

Curriculum

BS-Economics Program

Session 2015 Onward



UNIVERSITY
of
SWABI

Department of Economics

University of Swabi, Anbar

District Swabi

SCHEME OF STUDIES

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Main Features:

1) Program Objectives:

University of Swabi is one of the newly established universities in public sector. There is a dire need to have an Institute of Excellence in Economics Education in the province of Khyber Pakhtunkhwa, as in other provinces and federal capital, Islamabad had very reputable institutes in Economics education. The Students of this province and FATA go to Federal Capital, Islamabad or other provinces for basic and higher education in Economics which is very difficult and costly for them.

In view of the above realities, need was felt to establish an institute of quality education in the field of Economics at University of Swabi .The university have resources, manpower and potential for establishing this Department. The department would enroll students for the first time in BS Economics (4 Years) Program under the supervision of well qualified and experienced faculties. The University provides an excellent Library and computer facilities for the students.

The Department of Economics at University of Swabi provides academically sound courses that promote knowledge of economic concepts, issues, methods, theories and applications. The Department is committed to excellent teaching, research and training in Economics education. It is committed to produce outstanding Economists in theoretical and applied Economics for catering to the need of National and International Organizations

2) Duration of the Program:

Total duration of the program will be of four academic years, i.e. eight semesters; each semester consisting upon 18 weeks. A student has to complete 130 credit hours, including 42 courses and Research Project of 6 credit hours, to become eligible for BS degree.

Out of 42 courses, students have to study:

1. Nine (9) Compulsory Courses (Students has no choice)
2. Ten (10) Discipline Specific Foundation Courses
3. Twelve (11) Major Economics Courses
4. Eight (08) Optional Courses (Non-Economics) to be chosen from other Departments
5. Four (04)Optional Courses(Economics)
6. Research Project of 6 credit hours/2 courses (3 Credit hour each) from list of Optional Courses (Economics)

Semester wise Breakdown

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Semester-I

Course Code	Course Title	Credit Hours
ECO 151	English-I (Functional English)	3-0
ECO 101	Principles of Microeconomics	3-0
ECO 171	Introduction to Computer	2-1
ECO 156	Mathematics-I	3-0
ECO 176	Islamic Studies	2-0
	Optional: Non-Economics	3-0
Total		17

Semester-II

Course Code	Course Title	Credit Hours
ECO 152	English-II (Communication Skills)	3-0
ECO 102	Principles of Macroeconomics	3-0
ECO 157	Mathematics-II	3-0
ECO 181	Pakistan Studies	2-0
	Optional: Non-Economics	3-0
	Optional: Non-Economics	3-0
Total		17

Semester-III

Course Code	Course Title	Credit Hours
ECO 201	Intermediate Microeconomics	3-0
ECO 261	Statistics-I	3-0
ECO 251	English-III (Technical Writing and Presentation Skill)	3-0
ECO 202	Development Economics	3-0
	Optional: Non-Economics	3-0
	Optional: Non-Economics	3-0
Total		18

Semester-IV

Course Code	Course Title	Credit Hours
ECO 262	Statistics-II	3-0
ECO 203	Intermediate Macroeconomics	3-0
ECO 252	English-IV	3-0
ECO 204	Agricultural Economics	3-0
	Optional: Non-Economics	3-0
	Optional: Non-Economics	3-0
Total		18

Semester-V

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Course Code	Course Title	Credit Hours
ECO 301	Mathematical Economics-I	3-0
ECO 302	Issues in Pakistan Economy	3-0
ECO 303	Microeconomics	3-0
ECO 304	Econometrics-I	2-1
ECO 305	Monetary Economics	3-0
	Optional: Non-Economics	3-0
Total		18

Semester-VI

Course Code	Course Title	Credit Hours
ECO 306	Macroeconomics	3-0
ECO 307	Econometrics-II	2-1
ECO 308	Mathematical Economics-II	3-0
	Optional: Economics	3-0
	Optional: Economics	3-0
Total		15

Semester-VII

Course Code	Course Title	Credit Hours
ECO 401	Research Methodology	3-0
ECO 402	History of Economic Thoughts	3-0
ECO 403	International Trade Theory	3-0
	Optional: Economics	3-0
	Optional: Economics	3-0
Total		15

Semester-VIII

Course Code	Course Title	Credit Hours
ECO 404	Islamic Economics	3-0
ECO 405	Applied Economics	3-0
	Research Project/Two Optional Courses: Economics	0-6
Total		12

* The University Authority reserves the right of introducing changes for modification in the program contents/rules/regulations.

