics)	3
	Optional (Non - Economics)	3
<b>Total Credit Hours</b>		<b>18</b>

## Semester VI

Course Codes	Name of Subject	Credit Hours
ECON 304	Macroeconomics	3
ECON 305	Econometrics II	3
ECON 306	Mathematical Economics II	3
	Optional (Economics)	3
	Optional (Economics)	3
<b>Total Credit Hours</b>		<b>15</b>

## Fourth Year

### Semester VII

Course Codes	Name of Subject	Credit Hours
ECON 401	International Trade Theory	3
ECON 402	Research Methodology	3
ECON 403	Public Finance	3
ECON 404	History of Economic Thoughts	3
	Optional (Economics)	3
<b>Total Credit Hours</b>		<b>15</b>

### Semester VIII

Course Codes	Name of Subject	Credit Hours
ECON 405	Applied Economics and Computer Applications	3
ECON 406	Islamic Economics	3
ECON 407	Research Project/Research Report/Research Paper	6
	Optional (Economics)	3
<b>Total Credit Hours</b>		<b>15</b>

**Total Credit Hours = 133**

### List of Economics Optional Courses

Course Code	Course Name	Credit Hours
ECON	Financial Institutions and Markets	3
ECON	Labor Economics	3
ECON	Major Issues in Pakistan's Economy	3
ECON	Project Appraisal and Investment Analysis	3
ECON	Managerial Economics	3
ECON	Human Resource Development	3
ECON	Population Economics	3
ECON	Comparative Economic System	3
ECON	General Equilibrium and Welfare Economics	3
ECON	Environmental Economics	3
ECON	Dynamic Macroeconomics	3
ECON	Fiscal Policy	3
ECON	Rural Development	3
ECON	International Finance	3
ECON	Development Policy	3
ECON	Institutional Economics	3
ECON	Money and Banking	3
ECON	Monetary Economics	3
ECON	Monetary Policy	3
ECON	International Trade Policy	3
ECON	Operation Research	3
ECON	Political Economy	3
ECON	Industrial Economics	3
ECON	Transport Economics	3
ECON	Health Economics	3
ECON	Resource Economics	3
ECON	Experimental Economics	3
ECON	Urban Economics	3
ECON	Regional Economics	3
ECON	Poverty Alleviation	3
ECON	International Economic Relations	3
ECON	Game Theory	3

### List of Optional (Non Economics)

Course Code	Course Name	Credit Hours
ECON	Introduction to Communication	3
ECON	Introduction to Philosophy	3
ECON	Introduction to Sociology	3
ECON	Introduction to Psychology	3
ECON	Fundamentals of Geography	3
ECON	International Relations	3
ECON	Political Science	3
ECON	Introduction to Journalism	3
ECON	Principles of Management	3
ECON	Principles of Marketing	3
ECON	Development of Education in Pakistan	3
ECON	Principles of Accounting	3
ECON	Business Finance	3
ECON	Logic and Critical Thinking	<b>3</b>

Total Credit Hours in Economics	78
Total Credit Hours in Related and Non-Economics	55
Total Credit Hours for BS Economics	133

**Institute of Economic, Social and Development  
Studies**

**University of Swat**

**Bachelors of Science in Economics  
Course Contents**

## **ECON 101 Principles of Microeconomics**

### **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**

**03 Cr. Hrs**

#### **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, and 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 Books**

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

## **ECON 102 English I (Functional English)**

### **Objectives**

Enhance language skills and develop critical thinking

### **Course Contents**

**03 Cr. Hrs**

Basics of Grammar Parts of speech and use of articles Sentence structure, active and passive voice Practice in unified sentence Analysis of phrase, clause and sentence structure Transitive and intransitive verbs Punctuation and spelling

### **Comprehension**

Answers to questions on a given text

### **Discussion**

General topics and every-day conversation (topics for discussion to be at the discretion of the teacher keeping in view the level of students)

### **Listening**

To be improved by showing documentaries/films carefully selected by subject teachers

### **Translation skills**

#### **Urdu to English**

#### **Paragraph writing**

Topics to be chosen at the discretion of the teacher

## **Presentation skills**

Introduction

## **Recommended books**

### **1. Functional English**

#### **a) Grammar**

1. Practical English Grammar by A.J. Thomson and A.V. Martinet. Exercises 1. Third edition. Oxford University Press. 1997. ISBN 0 194313492
2. Practical English Grammar by A.J. Thomson and A.V. Martinet. Exercises 2. Third edition. Oxford University Press. 1997. ISBN 0 194313506

#### **b) Writing**

1. Writing. Intermediate by Marie-Christine Boutin, Suzanne Brinand and Françoise Grellet. Oxford Supplementary Skills. Fourth Impression 1993. ISBN 0 19 435405 7 Pages 20-27 and 35-41.

#### **c) Reading/Comprehension**

1. Reading. Upper Intermediate. Brian Tomlinson and Rod Ellis. Oxford Supplementary Skills. Third Impression 1992. ISBN 0 19 453402 2.

#### **d) Speaking**

## **ECON 103 Islamic Studies (Compulsory)**

### **Objectives**

This course is aimed at;

- To provide Basic information about Islamic Studies
- To enhance understanding of the students regarding Islamic Civilization
- To improve Students skill to perform prayers and other worships
- To enhance the skill of the students for understanding of issues related to faith and religious life.

### **Course contents**

**03 Cr.Hrs**

#### **Introduction to Quranic Studies**

- 1) Basic Concepts of Quran
- 2) History of Quran
- 3) Uloom-ul -Quran



### **Study of Selected Text of Holly Quran**

- 1) Verses of Surah Al-Baqra Related to Faith (Verse No-284-286)
- 2) Verses of Surah Al-Hujrat Related to Adab Al-Nabi (Verse No-1-18)
- 3) Verses of Surah Al-Mumanoon Related to Characteristics of faithful (Verse No-1-11)
- 4) Verses of Surah al-Furqan Related to Social Ethics (Verse No.63-77)
- 5) Verses of Surah Al-Inam Related to Ihkam (Verse No-152-154)

### **Study of Selected Text of Holly Quran**

- 1) Verses of Surah Al-Ihzab Related to Adab al-Nabi (Verse No.6,21,40,56,57,58.)
- 2) Verses of Surah Al-Hashar (18, 19, 20) Related to thinking, Day of Judgment
- 3) Verses of Surah Al-Saf Related to Tafakar, Tadabar (Verse No- 1,14)

### **Seerat of Holy Prophet (S.A.W) I**

- 1) Life of Muhammad Bin Abdullah (Before Prophet Hood)
- 2) Life of Holy Prophet (S.A.W) in Makkah
- 3) Important Lessons derived from the life of Holy Prophet in Makkah

### **Seerat of Holy Prophet (S.A.W) II**

- 1) Life of Holy Prophet (S.A.W) in Madina
- 2) Important Events of Life Holy Prophet in Madina
- 3) Important Lessons derived from the life of Holy Prophet in Madina

### **Introduction to Sunnah**

- 1) Basic Concepts of Hadith
- 2) History of Hadith
- 3) Kinds of Hadith
- 4) Uloom –ul-Hadith
- 5) Sunnah & Hadith
- 6) Legal Position of Sunnah

## **Selected Study from Text of Hadith**

### **Introduction to Islamic Law & Jurisprudence**

- 1) Basic Concepts of Islamic Law & Jurisprudence
- 2) History & Importance of Islamic Law & Jurisprudence
- 3) Sources of Islamic Law & Jurisprudence
- 4) Nature of Differences in Islamic Law
- 5) Islam and Sectarianism

### **Islamic Culture & Civilization**

- 1) Basic Concepts of Islamic Culture & Civilization
- 2) Historical Development of Islamic Culture & Civilization
- 3) Characteristics of Islamic Culture & Civilization
- 4) Islamic Culture & Civilization and Contemporary Issues

### **Islam & Science**

- 1) Basic Concepts of Islam & Science
- 2) Contributions of Muslims in the Development of Science
- 3) Quran & Science

### **Islamic Economic System**

- 1) Basic Concepts of Islamic Economic System
- 2) Means of Distribution of wealth in Islamic Economics
- 3) Islamic Concept of Riba
- 4) Islamic Ways of Trade & Commerce

### **Political System of Islam**

- 1) Basic Concepts of Islamic Political System
- 2) Islamic Concept of Sovereignty
- 3) Basic Institutions of Govt. in Islam

## **Islamic History**

- 1) Period of Khilafat-E-Rashida
- 2) Period of Umayyads
- 3) Period of Abbasids

## **Social System of Islam**

- 1) Basic Concepts of Social System of Islam
- 2) Elements of Family
- 3) Ethical Values of Islam

## **Recommended Books**

- Hameed ullah Muhammad, “Emergence of Islam” , IRI, Islamabad
- Hameed ullah Muhammad, “Muslim Conduct of State”
- Hameed ullah Muhammad, ‘Introduction to Islam
- Mulana Muhammad Yousaf Islahi,”
- Hussain Hamid Hassan, “An Introduction to the Study of Islamic Law” leaf Publication Islamabad, Pakistan.
- Ahmad Hasan, “Principles of Islamic Jurisprudence” Islamic Research Institute, International Islamic University, Islamabad (1993)
- Mir Waliullah, “Muslim Jurisprudence and the Quranic Law of Crimes” Islamic Book Service (1982)
- H.S. Bhatia, “Studies in Islamic Law, Religion and Society” Deep & Deep Publications New Delhi (1989)
- Dr. Muhammad Zia-ul-Haq, “Introduction to Al Sharia Al Islamia” Allama Iqbal Open University, Islamabad (2001)

## **ECON 104 Introduction to Computing**

### **1- Introduction**

**03 Cr.Hrs**

Introduction to Computers; Definition of a Computer; Hardware and Software; Classification and Types of Computers; A Typical Computer System Configuration

## **2- Operating System (Windows)**

What is an Operation System? What is Windows? Starting Windows, Organizing your Files and Folders, Making new Folders, Moving and copying items between Folders, Copying Files and Folders to and from Floppy Diskettes

Copying, Deleting, and Moving Block of files and folders

## **3- Word Processing (MS Word)**

Word Processing and its Need, Document Operations, Starting a New Document, Saving your work, Spell checking your work, Previewing and Printing your work, Opening an existing document, Switching between multiple open documents, Formatting Text – Changing the Font, size, color; highlighting characters, Creating a block and different operations on a block, Setting Alignment Formats – Center, Left-Aligning, Right-Aligning, Justifying, Page Formats, Adjusting page numbering

## **4- Spreadsheet (MS Excel)**

Spreadsheet and its Applications, Starting a New Worksheet, Saving, Opening, Editing and Printing your work, Entering Series, Formulas and Functions, Creating Formulas, Mathematical, Exponentiation, and Percentage Operators, Copying Formulas, What-if Analysis, Charting your Data, Inserting a chart

## **5 - PowerPoint and MS-Access**

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

## **Recommended Readings**

1. Gimi, Carter and Annette, Marquis, with Karl Browning, Mastering Microsoft Office XP Premium, Selection B.P.B., Publishers, New Dehli , (2001).
2. Robertson, D.F., Computer Applications and Programming, Har Brace Jovanovich Inc. USA (latest edition).
3. A Textbook of Computer Studies, Published by NWFP Textbook Board, Peshawar
4. James A. O'Brien; The Nature of Computers
5. A Textbook of Computer Studies, Published by NWFP Textbook Board, Peshawar

## **ECON 105 Mathematics I (Algebra)**

**Prerequisite(s):** Mathematics at secondary level

**Credit Hours:** 03

### **Specific Objectives of the Course:**

To prepare the students, not majoring in mathematics, with the essential tools of algebra to apply the concepts and the techniques in their respective disciplines.

### **Course Contents**

**Preliminaries:** Real-number system, complex numbers, introduction to sets, set operations, functions, types of functions.

**Matrices:** Introduction to matrices, types, matrix inverse, determinants, system of linear equations, Cramer's rule.

**Quadratic Equations:** Solution of quadratic equations, qualitative analysis of roots of a quadratic equations, equations reducible to quadratic equations, cube roots of unity, relation between roots and coefficients of quadratic equations.

**Sequences and Series:** Arithmetic progression, geometric progression, harmonic progression.

**Binomial Theorem:** Introduction to mathematical induction, binomial theorem with rational and irrational indices.

**Trigonometry:** Fundamentals of trigonometry, trigonometric identities.

### **Recommended Books**

- Dolciani MP, Wooton W, Beckenback EF, Sharron S, Algebra 2 and Trigonometry, 1978, Houghton & Mifflin,
- Boston (suggested text) Kaufmann JE, College Algebra and Trigonometry, 1987, PWS-Kent Company, Boston Swokowski EW, Fundamentals of Algebra and Trigonometry (6<sup>th</sup> edition), 1986, PWS-Kent Company, Boston

## **ECON 106 Principles of Macroeconomics**

### **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.

**Introduction**

The economy in aggregate, Complexities of the world of business, Scope of macroeconomics, Brief account of the development of macroeconomics 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-2<sup>nd</sup> Edition (2001) - South-West Publishers.
- Samuelsson and Nordrons - Economics –18<sup>th</sup> Edition (2004) - McGraw Hill. Inc.

- Parkin, Michael - Macroeconomics, 7<sup>th</sup> Edition (2004) - Prentice Hall.
- Miller, R.L. – Economics Today -14<sup>th</sup> Edition (2005) – Addison Wesley.

## **ECON 107 English II (Communication Skills)**

### **Objectives**

Enable the students to meet their real life communication needs.

### **Course Content**

**03 Cr.Hrs**

#### **Paragraph writing**

Practice in writing a good, unified and coherent paragraph

#### **Essay writing**

Introduction

#### **CV and job application**

Translation skills Urdu to English

#### **Study skills**

Skimming and scanning, intensive and extensive, and speed reading, summary and précis writing and comprehension

#### **Academic skills**

Letter/memo writing, minutes of meetings, use of library and internet

#### **Presentation skills**

Personality development (emphasis on content, style and pronunciation) Note: documentaries to be shown for discussion and review

#### **Recommended books**

#### **Communication Skills**

##### **a) Grammar**

1. Practical English Grammar by A.J. Thomson and A.V. Martinet. Exercises
2. Third edition. Oxford University Press 1986. ISBN 0 19 431350 6

## **b) Writing**

1. Writing. Intermediate by Marie-Christine Boutin, Suzanne Brinand and Francoise Grellet. Oxford Supplementary Skills. Fourth Impression 1993. ISBN 0 19 435405 7 Pages 45-53 (note taking).
2. Writing. Upper-Intermediate by Rob Nolasco. Oxford Supplementary Skills. Fourth Impression 1992. ISBN 0 19 435406 5 (particularly good for writing memos, introduction to presentations, descriptive and argumentative writing).

## **c) Reading**

1. Reading. Advanced. Brian Tomlinson and Rod Ellis. Oxford Supplementary Skills. Third Impression 1991. ISBN 0 19 453403 0.
2. Reading and Study Skills by John Langan 3. Study Skills by Richard Yorky.

## **ECON 108 Pakistan Studies (Compulsory)**

### **Objectives**

- Develop vision of historical perspective; govern contemporary Pakistan, ideological background
- Study the process of governance, national arising in the modern age and posing challenge

### **Course Contents**

**03 Cr.Hrs**

#### **1. Historical Perspective**

- a. Ideological rationale with special reference to Sir SKhan, Allama Muhammad Iqbal and Quaid-e-azam Muhammad Ali Jinnah.
- b. Factors leading to Muslim separatism
- c. People and Land
  - i. Indus Civilization
  - ii. Muslim advent
  - iii. Location and geo-physical features.

#### **2. Government and Politics in Pakistan**

Political and constitutional phases:

- a. 1947-58
- b. 1958-71



- c. 1971-77
- b. 1977-88
- c. 1988-99
- d. 1999 onward

### **3. Contemporary Pakistan**

- a. Economic institutions and issues
- b. Society and social structure
- c. Ethnicity
- d. Foreign policy of Pakistan and challenges
- e. Futuristic outlook of Pakistan

### **Recommended Books**

- Burki, Shahid Javed. State & Society in Pakistan, The Macmillan Press Ltd 1980.
- Akbar, S. Zaidi. Issue in Pakistan's Economy. Karachi: Oxford University Press, 2000.
- S.M. Burke and Lawrence Ziring. Pakistan's Foreign policy: An Historical analysis. Karachi: Oxford University Press, 1993.
- Mehmood, Safdar. Pakistan Political Roots & Development. Lahore, 1994.
- Wilcox, Wayne. The Emergence of Bangladesh., Washington: American Enterprise, Institute of Public Policy Research, 1972.
- Mehmood, Safdar. Pakistan Kayyun Toota, Lahore: Idara-e- Saqafat-e-Islamia, Club Road, nd.
- Amin, Tahir. Ethno - National Movement in Pakistan, Islamabad: Institute of Policy Studies, Islamabad.
- Ziring, Lawrence. Enigma of Political Development. Kent England: WmDawson & sons Ltd, 1980.
- Zahid, Ansar. History & Culture of Sindh. Karachi: Royal Book Company, 1980.
- Afzal, M. Rafique. Political Parties in Pakistan, Vol. I, II & III. Islamabad: National Institute of Historical and cultural Research, 1998.
- Sayeed, Khalid Bin. The Political System of Pakistan. Boston: Houghton Mifflin, 1967.
- Aziz, K.K. Party, Politics in Pakistan, Islamabad: National Commission on Historical and Cultural Research, 1976.
- Muhammad Waseem, Pakistan Under Martial Law, Lahore: Vanguard, 1987.
- Haq, Noor ul. Making of Pakistan: The Military Perspective. Islamabad: National Commission on Historical and Cultural Research, 1993.

## **ECON 109 Mathematics II (Calculus)**

**Prerequisite(s):** Mathematics I (Algebra)

**Credit Hours:** 3

### **Specific Objectives of the Course:**

To prepare the students, not majoring in mathematics, with the essential tools of calculus to apply the concepts and the techniques in their respective disciplines.