List of Optional Courses (Economics)

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Course Code	Course Title	Credit Hours
ECO	Population Economics	3-0
ECO	Environmental and Natural Resource Economics	3-0
ECO	Managerial Economics	3-0
ECO	Energy Economics	3-0
ECO	Economics of Education	3-0
ECO	Public Policies	3-0
ECO	Investment and Project Appraisal	3-0
ECO	Ethics, Universal Values and Economics	3-0
ECO	Transport Economics	3-0
ECO	Institutional Economics	3-0
ECO	Poverty and Inequality	3-0
ECO	International Finance	3-0
ECO	Labor Economics	3-0
ECO	Regional Economics	3-0
ECO	Urban Economics	3-0
ECO	Health Economics	3-0
ECO	Resource Economics	3-0
ECO	Industrial Economics	3-0
ECO	Political Economy	3-0
ECO	Financial Markets and Institutions	3-0
ECO	Development Policy	3-0
ECO	Rural Development	3-0
ECO	Comparative Economic System	3-0
ECO	Monetary Policy	3-0
ECO	Fiscal Policy	3-0
ECO	Economics of Entrepreneurship and Innovation	3-0
ECO	Economic Growth	3-0
ECO	Public Finance	3-0

Note: The facility for teaching of any of the optional course will be arranged only if reasonable number of students opt for.

List of Optional Courses(Non-Economics)

Course Code	Course Title	Credit Hours
ECO	Fundamental of Business	3-0
ECO	Introduction to Political Science	3-0
ECO	Principles of Management	3-0
ECO	Principles of Accounting	3-0
ECO	Introduction to International Relations	3-0
ECO	Sociology	3-0
ECO	Logic & Critical Thinking	3-0
ECO	Introduction to History	3-0
ECO	Introduction to Mass Communication	3-0
ECO	Business Law	3-0
ECO	Economic Geography	3-0

Note: The facility for teaching of any of the optional course will be arranged only if reasonable number of students opt for.

SEMESTER - I

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO 151	Credit Hours: 3-0
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ENGLISH-I (Functional English)

Course Objectives:

Enhance language skills and develop critical thinking

Course Contents:

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

Note: Extensive reading is required for vocabulary building

Recommended Texts:

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 Francoise 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. Brain Tomlinson and Rod Ellis. Oxford Supplementary Skills. Third Impression 1992. ISBN 0 19 453402 2.

d) Speaking

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO 101	Credit Hours: 3-0
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PRINCIPLES OF MICROECONOMICS

Course Objectives:

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

Course Contents:

➤ **Introduction**

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

➤ **The Price Mechanism**

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

➤ **Consumer's Behaviour**

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

➤ **Firms and Industries**

Business enterprises, Forms of business organization: Proprietorship, Partnership, Joint stock companies, 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.

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➤ **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 Texts:

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

Rev No. 00	Course Code: ECO 171	Credit Hours: 2-1
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INTRODUCTION TO COMPUTER

Course Objective:-

1. Teach the fundamentals of computers and computer nomenclature, particularly with respect to personal computer hardware and software, and the World Wide

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Web

2. Give students an in-depth understanding of why computers are essential components in economics, business and society in general
3. Introduce Microsoft Office 2013
4. Create a document in Word 2013
5. Edit and format a document in Word 2013
6. Introduce Google Chrome (Latest Version)
7. Web research techniques and search engines
8. Use Excel 2013 to manage data
9. Work with formulas and functions in Excel 2013
10. Develop a professional-looking worksheet
11. Introduce Microsoft Access 2013
12. Create and maintain a database
13. Query a database
14. Create a PowerPoint 2013 presentation

Course Contents:

Introduction to Computers and Applications will introduce the students to basic computer hardware and processing concepts using Windows based applications. The course will include a basic computer literacy and Windows unit, a unit on Internet using Google Chrome, a word processing unit using Microsoft Word 2013, a spreadsheet unit using Microsoft Excel 2013, a database unit using Microsoft Access 2013, and a presentation software unit using PowerPoint 2013. The software used in this course is Microsoft Office 2013 Professional.

Recommended Texts:-

1. Microsoft Office Professional 2013, step by step by Beth Melton, Mark Dodge, Echo Swinford, Andrew Couch, Pearson Education, 2013
2. Microsoft Office 2013: Introductory by Misty Vermaat, Cengage Learning, 2013

Rev No. 00	Course Code: ECO 156	Credit Hours: 3-0
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MATHEMATICS-I

Course Objectives:

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:

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➤ 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 Texts:

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

Rev No. 00	Course Code: ECO 176	Credit Hours: 2-0
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ISLAMIC STUDIES

Course Objectives:

The main objectives of this course are:

- 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:

➤ **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

➤ **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 History**

- 1) Period of Khilaft-E-Rashida
- 2) Period of Ummayyads

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 Texts:

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

SEMESTER - II

Rev No. 00	Course Code: ECO 152	Credit Hours: 3-0
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ENGLISH-II (Communication Skills)

Course Objective:

Enable the students to meet their real life communication needs.

Course Contents:

➤ **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 Texts:

a) Grammar

1. Practical English Grammar by A.J. Thomson and A.V. Martinet. Exercises 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).

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2. Writing. Upper-Intermediate by Rob Nolasco. Oxford Supplementary Skills. Fourth Impression 1992. ISBN 0 194354065 (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 4534030.
2. Reading and Study Skills by John Langan 3. Study Skills by Richard Yorky.