### **Course contents**

**Preliminaries:** Real-number line, functions and their graphs, solution of equations involving absolute values, inequalities.

**Limits and Continuity:** Limit of a function, left-hand and right-hand limits, continuity, continuous functions.

**Derivatives and their Applications:** Differentiable functions, differentiation of polynomial, rational and transcendental functions, derivatives.

**Integration and Definite Integrals:** Techniques of evaluating indefinite integrals, integration by substitution, integration by parts, change of variables in indefinite integrals.

### **Recommended Books:**

- Anton H, Bevens I, Davis S, Calculus: A New Horizon (8 th edition), 2005,
- John Wiley, New York Stewart J, Calculus (3rd edition), 1995,
- Brooks/Cole (suggested text) Swokowski EW,
- Calculus and Analytic Geometry, 1983,
- PWS-Kent Company, Boston Thomas GB, Finney AR, Calculus (11 th edition), 2005, Addison-Wesley, Reading, Ma, USA

## **ECON 201 Intermediate Microeconomics**

### **Pre-requisite**

ECON 102 Principles of Microeconomics

### **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**

**03 Cr.Hrs**

### **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 Behaviour**

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 Monoposony**

The market power of a firm, Sources of monopoly power: why do monopolies exist, Decreasing-cost industries and natural monopolies, Comparison between monopoly and Monoposony, 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 labor and capital markets, The labor supply function, Wage determination and the role of government and labor unions, Input price elasticity, Pricing of factors that are fixed in the short-run: Rents & Quasi-rents, Stock prices.

## **Recommended Books**

- Pindyck and Rubinfeld with Mehta- Microeconomics- 6 th Edition (2005)-
- Pearson Education, Singapore
- Walter Nicholson- Intermediate Microeconomics- 6 th Edition (1994) or latest –
- The Dryden Press: Harcourt Brace College Publishers
- Koutsoyiannis, A. - Modern Microeconomics- 2 nd edition (1979) - Macmillan
- Varian Hall R. - Intermediate Microeconomics: Modern Approach- 6 th edition (2002) - W. W.
- Norton Publishing Company, New York.
- Leftwich, Eckert – The Price System and Resource Allocation – 10 th Edition (1988) or latest-
- The Dryden Press, New York.
- Dowling, Edward – Mathematics for Economists -(1980) - (Schaum's Outline Series) McGraw Hill Inc.

## **ECON 202 Development Economics**

### **Course Contents**

**03 Cr.Hrs**

### **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?

### **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.

## **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 its 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.

## **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.

## **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.

## **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.

## **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.

## **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**

- Balasubramanyam V. and Lall, S. (Latest eds.), Current Issues in Development Economics. McMillan , London.
- Chaudhary M. Aslam and Hamid, A., (1989). Human Resource Development and Management in Pakistan. Ferozsons, Lahore.
- Chaudhary M. Aslam and Eatzaz, A., (2004), Globalization: WTO, Trade and Economic Liberalization in Pakistan, Ferozsons, Lahore, Pakistan.
- Chenery H. B. and Srinivasen. Hand Book of Development Economics, vol. I & II, Amsterdam (1988, eds.). North Holland.
- Cypher J. M. and Dietz James L., (2004), The Process of Economic Development, Routledge. Tayl or Francis Group, London/New York.
- Ghatak Subarta, (2003), Introduction to Development Economics, Routledge, Taylor and Francis Group, London/New York.
- Herrick B. and Kindleberger C., (latest eds.). Economic Development. McMillan, New York.
- Hirshman A. O., (1960). Strategy of Economic Development, Yale University, Press.
- Jones H. G., An Introduction to Modern Theories of Economic Growth, (Latest Edition), McGraw Hills.
- Mahboob-ul-Haq Center for Human Development (MHCHD). Human Development in South Asia, Annual Reports, Islamabad.
- ----- (1999), A Profile of Poverty In Pakistan, (In Collaboration with UNDP).
- Meier Gerald M., Leading Issues in Economic Development, (Latest Issue),Oxford University Press □ Thirlwall, A.P., (2003), Growth and

- Development, With Special Reference to Developing Economies 7<sup>th</sup> edition, Palgrave Publisher.
- Todaro M. P., Economic Development in the third World. Latest Edition, Heinemann, London.
  - UNDP, Human Development Reports , Annual Reports.
  - Van Den Berg H., (2001), Economic Growth and Development,\* McGraw Hills.
  - William, Easterly, Growth without Development, A Case Study of Pakistan, World Bank.
  - World Bank, World Development Reports, Annual reports, 1986, 1987, 1990, 1991, 1992, 1994, 1995, 1998/99, 2000/2001 and 2004.
  - Yotopolous Pan A. and Nugent Jeffery B., Economics of Development, Empirical Investigation (Latest eds.). Harper and Row Publishers, London/New York.

## **ECON 203 English III (Technical Writing and Presentation Skills)**

### **Objectives**

Enhance language skills and develop critical thinking

### **Course Contents**

**03 Cr.Hrs**

#### **Presentation skills**

**Essay writing** Descriptive, narrative, discursive, argumentative

#### **Academic writing**

How to write a proposal for research paper/term paper

How to write a research paper/term paper (emphasis on style, content, language, form, clarity, consistency)

#### **Technical Report writing**

#### **Progress report writing**

**Note:** Extensive reading is required for vocabulary building

#### **Recommended books:**

Technical Writing and Presentation Skills



### **a) Essay Writing and Academic Writing**

1. Writing. Advanced by Ron White. Oxford Supplementary Skills. Third Impression 1992. ISBN 0 19 435407 3 (particularly suitable for discursive, descriptive, argumentative and report writing).
2. College Writing Skills by John Langan. McGraw-Hill Higher Education. 2004.
3. Patterns of College Writing (4<sup>th</sup> edition) by Laurie G. Kirszner and Stephen R. Mandell. St. Martin's Press.

### **b) Presentation Skills**

### **c) Reading. The Mercury Reader**

A Custom Publication. Compiled by Northern Illinois University. General Editors: Janice Neulib; Kathleen Shine Cain; Stephen Ruffus and Maurice Scharton. (A reader which will give students exposure to the best of twentieth century literature, without taxing the taste of engineering students).

## **ECON 204 Statistics I**

### **Objectives**

The fundamental objectives of this course are to make students understand the basic statistical concept and techniques and they can be applied in the field of Economics. The aim of the course is to build student's statistical background and to give them the statistical skills necessary to meet the needs of Economics and the real world decision-making problems.

### **Course Contents**

**03 Cr.Hrs**

#### **Introduction to Statistics**

- Definition and Meaning of Statistics
- Importance of Statistics
- Descriptive and Inferential statistics
- Population and Sample
- Parameter and Statistics
- Variables and its types
- Measurement Scales

#### **Presentation of Data**

- Introduction
- Frequency distribution
- Class limits; class marks; class boundaries; class width
- Construction of grouped frequency distribution

- Cumulative frequency distribution
- Definition and construction of graphs
  - Histogram, Frequency Curve, Frequency Polygon and Ogive

### **Measures of Central Tendency and Dispersion**

- Introduction
- Arithmetic Mean, Harmonic Mean, Geometric Mean, Median and Mode
- Range, Mean Deviation; Variance, Standard Deviation and Coefficient of Variation
- Standardized Variables

### **Basic Probability**

- Basic Probability Concepts
- Conditional Probability

### **Probability Distributions**

- The Probability Distributions for a Discrete Random Variable
  - Binomial Distribution
  - Poisson Distribution
- The Probability Distributions for a Continuous Random Variable
  - Normal distribution

### **Recommended Books**

- Chaudhry M. S., (1999), *Introduction to Statistical Theory*, Part I, 7<sup>th</sup> Edition, Ilmi Kitab Khana, Lahore.
- Walpole E. R., (1990), *Introduction to Statistics*, 3<sup>rd</sup> Edition, Macmillan Publishing Co., inc, New York.
- Levine D. M., Krehbiel T. C. and Berenson M. L., (2003), *Business Statistics*, 3<sup>rd</sup> Edition, Pearson Education, Inc.

## **ECON 205 Intermediate Macroeconomics**

### **Pre-requisite**

ECON 102 Principles of Microeconomics

### **Objectives**

**03 Cr.Hrs**

The objective of the course is to clarify and extend further the concepts of macroeconomics so as they develop the capacity to understand the issues and problems of the economy in a global scenario. In particular, they have to capture the nature and scope of various public policies. In addition to diagrammatic approach, the students are

confronted to simple mathematical and numerical analysis. The teacher is expected to draw examples from the surrounding world for exposition.

The students may be given assignments to collect information about various aspects of the economy. They have to read and understand the Economic Survey and Annual Reports of the State Bank of Pakistan. They may be asked to discuss the Federal and Provincial Budgets and to analyze the framework

## **Course Contents**

### **Introduction**

The Keynesian revolution and growth of Macroeconomics, Actual vs. Potential Output, Analytical approach to macroeconomics, Okun'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.

### **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

### **Theories of Consumption**

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

### **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.

### **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.

### **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.

### **Aggregate Supply and the Labor 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.

### **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**

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

## **ECON 206 Agriculture Economics**

### **Course Contents**

**03 Cr.Hrs**

#### **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.

#### **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.

#### **Role of Agriculture in Economic Development**

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

#### **Theory of Rent and the Concept of 'Surplus**

Introduction. Economic Rent. The Theory of Rent. Rent and Quasi-Rent

The Ricardian 'Corn Rent. The Rental Market. Agricultural Surplus. Characteristics of Landownership in Underdeveloped Agriculture and Pakistan. The Theory of Share Tenancy. Some Extensions of the Share Tenancy Model. Tenant's Status in Pakistan. Agricultural productivity in Pakistan and use of inputs.

#### **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

#### **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.

## **Supply Response**

**Introduction.** The Cobweb Model: An Illustration. Price Supply Response in Backward Agriculture. A simple Supply Response Model.

Supply Response in the Underdeveloped Agricultural labor Market, Specifically in Pakistan. The Concept of Marketed Surplus': Some Methods of Estimation.

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

## **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**

- Brown, Lester, the Social Impact of Green Revolution, New York, The Greogic Endowment for International Peace, 1971.
- Capstick Margret. The Economics of Agriculture, London George Allen Unwin Ltd., latest edition.
- Chaudhary M. Aslam, (1989), Agricultural Development and Public Policies, Izhar Sons, Lahore.
- Ghatak S., and Ingersent K., Agriculture and Economic Development, (Latest Edition), Harvester Press.
- Johnston, Bruce, F & Fellir Kily. Agricultural and Structural Transformation, Economic Strategies in late Developing Countries.
- Khan Mahmood-ul-Hassan. The Economics of Green Revolution in Pakistan, New York, Published 1975.
- Karamat, A., Political Economy of Rural Development in Pakistan, Lahore Vanguard Book House, 1981.
- Shafi M., (1995), Pricing of Farm Produce in Pakistan, Objectives, Practices, and Experiences. Print Associates International, Islamabad.
- Thorbake Erike. The Role of Agriculture in Economic Development, New York, Columbia University Press (1971).
- Upton Marlin, Agricultural Production and Resource Use.

- Colman D. and Young T., Principals of Agricultural Economics, Markets and Prices in Less Developed Countries, (1989), Cambridge University Press.
- Yujiro Hayami and Vernon W. Ruttan, Agricultural Development, John Hopkin University Press, London. (Latest edition).

## **ECON 207 English IV (Study Skills)**

### **Objectives**

Study Skills is a collection of study techniques that will make students' learning more effective. The subject, thus, will have its impact on the whole degree program of the students.

### **Course Contents**

**03 Cr.Hrs**

#### **A. Study Habits, Study Place, Study Time (Time Management)**

##### **B. Concentration**

##### **C. Motivation**

#### **D. Note- Taking & Note Making Techniques**

-----Techniques: Symbols, abbreviations, mind maps etc.

-----Reading Notes

-----Lecture Notes

#### **E. Using Library**

---The Card Catalog

--- Dictionaries

--- using the card catalog efficiently

--- Atlases

--- The Call Slip

--- Bibliographies

--- Reference Works

--- Some Common Reference Works

----Encyclopedias

--- Periodicals

---- Yearbooks

--- The Readers Guide

#### **F. Using Dictionary**

----- How to find a word

----- Idioms

----- Word Grammar

----- Common Spelling Problems

----- Pronunciation

#### **G. Reading Skills**

-----Intensive Reading

-----Extensive Reading

-----Reading Surveys

#### **Sub Skills in Reading**

■ Vocabulary

■ Skimming

■ Inference

■ Scanning

■ Coherence

■ Predicting

■ Cohesion

■ Organization

■ Close exercises

## **H. Writing Skill**

-----Writing paragraph: Topic Sentence, Support, Conclusion.

-----Types of paragraph: Paragraph of Analysis, Paragraph of Description,  
Paragraph of Comparison and Contrast, Paragraph of  
analogy, Paragraph of Definition.

----- Punctuation Marks

----- Discourse Markers

----- Essay: Definition & Types

## **J. Writing an Outline**

## **K. Learning the Vocabulary of English**

-----Word Formation

-----Changing Parts of Speech

-----Present and Past Participles as Adjectives

-----Word Stems

-----Guessing Meanings from Context

-----Recording the Meanings of Words

-----Fixing the Meanings of Words

## **L. Preparing for Examination**

-----How to prepare for Examinations

-----Physical Preparation

-----Emotional Preparation

-----Review Preparation

-----How to take an Examination

-----Types of Examinations

-----Objective Examinations

-----Subjective (or Essay-Type) Examinations

## **Suggested Reading**

- Buzan, T. (1982) Use Your Head (Rev .Ed.)
- Grellete, F. (1981) Developing Reading Skills, Cambridge.
- Jordon. R.R Academic Writing Course, London: Collins.
- Nuttal. (1981) Teaching Reading Skills in a FL. London.
- Pineas, A (1982) Writing in English, New York: Macmillan.
- Wallace, M.J. (1980) Study Skills in English. Cambridge: Cup
- Yorkey, R.C. (1970) Study Skills for Students of English as a Second Language



## ECON 208 Statistics II

### Objectives

The fundamental objectives of this course are to make students understand the basic statistical concept and techniques and they can be applied in the field of Economics. The aim of the course is to build student's statistical background and to give them the statistical skills necessary to meet the needs of Economics and the real world decision-making problems.

### Course Contents

03 Cr.Hrs

#### Sampling Theory

- Definitions; population sample; probability & Non probability sampling; sampling with or without replacement
- Sampling distribution; sampling distribution of the mean & calculation of probability by using Z-statistic,  $\mu$  or  $\bar{x}$ , S or  $S^2$  given are calculation of probability by using Z-statistic,  $\mu, \mu_2, \delta_1^2, \delta_2^2, S_1^2, S_2^2$  are directly given; sampling distribution of sample proportion & calculation of probability using Z-statistic, p and  $\hat{p}$  are directly given
- Sampling distribution of difference between sample proportion & calculation of probability using Z-statistic,  $P_1, P_2$  are directly given.

#### Estimation

- Definitions; estimation, estimates and estimator; point estimation; interval estimation; unbiasedness; Consistency; Efficiency; sufficiency
- Construction of confidence interval for population mean when population is normal &  $\delta$  known; normal &  $\delta$  is unknown &  $\bar{x}$  & S is directly given; non-normal &  $\delta$  is known and given; non-normal &  $\delta$  is unknown &  $\bar{x}$  & S is directly given.
- Confidence interval for difference of mean when populations are normal &  $\delta_1, \delta_2$  are known; normal &  $\delta_1, \delta_2$  are unknown and  $\bar{x}_1, \bar{x}_2$  &  $S_1, S_2$  are directly given; non-normal and  $\delta_1, \delta_2$  are known and given; non-normal and  $\delta_1, \delta_2$  are unknown &  $\bar{x}_1, \bar{x}_2$  and  $S_1, S_2$  are directly given
- Confidence interval for population proportion where  $\hat{p}$  is directly given; confidence interval for difference between proportion where  $x_1, x_2$  and  $\hat{p}_1$  and  $\hat{p}_2$  are directly given

## Hypothesis Testing (Z – TEST)

- Definitions; hypothesis, null & alternative hypothesis; acceptance and rejection region; type I and type II errors; one tailed and two tailed test
- Hypothesis testing about mean  $\mu$  when population is; normal &  $\sigma$  or  $\sigma^2$  is known and  $\bar{x}$ ,  $n$  are directly given; normal &  $\sigma$  or  $\sigma^2$  is known and  $\bar{x}$ ,  $n$  and  $S$  or  $S_2$  are directly given; non-normal &  $\sigma$  or  $\sigma^2$  is known and  $\bar{x}$ ,  $n$  are directly given; non-normal &  $\sigma$  or  $\sigma^2$  is unknown  $\bar{x}$ ,  $n$  and  $S$  or  $S_2$  are directly given
- Hypothesis testing about difference between two population means when population are; normal &  $\sigma_1$ ,  $\sigma_2$  or  $\sigma^2_1$ ,  $\sigma^2_2$  are known and  $\bar{x}_1$ ,  $\bar{x}_2$  and  $n_1$ ,  $n_2$  are directly given; normal &  $\sigma_1$ ,  $\sigma_2$  or  $\sigma^2_1$ ,  $\sigma^2_2$  are known and  $\bar{x}_1$ ,  $\bar{x}_2$  and  $n_1$ ,  $n_2$  &  $S_1$ ,  $S_2$  or  $S^2_1$ ,  $S^2_2$  are directly given; non-normal &  $\sigma_1$ ,  $\sigma_2$  or  $\sigma^2_1$ ,  $\sigma^2_2$  are known and  $\bar{x}_1$ ,  $\bar{x}_2$  and  $n_1$ ,  $n_2$  are directly given; non-normal &  $\sigma_1$ ,  $\sigma_2$  or  $\sigma^2_1$ ,  $\sigma^2_2$  are known and  $\bar{x}_1$ ,  $\bar{x}_2$  and  $n_1$ ,  $n_2$  &  $S_1$ ,  $S_2$  or  $S^2_1$ ,  $S^2_2$  are directly given
- Hypothesis testing about population proportion when sample size is large
- Hypothesis testing about difference between two proportions

## Student's t distribution

- Testing hypothesis about mean of a normal population when  $\sigma$  is unknown and  $n < 30$  &  $\bar{x}$ ,  $S^2$ , &  $n$  are given
- Testing hypothesis about difference of means of two normal populations when  $\sigma_1 = \sigma_2$  but unknown and  $S_1$ ,  $S_2$  and  $\bar{x}_1$ ,  $\bar{x}_2$  and  $n_1$ ,  $n_2$  are given
- Testing hypothesis about difference of means of two normal population when  $\sigma_1 \neq \sigma_2$  and unknown, and  $\bar{x}_1$ ,  $\bar{x}_2$  and  $S^2_1$ ,  $S^2_2$  and  $n_1$ ,  $n_2$  are given
- Testing hypothesis about two means with paired observations
- Confidence interval of mean ( $\mu$ ) when pop<sup>n</sup> is normal,  $\sigma$  unknown,  $S$  or  $S^2$  and  $\bar{x}$  given
- Confidence interval of difference between means ( $\mu_1 - \mu_2$ ) when  $\sigma_1 = \sigma_2 = \sigma$  (unknown) and  $\bar{x}_1$ ,  $\bar{x}_2$ ,  $S_1$  &  $S_2$  are given
- Confidence interval when observations are paired i.e.  $\mu_2$  ( $\mu_1 - \mu_2$ )

## Chi Square Distribution

- Testing P's of multinomial distribution.
- Contingency table

## Recommended Books

- Chaudhry M. S., (1999), *Introduction to Statistical Theory*, Part-II, 7<sup>th</sup> Edition, Ilmi Kitab Khana, Lahore.
- Walpole E. R., (1990), *Introduction to Statistics*, 3<sup>rd</sup> Edition, Macmillan Publishing Co., inc, New York.
- Levine D. M., Krehbiel T. C. and Berenson M. L., (2003), *Business Statistics*, 3<sup>rd</sup> Edition, Pearson Education, Inc.

## ECON 301 Microeconomics

### Pre-requisite

ECON 202 Intermediate Microeconomics

### 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

**03 Cr.Hrs**

### 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 Monoposony, 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 behavior, Market with uncertainty and imperfect information.

## **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 Edgeworth 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- 8<sup>th</sup> Edition (2002) or latest -Thomson & Learning Inc.
- Henderson & Quandt - Microeconomic Theory: A Mathematical Approach-
- 3<sup>rd</sup> Edition (1980) – McGraw Hill International
- Silberberg, E. & Suen, W. - The Structure of Economics: A Mathematical Analysis- 3<sup>rd</sup> 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- 6<sup>th</sup> Edition (2004) – Pearson Education Asia

## **ECON 302 Econometrics I**

### **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**

**03 Cr. Hrs**

#### **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-Variable 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 – 4<sup>th</sup> Edition (2003)- McGraw Hill Company.

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

## **ECON 303 Mathematical Economics I**

### **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 alongside 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**

**03 Cr.Hrs**

#### **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 – 3<sup>rd</sup> Edition (1984) - McGraw Hill Publishing Company.
- Frank, Budnick - Applied Mathematics for Business, Economics and Social Sciences- 4<sup>th</sup> Edition (1993) or latest – McGraw Hill Publishing Company.
- Dowling E. T.- Mathematics for Economists, Schaum's Outline Series- 3<sup>rd</sup> Edition (2001) – McGraw Hill Publishing Company.
- George, Alvery et al – Essentials of Mathematics with Business Applications- 5<sup>th</sup> 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

## ECON 304 Macroeconomics

### 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

**03 Cr. Hrs**

**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 labor 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 Labor, The wage rate determination, Rigidity versus flexibility of nominal wage rate, The short-run Production function, Derivation of Aggregate Supply under the Classical and Keynesian assumptions, 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 – 3<sup>rd</sup> Edition (1989) or latest Harper and Row, New York.

- Froyen, Richard–Macroeconomics: Theories and Policies – 7<sup>th</sup> Edition (2002) Prentice Hall
- Gupta, G.S.- Macroeconomics: Theory and Applications- 2<sup>nd</sup> Edition (2004) Tata McGraw Hill Publishing Company, New Delhi
- Scarth, William, M – Macroeconomics: An Introduction to Advanced methods- 2<sup>nd</sup> Edition (1996) - Dryden Press: Harcourt Brace & Company.
- Romer, David - Advanced Macroeconomics -(2001)- McGraw Hills, New York.
- Mankiw, Gregory- Macroeconomics- 5<sup>th</sup> Edition (2003) - Worth Publisher, New York.

## **ECON 305 Econometrics II**

### **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**

**03 Cr.Hrs**

#### **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 ( $\beta_1, \beta_2, \dots, \beta_k$ ), 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 – 4<sup>th</sup> 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) Cambridge University Press.
- Johnston, J. - Econometric Methods – 3<sup>rd</sup> Edition (1991)- McGraw Hill Company
- Kmenta, J. - Elements of Econometrics - 2<sup>nd</sup> Edition. (1971) – Macmillan

## **ECON 306 Mathematical Economics II**

### **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.

**Complex Number and Circular Functions**

Imaginary and Complex Numbers, Complex Roots, Circular Functions, Properties of Sine & Cosine functions, Euler 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- 4<sup>th</sup> Edition (2005) McGraw Hill Publishing Company.
- Gandolfo, 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.

## **ECON 401 International Trade Theory**

### **Objectives**

To teach the theories of International Trade and to interrelate other branches of economics

### **Course Contents**

**03 Cr.Hrs**

### **Importance and Bases of Trade**

Why Study International Economics? The Changing World and Interdependence: Basis of Trade, Gains from Trade. Absolute Advantage, Comparative Advantage, Overview of Comparative Advantage and Pattern of Trade. Offer Curves and Free Trade Equilibrium.

Disagreements on 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).



## **ECON 402 Research Methodology**

### **Course Contents**

**03 Cr.Hrs**

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 and abstract of a report. Conclusion and its basis. Evaluation of Research Work. The Research Report, Research Report Format, Writing and editing of research Report.

### **Recommended Books**

- Birchenhall 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, Allyn and 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.

## **ECON 403 Public Finance**

### **Course Contents**

**03 Cr.Hrs**

#### **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.
- Stiglitz E., (2000), Economics of the Public Sector, W. W. Norton & Co.

## **ECON 404 History of Economic Thoughts**

### **Course Contents**

**03 Cr.Hrs**

### **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 Physiocrats.**

The Contributions of Mercantilists and the Physiocrats. 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. Bullin Debate. Ricardo's Monetary Thought. Evolutionists, Ricardo and Reformers of 18 th 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. Jeans 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 20 th 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.

## **ECON 405 Applied Economics and Computer Applications**

### **Course Contents**

**03 Cr.Hrs**

#### **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.

#### **PowerPoint 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

## **ECON 406 Islamic 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 behavior, 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**

**03 Cr.Hrs**

### **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 Waliullah 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, and Musharakah), 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 Public spending 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
- Ziauddin et al (Ed) – Money and Banking in Islam – (1983)- King Abdul Aziz University Jeddah and Institute of Policy Studies Islamabad.
- Ziauddin et al (Ed) – Fiscal Policy and Revenue Allocation in 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) – IIIE, 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: Kitab ul 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, Kita bur 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.

## **ECON 407 Research Paper/Research Report**

### **Course Contents**

**06 Cr.Hrs**

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

## **OPTIONAL COURSES**

### **ECON      Financial Institutions and Markets**

#### **Course Contents**

**03 Cr.Hrs**

#### **Theory of the Role and Functioning of Financial System**

Information asymmetric and the need for the role of financial sector. Some Basic concepts like adverse selection, moral hazard, free rider and principal-agent problems in financial sector to understand puzzles of financial markets. Financial system and its relationship with the rest of the economy. Functions of financial sector: mobilization and allocation of resources; pooling, diversification and trading of risk; advisory role; financing technological innovation and development. Financial Repression vs Financial Liberalization.

#### **Growth and stability of financial system**

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

#### **Financial Institutions and Current issues**

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

## **Financial Markets and Current Issues**

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

## **Financial Infrastructure**

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

## **Recommended Books**

- Fabozzi, F. and Modigliani, F. Capital Markets. 2nd edition. Prentice- Hall London (1996).
- Mishkin (2003), The Economics of Money, Banking, and Financial Markets. 7th edition.
- Ritter, L. S. and Peterson, R.L. Financial Institutions and Financial Markets. 9th edition. New York. Basic Books.
- Arby, Muhammad Farooq (2004), “Functions, Evolution and Organization of State Bank of Pakistan” [www.sbp.org.pk](http://www.sbp.org.pk)
- History of State Bank of Pakistan (Volume – 3, chapters 2 to 7, 13).
- Zaidi, Akber (2005), “Issues in Pakistan Economy,” Karachi. Chapters 12, 13
- SBP Annual and Quarterly Reports
- SBP Financial Sector Assessment: 1990-2002, 2003 and onward.

## **ECON      Labor Economics**

### **Course Contents**

**03 Cr.Hrs**

### **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.

## **Child Labor**

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) Labor Economics, Routledge Publishers.
- Bruce, Kaufman; e. Kaufman, Julie L; Hotchkiss, (2002), Economics of Labor Markets, Thomson Publisher.

- Current Issues in Labor 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).

## **ECON      Major Issues in Pakistan's Economy**

### **Course Contents**

**03 Cr.Hrs**

#### **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 Eatnaz: 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.

## **ECON      Project appraisal and Investment Analysis**

### **Course Contents**

**03 Cr.Hrs**

#### **Introduction**

Meaning of Project Appraisal, usefulness and significance, Aspect of project appraisal with a special focus on economic versus financial analysis, Contours and Dimensions of a project and its essential ingredients, Project Vs. Plans. Project Cycle.

#### **Identify Project Benefits and Costs**

Objectives of Costs and Benefits, the Incremental / Net Benefits and “With” and “Without” Comparisons. Categories of Costs and Benefits.

#### **Pricing Project Costs and Benefits**

Prices reflecting values, Market price and financial analysis, Finding market prices and related problems, Change in relative prices and inflation: Shadow Prices and economic analysis, Removal of market price distortions in traded and non-traded goods. Premium on foreign exchange through use of Shadow exchange rate and conversion factor approach.

#### **Comparing Project Costs and Benefits (Measuring of a Project Worth)**

Undiscounted measures of project worth, Discounted measures of NPW, IRR, BCR, Net benefit Investment Ratio, Comparative assessment of discounted measures. Social vs. Economic benefits and selection of projects.

#### **Applying Discounted Measures of Project Worth**

Sensitivity analysis, Switching value, Choice among mutually exclusive alternatives, Domestic resource cost of foreign exchange earning / saving.

#### **Cost Effectiveness Analysis**

Areas and elements of analysis, Methods of analysis: Constant Effect Method, Constant Cost Method, Measuring of cost effectiveness, Present Worth, Annual Worth, Cross over discount rate, Limitation of analysis.

#### **Financial (Investment) Analysis**

Theoretical and empirical examination and saving and investment, Concept of capitalization types of securities, non-banking financial institution. Development financing, Asset Structure, Stock Prices, Money Market, Portfolio Theory and Investment Analysis. Financing the industrial sector; Large scale and small scale, Interest rate. Bond market, Real and financial investment. Financial intermediaries; Speculation and Inter – relationship of financial and real variables in the economy.

## **Recommended Books**

- Hughes, A., & D.J. Storey: “Finance and the Small Firm” (Ed) Routledge, London, (Latest).
- Bruno Solmik, International Investment, Addison Wesley, (Latest). 3<sup>rd</sup> Ed. Addison, Wesley publishing Co. (Latest).
- Burno Solnik: “International Investments”
- Donald, E., Fischer, Arnold, J., Security Analysis and Portfolio Management. Prentice Hall, Delhi, (Latest).
- Edwin J., Elton and Martin J. Goober, Modern Portfolio Theory and Investment Analysis, John Wiley and Sons (Latest).
- Gittinger J. Price, “Economic Analysis of Agricultural Projects”, The Johns Hopkins University Press, London, Dec. (Latest).
- Hughes and Storey D.J., Finance and Small Firms, Routledge, London (Latest).
- Hussain, Ch. M: “Project Appraisal, Monitoring and Evaluation Process with Special Reference to Pakistan” Royal Book Co. Karachi, (Latest).
- Punjab P&D Board, “Planning Manual” Lahore, (Latest).
- United Nations: “Guide to Practical Project Appraisal – Social Benefit – Cost Analysis in Developing Countries.” Oxford & IBH publishing Co. New Delhi. (Latest).
- United Nations: “Manual for Evaluation of Industrial Projects” Oxford & IBH Publishing Co. New Delhi, (Latest). 5<sup>th</sup> Ed., Prentice Hall, (Latest).
- William F. Sharpe & Gordon J., “Investments”
- Zvi Bodie, Alex Kane, Alan K., Essentials of Investment, McGraw Hill, (Latest).

## **ECON      Managerial Economics**

### **Course Contents**

**03 Cr.Hrs**

### **Nature, Scope and Overview of Managerial Economics**

The Nature and Scope of Managerial Economics. The Managerial decision making process. Theory of the firm. Profit maximization, Cost Minimization. Economic optimization. Economic relations of variables. The Incremental concept in Economic Analysis. Demand, Supply and Equilibrium.



## **Demand Analysis: Estimation and Forecasting**

The Basis for Demand. The Market Demand function. Demand sensitivity analysis: Elasticity, Price Elasticity of Demand with Managerial applications. Income Elasticity of Demand with Managerial applications. Application of Regression Analysis: Demand estimation. Demand forecasting.

## **Production and Cost Analysis**

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

## **Decision Making Under Risk and Uncertainty**

Introduction. Risk Analysis of Decision Alternatives. Adjustment for Risk in Decision Making. The Expected Value Criterion. The Standard Deviation Criterion. The Coefficient of Variation Criterion. The Certainty Equivalent Criterion. The Maximax Criterion, Maximin Criterion and Minimax regret criterion. The Decision Tree and Joint Probabilities. Optimal decision Strategy. Limit Pricing and Preventing entry.

## **Pricing Analysis and Decisions**

A Review of Market Structures and Basic Pricing Models. Perfect Competition. Monopoly. Monopolistic Competition. Oligopoly. Selected Pricing Models. Marginalist Pricing. Mark up pricing. New Product Pricing. Oligopoly Model. Contestable Markets. Pricing Strategies for Firms and Market Power. Monopolistic Competition. Price Discrimination, Monoposony and Price Product.

## **Managerial Theories and Models of the Firm**

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

## **Public Sector Production and Pricing of Goods**

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

## **Capital Budgeting and Investment**

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

## **Recommended Books**

- Douglas, E. J., Managerial Economics, Prentice Hall, (1990). (10 th edition) U.S.A. Thomson South-Western, (2003).
- Hirschey, M. Managerial Economics,
- Hirschey, M. and J.L. Pappas; Fundamentals of Managerial Economics, Dryden Press, (1998).
- Kent P, and P Young., Managerial Economics: Economic Tools for Today's Decision Makers., (4 th Edition) Pearson (2003).
- Keat, P., and P., Young, Managerial Economics, MacMillan, (1992).
- Koutsoyiannis, A., Modern Microeconomics, MacMillan, (1979).
- Mansfield E., (1998), Manageral Economics, Theory, Application and Cases. W. W. Norton & co.
- Michael R., Baye (2000) Managerial Economics and Business Strategy, McGraw Hills.
- Pappas, James, Brigham Eugene F and Hirschey Mark., (latest edition), Managerial Economics, Dryden Press, Chicago.
- Salvatore, D. Managerial Economics, McGraw Hill, (2001).
- Thomas, Maurice. Managerial Economics: In a Global Economy (7 th Edition) New York: McGraw Hills, (2002).

## **ECON      Human Resource development**

### **Course Contents**

**03 Cr.Hrs**

### **Introduction and Basic Concepts**

Basic Concepts, Meanings and Definitions of HRD by various Economists. Human Capital Formation and HRD. Significance of HRD to wards economic development. Brief Historical background of HRD. Theories of HRD by T.W. Schultz, Kuznets and modern economists. Factors of HRD. Education, Science and Technology as factors of HRD, its role in HRD, Social and Economic rate of return to Education

### **HRD and Needs**

Food, Health, Nutrition and Clean drinking water as factor of HRD. Its impact on HRD. Training and Skill development a component of HRD, its various forms and role in HRD.

## **Migration: Needs and Impacts**

Migration, its kinds and causes, impact on HRD, Brain Drain problem in LDC's, its impact on economy, migration of labor force, remittances and its impact on HRD and economic development .

## **WTO and Labor Migration**

Information, Globalization, WTO and their impact on HRD. Significance of information in HRD.

## **Manpower Planning & Forecasting Labor**

Concept of Manpower planning, its importance, factors and other allied concepts, stages of Manpower planning, forecasting of labor force in LDC's with special reference to Pakistan.

## **Women and Development**

Role of Women in HRD, Female Labor force participations rate, Development of women for HRD, Development of HRD factors in women. Earning of women and economic development Policies / Suggestions to develop the women in Pakistan.

## **LIMS and Labor Issues in Pakistan**

Population profiles in Pakistan. Its salient features, its role in economic development and rate of return to education in Pakistan. Measures to improve the education for HRD in Pakistan, Poverty, Unemployment in Pakistan. Labour force market information (LMIS) in Pakistan. Mismatch between the supply and demand of Labour forces in Pakistan and policies for improvement the population for HRD. Analysis of the efforts regarding HRD in Pakistan, its implications and suggestions to improve HRD in Pakistan. A comparative Study of HRD in Pakistan with other LDCS.