Rev No. 00	Course Code: ECO 102	Credit Hours: 3-0
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PRINCIPLES OF MACROECONOMICS

Course 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. The teacher is expected to draw examples from the surrounding world to clarify the concepts.

Course Contents:

➤ **Introduction:**

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

➤ **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 Monetary policy, Fiscal Policy.

Recommended Texts:

1. Mankiw,G–Principles of Economics- latest edition.
2. Samulson and Nordrons - Economics –latest edition

Additional Texts:

1. Parkin, Michael - Macroeconomics, latest edition
2. Miller, R.L.– Economics Today – latest edition

Rev No. 00	Course Code: ECO 157	Credit Hours: 3-0
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MATHEMATICS-II

Course Objective:

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 Texts:

1. Anton H, Bevens I, Davis S, Calculus: A New Horizon (8th edition), 2005,
2. WS-Kent Company, Boston Thomas GB, Finney AR, Calculus (11th edition), 2005, Addison-Wesley, Reading, Ma, USA

Rev No. 00	Course Code: ECO 181	Credit Hours: 2-0
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PAKISTAN STUDIES

Course 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:

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

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Recommended Texts:

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

SEMESTER - III

Rev No. 00	Course Code: ECO 201	Credit Hours: 3-0
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INTERMEDIATE MICROECONOMICS

Course Objectives:

The course seeks to provide an understanding of the core economic models for the analysis of decisions by consumers, markets and firms .It would provide some illustrations of the applications of some models to contemporary issues in economics. It also emphasize upon the welfare concept in economics

Course Contents:

➤ **An introduction to Economic models**

Optimization techniques, Constructing a model, Optimization and equilibrium,

➤ **Utility**

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

➤ **From Individual to Market Demand**

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

➤ **Supply**

Market supply, Market equilibrium, Effect of tax Taxation with Linear Demand and Supply Passing along a Tax, Consumer and producers' burden of tax, deadweight Loss of a Tax.

➤ **Production function**

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

➤ **Firms**

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

➤ **Monopoly**

Linear Demand Curve and Monopoly, Markup Pricing, The Impact of Taxes on a Monopolist, Inefficiency of Monopoly, Deadweight Loss of Monopoly, Price

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Discrimination, First Degree Price Discrimination, Second-Degree Price Discrimination, Third-Degree Price Discrimination

➤ **Oligopoly**

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

➤ **Game theory**

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

➤ **The Edgeworth Box:**

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

Recommended Texts:

- 1) Intermediate Microeconomics: A Modern Approach, 7th Edition by Hal R. Varian.
- 2) Microeconomics by Pindyck and Rubinfeld 8th edition
- 3) Microeconomic theory Basic Principles and Extensions, 9th Edition by Nicholson, W.

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO 261	Credit Hours: 3-0
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STATISTICS-I

Course 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:

➤ **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, Standard deviation and Variance, Coefficient of Variation
- Standardized Variables

➤ **Basic Probability**

- Basic Probability Concepts
- Conditional Probability
- Laws of Probability

➤ **Probability Distributions**

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

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- The Probability Distributions for a Continuous Random Variable
 - Normal distribution

Recommended Texts:

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

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO 251	Credit Hours: 3-0
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ENGLISH-III(Technical Writing and Presentation Skill)

Course Objective:

Enhance language skills and develop critical thinking

Course Contents:

- **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 Texts:

a) Essay Writing and Academic Writing

1. Writing. Advanced by Ron White. OxfordSupplementary 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 (4th edition) by LaurieG. Kirsznner and Stephen R. Mandell. St. Martin'sPress.

b) Presentation Skills

c) Reading. The Mercury Reader

A Custom Publication, Compiled by Norther Illinois University. General Editors: JaniceNeulib; 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).

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO 202	Credit Hours: 3-0
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DEVELOPMENT ECONOMICS

Course Objective:

This is a first course in development economics that studies the economics of low and middle income countries. Topics include the structure of developing countries, their institutions, the policies their governments follow, the contours of poverty and inequality, and the ongoing struggles with economic growth. Apart from that it would cover theoretical foundations for different policy issues such as--What is the role of markets? Is government intervention in a market is a good thing? Do we need to be concerned about inequality? and why? What are institutions, and how do they facilitate or hinder economic development? Is development necessarily uneven, with some sectors growing and others stagnating? How do we think about the political economy of development: from voting or lobbying all the way to conflict? What are local problems and policies and what are international problems and policies?

Course Contents:

➤ **An overview of Development**

Historical experiences of developing countries, broad conceptual explanation of underdevelopment, comparative economic development, emerging major issues of developing world, basic theories of growth and development, and contemporary models of underdevelopment/development.

➤ **Domestic problems and Policies**

The nexus of poverty, inequality and underdevelopment, the distribution of wealth and resources, poverty and nutrition, demographic transition, population growth; its causes and consequences, urbanization/rural-urban migrations; its causes and consequences, human capital; education, health and development, agriculture and rural development, wars and conflicts, environment and natural resources, sustainable development.