## **Recommended Books**

- Chaudhary M. Aslam and Hameed, A., 1989, Human Development in Pakistan, Feroze Sons, the Mall, Lahore, Pakistan
- UNDP, (Various Issues), Human Development Reports
- Ali, Karamat, 1998, Political Economy of Human Resource Development, Feroz Sons, the Mall, Lahore
- HDC, Various Issues, Human Development in South Asia, Oxford, Islamabad Pakistan.
- Khilji, Bashir Ahmad (2005) 50 years of Human Resource Development in Pakistan, Shaheen Publishers, Faisalabad, Pakistan.
- Kamal A. R, Human Resource Development in Labour Surplus Economies PDR, PIDE, Islamabad.

- Schultz. T.W. 1961 Investment in Human Capital American Economic Review, Vol.51 USA
- PIDE, 1999, Education and Earnings in Pakistan (Research Report No.177, Islamabad, Pakistan)
- Kuznets S., Human Capital and Development Issues.
- Federal Bureau of Statistics, 50 years of Pakistan, Islamabad
- Ministry of Finance, Economic Survey (Various Issues) Islamabad
- State Bank of Pakistan 2005, 50 years of Human Resources.

## **ECON      Population Economics**

### **Course Contents**

**03 Cr.Hrs**

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.
- Becker, G. (1960), AAn Economic Analysis of Fertility,@ in
- Demographic and Economic Change in Developed Countries, Princeton: National Bureau of Economic Research, 1960, 209- 231.

- Hotz, V. J., J. Klerman, and R. Willis, AThe Economics of Fertility in Developed Countries: A Survey,@ in M.R. Rosenzweig and O. Stark, editors, Handbook of Population and Family Economics, North Holland, 1996 .
- Schultz, T.P. ADemand for Children in Low Income Countries,@ in M.R. Rosenzweig and O. Stark, editors, Handbook of Population and Family Economics, North Holland, 1996 .
- Singh, I., L. Squire and J. Strauss (1986), "Methodological Issues," in Agricultural Household Models: Extensions, Applications and Policy, Baltimore: Johns Hopkins University Press, Chapter 2 .
- Singh, I., L. Squire and J. Strauss (1986), “A Survey of Agricultural Household Models: Recent Findings and Policy Implications,” in Agricultural Household Models: Extensions, Applications and Policy, Baltimore: Johns Hopkins University Press .
- Murrugarra, E. (1998). "Labor Demand and Incomplete Markets: Testing for Nonseparation on Peruvian Rural Households," Mimeo .
- Pitt, M. and M. Rosenzweig. (1986). Agricultural prices, food consumption and the health and productivity of Indonesian farmers, in I. Singh, L. Squire and J. Strauss (eds.), Agricultural Household Models: Extensions, Applications and Policy, World Bank .
- Behrman, J. (1996), AIntrahousehold Distribution and the Family,@ in M.R. Rosenzweig and O. Stark, editors, Handbook of Population and Family Economics, North Holland, 1996

## **ECON      Comparative Economic System**

### **Course Contents**

**03 Cr.Hrs**

### **Evaluation of Economic Systems**

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

### **Capitalism**

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

## **Communism and Socialism**

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

## **Economic System of Islam**

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

## **Economic System in Pakistan**

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

## **Recommended Books**

- Capitalism, Socialism and Islam by Syed A. Ala Maududi, Islamic Book Publisher, Lahore.
- Comparative Economic System by William, Louks and William G. Whitney (latest edition).
- Comparative Economic Systems by Martin C. Schmelzer and James W. Hordyke (1977).
- Economic System of Islam by M. Omer Chapra.
- Islam or Socialism by Wilicaynaki.
- Comparative Economic Systems by Gregory, Stuart, Houghton Mifflin Company, Boston (1985).

## **ECON      General Equilibrium   and Welfare Economics**

### **Course Contents**

**03 Cr.Hrs**

The nature of general equilibrium analysis, General Equilibrium Theory: Multi market equilibrium in a competitive setting; Walras Law; Existence of equilibrium; Stability of equilibrium; Money in a general equilibrium setting. Technical and allocative efficiency and case of exchange economy. Linear programming technique to general equilibrium theory (Activity Analysis). The Von-Neuma Model of a expanding economy, The input-

out Model. Pareto principle, optional, production and resource allocation and efficiency of Perfect Competition. Measurement of Changes in Welfare: Consumer Surplus, Compensation Principle. The Theory of Social Choice: Social welfare function, Arrow's Impossibility Theorem, Marginal cost pricing, Joint Products, Externalities, Income distribution and compensation principles. Theory of second best and its application in Public Sector and international trade.

### **Recommended Books**

- Mas-Colell, Whinston and Green, Microeconomics Theory, Oxford University Preses, 1995. Other Reference Books for general equilibrium.
- Arrow and Hahn, General Competitive Analysis, San Francisco, Holden-Day 1971.
- Jehle, G.A., & P.J. Reny, Advanced Microeconomics, Theory, Addison Wesley, 2001 (2<sup>nd</sup> ed.)
- Varian, H., Microeconomics Analysis, Norton 1992 (3 rd ed)

## **ECON      Environmental Economics**

### **Course Contents**

**03 Cr.Hrs**

#### **Introduction and Awareness**

What is Economics of Environment. Historical Framework for Environmental Protection. Distinction between natural resource economics and environmental economics. The Economy and the Environment. First and the second laws of thermodynamics. The fundamental balance.

#### **Analytical Tools: An Environment**

Supply and Demand Issue: Cost of Controlling Environment Benefit – Cost and its Estimation. Willingness to Pay. Equilibrium Principle Technology and Equi. Marginal Principles, Marginal Cost and Supply, Economic Efficiency and Markets. Equity and Social Efficiency. External costs and external benefits.

#### **The Economics of Environmental Quality**

Pollution and Impacts on Human Life, quality of life and Environment Quality, General Models of Pollution Control. Emission Reduction and Equi. Marginal Principle. Long Run Sustainability through Pricing Mechanism.

## **Valuing the Environment and Benefit Cost Analysis**

Measuring environmental benefits: Contingent valuation, the travel cost method and the hedonic approach. Benefit Cost analysis: Costs: The value of life, health, safety and risk. Pigovian Analysis, The Coase Theorem.

## **Economic Development and the Environment**

General considerations, Environmental degradation in developing economies. Economy and Environment. The Pollution Haven hypothesis. The role of developed countries.

## **Environment and Pakistan**

Emergence of Environment Issue in Pakistan, Industrial Waste, Urban Waste and Agricultural Issues Related to Pesticides use, Salinity and Water Logging. Urban Environmental Issues. Public and Private Efforts to Improve Environment Quality and Impacts. Air pollution in Pakistan. Public Policies and Awareness to Control Pollution. Environmental Policy and Strategy in Pakistan.

## **The Global Environment**

Ozone Depletion, The Economics of Global Warming. Kyoto – Protocol and Issues. International Environmental Agreements. UN and Environmental Cooperation. International trade and the Environment. Impacts of Awareness Policy.

## **Recommended Books**

- Field, B.C and M.K Field, Environmental Economics: An Introduction (3<sup>rd</sup> Edition) 2002 New York: Mc Graw Hill
- Barry C. Field, Environmental Economics, an Introduction, McGraw Hill (Latest Edition).
- Chapman, D. Environmental Economics: Theory Application and Policy, Latest Eds. Massachusetts: Addison- Wesley
- Hussen A. (2003), Principles of Environmental Economics, Routledge Publishers.
- Baker Steve, Environmental Economics, (2003) Dominant Publisher and Distributors, New Delhi.

## **ECON      Dynamic Macroeconomics**

### **Course Contents**

**03 Cr.Hrs**

Construction and analysis of dynamic models of macroeconomics and monetary phenomenon with focus on non-linearity, multiplicity of equilibria, and indeterminacy; stability and instability of macroeconomic equilibrium in linear and non-linear models; continuous and discrete time; classical and Marxian accumulation models with multiple



indeterminate, cyclical and chaotic equilibrium paths; non-linear stability bifurcation theory, dynamic stochastic optimization techniques. Disequilibrium models; price and quantity adjustments of multiple equilibria, stability in the long-run

### **Recommended Books**

- Blanchard O and S. Fisher, 1998, Lectures on macroeconomics, MIT Press, Cambridge, Massachusetts and London, England.
- Cooley T.F., 1995 Frontiers of business cycle research, Princeton University Press.
- Huggett, M., 1996 Wealth distribution in life-cycle economics, Journal of Monetary Economics 38, 469-494.
- Huggett, M, 1996 Wealth distribution in life-cycle economics, Journal of Monetary Economics, 38, 469-494
- Ljungqvist, L. and T. Sargent, 2000, Recursive macroeconomics theory, MIT Press, Cambridge, Massachusetts and London, England.
- Marimon, R. and Scott A., 1999, Computational methods for the study of dynamic economics, Oxford University Press.
- McCandless G. and N. Wallace, 1991 Introduction to dynamic macroeconomic theory, an overlapping generations approach, Harvard University Press.
- Rros-Rull J., 1993, working in the market, working at home and the acquisition of skills: a general-equilibrium approach, American Economics Review 8, 893-907.
- Taylor, J and M. Woodford, 1999, Handbook of macroeconomics, Volume 1C, Elsevier.

## **ECON      Fiscal Policy**

### **Objective**

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**

**03 Cr.Hrs**

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. and C. Wyploz (2001), 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.

## **ECON      Rural Development**

### **Objectives**

Introduction of the structure of the rural economy encompassing socio- economic set up, developmental status and core social, economic and environmental problems to the students. Impart knowledge to the students about the historical background, evolutionary planning process of rural development & familiarization of students with the rural scene of Pakistan.

### **Course Contents**

**03 Cr.Hrs**

Structures of Rural Economy: Land, People and Resources. Socioeconomic and Political Organizations. Modes, Means and Relations of Production. Potential for Development. Basic Problems Including Traditions, Power Structure, Illiteracy, Poor Health, Unemployment, Poverty, Underdeveloped Infrastructures and Environmental Degradation.

Theories of Rural Development: Basic Needs and Community Development. Modernization of Agriculture. Diversification of Rural Economy. Rural-Urban Nexus of Development and Other Approaches.

Rural Development Planning: Rural Integrated Development Program Including Location, People, Utilities and Services, and Infrastructures. Village Aid Program. Rural Development through Local Government. Rural Development through NGOs. Rural Resource Allocation.

Rural Development in Pakistan: Historical Background, Introduction, Rural Scene in Pakistan, Land Reforms, Government Plans and Policies, Peoples Participation, NGOs

and RSPs Vision in Rural Development, Rural Development Strategy. Design and Evaluation of Rural Development Projects. Rural Development Programs Before and During Eighties. Rural HRD. Local Organizations for Rural Development. Role of Voluntary Agencies in Rural Development. Use of Improved Technologies, Poverty in the Non-Modern Sector. Impact of Integrated Rural Development Programme (IRDP). Impact of Rural Support Programmes (RSPs) on Rural Households.

### **Recommended Books**

- Malcolm Moseley, Rural Development: Principles and Practice, Sage Publications 2003
- Young, F/Clark, J., Interdisciplinary Theories of Rural Development, Jai Press 2006
- Hasan, Ibnul, Integrated Rural Development in Pakistan, Sterling Press Limited 1989
- Kator Singh, Rural Development: Principals and Policy Institute of Rural Management (1999)
- Desilva, G. Haque, Towards A Theory of Rural Development, Progressive Publishers 1988
- James, Jeffrey, Improving Traditional Rural Technologies, Macmillan Press 1989
- Kenneth Lynch, Rural Urban Interaction in the Developing World, Routledge 2005
- Khan, Mahmood Hasan, Community Organizations and Rural development, Vanguard 2001
- Khana, B., Rural Development in South Asia, Deep & Deep Publications 1992
- Khanna, B., Rural Development in South Asia, Deep and Deep Publication, New Delhi
- Shoaib Sultan Khan, Rural Development in Pakistan, Vikas Publishers, 1982
- The African Development Bank, African Development Report 2002, Oxford 2002
- World Bank, Agriculture and Rural Development, Washington D.C. 2005
- Dar, S. U, Impact of Integrated Rural Development Programme, Anmol, New Delhi 1992

## **ECON      International Finance**

### **Course Contents**

**03 Cr.Hrs**

#### **Introduction**

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

#### **Foreign Exchange Market and Exchange Rate Determination**

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

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

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

#### **Open Economy: Monetary and Fiscal Policy**

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

#### **International Institution: Trade, Capital and B.O.P.**

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

#### **International Movements of Factors and Welfare: Impacts / Issues**

Facts on International Capital Flow: ASEAN Crisis and Role of International Institution and Criticism. Motive for Capital Movement: Return and Risk Diversification. Why disagreement on International Movement of Labour? Welfare Impacts of Labor Movements. Factors of Production and Price Equalization Issues. Losses of National Sovereignty. Can Developing Countries Compete and Gain from Trade: Terms of Trade

due to Demand Pattern and its Impacts. What Counts for wage Differential Between Primary Goods Producer and Value Added Goods Producer, Competitiveness Issue.

### **International Institutions and Flow of Capital**

WTO: GATT and Emergency of WTO. Why necessary to Join WTO? WTO: Expected Impacts on Trade, Liberalization and B.O.P; Special Status of Developing Countries and Net Food Importing Countries. Protections under WTO Rules. Are Free Trade Gains more than Restricted Trade? Gains for whom; how much and how long? Centre-Periphery Theory.

## **ECON      Development Policy**

### **Course Contents**

**03 Cr.Hrs**

### **International Debt, Aid/Assistance, and New Role of World Bank and IMF**

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. Solution to debt Problem.

### **Resource Mobilization and Industrialization**

LDC's Inflation and Deficit B.O.P Problem. Savings and forced savings. Direct and indirect taxation, Transfer of resources from agricultural to industry. Migration and its role. Urban unemployment. Industrialization and Small Manufacturing enterprises (SME's). Human Capital and its development / productivity.

### **Multinational Corporations (MNC'S), FDI and Development**

Multinational Corporations (MNC's): Objectives, Role and Contributions, Long term cost of TNC's. Transfer of Technology: Ways and Means. Global integrated production system: MNC's and Globalization, Foreign Direct Investment (FDI) and Its Determinants/Role. Foreign Direct Investment (FDI) and MNC's. Flow of FDI and its contributions.

### **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.

### **Environment and Development**

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.

### **WTO, Liberalization and International Trade**

Trade vs. Aid. Liberalization of Trade and its impacts/gains etc., Trade led Growth, Foreign Exchange Constraints and Balance of Payment deficit. Role of GATT and its Failure. WTO and LDC's. 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.

### **Growth Models**

Harvard – Dormer Model, Neo-classical growth theory, Technical change, endogenous growth. Institutional Economics, Institution's and Market, Good Governness, Role of Institutions in Economic Development. Institutions and LDC's.

### **Recommended Books**

- Meier, Gerald M. and James E. Rauch. 2000. Leading Issues in Economic Development. Seventh Edition. Oxford University Press.
- Todaro, Michael P. and Stephen C. Smith. 2003. Economic Development. Pearson Education Limited.
- Allen, Tim and Alan Thomas. 2000. Poverty and Development. Second Edition. Oxford University Press
- Stiglitz, Joseph and Gerald Meier. 2001. Frontiers of Development Economics: The Future in Perspective. Oxford University Press/the World Bank

## **ECON      Institutional Economics**

### **Objective**

A course in "Institutional economics" accomplishes a series of courses that constitute the basic training for economists. Before studying institutional economics students should master not only the fundamentals of general economic theory but have knowledge of the historical courses and humanities as well. Pre-Requisite : It is assumed that the students should be familiar with the following courses: Microeconomics and Macroeconomics, game theory, industrial organization, economic history and history of economic thought.

### **Course Contents**

**03 Cr.Hrs**

#### **Introduction to institutional analysis**

The concept of institution: attempts at definition. Institutions and organizations. Functions of social institutions. Interaction situations and the types of norms: prisoners' dilemma-type situation; co-ordination situation; inequality situation. Enforcement characteristics. Institutional structure of a society. Formal and informal institutions. Sanctions for disobeying norms (self-enforcing sanctions, guilt, shame, informational sanctions, bilateral costly sanctions, multilateral costly sanctions). Conditions of norms' effectiveness. Interaction of formal and informal institutions. The limits of imitations of institutions from best-performing countries. The problems of their enforceability. The New Institutional Economics and modern institutionalism. Old institutional economics.

#### **Transaction costs**

The concept of transaction. Market and intrfirm transactions. Transaction costs as friction in the economy. Transaction costs and transformation costs. Interdependency between transaction costs and transformation costs. Types of market transaction costs and means of transaction costs minimization( search and information costs; measurement costs; bargaining and decision costs; supervision and enforcement costs). Comparative advantages and shortcomings of the legal enforcement mechanism. Reputation as a contract enforcement device. Ideal model of "perfect reputation". Shortcomings of the reputation as a contract enforcement mechanism. Reputation and the "free rider problem". Reputations aided by institutions. Contract enforcement in contemporary Russia.

#### **The definition of property rights**

Property rights in different legal traditions (common law and civil law traditions). The property rights approach: some basic concepts. Specification of property rights, the bundle of rights, partitioning of property rights, attenuation of property rights. Assigning of property rights: the internalization of externalities. The Coase Theorem. Critic of Coase (dynamic effects of alternative legal rules, wealth effect, distributional effects, strategic behavior and the problem of holding-out, endowment effect, sociological critic, unrealistic assumption about zero transaction costs). Alternative property rights regimes. Common property (open access) and the tragedy of the commons. Exclusive property rights and the conditions for their emergence. The first economic revolution. Communal property. Optimal group size. Private property. Moral and economic aspects of private

property. Public property. The emergence of property rights. The optimistic theory of the emergence of property rights (naive model). The interest-group theory of property rights. The costs of collective action. The theory of rent-seeking. Interest-groups and rent-seeking in the Russian economy.