➤ **International problems and Policies**

Trade/access to factor and product markets and development, balance of payment problems, debt, stabilization policies, international shocks, foreign finance, foreign aid, international wars and conflicts, migration and remittances.

➤ **Markets and Development**

The role of markets in development, credit, financing, SME's, industrial and trade policies, land, labor and agriculture, livestock, market failure and government intervention, stabilization policies.

➤ **Institutions and Development**

What are institutions, how do they facilitate or hinder economic development? The political economy, democracy vs dictatorship, decentralization, good governance, corruption, rent

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

seeking, ethnic conflict, gender inequality, voting and lobbying, the role of civil society.

Recommended Texts:

1. Todaro, M.P. and S.C. Smith. *Economic Development*, 11th edition (2011). Palgrave.
2. Debraj Ray. *Development Economics*, (1998), Princeton University Press.

Additional Texts:

1. Sokoloff, K. and S. Engerman (2000), "History Lessons: Institutions, Factor Endowments, and Paths of Development in the New World," *Journal of Economic Perspectives*.
2. Acemoglu, D., Johnson, S. and J. Robinson (2001), "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*.
3. S. Anderson and D. Ray (2010), "Missing Women: Age and Disease," *Review of Economic Studies*.
4. K. Munshi and J. Myaux (2006), "Social Norms and the Fertility Transition," *Journal of Development Economics*.
5. J. Esteban, L. Mayoral and D. Ray (2012), "Ethnicity and Conflict: Theory and Facts," *Science*.
6. Acemoglu, Daron and James A. Robinson (2006), *Economic Origins of Dictatorship and Democracy*, Cambridge University Press;
7. Basu, K. *Analytical Development Economics: The Less Developed Economy Revisited*. (Cambridge: MIT Press)
8. Thirlwall, A.P. *Growth, and Development with Special Reference to Developing Economies*. (Basingstoke: Palgrave Macmillan)

SEMESTER - IV

Rev No. 00	Course Code: ECO 262	Credit Hours: 3-0
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STATISTICS-II

Course Objective:

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:

➤ **Sampling & Sampling distribution:**

Sampling, Advantages of sampling, Probability & Non-Probability sample, Sampling & Non-sampling errors, Sampling distribution of mean & sampling distribution of proportion

➤ **Estimation:**

Introduction, Estimates & Estimators, point estimation, interval estimation (large samples) for Mean, proportion, difference of mean of two population, difference of proportion of two population

➤ **Hypothesis Testing:**

Introduction, Null & Alternative hypothesis, Simple & Composite hypothesis, Acceptance & Rejection region, The significance level, Test of significance, Testing hypothesis about mean of normal population, about difference between two population means, about **population proportion, about difference between two proportions (large sample)**

➤ **Chi-square distribution:**

- Confidence interval for σ^2
- Testing hypothesis about variance of normal distribution
- Test for goodness-of-fit
- Testing hypothesis in independence in contingency tables.

➤ **Student's t-distribution:-**

- Confidence interval estimate of mean from a small sample
- Testing hypothesis about mean (small sample), when σ unknown
- Testing hypothesis about difference between means (small samples), when σ 's unknown (equal/not equal)
- Testing hypothesis about two means with paired observations

➤ **F-distribution:**

- Confidence interval for the variance ratio $\frac{\sigma_1^2}{\sigma_2^2}$
- Testing hypothesis about the equality of two variances

➤ **Analysis of Variance:**

- One way classification
- Two way classification

➤ **Simple Regression & Correlation:**

- Simple Linear regression model
- Coefficient of Determination
- Correlation Co-efficient

➤ **Regression and Correlation Analysis:**

- Interval estimation & hypothesis testing in the simple linear regression model
- Interval estimation & hypothesis testing for population correlation co-efficient

➤ **Time Series Analysis:**

- Introduction
- Components of Time Series
- Analyzing the Secular Trend
- Analyzing the Seasonal Variation

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Recommended Texts:

1. Introduction to Statistical Theory (Part-I & II) by Prof: Sher Muhammad Chaudhry & Prof. Dr. Shahid Kamal (8th Edition, 2009)
2. Statistics for Business and Economics by David R. Anderson, Dennis J. Sweeney, Thomas A. Williams (11th Edition)

Additional Texts:

1. Basic Statistics for Business and Economics by Earl K. Bowen & Martin K. Starr
2. Business Statistics by Bharat Jhunjhunwala (1st Edition, 2008) ISBN: 81-219-2948-2

Rev No. 00	Course Code: ECO 203	Credit Hours: 3-0
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INTERMEDIATE MACROECONOMICS

Course Contents:

➤ INTRODUCTION TO MACROECONOMICS:

1. The Science of Macroeconomics:

- 1.1 What Macroeconomists Study
- 1.2 How Economists Think Theory as Model Building The Use of Multiple Models
Prices: Flexible Versus Sticky
Microeconomic Thinking and Macroeconomic Models

2.The Data of Macroeconomics:

- 2.1 Measuring the Value of Economic Activity: Gross Domestic Product Income, Expenditure, and the Circular FlowRules for Computing GDP
Real GDP versus Nominal GDP
The GDP Deflator
Chain-Weighted Measures of Real GDP
The Components of Expenditure
Other Measures of Income
Seasonal Adjustment
- 2.2 Measuring the Cost of Living: The Consumer Price Index
The Price of a Basket of Goods
The CPI versus the GDP Deflator
Does the CPI Overstate Inflation?
- 2.3 Measuring Joblessness: The Unemployment Rate
The Household Survey
The Establishment Survey
- 2.4 From Economic Statistics to Economic Models

3. National Income: Where it comes from and where it goes?

- 3.1 What Determines the Total Production of Goods and Services?
The Factors of Production
The Production Function
The Supply of Goods and Services
- 3.2 How Is National Income Distributed to the Factors of Production?
Factor Prices
The Decisions Facing a Competitive Firm
The Firm's Demand for Factors
The Division of National Income
The Cobb-Douglas Production Function
- 3.3 What Determines the Demand for Goods and Services?
Consumption
Investment

Government Purchases

3.4 What Brings the Supply and Demand for Goods and Services into equilibrium?
Equilibrium in the Market for Goods and Services: The Supply and Demand for the Economy's Output.

Equilibrium in the Financial Markets: The Supply and Demand for Loanable Funds

Changes in Saving: The Effects of Fiscal Policy
Changes in Investment Demand

➤ **MONEY, PRICES, AND UNEMPLOYMENT:**

4. The Monetary System: What it is and how it Works?

4.1 What Is Money?

The Functions of Money, The Types of Money

The Development of Fiat Money

How the Quantity of Money is controlled

How the Quantity of Money is measured

4.2 The Role of Banks in the Monetary System 100-Percent-Reserve Banking

Fractional-Reserve Banking

Bank Capital, Leverage, and Capital Requirements

4.3 How Central Banks Influence the Money Supply A Model of the Money Supply

The Instruments of Monetary Policy

Problems in Monetary Control

5. Inflation: It Causes, Effects, and Social Costs

5.1 The Quantity Theory of Money Transactions and the Quantity Equation From Transactions to Income

The Money Demand Function and the Quantity Equation

The Assumption of Constant Velocity

Money, Prices, and Inflation

5.2 Seigniorage: The Revenue From Printing Money

5.3 Inflation and Interest Rates

Two Interest Rates: Real and Nominal The Fisher Effect

Two Real Interest Rates: Ex Ante and Ex Post

5.4 The Nominal Interest Rate and the Demand for Money

The Cost of Holding Money

Future Money and Current Prices

5.5 The Social Costs of Inflation

The Layman's View and the Classical Response about Inflation

The Costs of Expected Inflation The Costs of Unexpected Inflation One Benefit of Inflation

5.6 Hyperinflation

The Costs of Hyperinflation The Causes of Hyperinflation The Classical Dichotomy

The Cagan Model: How Current and Future Money Affect the Price Level

6. Unemployment

6.1 Job Loss, Job Finding, and the Natural Rate of Unemployment

6.2 Job Search and Frictional Unemployment Causes of Frictional Unemployment

- Public Policy and Frictional Unemployment
- 6.3 Real-Wage Rigidity and Structural Unemployment
 - Minimum-Wage Laws
 - Unions and Collective Bargaining
 - Efficiency Wages
- 6.4 Labor-Market Experience: The United States The Duration of Unemployment
 - Variation in the Unemployment Rate across Demographic Groups
 - Transitions into and Out of the Labor Force
- 6.5 Labor-Market Experience: Europe The Rise in European Unemployment
 - Unemployment Variation within Europe
 - The Rise of European Leisure
- **THE ECONOMY IN THE SHORT RUN: ECONOMIC FLUCTUATIONS**
- 7. Aggregate Demand I: Building the IS-LM Model**
 - 7.1 The Goods Market and the IS Curve The Keynesian Cross
 - The Interest Rate, Investment, and the IS Curve
 - How Fiscal Policy Shifts the IS Curve
 - 7.2 The Money Market and the LM Curve The Theory of Liquidity Preference
 - Income, Money Demand, and the LM Curve
 - How Monetary Policy Shifts the LM Curve
 - 7.3 The Short-Run Equilibrium
- 8. Aggregate Demand II: Applying the IS-LM Model**
 - 8.1 Explaining Fluctuations With the IS–LM Model
 - How Fiscal Policy Shifts the IS Curve and Changes the Short-Run Equilibrium
 - How Monetary Policy Shifts the LM Curve and Changes the Short-Run Equilibrium
 - The Interaction between Monetary and Fiscal Policy Shocks in the IS–LM Model
 - What Is the Fed’s Policy Instrument - The Money Supply or the Interest Rate?
 - 8.2 IS–LM as a Theory of Aggregate Demand
 - From the IS–LM Model to the Aggregate Demand Curve
 - The IS–LM Model in the Short Run and Long Run
 - 8.3 The Great Depression
 - The Spending Hypothesis: Shocks to the IS Curve
 - The Money Hypothesis: A Shock to the LM Curve
 - The Money Hypothesis Again: The Effects of Falling Prices
 - Could the Depression Happen Again?
- 9. Aggregate Supply and the Short-run Tradeoff Between Inflation and Unemployment**
 - 9.1 The Basic Theory of Aggregate Supply The Sticky-Price Model
 - An Alternative Theory: The Imperfect-Information Model
 - Implications 404
 - 9.2 Inflation, Unemployment, and the Phillips Curve
 - Deriving the Phillips Curve from the Aggregate Supply Curve
 - Adaptive Expectations and Inflation Inertia
 - Two Causes of Rising and Falling Inflation
 - The Short-Run Tradeoff between Inflation and Unemployment