## **Contracts**

The definition of a contract. Legal and economic approach to contracts. Freedom of contract. Bounded rationality and contractual incompleteness. Asymmetric information (hidden characteristics, hidden information/ hidden action, hidden intentions) and opportunistic behavior. Adverse selection and the closing of markets. Signalling, screening and self-selection. Asset plasticity and moral hazard. Principal-agent problem and agency costs. A simple principle-agent experiment in the classroom. Controlling and preventing moral hazard (controlling the agent, incentive contracts, bonding, do-it-yourself method). Case study: crisis of the savings and loan associations in America as an example of moral hazard in financial markets. Attributes of transactions and the choice of a contract. Asset specificity, types of specific assets. Synergy effects, quasi-rents appropriation and hold-up problem. Classification of contracts (classical, neoclassical and relational contracting). Discrete alternative governance structures: market, hybrids and hierarchy. Self-enforcing agreements (Telser) and hostages (Williamson). Hybrids: specific assets and their safeguards. Institutional environment and its role in the choice of contract. GM and Toyota: different models for solving the problem of safeguards for specific investments. The role of trust. Economic approach to trust. Kreps: the trust game. Types of trust (contractual trust, competence trust and good will trust). Explaining the internal structure of formal organizations: transaction costs approach.

## **The new institutional theory of the firm**

Neoclassical theory of the firm. Explanations of the firm in the new institutional theory (F.Knight, R. Coase, A. Alchian and H.Demsetz, O.Williamson, O.Hart). The market and the firm. Comparative analyses of the alternative coordination forms. Internal market and influence costs. The boundaries of the firm. Ownership structure of the firm. A theory of the owner-monitor. Competing forms of economic organization, relative advantages of alternative structures (proprietorships, partnerships, open corporation, regulated firms, public enterprises, nonprofit organizations, labor- managed firms). Separation of ownership and control in the open corporation. Opportunistic behavior of the managers and corporate control. Outsider and insider corporate governance. Privatization in Russia and other transition economies: how to control the managers.

## **The new institutional theory of the state**

Social mechanisms for constraining open access. Contractual theories of the state (Locke, Rousseau), Hobbes predatory theory of the state. North's model of the state. The regulatory role of the state in the Russian economy.

## **The theory of institutional change**

Stability of institutions and institutional change. The concept of institutional equilibrium. The main sources of institutional change. Centralized and spontaneous institutional



change. The role of the state in the process of institutional change. The problem of compensation of the disadvantaged groups. Theories of selection of efficient institutions in the process of competition ( Alchian, Friedman). Institutional change and path dependence. Forms of path- dependence (weak form, semi-strong and strong forms). Institutional change in contemporary Russia.

### **Recommended Books**

- Akerlof G.A. (1984) the Markets for "Lemons": Quality Uncertainty and the Market Mechanism" 84 Quarterly Journal of Economics, pp. 488-500
- Alchian A., Demsetz H. (1972) Production, Information Costs and Economic 52 The American Economic Review, pp. 777-795
- Coase R. (1937) The Nature of the Firm. 4 Economica, pp. 386- 405
- Coase R.H. (1960) The Problem of Social Cost. 3 Journal of Law and Economics 1-44
- Dahlman C. (1979) The Problem of Externality. 22 Journal of Law and Economics, pp. 141-162
- Eggertson Thr. Institutions and Economic Behavior.
- Hart O. (1989) An Economist's Perspective on the Theory of the Firm. 89 Columbia Law Review, p. 1757
- Joskow P. (1987) Contract Duration and Relationship-Specific Investments: Empirical Evidence from Coal Markets. 77 American Economic Review pp. 168-173
- Milgrom P., Roberts J. Economics, Organisation and Management.
- Milgrom P., Roberts (1992) J. Economics, Organization and Management. - Prentice-Hall Int.,.
- North D. (1990) Institutions, Institutional Change and Economic Performance. Cambridge University Press,
- Posner R. (1997) Social Norms and the Law: an Economic Approach. 87 American Economic Review, pp. 365-369
- Rose C. Evolution of Property Rights. In: Newman P. The New Palgrave Dictionary of Economics and the Law. Vol. 2,.
- Tullock G. Rent-seeking. (1987) In: The New Palgrave: A Dictionary of Economics. - L., Macmillan, 1987,
- Varian H. Intermediate Microeconomics. A Modern Approach.

## **ECON      Money and Banking**

### **Course Contents**

**03 Cr.Hrs**

1. Money and its functions
2. The Monetary System
3. The Monetary Policy
4. The Role of, State Bank
5. Prudential Regulations
6. Commercial Banking
7. Banks and Financial Intermediaries
8. Credit Creation
9. The Macro Role of Banks
10. Modern Banking Instruments
11. Theories of Islamic Finance

### **Recommended Books:**

- Robert.D.Auerbach: Money, Banking and Financial Markets, Maxwell Macmillan
- Dudley G. Lockett: Money and Banking, McGraw Hill
- Roger Leroy Miller and David D. Van Hoose: Modern Money and Banking, McGraw Hill
- Baye and Jansen: Money, Banking and Financial Markets an Economic Approach, AITBS
- Bennett T. McCallum, Monetary Economic

## **ECON      Monetary Economics**

### **Course Contents**

**03 Cr.Hrs**

### **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 Real Sectors. Role of Money in the IS-LM Framework. Money in Aggregate Demand & Aggregate Supply Analysis. Keynesian Vs. Monetarist views of Equilibrium Output, Employment and Prices.

### **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 Tools of Monetary Policy. Required Reserve Ratio, Discount Window Loans and Open Market Operation. Advantages and Disadvantages and Impact Analysis of each Policy Tool. Central Bank as a lender of last Resort. Financial Intermediaries. Monetization of Public Debt. Ineffectiveness of Stabilization Policies. Targeting interest rate and inflation.

## **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 and 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. Mishkin, (1995), 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 VanHose, (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).

## **ECON        Monetary Policy**

### **Objective**

This course aims to provide a fundamental understanding of the most basic questions in monetary economics: What is the role of money? What causes inflation? How does monetary policy affect output? Insights into these questions underline some of the most important developments in macroeconomics in the 20th century. This course will examine that how knowledge from the monetary conduct the monetary policy in a more scientific and ‘optimal’ way, at least conceptually. This course will also discuss issues related to credit and banking, as well as other non-resolved current issues in monetary economics that have been of interest to academics and policy makers in recent years. ECON 012 will offer as an upper level theory course. As such, much of the course will be analytical in nature. The treatment of these topics will be at an advanced and sophisticated level, set in the context of fully specified monetary models with micro-foundations. Focus will be on depth rather than scope, so we would spend time learning important issues in details rather than trying to be comprehensive in coverage. Students are expected to read first-rate journal articles in order to sharpen their analytical adeptness, and to familiarize themselves with the theoretical way of thinking about economics.

### **Course Contents**

**03 Cr.Hrs**

Time Inconsistency: Inflation bias of discretionary policy, solutions The Mechanics of Monetary Policy: Monetary Operations, Monetary Transmission Mechanism the Science of Monetary Policy: Monetary Policy framework, Optimal monetary policy, inflation targeting Current issues in monetary policy: Liquidity trap, great moderation, roles of asset prices, Fiscal Monetary-Exchange rate policies mix.

## **Recommended Books**

- There is no single set textbook. Good undergraduate-level expositions on many topics to be covered can be found in:
- Bruce Champ and Scott Freeman (2001) Modeling Monetary Economies, Cambridge University Press, 2nd Edition
- Carl Walsh (2003) Monetary Theory and Policy, 2<sup>nd</sup> Edition, MIT Press,
- Michael Woodford (2003) Interest and Prices: Foundations of a Theory of Monetary Policy, Princeton University Press. David Romer (2000) Advanced Macroeconomics, 2nd Edition McGraw-Hill.
- Olivier J. Blanchard, and Stanley Fischer (1989) Lectures on Macroeconomics, MIT Press.

## **ECON      International Trade Policy**

### **Objectives**

The aim of the course is to introduce the students into the main facts of the theory of international trade, as well as to demonstrate principles of applying basic models .

### **Course Contents**

**03 Cr.Hrs**

#### **Introduction. The aims and the plan of the course.**

The subject of International Trade. The main questions and puzzles: the structure of international trade and the world price ratios. The role of the government in the processes of international trade. The outline of the course.

#### **1. Autarky equilibrium and the gains from trade.**

The basic facts of the General Equilibrium theory. Autarky equilibrium. Theorems on the gains from trade. The comparative advantage principle in strong and weak forms.

#### **2. Comparative advantage and technological difference**

The Ricardo's model. The relationship between the per-unit labor costs and the autarky prices. The Ricardo-Viner model. Generalizations. The testing of the Ricardo's model.

#### **3. Comparative advantage and the factors of production.**

The hypothesis of relative abundance of a factor; measures of abundance. The notion of a good associated with a given factor. The Heckscher-Ohlin Model. The Stolper-Samuelson and the Rybczynskii theorems. The verification of the Heckscher-Ohlin model: the Leontieff's paradox. The influence of international trade on the income distribution and the Heckscher-Ohlin model. The weak form of the relative abundance

hypothesis for the general model: local and global versions. The factor price equalization issues.

#### **4. Comparative statics & the factor movements between countries.**

Is it possible that a country becomes better off by making a unilateral gift of a certain good to another country? Immiserizing growth. The direct investment effect. Multinational corporations. The effect of the labor migration on the international equilibrium.

#### **Recommended Books**

- Dixit, A.K., Norman, V. (1992). Theory of International Trade. Cambridge University Press.
- Krugman, P.R., Obstfeld, M. (1994). International Economics. Theory and Policy. Harper Collins College Publishers.
- Kenen, P.B. (1994). The International Economy. Cambridge University Press.
- Bhagwati, J.N., Srinivasan T.N. (1994). Lectures on International Trade. The MIT Press, Cambridge MA.
- Falvey, R.E. (1994). The Theory of International Trade. In: D.Greenaway, L.A.Winters (eds). Surveys in International Trade, Blackwell Publishers, Oxford, 1994, pp. 9-43.
- Leamer, E.E. (1994). Testing Trade Theory. In: D.Greenaway, L.A.Winters (eds). Surveys in International Trade, Blackwell Publishers, Oxford, 1994, pp. 66-107.
- Laussel, D., Montet, C. (1994). Strategic Trade Policies. In: D.Greenaway, L.A.Winters (eds). Surveys in International Trade, Blackwell Publishers, Oxford, 1994, pp. 177-206.
- Krugman, P.R. (1994). Rethinking international Trade. Cambridge: The MIT Press.
- E.Helpman and P.R.Krugman (1994). Trade Policy and Market Structure. The MIT Press, Cambridge, Massachusetts (ch. 5-7).
- K.H.O'Rourke, A.M.Taylor, J.G.Williamson. (1996). Factor Price Convergence in the Late Nineteenth Century. International Economic Review, v.37, N.3, August, 499-529.

## **ECON      Operation Research**

### **Course Contents**

**03 Cr.Hrs**

#### **Introduction**

History, Meanings and introduction to Operations Research. Art of modeling and phases of Operations Research. Discussion on different types of Operations Research models.

## **Linear Programming**

Meanings and objectives of Linear Programming Models. Formulation of Linear Programming model/problem. Solutions of linear programming problems: (a) Graphical approach (b) Algebraic solution (Simplex method, M-technique and two-phase method). (c) Degeneracy, Alternative optima, unbounded solutions and Non-existing solutions.

## **Duality and Sensitivity Analysis**

Definition of the dual problem. Primal Dual relationship. Economic interpretation of duality. Sensitivity Analysis.

## **Transportation Model**

Definition and application of the transportation model. Solution of the transportation problem. The Assignment model, solution and application of assignment model. The transshipment model.

## **Project Scheduling By Pert-CPM**

Meanings and purposes of Project Scheduling. Arrow diagram representation, determination of critical path and floats Construction of time chart and resource leveling. Probability and cost considerations in project scheduling. Project control.

## **Inventory Models**

Meaning and objectives of Inventory model. Formulation of generalized inventory model. Types of inventory model:

- a) Deterministic Models: Single-item static model, single-item model with price breaks, multiple-items static model with storage Limitations, Single-item N-period dynamic model and N-period production scheduling model.
- b) Probabilistic Models: A continues review model, single period models and multi period model.

## **Dynamic Programming**

Elements of the Dynamic model. Examples of dynamic programming models and computations.

## **Recommended Books**

- Bunday, Brian D. "Basic Linear Programming," 1st edition, 1984, Edward Arnold.
- Gillet, Billy. E. "Introduction to Operations Research," 1st edition, 2001, McGraw hill 7<sup>th</sup> edition, 2002, Prentice Hall.

- Hamdy Taha. A. "Operations Research An Introduction," 7th edition, 2002, McGrawhill.
- Hillier and Lieberman. "Introduction to Operations Research,"
- Wagner, Harvey. M., "Principles of Operations Research," 2nd edition, 2001, Prentice Hall.
- Dimintries Bersimas and John N. Tsistsiklis, "Introduction to Linear Optimization" 2nd edition, 1997, Athena Scientific.
- Fryer M. J. "Introduction to Linear Programming and Matrix Game Theory". 1st edition 1978, Edward Arnold.
- Gass M. J. "Linear Programming Methods and Application" 1st edition, 1975, McGraw hill.
- Paul-A-Jensen and Jonathan F. Brad "Operations Research Models and Method" 1st edition, 2002, Wiley.
- Waynelwinston "Operations Research Application & Algorithm" 3rd edition 1994, Duxbury Press.

## **ECON      Political Economy**

### **Course Contents**

**03 Cr.Hrs**

#### **Introduction**

Meaning, Definition and brief Introduction of basic Concepts of Political Economy. Economic and Political Integration. Policy Reform and Popular Organization, key Social and Economic indicators. Political and Economic Institutions and their role in decision making. Linkages of Politics and Economics. Conceptualizing the Changing Global Order.

#### **Political Economy and World Order**

Problem of Power and Knowledge: New Millennium, Knowledge, Politics and Neo-Liberal Political Economy. New Voices in the Globalization Debate: Green Perspective, Regional Phenomena and State Order, New State Actors, Theory of Exclusion.

#### **Regional Dynamics**

Regionalism and Globalization, The Political Economy of European Integration, Regionalism in the Asia-Pacific Political Globalization and the Competition State. Economic Blocks and Political Blocks.



## **Political Economy of Economic Development**

International Politics and Transfer of Technology, Sector Specific Development Limitation. Agriculture and Industry, Political Slogans and their Implementation, International challenge of poverty, The Political Economy of food grain prices, Rural Development. Regional Exporting Blocks and their Markets.

## **Political Economy of Pakistan**

The Economics of Patronage, Seven Pillars of good Governance. The Political Economy of Reforms. Pakistan - Dynamics of Elitist Model. Strategies for self-preservation, A military Theocracy, Different Regimes, Economic Development, Ethnic conflict, the Role of State. Emerging Economic and Political Issues and their linkages. Regionalism, Poverty and Governance etc.

## **SAARC: Political & Economic Aspects**

Economic Aspects, Poverty Eradication, Trade & Economic Cooperation, Cooperation with Regional NGO's in South Asia. Pakistan and SAARC: Composition of Trade, Foreign Trade Trends in External Trade, Direction of Foreign Trade, Trends of Trade with SAARC. Future Economic Prospects of SAARC.

## **Issues in Lawlessness and Development**

Introduction, Economic Crimes, Terrorism & Insurgency, Theories of the Economic impact of Law & Order

## **Socio Economic Developments & Crime**

A Review of Socio-Economic Situation in Pakistan, Urbanization, Housing, Unemployment, Poverty, Juvenile Delinquency, Health Hazards. Environment and Externalities.

## **Global Issues**

Global Issues in Historical Perspective, Capital Mobility and Global Order, Opening up of Services Sector and its beneficiaries. Will there be free mobility of factors of production? Capital, labor and entrepreneurs etc. Multinationals: Objectives, Contribution and their Mobility. Emerging World Financial Order. The Group of Seven and Political Management of the Global Economy, Big Businesses and New Trade Agreements, Trade Blocks.

## **Recommended Books**

- Azhar, H. Nadeem (2002), Pakistan: The Political Economy of Lawlessness, Oxford University Press

- Gupta, S. Dev, The Political Economy of Globalization, Kluwer Academic Publishers. (Latest eds.)
- Hagen Everett E., The Economics of Development, Richard D. Irwin, Inc. (Latest eds.).
- Hussain Ishrat, (2004), Dollars, Debt and Deficits, Reform and Management of Pakistan Economy, Oxford University Press.
- (1999), Pakistan, the Economy of an Elitist State, Oxford University Press.
- Kardar Shahid, The Political Economy of Pakistan, Progressive Publishers, Pakistan.(Latest eds.).
- Kher, R.S. (2004), SAARC: Political & Economic Aspects, Dominant Publishers and Distributors.
- Noman Omar (1988), The Political Economy of Pakistan 1947- 1985, KPI, London and New York.
- Stubbs Richard and Underhill Geoffrey R.D., (2000), Political Economy and the Changing Global Order, Oxford University Press.
- Szentes J., The Political Economy of Underdevelopment, Akademiai Kiado, Budapest. (Latest Eds.).

## **ECON      Industrial Economics**

### **Objectives**

The course analyzes the problems of the real economy that cannot be described within the framework of a classical economic theory that is taught by traditional micro- and macroeconomics. This course will cover all the three main fields of industrial organization theory: the theory of a firm, the theory of imperfect competition, and the theory of economic regulation. The students are presumed to be familiar with the standard courses in micro- and macroeconomics at the graduate level

### **Course Contents**

**03 Cr.Hrs**

#### **Theory of a firm**

What is the firm and why is it organized? A firm as an alternative to a market. Transaction costs theory explaining appearance of firms. Production scale, specialization level and advantages of firms as a means of production. Hierarchical firm structure and its efficiency. Optimal size of a firm (of a number of hierarchical levels). Hierarchical firm structure under oligopoly.

## **Consumer Surplus and Public Welfare**

Estimation of public welfare within the framework of partial equilibrium analysis. Quasilinear utility function and measure of public welfare. Compensated and equivalent variations. Public welfare and Hicksian and Marshallian demand functions. Consumer surplus as an approximate measure of public welfare.