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Disinflation and the Sacrifice Ratio

Rational Expectations and the Possibility of Painless Disinflation Hysteresis
and the Challenge to the Natural-Rate Hypothesis

Recommended Texts:

1. Mankiw, N. Gregory (2013). Macroeconomics. Eighth Edition, Worth Publishers.
2. Abel, Andrew, B., Bernanke, Ben S. & Croushore, D. (2010). Seventh Edition. Addison-Wesley.
3. Williamson, Stephen D. (2010). Macroeconomics. Fourth Edition, Prentice Hall.

And other readings and handouts, as required.

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

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ENGLISH-IV

Course 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

- **Study Habits, Study Place, Study Time (Time Management)**
- **Concentration**
- **Motivation**
- **Note- Taking & Note Making Techniques**
 - Techniques: Symbols, abbreviations, mind maps etc.
 - Reading Notes
 - Lecture Notes
- **Using Library**
 - The Card Catalog
 - Using the Card Catalog Efficiently
 - The Call Slip
 - Reference Works
 - Encyclopedias
 - Yearbook
 - Dictionaries
 - Atlases
 - Bibliographies
 - Some Common Reference Works
 - Periodicals
 - The Readers Guide
- **Using Dictionary**
 - How to find a word
 - Word Grammar
 - Pronunciation
 - Idioms
 - Common Spelling Problems
- **Reading Skills**
 - Intensive Reading
 - Extensive Reading
 - Reading Surveys
 - **Sub Skills in Reading**
 - Vocabulary
 - Inference

- Coherence
- Cohesion
- Close exercises
- Skimming
- Scanning
- Predicting
- Organization
- **Writing Skill**
 - Writing paragraph: Topic Sentence, Support, and 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
- **Writing an Outline**
- **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
- **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

Recommended Texts:

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

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AGRICULTURAL ECONOMICS

Course Contents:

➤ **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**

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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 Texts:

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

SEMESTER - V

Rev No. 00	Course Code:ECO 301	Credit Hours: 3-0
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MATHEMATICAL ECONOMICS I

Course 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.

Course Contents:

➤ The Nature of Mathematical Economics

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

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,

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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.

Recommended Texts:

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

Rev No. 00	Course Code: ECO 302	Credit Hours: 3-0
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ISSUES IN PAKISTAN ECONOMY

Course Objectives:

To introduce students about:

- the key features of macroeconomic management in Pakistan
- the process of macroeconomic management in Pakistan
- critical issues facing macroeconomic management in Pakistan

Course Contents:

- **Quick Review of National Income Accounts**
 - GDP (Nominal and Real) and GNP
 - Measure of Inflation and Employment
 - Problems with GDP as a Measure of Social Welfare beyond GDP
 - Basic Needs Approach
 - HDI Approach and its Calculation
- **Review of Alternative Models of Economic Management**

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

- Markets or Liberal Capitalism
- Socialism or State Capitalism
- Social Democracy or Mixed Economy
- Islamic Economics or Islamic Capitalism
- Pakistan's Models of Economic Management
- **Background of Pakistani Economic Management**
 - Why we are Doing What We are Doing
 - British Colonialism and Muslim Responses
 - Ali Garh and the Upbringing of Muslim Nationalism
 - Muslim League and its Targets
 - Relationship between Muslim Nationalism and Capitalism
- **Agricultural Sector of Pakistan**
 - Is Pakistan Feudal or Capitalist?
 - Nature of its Structure before British Rule
 - British Regulations and the Emergence of Markets
 - 1947-58: The Neglected Agriculture Sector
 - The Green Revolution and its Impacts
 - Evaluation of Green Revolution as Development Strategy
 - Land Reforms (both of Ayub and Bhutto)
 - Key Issues in Pakistan's Agricultural Sector
- **Industrial Sector of Pakistan**
 - Composition of Manufacturing Sector
 - Process of industrialization from 1947-58
 - The Development Decade of Ayub—1958-68
 - The Experimental Regime of Bhutto—1972-77
 - Zia Regime and back to the Basics—1977-88
 - Industry after Structural Adjustment Program—1988-onwards
 - Key Issues in Pakistani Industry
- **Fiscal and Monetary Policies and Inflation in Pakistan**
 - Fiscal Developments
 - Structure and trends in revenue
 - Structure of expenditures and trends of fiscal deficit
 - Issues with Financing of Fiscal Deficit
 - New NFC Award and Medium-Term Budgetary Framework
 - Monetary Policy Management and Inflation in Pakistan
 - Understanding Monetary Data
 - Monetary Management
 - Financial Sector Reforms
 - Salient Issues in Banking Sector
 - Inflation and its Causes in Pakistan
 - **Public and External Debts in Pakistan**
 - Difference between the two Debts
 - Is Debt Creation always bad?
 - Concerns Regarding Pakistan's Fiscal Deficit
 - Reforms to bring debt under control
 - **Performance of Pakistan on Foreign Economic Front**
 - Understanding BOP accounts
 - Trends in BOP