## **Economic Theory of Bundling**

Bundling as a marketing tactics. Price discrimination and bundling. Heterogeneous consumers. Pure components strategy, pure bundling strategy, and mixed bundling strategy. Superiority of mixed bundling relative to pure bundling. Conditions for mixed bundling strategy to be dominant over pure components strategy. Independent distribution of reservation prices. Homogeneous consumers. Commodity bundling and consumer surplus.

## **Mergers and Acquisitions.**

### **Horizontal Mergers and Acquisitions**

Types of mergers and acquisitions: horizontal, vertical, conglomerates. Examples of mergers and acquisitions within the last decade. Mergers of firms with identical production costs. Condition of a merger profitability. Mergers of firms with differing production costs. Reaction of a firm to a change in output by all other firms on the same market. Condition of industry output increase, resulting from a merger. Horizontal mergers and public welfare. Herfindal-Hirshman index as a measure of public welfare. Condition under which horizontal merger results in higher public welfare.

### **Vertical Mergers**

Effect of a vertical merger on output of final and intermediate products. Vertical mergers and market foreclosure. Vertical mergers and profits of integrated and unintegrated firms.

## **Product Differentiation**

**Location Models** Linear city, linear transportation costs. Quadratic transportation costs. Stability of equilibrium states. Circular city. Welfare implications.

## **Differentiated Goods, Increasing Returns to Scale, and Monopolistic Competition**

Markets for differentiated goods. The problems solved by consumers and producers. Market equilibrium under free entry conditions. Effects of fixed costs and market size on product diversity and output.

## **Industrial Agglomeration**

Phenomenon of industrial agglomeration. Increasing returns to scale as a driving force of agglomeration. External and internal mechanisms of increasing returns to scale. The role of transportation costs. A simple model of industrial agglomeration: two regions, two production factors (perfectly mobile workers and immobile farmers). Competition and

market size – the main factors affecting the process of industrial agglomeration. Effects of transportation costs, fixed costs, a share of immobile factor on industrial agglomeration. Stability of distributed and agglomerated equilibria. Multiple equilibria and hysteresis.

### **Economics of Innovations**

Model of the innovation process. Patent race. Market structure and innovation efforts. Incentives for innovations. Socially optimal and market investments into R&D. Patent life.

### **Imperfect Competition and Macroeconomics**

Theories of business cycles. Increasing returns to scale and stability of economic equilibrium. Price rigidity as a source of business cycles. Explanations of price rigidities: kinked demand curve, menu costs. Market monopolization and price rigidity. Small menu costs and large business cycles during economic booms and busts. Externalities, corrective taxes, and market structure. Possibility of a negative effect of Pigou tax on public welfare under monopoly.

### **Theory of Regulation**

Public costs of monopoly. Subadditivity of cost function – a necessary and sufficient condition for a natural monopoly. Economy of scale, concavity of a cost function and subadditivity. Stability of a natural monopoly. History of regulation after World War II. When should natural monopolies be regulated? Demsetz competition for a market. Contestability of a market. Deadweight losses, sunk costs and regulation. Regulation under complete information. Price discrimination and nonlinear tariffs as a means of increasing efficiency of a regulated monopoly. Peak-load pricing. Regulating monopoly under asymmetric information. Exogenous mechanisms of regulation. Averch-Johnson model. Endogenous mechanisms of regulation. The delegation and revelation approaches.

### **Analysis of Particular Industries and Enterprises.**

#### **Airlines**

Effects of deregulating air companies. “Hub and Spokes” system and its efficiency.

#### **Theatres and restaurants**

Why in developed market economies there are queues in theatres, restaurants, etc.? Network externalities in services consumption and nonmonotonicity of demand function. Instability of equilibrium, corresponding to profit maximization, and limitedness of prices and supply of services.

#### **Economics of Show Business**

Why relatively small number of people in show business, sports, book publishing, etc. earn a lot of money and dominate on markets? Effect of imperfect substitution: lesser talent is a poor substitute of larger talent. Dependence of demand function on quality.

Increasing returns to scale in show business production. Demand and supply structure. Market equilibrium. Convexity of revenue function, depending on talent. Continuous distribution of performers on talent, and rent dissipation. Outstanding performer and rent value.

### **Recommended Books**

- Adams W.J., and J.L. Yellen, 1976, “Commodity Bundling and the Burden of Monopoly”, *Quarterly Journal of Economics*, vol. XC, 475-498.
- Averch H., and L.L. Johnson, 1962, Behavior of the Firm under Regulatory Constraint, *American Economic Review*, vol. 52, 1052-1069.
- Baron D., 1989, Design of Regulatory Mechanisms and Institutions, in R. Schmalensee and R.D. Willig eds.: *The Handbook of Industrial Organization*, Elsevier North-Holland.
- Baumol W.J., J.C. Panzar, and R.D. Willig, 1982, *Contestable Markets and the Theory of Industry Structure*, New York: Harcourt Brace Jovanovich.
- Becker G., 1991, A Note on Restaurant Pricing and Other Examples of Social Influences on Price, *Journal of Political Economy*, vol. 99, 1109-1116.
- Braeutigam R., 1989, Optimal Policies for Natural Monopolies, in R. Schmalensee and R.D. Willig eds.: *The Handbook of Industrial Organization*, Elsevier North-Holland.
- Buchanan J.M., 1969, External Diseconomies, Corrective Taxes, and Market Structure, *American Economic Review*, vol. 59, 174- 177.
- Coase R.H., 1992, The Institutional Structure of Production,
- *American Economic Review*, vol. 82, 713-719.
- Diversity, *American Economic Review*, vol. 67, 297-308.
- Dixit A.K., and J. Stiglitz, 1977, Monopolistic Competition and Optimum Product
- Farrel J., and C. Shapiro, 1990, Horizontal Mergers: An Equilibrium Analysis, *American Economic Review*, vol. 80, 107- 126.
- Krugman P., 1991, *Geography and Trade*, The MIT Press.
- Krugman P., 1991, Increasing Returns and Economic Geography, *Journal of Political Economy*, vol. 99, 483-499.
- Krugman P., 1995, *Development, Geography, and Economic Theory*, The MIT Press.

- Loury G.L., 1979, "Market structure and Innovation", Quarterly Journal of Economics, vol. XCIII, No. 3, 395-410.
- Mankiw G., 1985, Small Menu Costs and Large Business Cycles: A Macroeconomic Model of Monopoly, Quarterly Journal of Economics, vol. 100, 529-537.
- Martin S., 1993, Advanced Industrial Economics, Blackwell.
- McAfee R.P., J. McMillan, M.D. Whinston, 1989, "Multiproduct Monopoly, Commodity Bundling, and Correlation of Values, Quarterly Journal of Economics, vol. CIV, 371-383.
- Posner R.A., 1975, The Social Costs of Monopoly and Regulation, Journal of Political Economy, vol. 83, 807-827.
- Rotemberg J.J., and G. Saloner, 1987, The Relative Rigidity of Monopoly Pricing, American Economic Review, vol. 77, 917-926.
- Salant S.W., S. Switzer, and R.J. Reynolds, 1983, Losses from Horizontal Merger: The Effects of an Exogenous Change in Industry Structure on Cournot-Nash Equilibrium, Quarterly Journal of Economics, vol. 98, 185-199.
- Salinger M.A., 1988, Vertical Mergers and Market Foreclosure, Quarterly Journal of Economics, vol. 77, 345-356.
- Sharky W., 1982, The Theory of Natural Monopoly, Cambridge University Press.
- Shy O., 1995, Industrial Organization, The MIT Press.
- Tirole J., 1988, The Theory of Industrial Organization, The MIT Press.
- Varian H., 1992, Microeconomic Analysis, W.W. Norton & Company.
- Williamson O., 1996, The Mechanisms of Governance, Oxford University Press.
- Williamson O.E., 1981, The Modern Corporation: Origins, Evolution, Attributes, Journal of Economic Literature, vol. 19, 1537-1568.
- Willig R., 1976, Consumer's Surplus Without Apology, American Economic Review, vol. 66, 589-597.

## **ECON      Transport Economics**

### **Objectives**

This course will provide students with the basic concepts and tools for economic evaluation of transportation projects and related investments. Students should obtain basic skills in the analysis of travel demand and in the valuation and analysis of transportation system benefits. Students should also be able to understand different components of the costs of transportation, basic pricing principles, and how these factors affect the market for transportation infrastructure and services. Finally, students should be able to apply these concepts to analyze transportation investment decisions.

### **Course Contents**

**03 Cr.Hrs**

Economic analysis of transportation projects and transportation infrastructure investment, including analysis of travel demand, benefits, costs, equilibrium, pricing, and market structure. Intro to microeconomic principles in transportation, Travel demand, Transportation costs, Pricing alternatives, Project evaluation, Congestion, Air quality, Fuel economy and safety, Transportation technology, Public transit, Land use, Transportation and economic development.

### **Recommended Books**

- José A. Gómez-Ibáñez, William B. Tye, and Clifford Winston (editors), Essays in Transportation Economics and Policy: A Handbook in Honor of John R. Meyer. Washington, D.C.: Brookings Institution
- Gomez-Ibanez, Tye, and Winston, (1999) essays in Transportation Economics and Policy: A Handbook in Honor of John R. Meyer,, The Brookings Institution.
- Richard C. Porter, (1999) Economics at the Wheel: The Costs of Cars and Drivers, the
- Academic Press

## **ECON      Health Economics**

### **Objectives**

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

### **Course Contents**

**03 Cr.Hrs**

### **Introduction.**

The particular problems of health and the economics of health: great uncertainty, great irreversibility, major ethical/equity concerns throughout time, the near-impossibility of separating production from distribution. Are there parallels?

## **Studies of the production of health**

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

### **The fundamental microeconomics of health care**

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

### **The pharmaceutical market**

## **Health in transition**

## **The future of health care reform in the world, and particularly Pakistan**

### **Recommended Books**

- The Economics of Health is one of the newest fields to have its own North-Holland 2-Volume Handbook, and remains somewhat unstandardized, with major variations in subject matter between countries and departments.
- Bootman JL, Townsend RJ, McGhan WF. (2005). Principles of Pharmacoeconomics. Harvey Whitney Books, Cincinnati.
- Drummond MF, O'Brien BJ, Stoddart GL, Torrance GW (1998).
- Methods for the Economic Evaluation of Health Care Programmes. 2nd edition, Oxford University Press, Oxford.
- Duckett SJ (2004). The Australian Health Care System. Oxford University Press, Oxford.



- Gold MR, Siegel JE, Russell LB, Weinstein MC (1996). Cost- Effectiveness in Health and Medicine. Oxford University Press, Oxford.
- Petitti DB (2000). Meta-Analysis, Decision Analysis, and Cost- Effectiveness Analysis:
- Methods for Quantitative Synthesis in Medicine, 2nd edition. Oxford University Press, Oxford.
- Rychlik R (2002). Strategies in Pharmacoeconomics and Outcomes Research. The Haworth Press, New York.
- Vogenburg, FR (2001). Introduction to applied pharmacoeconomics. McGraw Hill, New York.
- Zweifel and Breyer, Economics of Health, North Hollan

## **ECON      Resource Economics**

### **Objectives**

This course aims to provide the students a broad introduction to the economics of natural resources and the environment. It intends to develop a systematic understanding of the economic rationale behind the optimal use of natural resources, Pricing of market and non market resources, application of environmental policy instruments, economic valuation principles.

### **Course Contents**

**03 Cr.Hrs**

Economics and environment. Resource scarcity, prices, demand and supply of natural resources. Market equilibrium, economic efficiency, inter-temporal efficiency, property rights. The economics of pollution, natural resource exploitation. Optimal utilization of renewable and non- renewable natural resources. The economic concept of value and measurement of environmental and natural resource benefits using non- market valuation methods. Economic approaches to conservation of natural resources. Policy instruments to address resource allocation and environmental problems. Benefit cost analysis.

### **Recommended Books**

- Randall, A. 1987. 'Resource Economics' An Economic Approach to Natural Resource and environmental Policy. John Wiley and sons, Inc. New York .
- Compathy, R. S. and R. S. Ganapatty, 1990. Natural Resource Management' Mohan Primlani for Oxford and IBH Publishing Co. New Delhi.
- Jon M.Conard. Resource Economics. Cornell university , New York
- CC - Conrad, Jon M., and Colin W. Clark, Natural Resource Economics: Notes and Problems, Cambridge: Cambridge University Press, 1987.
- HNREE-III - Kneese, Allen V. and James L. Sweeney (eds.), Handbook of Natural Resource and Energy Economics, Volume II, Amsterdam: North-Holland, 1993.

## **ECON      Experimental Economics**

### **Objectives**

This is a course in Experimental Economics, which is a growing body of research concerned with testing economic theories with decisions made by people in laboratory experiments. We will study the use of laboratory experiments as behavioral tests of economic theory, and as tools for market design.

### **Course Contents**

**03 Cr.Hrs**

#### **Conduct of Science and Introduction**

Introduction to Experimental Economics Markets and Institutions, Bargaining & Behavioural Labour Economics, Public Goods & Enforcement of Cooperation,

#### **Economics experiments building blocks**

**Experimental Design**, Designing an Experiment & Experimental Workshop

#### **Identification of Behavior from Experimental Data**

#### **Market design,**

Behavioral Game Theory, Individual Decision-making& Anomalies, Asset Markets and Price Bubbles

**Experiments in the field**, Private Value Auctions, Common Value and Multi-Unit Auctions

#### **Non-expected utility and discounting**

#### **Recommended Books**

- Friedman, D. and S. Sunder, (1994): Experimental Methods: A Primer for Economists, Cambridge University Press, Cambridge,
- Kagel, J. and A. Roth (1995): The Handbook of Experimental Economics, Princeton University Press, Princeton.
- Davis, D. and C. Holt (1993): Experimental Economics, Princeton University Press, Princeton, NJ;
- Smith, V. (2000): Bargaining and Market Behavior, Cambridge University Press, Cambridge;
- Smith, V. (1991): Papers in Experimental Economics, Cambridge University Press, Cambridge
- Camerer (2000) Behavioral Game Theory, Princeton University Press.

## **ECON      Urban Economics**

### **Course Contents**

**03 Cr.Hrs**

- 1) Theory of Residential Land Use The Standard Monocentric City Model: Comparative Statics, Dynamic Stability:
- 2) Durable Housing - Development Timing
- 3) Durable Housing - Endogenous Maintenance, A Commodity Hierarchy Model, Maintenance, Comparative Statics with Durable Housing:
- 4) Name Durable Housing - Investment and Demolition
- 5) Spatial Interactions and Non-Monocentric Cities
- 6) Name Economics of Agglomeration
- 7) City Sizes: Factory Towns, a System of Cities,
- 8) Empirical Studies on the Housing Market: Homogeneous HoIntraurban Migration, Supply, Demand, Tenure Choice,
- 9) Urban Transportation: Congestion Pricing and Investment, SecoBest Pricing and Investment, Land Use for Transportation, Transportation Technology and Demand, Regulation of UrbaTransportation Services
- 10) Local Public Goods
- 11) Taxation: Property Taxes, Capital Gains Tax
- 12) Externalities and Zoning: Externality Zoning, Fiscal Zoning
- 13) The Hedonic Approach
- 14) Measuring the Benefits and Costs of Urban Externalities
- 15) The Contract Theory and the Housing Market, Tenure Choice Project Financing in Pakistan.

### **Recommended Books**

- Beckmann, M.J., Location Theory, Random House, (1968). (An old book, but still the best one in location theory.)
- Fujita, M., Urban Economics Theory, Cambridge University Press, (1989), (An up-to-date survey of technical aspects of urban land use theory.)
- Henderson, J.V., Economic Theory and the Cities, (2nd Edition), Academic Press, (1985). (A standard graduate textbook.)
- Kanemoto, Y., Theories of Urban Externalities, North-Holland, (1980).
- Miles, D., Housing, Financial Markets and the Wider Economy, Wiley, (1994). (A book on housing economics with special emphasis on the financial side.)
- Mills, E. S. and B.W. Hamilton, Urban Economics, (4th Edition), Scott, Foresman and Company, (1989). (A standard undergraduate textbook. If you have not read this book yet, you should do so in a hurry.)
- Small, K. A., Urban Transportation Economics, Harwood, (1992). (A good survey of recent research on transportation economics with special emphasis on the empirical side.)
- Wildasin, D. E., Urban Public Finance, Fundamentals of Pure and Applied Economics 10, Harwood Academic Publishers: Chur, Switzerland, (1986).

## **ECON      Regional Economics**

### **Course Contents**

**03 Cr.Hrs**

Different types of Regions, Micro Level (Regional), Political Blocks, Homogeneous and Heterogeneous Blocks. Need for Planning for Local Level Development; Techniques / Methods / Tools. Regional Aims of Planning. Theoretical and Practical Problems of Regional Development Planning. Combining Theory, Techniques and Practices of Development. Linkage between Planning and Implementation at grassroots Level. Aggregate and Regional Planning Techniques / Models. Inter-industry Model. Theories of Inter-regional Economic Growth. Regional Policies and Alternatives. Shadow Pricing and Socio-economic Development. Criteria for Development of Backward Areas. Impact of Distance on Classical Economic Markets and Theory of Firms. International and Regional Location Analysis of Industries. Spatial and Economic Structure of Regions and Regional Development. Agglomeration Economics and Industrialization Measurement of Regional Economic Activities. Social and Economic Returns to Develop Backward Regions. Growth Poles. Project Economics and Planning. Centralized and Decentralized Planning and Financing for Development. Rationale for Decentralization and Functioning of Markets. Factor Mobility, Lack of Local Resources and Financing Techniques. Sharing to Finance Local Projects and Benefits. Cost / Benefits Analysis of Socially Uplifting Projects. Social Returns to Local Projects. International Inter-regional Economic Growth: Convergence-divergence debate. Regional Policies for Development and Regional (Provincial) development in Pakistan; Planning, Implementation and Progress. International Income Differential and Issues.