- Composition of Exports and Imports
 - Historical Directions of Pakistan's Trade Policy Regimes
 - Impacts of Structural Adjustment Program on Trade Policy
 - Dealing with Globalization and WTO
 - Impacts of Globalization on Poverty in Pakistan
 - Exchange Rate Regimes in Pakistan
 - The weakening currency of Pakistan
 - Why can't Muslims adopt a common currency?
- **Social Sector in Pakistan**
 - Health Sector and its Issues
 - Education and its Issues
 - Gender Inequality
 - Regional Inequalities
 - Structure of Population
 - Population: Asset or Liability?
 - Urbanization and Housing
 - Infrastructure
 - Poverty and Income Distribution
 - Measurement Issues
 - Trends In Poverty and Income Distribution
 - Is Poverty *the* Problem?
 - Does growth eliminate or create Poverty?
 - Poverty Alleviation Strategies and their Failure
- **Recent Challenges Facing Pakistan Economy**
 - Terrorism
 - Energy Crises

Recommended Texts:

1. Zaidi Akbar (2006), *Issues in Pakistan's Economy*, Oxford University Press, Karachi
2. Ishrat Hussain, (2007) *Pakistan: The Economy of an Elite State*, Oxford University Press, Karachi
3. Ishrat Hussain, (2009) "Pakistan's Economy-1999/2000-2007/2008: An Objective Appraisal", *Business Review*, Vol 4 (1): p. 7-48; IBA, Karachi
4. *Pakistan Economic Surveys*

Rev No. 00	Course Code: ECO 303	Credit Hours: 3-0
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MICROECONOMICS

Course Objectives:

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

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

Course Contents:

➤ The Theory of Consumption and Demand

Axioms of Rational Behaviour, The utility function and budget line, Constrained optimization and the Lagrange function, Utility maximization and ordinary (Marshallian)

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

➤ **The Theory of Production and Supply**

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

➤ **Market Structures and Price Determination**

Critical appraisal of the competitive market assumptions, Efficiency of competitive market, Factors responsible for shifting of demand and supply functions overtime and impact on price, Govt. intervention in the market: price and quantity restriction and impact of taxation on price and consumer's surplus, The imperfect competition: Monopoly and Monoposony, Duopolololy 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 Edgworth Box, Production possibility frontier and Social indifference curve, Introduction to computation of general equilibrium in a 2x2x2 (two consumers, two sectors/commodities, two factors) economy.

Recommended Texts:

1. Nicholson, Walter - Microeconomic Theory: Basic Principles and Extensions- 8th Edition (2002) or latest -Thomson & Learning Inc.

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2. Henderson & Quandt - Microeconomic Theory: A Mathematical Approach- 3rd Edition (1980) – McGraw Hill International
3. Silberberg, E. & Suen, W. - The Structure of Economics: A Mathematical Analysis- 3rd Edition (2001) – McGraw Hill International
4. Layard & Walters – Microeconomic Theory- (1978) – McGraw Hill Book Company.
5. Perloff, Jeffrey – Microeconomics – (1999) - Addison Wesley Longman, Inc.
6. Pindyck & Rubinfeld – Microeconomics- 6th Edition (2004) – Pearson Education Asia

Rev No. 00	Course Code: ECO 304	Credit Hours: 2-1
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ECONOMETRICS-I

Course Objectives:

This is a foundation course for enabling the students of Economics to analytically formulate and statistically estimate the economic problems for verifying the empirical validity of theoretical models. The course contents range from data transformation to the analyses of both latitudinal and longitudinal data.

The analytical skill is supported by the usage of different Econometrics Software.

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

Course Contents:

Introduction:

Definition and scope of Econometrics, Economic theory as the basis for empirical analysis, Mathematical and Econometric models, Application of Statistical techniques to Economic data, Ingredients of Econometric modeling: Specification, Estimation, Evaluation and Forecasting. Data Types and Sources, Cross-sectional data, time-series data and pool data, Data at current and constant prices, Sources of data

The Classical Linear Regression Model (CLRM)