### **Recommended Books**

- Armstrong, Harvey, (2000), Regional Economics and Policy, Black wall Publishing Company.
- Choi, Rok-Byung, (2003), High Technology Development in Regional Economic Growth, Policy Implications of Dynamic Externalities, Amazon.com.
- Davis H., Craig, (1990), Regional Economics, Impact Analysis and Project Evaluation, Amazon.com.
- Hijkamp (Editor), Handbook of Regional and Urban Economics, North Holland.
- Lee Roger (ed). (1997), Geographics of Economics, John Wiley and Sons.
- Marshall Peter, (1998), Competitiveness, Localized learning and Regional Development: Specialization and Prosperity in Small Open Economies, (Routledge Functions of Political Economy), Amazon.com.
- Mcker David L., (1970), Regional Economics: Theory and Practice, The Free Press, New York.
- Philip McCann, (2001), Urban and Regional Economics, Oxford University Press.
- Richardson Harry, W., (1985), Regional Development Theories in Economic Prospects for the Northeast, (Editors), Harry W. Richardson and Joseph H., Turek, Temple University Press, Philadelphia, USA.

- Simon David, (1990), Third World Regional Development: A Reappraisal, Paul Chapman Educational Publishing.
- Shrivastava D.S. (1985), Advanced Economics of Development and Planning, Allied Publications, New Delhi.
- Thisse, Fujita, M.J., (2002), Economics of Agglomeration: Cities, Industrial Location, and Regional Growth, Cambridge University Press.
- Taylor, Jim, and Armstrong, H.W., (2000), Regional Economics and Policy, Amazon.com.
- Treyz, George, (1993), Regional Economic Modeling: A Systematic Approach to Economic Forecasting and Policy Analysis, Kluwer Academic Publishers.
- Winters L. Alam, Regional Integration and Development, Amazon.com, latest edition.
- Zaidi, Akbar, (1999), Issues in Pakistan Economy, Oxford Univ. Press, Karachi.

## **ECON      Poverty Alleviation**

### **Objectives**

This course should be focused on developing countries. This course will study causes of poverty and underdevelopment, poverty measurement issues, and policies to improve wellbeing. This will concentrate on topics such as nutrition and health, education, labor markets, intra-household allocation of resources and policies to alleviate poverty. Empirical evidence from developing economies will be used extensively.

### **Course Contents**

**03 Cr.Hrs**

1. Measuring Poverty, w much poverty? Is it getting worse Measurement difficulties
2. Determinants of Poverty, Proximate Causes, Underlying Causes Institutions, Geography
3. Fertility
4. Investments in Human Capital
5. Education and Income Generation
6. Resources and Outcomes
7. Provision of Education
8. Nutrition and Labor Markets, labor Markets
9. Investments in Health, Disease and Investments in Education
10. Child Labor
11. Poverty Alleviation – Transfers and Safety Nets
12. Foreign Aid

## Recommended Books

- World Bank World Development Report, 2000. *Attacking Poverty*. Introduction and Chapter 1, pp 1-29.
- UNDP. 2000. *Overcoming Poverty: UNDP Poverty Report 2000*. <http://www.undp.org/povertyreport/>
- Krishna, Anirudh. 2004. *World Development* 32(1): 121-136. "Escaping poverty and becoming poor: who gains, who loses, and why?" Martinussen, chapter 21, pp 296-308. *Poverty and social development*.
- Wade, Robert. 2001. *Making the World Development Report 2000: Attacking Poverty*. *World Development* 29(8): 1435-1441.
- Chambers, Robert. 1997. *Whose Reality Counts? Putting the First Last*. Chapter 8, pp 162-187, *Poor people's realities: local, complex, diverse, dynamic, and unpredictable*.
- Bebbington, Anthony. 1999. *Capitals and capabilities: a framework for analyzing peasant viability, rural livelihoods and poverty*. *World Development* 27(12): 2021-2044. (electronic)
- Chambers, Robert. 1993. *Challenging the Professions: Frontiers for Rural Development*. London: Intermediate Technology Publications. Chapter 4, pp 40-59, *Health, agriculture and rural poverty: why seasons matter*.
- Moser, Caroline. 1993. *Gender Planning and Development: Theory, Practice and Training*. New York: Routledge, Chapter 4, pp.55-82: *Third World policy approaches to women in development*.
- Sen, Amartya. *Development as Freedom*. New York: Knopf.
- Morris, Morris. *Measuring the condition of the world's poor: the physical quality of life index*. New York: Pergamon Press.
- World Bank World Development Report, 1990. *Poverty. Overview*, pp 1-6.
- Moon, Bruce, and William Dixon. *Basic needs and growth- welfare tradeoffs*. Chapter 10, pp 119-140 in Seligson, Mitchell, and John Passe-Smith. 1993. *Development and Underdevelopment: The Political Economy of Inequality*. Boulder and London: Lynne Rienner. Department for International Development (DFID), United Kingdom. [www.livelihoods.org](http://www.livelihoods.org) contains a lot of material on the "livelihoods" perspective on development and poverty alleviation.
- Hanlon, Joseph. 2004. *It is possible to just give money to the poor*. *Development and Change* 35(2): 375-383.
- Juliet Hunt ; Nalini Kasynathan. 2001. *Pathways to empowerment? Reflections on microfinance and transformation in gender relations in South Asia*. *Gender and Development* 9(1): 42 – 52
- Institute of Development Studies Bulletin. 2002. *The New Famines*. (several articles on why people still starve and what to do about it.)

- Eviatar, Daphne. 2004. Spend \$150 billion per year to cure world poverty. New York
- Times Magazine, November 7, 2004. (About Jeffrey Sachs' crusade to raise foreign aid spending)
- Deere, Carmen Diana, and Magdalena Leon. 2003. The gender asset gap: land in Latin America. World Development 31(6): 925- 947.

## **ECON      International Economic Relations**

### **Objectives**

The course is designed to provide students with an introduction to some of the mainstream, as well as critical, approaches to the study of international political economy (IPE), comparative political economy and the emerging literature on globalization. It examines the basic presuppositions of different approaches to IPE, and the ways in which these give rise to the basic analytic puzzles and research strategies characteristic of that approach. It begins with an overview of the classic and modern conceptions of the main schools of IPE thought: liberalism, mercantilism, and Marxism. These perspectives provide the theoretical basis for approaching the wide range of topics that IPE seeks to address.

### **Course Contents**

**03 Cr.Hrs**

1. The Field of International Political Economy
  - a. Definition
  - b. Evolution
  - c. Interests and Institutions in IPE
2. Theories of International Political Economy
  - a. Economic Internationalism/Liberalism
  - b. Economic Nationalism/Mercantilism
  - c. Marxism/Structuralism/Dependency Theories
3. Politics of International Trade: Multilateral Trade System
  - a. Nature
  - b. Evolution
  - c. Role and Impact of Trade Institutions: GATT& WTO
4. Politics of International Finance: Monetary System
  - a. Nature
  - b. Evolution
  - c. Role and Impact of Financial Institutions: WB & IMF
5. International Investment: Role of Multinational Corporations
  - a. Nature
  - b. Evolution
  - c. Influence of MNC's in IR
6. Issues of Development
  - a. North South Gap

7. Recent Developments in IPE
  - a. Economic Integration
  - b. Revival of Economic Nationalist
  - c. Neo-Imperialism,
  - d. Globalization

### **Core Texts**

Oatley, T. International Political Economy: Interests & Institutions in the Global Economy. North Carolina: Pearson Education USA. (2004).

### **Recommended Books**

- Adams, John, (Ed.) the Contemporary Economy. New York: St. Martins, 1985.
- Keohane, Robert O; Beyond Hegemony: Cooperation and Discard in the World Political Economy. Princeton: Princeton University Press, 1984.
- Kundi, Mansoor Akbar. Elements of International Political Economy. (2nd Ed.) Islamabad: National Book Foundation , 2004
- Spero Joan E. and Hart Jeffry A., The Politics of Economic, (5 th Ed.) New York: Routledge, 2000.
- Blake, David M., & Walters, Robert H., The Politics of Global Economic. Englewood Cliffs: Prentice – Hall, 1987.
- Oppenheimer, Peter, (ed.), Issues in Economics: London: Rutledge, 1980.
- Spero, John Edelman, the Politics of International Economics. (3 rd ed.), London: Allen & Unwin, 1985.

## **ECON      Game Theory**

### **Pre-requisite**

Mathematics and Statistics

### **Objectives**

The course is dealing with some topics in repeated games. The special attention is devoted to the issue of cooperation among the players when they do not observe the actions of each other.

### **Course Contents**

**03 Cr.Hrs**

Introduction to Repeated Games and Folk Theorems. Cartel Equilibria as example of Imperfect Public Monitoring. Folk Theorems with Imperfect Public Monitoring. Folk Theorems with Imperfect Private Monitoring. Communication in Private Monitoring Games.



## Recommended Books

- Abreu, D. and D. Pearce and E. Stacchetti, “Optimal Cartel Equilibria with Imperfect Monitoring,” JET, 39, 1986, 251-269
- Abreu, D. and D. Pearce and E. Stacchetti, “Toward a Theory of Discounted Repeated Games with Imperfect Public Monitoring,” Econometrica, 58, 1990, 1041-1063
- Compte O., “Communication in Repeated Games with Imperfect Private Monitoring,” Econometrica, 66, 1998, 597-626
- David M. Kreps “Game Theory and Economic Modelling”. Oxford University Press.
- Ely, J. and J. Valimaki, “A Robust Folk Theorem for the Prisoner’s Dilemma,” JET, 102, 2002, 84-105
- Fudenberg, D. and J. Tirole “Game Theory”, MIT Press, 1996, Ch. 4,5
- Fudenberg, D., D. Levine and E. Maskin, “The Folk Theorem with Imperfect Public Information,” Econometrica, 62, 1994, 997- 1040
- Green, E. and Porter R., “Non cooperative Collusion Under Imperfect Price Information,” Econometrica, 52, 1984, 87-100
- Kandori M. and Matsushima H., “Private observation, communication and collusion,” Econometrica, 66, 1998, 627-652
- Kandori M., “Introduction to Repeated Games with Private Monitoring,” JET, 102, 2002, 1-15
- Mailath G., and S. Morris, “Repeated Games with Almost-Public Monitoring,” JET, 102, 2002, 189-228
- Martin J. Osborne “An Introduction to Game Theory”. Oxford University Press.
- Porter, R., Optimal Cartel Trigger-Price Strategies,” JET, 29, 1983, 313-338.

## **Details of Optional (Non Economics) Courses**

### **ECON Introduction to Communication**

#### **Objective**

Enable the students to meet their real life communication needs (verbal and non-verbal) which will make them good in their professional life.

#### **Course Contents**

**03 Cr.Hrs**

##### **1. Communication**

- a. Components of communication
- b. Verbal and non-verbal communication
- c. Seven C's of effective communication

##### **2. Basic Concepts**

- a. Skimming
- b. Scanning
- c. Extensive Reading
- d. Intensive Reading
- e. Precise writing
- f. Reading Compression

##### **3. Academic Skills**

- a. Letters and its formats
- b. Memorandum
- c. Job Application letter
- d. Acceptance Letter
- e. Resignation letter
- f. CV, Resume
- g. Meeting; types/kinds of meeting, Agenda, minutes of meeting
- h. Interview; kinds of Interview

##### **4. Report Writing**

- a. Informational Reports
- b. Analytical Reports
- c. Short Reports
- d. Long Reports
- e. Progress Report, Periodic report,
- f. recommendation Justification report etc

##### **5. Presentation Skills**

##### **6. Group Discussions**

### **Recommended Books**

- Reading. Upper Intermediate. Brian Tomlinson and Rod Ellis. Oxford Supplementary Skills. Third Impression 1992. ISBN 0 19 453402 2.
- Writing. Upper-Intermediate by Rob Nolasco. Oxford Supplementary Skills. Fourth Impression 1992. ISBN 0 19 4354065 (particularly good for writing memos, introduction to presentations, descriptive and argumentative writing).
- Reading. Advanced. Brian Tomlinson and Rod Ellis. Oxford Supplementary Skills. Third Impression 1991. ISBN 0 19 4534030.

## **ECON Introduction to Philosophy**

### **Course Contents**

**03 Cr.Hrs**

## **ECON Introduction to Sociology**

### **Objective**

The course is designed to introduce the students with sociological concepts and the discipline. The focus of the course shall be on significant concepts like social systems and structures, socio-economic changes and social processes. The course will provide due foundation for further studies in the field of sociology.

### **Course Contents**

**03 Cr.Hrs**

#### **1. Introduction**

- a. Definition, Scope, and Subject Matter
- b. Sociology as a Science
- c. Historical back ground of Sociology

#### **2. Basic Concepts**

- a. Group, Community, Society
- b. Associations
  - i. Non-Voluntary
  - ii. Voluntary
- c. Organization
  - i. Informal
  - ii. Formal
- d. Social Interaction
  - i. Levels of Social Interaction
  - ii. Process of Social Interaction
    - a) Cooperation
    - b) Competition
    - c) Conflict
    - d) Accommodation

- e) Acculturation and diffusion
- f) Assimilation
- g) Amalgamation

### **3. Social Groups**

- a. Definition & Functions
- b. Types of social groups
  - i. In and out groups
  - ii. Primary and Secondary group
  - iii. Reference groups
  - iv. Informal and Formal groups
  - v. Pressure groups

### **4. Culture**

- a. Definition, aspects and characteristics of Culture
  - i. Material and non material culture
  - ii. Ideal and real culture
- b. Elements of culture
  - i. Beliefs
  - ii. Values
  - iii. Norms and social sanctions
- c. Organizations of culture
  - i. Traits
  - ii. Complexes
  - iii. Patterns
  - iv. Ethos
  - v. Theme
- d. Other related concepts
  - i. Cultural Relativism
  - ii. Sub Cultures
  - iii. Ethnocentrism and Xenocentrism
  - iv. Cultural lag

### **5. Socialization & Personality**

- a. Personality, Factors in Personality Formation
- b. Socialization, Agencies of Socialization
- c. Role & Status

### **6. Deviance and Social Control**

- a. Deviance and its types
- b. Social control and its need
- c. Forms of Social control
- d. Methods & Agencies of Social control

### **7. Collective Behavior**

- a. Collective behavior, its types
- b. Crowd behavior
- c. Public opinion
- d. Propaganda
- e. Social movements

## f. Leadership

### Recommended Books

- Anderson, Margaret and Howard F. Taylor. 2001. Sociology the Essentials. Australia: Wadsworth.
- Brown, Ken 2004. Sociology. UK: Polity Press
- Giddens, Anthony 2002. Introduction to Sociology. UK: Polity Press.
- Macionis, John J. 2006. 10<sup>th</sup> Edition Sociology New Jersey: Prentice-Hall
- Tischler, Henry L. 2002. Introduction to Sociology 7th ed. New York: The Harcourt Press.
- Frank N Magill. 2003. International Encyclopedia of Sociology. U.S.A: Fitzroy Dearborn Publishers
- Macionis, John J. 2005. Sociology 10<sup>th</sup> ed. South Asia: Pearson Education
- Kerbo, Harold R. 1989. Sociology: Social Structure and Social Conflict. New York: Macmillan Publishing Company.
- Koenig Samuel. 1957. Sociology: An Introduction to the Science of Society. New York: Barnes and Nobel..
- Lee, Alfred Mclung and Lee, Elizabeth Briant 1961. Marriage and The family. New York: Barnes and Noble, Inc.
- Leslie, Gerald et al. 1973. Order and Change: Introductory Sociology Toronto: Oxford University Press.
- Lenski, Gevbard and Lenski, Jeam. 1982. Human Societies. 4<sup>th</sup> edition New York: McGraw-Hill Book Company.
- James M. Henslin. 2004. Sociology: A Down to Earth Approach. Toronto: Allen and Bacon.

## **ECON      Introduction to Psychology**

### Course Objectives

Describe psychology with major areas in the field, and identify the parameters of this discipline. Distinguish between the major perspectives on human thought and behavior. Appreciate the variety of ways psychological data are gathered and evaluated. Gain insight into human behavior and into one's own personality or personal relationships. Explore the ways that psychological theories are used to describe, understand, predict, and control or modify behavior.

### Course Contents

**03 Cr.Hrs**

1. **Introduction to Psychology**
  - a. Nature and Application of Psychology with special reference to Pakistan.
  - b. Historical Background and Schools of Psychology (A Brief Survey)

**2. Methods of Psychology**

- a. Observation
- b. Case History Method Experimental Method
- c. Survey Method
- d. Interviewing Techniques

**3. Biological Basis of Behavior**

- a. Neuron: Structure and Functions
- b. Central Nervous System and Peripheral Nervous System
- c. Endocrine Glands

**4. Sensation, Perception and Attention**

- a. Sensation
  - (I) Characteristics and Major Functions of Different Sensations
  - (II) Vision: Structure and functions of the Eye.
  - (III) Audition: Structure and functions of the Ear.
- b. Perception
  - (I) Nature of Perception
  - (II) Factors of Perception: Subjective, Objective and Social
  - (III) Kinds of Perception:
  - (IV) Spatial Perception (Perception of Depth and Distance)
  - (V) Temporal Perception; Auditory Perception.
- c. Attention
  - (I) Factors, Subjective and Objective
  - (II) Span of Attention
  - (III) Fluctuation of Attention
  - (IV) Distraction of Attention (Causes and Control)

**5. Motives**

- a. Definition and Nature
- b. Classification

Primary (Biogenic) Motives: Hunger, Thirst, Defecation and Urination, Fatigue, Sleep, Pain, Temperature, Regulation, Maternal Behavior, Sex

Secondary (Sociogenic) Motives: Play and Manipulation, Exploration and Curiosity, Affiliation, Achievement and Power, Competition, Cooperation, Social Approval and Self Actualization.

**6. Emotions**

- a. Definition and Nature
- b. Physiological changes during Emotions (Neural, Cardiac, Visceral, Glandular), Galvanic Skin Response; Pupillometrics
- c. Theories of Emotion
- d. James Lange Theory; Cannon-Bard Theory
- e. Schachter – Singer Theory

7. **Learning**
  - a. Definition of Learning
  - b. Types of Learning: Classical and Operant Conditioning Methods of Learning: Trial and Error; Learning by Insight; Observational Learning
8. **Memory**
  - a. Definition and Nature
  - b. Memory Processes: Retention, Recall and Recognition
  - c. Forgetting: Nature and Causes
9. **Thinking**
  - a. Definition and Nature
  - b. Tools of Thinking: Imagery; Language; Concepts
  - c. Kinds of Thinking
  - d. Problem Solving; Decision Making; Reasoning
10. **Individual differences**
  - b. Definition concepts of;
  - c. Intelligence, personality, aptitude, achievement

## **RECOMMENDED BOOKS**

- Atkinson R. C., & Smith E. E. (2000). Introduction to psychology(13thed.). Harcourt Brace College Publishers.
- Fernald,L.D.,&Fernald,P.S.(2005). Introduction to psychology. USA: WMCBrownPublishers.
- Glassman, W. E. (2000). Approaches to psychology. Open University Press.
- Hayes, N. (2000). Foundation of psychology (3rd ed.). Thomson Learning.
- Lahey, B. B. (2004). Psychology: An introduction (8th ed.). McGraw-HillCompanies, Inc.
- Leahey, T. H. (1992). A history of psychology: Main currents in psychological thought. New Jersey: Prentice-Hall International, Inc.
- Myers, D. G. (1992).Psychology. (3rd ed.). New York: WadsworthPublishers.
- Ormord, J. E. (1995). Educational psychology: Developing learners. Prentice-Hall, Inc.

## **ECON      Fundamentals of Geography**

### **Objectives**

To create awareness about Geography and Geographical knowledge

### **Course Contents**

**03 Cr.Hrs**

#### **1. Introduction & Definitions of Geography**

- Themes of Geography
  - Roots of the discipline & basic geographic concepts
  - The evolution of geography from ancient to modern period
  - Branches of Geography and its relations with other disciplines
- 2. The universe**
    - Galaxies and Solar system
    - Origin of the Earth
  - 3. Earth as a planet and celestial positions its Shape and size**
    - Rotation and revolution and related phenomena
    - Earths' Satellite Moon
    - Lunar and solar Eclipses
  - 4. Positions on Map and Globe**
    - Geographical coordinates and its characteristics
    - World time zones standard and local time
  - 5. Geological time scale**
    - Internal Structure of the Earth & Rocks
    - Distribution of land and water
    - Major Landforms (Mountain, Plateau and Plain)
  - 6. Atmospheric Structure and Composition**
    - Elements of Weather and climate
  - 7. Ocean and its Configuration**
    - Movement of Oceans
  - 8. Biomes**
    - Lab work outline, Comprehension of atlases, maps, location of places features and relevant work related to topics of the theoretical section.

### **Recommended Books**

- Christopherson, R.W. (2000), Geo-systems, Prentice-Hall, Inc, USA.
- De Blij, H. J and Muller, P.O. (1996), Physical Geography of the global Environment, USA, John Wiley and Sons Inc.
- Diwan A.P. & D.K. Arora (1995), Origin of the Ocean, Anmol Publisher, Delhi.
- Gabler, R.E, Sager, R.J and Wise, D.L. (1997), Essentials of Physical Geography, Saunders College Publishing, New York.
- Kendrew, (1961), Climates of the continents, Longman London/New York
- King, CAM (1980), Physical Geography, Oxford, Basil Blackwell
- Mcliveen, J.F.R. (1992), Fundamentals of Weather and climate, Prentice Hall New Jersey
- Miller, E.W. (1985), Physical Geography, Columbus, Charles E. Merrill
- Miller, G.T. (1996), Living in the Environment, Principles, connections and



solutions, Wadsworth

- Monkhouse, F.J. (1996), Principles of Physical Geography, Hodder & Stoughton, London
- Rathor, A. Hamid (1996), Tabhi Geographia, Islamabad Muqtadra Qaumi Zaban
- Scott, R.C. (1996), Introduction to physical geography, West Publishing Co, New York. I
- Small, R. J. (1989), Geomorphology and Hydrology, London, Longman.
- Strahlar, A.N., Strahlar, A.H. (2004), Physical Environment, John Wiley,. New York
- Stringer, E.T. (2004), Modern Physical Geography, New York: John Wiley.
- Taylor, J. (1993), Integral Physical Geography, London Longman
- Thompson, R.D. et. Al. (1986), Process in Physical Geography, London, Longman.
- Thornbury, W.D. (1969), Principles of Geomorphology, John Willy & Sons. New York.
- Thurman, H.V. & Mexrill (1996), Essentials of Oceanography, Menson, London
- Shepherd (latest edition) Oceanography
- Pakistan Geographical Review (Lahore)
- Pakistan Journal of Geography (Peshawar)
- Journal Geography (Karachi)

## **ECON      Introduction to International Relations**

### **Objective**

The objective of this course is to highlight the significance and to introduce the fundamentals of International Relations to the students.

### **Course Contents**

**03 Cr.Hrs**

1. Meaning, Definition and Scope of International Relations
2. Nature, Evolution and Significance of International Relations' concepts and Ideas
3. Nation State: Sovereignty and Security
4. System and Sub-Systems
5. Foreign Policy, National Interest, and Diplomacy

6. Power and Balance of Power
7. Regionalism and Globalization
8. State and Non-state Actors
9. Human Rights and International Relations.
10. Religion, Ethics, Morality and Justice in International Relations

#### **Core Books**

1. Columbus, Theodore. Introduction to International Relations: Power and Justice. New Delhi: Prentice Hall, 1992.
2. Goldstine, Josha. International Relation; Washington DC: Pearson Education, 2003
3. Lawson, Stephanie. International Relations; Cambridge; Polity, 2003.

#### **Recommended Books**

- Amstutz, Mark R. International Conflict and Cooperation: An Introduction to World Politics. (Chicago: Brown& Benchmark, 1995)
- Griffiths, Martin, and Callaghan, Terry O'. International Relations: The Key Concepts. LondonRoutledge, 2003.
- Henderson, Conway W. International Relations: Conflict & Cooperation at the Turn of the 21<sup>st</sup> Century Boston: McGraw-Hill, 1998.
- Jackson, Robert and Sorensen; Georg, Introduction to International Relations Theories and Approaches, Oxford University Press, 2003.
- Papp, Denial S; Contemporary International Relations. (2<sup>nd</sup> Ed). New York: Macmillan, 1988.
- Pearson. Frederic S., & Rochester, J. Maertu; International Relations: The Global Conditions in the Late Twentieth Century. New York: Random House, 1988.

## **ECON      Introduction to Political Science**

### **Course Contents**

**03 Cr.Hrs**

1. Definition, Nature, Scope and Sub-fields of Political Science.
2. Approaches to study of Political Science: Traditional and Modern.
3. Basic concepts of Political Science: Power, Authority, Legitimacy, Nation and Sovereignty.
4. Political System: Definition, Characteristics and Functions.
5. State: its origin and evolution; Western and Islamic concepts of State.
6. Law: Definition, Sources, Kinds; its relationship with Morality, individual Liberty and Rights & Duties.
7. Organs of Government: Legislature, Executive, Judiciary.
8. Forms of Government: Unitary, Federal, Parliamentary and Presidential.
9. Political Parties, Interest Groups, Public Opinion, Electoral process.

**Note:** Sub-fields of Political Science include: Political Philosophy/Theory; Comparative Politics; International Relations; Public Administrations/ Public Policy; Local Government.

### **Recommended Books**

- Rodee, Anderson etc. Introduction to Political Science, Islamabad, National Book Foundation, Latest Edition. 2. Mazher ul Haq, Theory and Practice in Political Science, Lahore Bookland, 1996.
- Mohammad Sarwar, Introduction to Political Science, Lahore Ilmi Kutub Khana, 1996.
- Ahmad Shafi Choudhry, Usul-e-Siyasiat, Lahore Standard Book Depot, 1996.
- Bashir Ahmad Sheikh, (Sindhi) Riyasat Jo Ilm (Science of State), Jamshoro, Institute of Sindhalogy, University of Sindh, 1985.

## **ECON      Introduction to Journalism**

### **Course Objectives**

**03 Cr.Hrs**

### **Course Contents**

1.    **Journalism**
  - a. Definition and functions of journalism.
  - b. Types of Journalism
    - i. Print Journalism
    - ii. Broadcast Journalism
    - iii. TV Journalism
    - iv. Online Journalism
2.    **News**
  - a. Definition and types of News; Hard news and Soft News
  - b. Elements of News
  - c. News Values
  - d. Factors that determine News
  - e. Source of News
  - f. Column, Features, Articles and Editorials
3.    **News Beats**
  - a. Political, Social, Economics and Commerce, crimes, sports, Courts, etc
4.    **Media History**
  - a. Print Media
  - b. Broadcast and TV
5.    **Communication**

- a. Types: verbal, non-verbal
- b. Interpersonal, intra-personal mass communication

### **Suggested Books**

- Yousaf, Mohammad, Mirza (1990). *A-One Exploring Journalism*. Lahore: A-One Publisher Urdu Bazaar.
- Hassan, Mehdi, and Khurshid, Abdus Salam (1997). *Journalism for All*. Lahore: Aziz Book Depot, 6th ed.
- Shahd, Imtiaz. (2013). *Introducing New Trends mass Communication*. Lahore: Advance Publisher, Urdu Bazaar.
- Ahuja, B.N. (1993) *Theory and Practice of Journalism*. New Delhi Surjeet Publications.
- Chakarvarty, Suhas (2006). *New Reporting and Editing: An Overview*. New Delhi: Kanishka Publishers.
- Clarence, hach (2002). *Scholastic Journalism*, iowa: iowa state University Press.
- Graber, DorisA. (1998). *Processing the News*. New York, London: Longman Publications.
- Harris, Geoggrey and Spark, David (1997). *Practical Newspaper Reporting*. Oxford: Oxford Focal Press.

## **ECON Principles of Management**

### **Course Contents**

**03 Cr.Hrs**

This course aims at broadening the perspective of the students to understand management of an organization including various managerial functions and giving them insight into various managerial skills.

### **MANAGEMENT THEORY AND PRACTICE**

- Definition of Management, nature and purpose
- Management Skills, Technical, Human, Conceptual, Design
- Productivity, effectiveness and efficiency
- Managing science or art, elements of science, scientific approach
- Functions of managers, planning, organizing, leading, staffing, controlling

### **EVOLUTION OF MANAGEMENT**

- Fredrick Taylor, Taylor's major concern, Taylor's principles
- Fayol's operational management
- Fayol's 14 principles
- Hawthorne studies, behavior management

### **PLANNING**

- Nature and purpose of planning

- Definition
- Nature, contribution to purpose and objectives, primacy, pervasiveness, efficiency
- Types of plans, mission, objectives, strategies, policies, procedures
- Steps in planning process
- MBO-process, setting preliminary objectives, clarify roles, subordinate objectives
- Benefits of MBO
- Weakness of MBO

## **ORGANIZING**

- Formal and informal organization
- Span of management
- Factors determining effective span
- Structure, logic and purpose of organizing

## **DEPARTMENTATION**

- By time, by function, by geography, by customer, by product

## **STAFFING**

- Human resource management
- Definition of staffing
- Selection process, techniques and instruments
- Selection process, interviews, tests, assessment centers, limitations
- Socializing new employees

## **LEADING**

- Leadership
- Definition
- Leadership behavior and styles
- Linkert's four system approaches
- Managerial grid

## **CONTROLLING**

- Steps in control process, establishment of standards, measurement of performance
- Corrections of deviations

## **Recommended Books:**

- Heinz Weihrich, Harold Koontz: "*Management- a global perspective*" 10<sup>th</sup> Edition. McGraw Hill Series (Jan 1986)
- Joseph M. Putty: "*Management- a functional approach*" 5th Ed. McGraw-Hill

## **ECON      Principles of Marketing**

**Course Contents**

**03 Cr.Hrs**

The course objective is to introduce the student with fundamentals of Marketing. The course will provide a base to the student to further proceed towards the advance courses

**Introduction**

- Definitions and Core Concepts
- Market and Marketing
- Nature of Marketing
- Scope of Marketing
- Importance of Marketing
- Marketing and Selling

**Market Segmentation**

- Process of Market Segmentation
- Bases of Market Segmentation
- Geographic and Demographic Market Segmentation
- Behavioral, and Psychographics Market Segmentation

**STP Marketing**

- Target markets
- Market targeting
- Product positioning
- Positioning Task
- Differentiations
- Product Differentiation
- Service Differentiation
- Personnel Differentiation
- Channel Differentiation
- Image Differentiation
- Developing Positioning Statement

**Product**

- Classification of Consumer Product
- Classification of Business Product
- Importance of product Innovation
- Steps in the new product Development Process
- New product adoption and diffusion process

**Price**

- Meaning of Price and its importance
- Major pricing goals/objectives
- General pricing approaches.
- Price Discounts/ Allowances

**Placement/ Distribution**

- Middleman and Distributional Channel
- Major Channels of Distribution – Consumer Product
- Major Channels of Distribution - Services and Business Products
- Factors affecting Choice of Channels – Market considerations and Product consideration
- Designing distribution channel.

## **Promotion**

- Promotion and its importance
- Promotion mix & promotion objectives
- Methods of promotion
  - Personal selling (Selling Process)
  - Sales promotion (Sales promotion tools)
  - Public relations
  - Advertising

## **Case Analysis**

### **Recommended Books:**

- Philip Kotler *Principles of Marketing* 3<sup>rd</sup> Ed. McGraw-Hill
- William J. Stanton *Fundamentals of Marketing* (International Edition) McGraw-Hill

## **ECON      Development of Education in Pakistan**

### **Course Contents**

**03 Cr.Hrs**

## **ECON      Principles of Accounting**

### **Course Description**

This course is designed to introduce basic principles of accounting system. It aims at equipping the students to understand the knowledge and mechanism and design of accounting system use in sole proprietor business.

### **Course Contents**

**03 Cr.Hrs**

### **Introduction**

- Types of Accounting information's, Accounting System
- Concepts of assets, Liabilities, Equity, expenses, revenues, cash flows
- Accounting Equation, GAAP (Generally Accepted Accounting principles)
- Relevant exercises and Problems

### **The Accounting Cycle - Capturing Economic Events**

- Recording transactions in journals, Posting to ledger accounts
- Preparation of Trial balance
- Relevant exercises and problems

### **Accounting Cycle - Preparing Annual Reports**

- Why Adjustments, Types of Adjustments
- Adjustment entries and accounting principles

- Preparation of Adjusted trial balance
- Closing the temporary equity accounts, work sheet
- Preparing the financial statements
- Relevant Exercises and problems

#### **Accounting for Financial Assets (only Cash)**

- Cash and Cash Management
- Internal cash control, Bank reconciliation statements,
- Relevant Exercises and Problems

#### **Recommended Book**

- Meigs, William: “*Accounting*” *The Basis for Business Decisions* 11<sup>th</sup> Edition, McGraw Hill, Inc.

### **ECON      Business Finance**

#### **Course Contents**

**03 Cr.Hrs**

#### **Introduction**

- Business Environment, forms of Business Organization
- An overview of financial management
- The financial environment: markets, institutions and interest rates
- Financial statements
- Time value of money concepts
- Sources of short term finance
- Sources of long term finance
- Financial Planning and introduction
- Working capital management-an overview
- Cash and marketable securities
- Accounts receivables and inventory
- Emergence of Islamic finance-Internal perspectives (Managerial approach)

#### **Recommended Books**

- James C. Vanhorne: Fundamentals of Financial Management
- Eugene F. Brigham: Fundamental of Financial Management

### **ECON      Introduction to Logic**

#### **Course Contents**

**03 Cr.Hrs**

#### **Introduction**

What is logic?

Argument, Premises and Conclusions, Deduction and Induction, Truth and Validity.

#### **The Uses of Language**



- Three basic functions of language
  - Discourse serving Multiple Functions
  - Kinds of Agreement and Disagreement
  - Emotively Neutral Language
- Fallacies**
- Fallacies of Relevance.
  - Fallacies of Ambiguity
  - Avoiding Fallacies
- Deduction**
- Disputes, Verbal disputes and Definitions
  - Kinds of definitions and Revolution of disputes
- Categorical Syllogism**
- Categorical Propositions and classes
  - Quality, Quantity and Distribution
  - Symbolism and Diagram for Categorical Syllogism
  - Standard-Form Categorical Syllogism
  - Venn-Diagram technique for Testing Syllogism
  - Rules and Fallacies
- Symbolic Logic**
- The values of Special symbols
  - The symbols for Conjunction, Disjunction and Negation
  - Conditional Statements and material implication
  - Truth tables
  - Statement form Material Equivalence, and Logical Equivalence
  - The Three “Laws of Thought”. (Method of deduction)
  - Rules of inference
  - Rules of replacement
  - Formal proof of validity
- Analogy and Probable Inference**
- Argument by Analogy
  - Appraising Analogical Argument
- Casual Connections**
- The meaning of “Cause”
  - Mill’s Methods of Experimental Inquiry
- A Brief Introduction of Science and Hypothesis**
- The values of science
  - Explanations: Scientific and Unscientific
  - Evaluating Scientific Explanation
- Recommended Books**
- Copi, Irving M., Introduction to Logic, New York Macmillan
  - Hurley, P.G., Introduction to Logic, California, Worth Publishing Co.
  - Lemmon, E.J., BEGINNING LOGIC, India – Polis Hachett Publishing Co.
  - Kearns, John T., THE PRINCIPLES OF DEDUCTIVE LOGIC, ALBANY State University of New York Press
  - Jeffery, Riched, FORMAL LOGIC: ITS SCOPE AND LIMITS, N.Y. McGraw Hills.

*Errors and omissions are accepted*