(a) The Simple Two-Variable Model

Simple Regression function, population and regression function, linear regression function: linearity in variables and linearity in parameters, Simple Regression Analysis: Estimation, Method of Ordinary Least Squares (OLS), Estimation of regression equation using OLS, Standard error of estimates, Numerical properties of OLS estimators, Statistical properties of OLS estimators (BLUE), Classical Linear Regression Model (CLRM), Assumptions of CLRM, Estimation of the coefficient of determination, Interval estimation of regression coefficients, Classical Normal Linear Regression Model (CNLRM), Difference between CLRM and CNLRM, Properties of OLS estimates under CNLRM, Simple Linear Regression Analysis: Inference, Confidence interval approach for regression coefficients, Test of significance approach for regression coefficients, Analysis of variance (ANOVA), Test of the overall significance of the model, Simple Linear Regression Analysis: Extensions, Regression through the origin, Scaling and measurement of variables, Regression on standardized variables Functional Forms of Regression Function, Log linear models, Cobb Douglas production function Log-Lin models, The constant growth model, Estimating the growth rate, Lin-Log models, Engel curve, Reciprocal models

(b) The Multiple Linear Regression Model (MLRM)

Multiple Regression Analysis, Difference between simple and multiple regression analysis, Interpretation of multiple regression function, Multiple Regression Analysis: Estimation, OLS estimation of multiple regression equation, Standard error of partial regression coefficients, Properties of OLS estimators, Coefficient of determination (R^2), R^2 and Adjusted R^2 , Multiple Regression Analysis: Inference, Test of individual significance (t-test), Test of overall significance (F-test) Multiple Regression Function: Extensions, Testing the equality of parameters, testing linear equality restriction, testing for structural stability of regression models: The Chow test

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, OLS estimation of regression equation in the presence of perfect multicollinearity, Causes of multicollinearity, Distinction between perfect and partial

Multicollinearity, 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, Serial Correlation, The AR(1) process, Consequences of Autocorrelation for OLS estimators, Detection of the problem and remedial measures

Recommended Texts:

1. Gujarati, D. J. - Basic Econometrics – 4th Edition (2003) McGraw-Hill Company.
2. Maddala, G.S. – Econometrics - (1988) – McGraw-Hill Company.
3. Koutsoyiannis, A.- Theory of Econometrics - 2nd Edition (1977) - McMillan.

Additional Texts:

1. Dougherty, Christopher – Introduction to Econometrics – 2nd edition (2002)
Oxford University Press.
2. Wonnacot&Wonnacot –Econometrics – 2nd Edition (1970)-John Wiley, New York.
3. Pindyck&Rubinfeld- Econometric Models & Economic Forecasts- 3rd Edition (1992)- McGraw Hill Inc.
4. Stock H. J. and M. W. Watson (2003), *Introduction to Econometrics*, India: Pearson Education.
5. Stewart G. K. (2005), *Introduction to Applied Econometrics*, United States of America: Curt Hinrichs.

Rev No. 00	Course Code:ECO 305	Credit Hours: 3-0
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MONETARY ECONOMICS

Course Objectives:

This course is intended to provide the students a thorough understanding of monetary theory, financial markets, importance of money and interest rates along with the conduct of monetary policy in closed and open economy. This course also introduces the alternative monetary policy stances. In addition this includes the discussion of monetarists' and Keynesian views regarding inflation.

Course Contents:

➤ Introduction and Development of Monetary Mechanism:

Evolution of Money and Payment System. Definition of Money, Function of Money & Measurement of Money, Demand for Money & Supply of Money. Definitions of Money, M1, M2, M3, L etc. The Evolution of Monetary Thought, Quantity Theory of money, Keynesian Tradition, Monetarism and Modern Quantity Theory, Rational Expectation

Theory.

➤ **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.

➤ **Theory of 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: Spurious Evidences. Policies to Combat Inflation in Pakistan.

➤ **Monetary Policy in International Framework:**

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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 Texts:

1. Mishkin, Frederic S., (2001), the Economics of Money, Banking and Financial Markets. (Sixth edition). Addison Wesley, New York. Latest edition
2. Bennett T. McCallum, (1989), Monetary Economics, Theory and Policy, McMillan. latest edition.

Additional Texts:

1. Fredric S. Mishkin, (1995), Financial Markets and Money, Harper & Row Publishers.
2. Laider, David E.W (1996), The Demand for Money: Theories, Evidence and Problems (Fourth edition), Harper & Row, Publishers, New York.
3. Miller, R. L. and David VanHose, (2001), Money, Banking & Financial Markets. South Western, Singapore.
4. Vanish K., Monetary Theory, (2000), Vikas Publishing House, Delhi.
5. Patinkin Don, Money, Interest and Prices, Harper and Row Publishers, (Latest Edition)
6. Handa J. (2000), *Monetary Economics*, London: Routledge.

SEMESTER - VI

Rev No. 00	Course Code: ECO 306	Credit Hours: 3-0
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MACROECONOMICS

Course 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:

A. THE ECONOMY IN THE VERY LONG RUN

1. Economic Growth I: Capital Accumulation and Population Growth

- 1.1 The Accumulation of Capital
 - The Supply and Demand for Goods
 - Growth in the Capital Stock and the Steady State
 - Approaching the Steady State: A Numerical Example
 - How Saving Affects Growth
- 1.2 The Golden Rule Level of Capital
 - Comparing Steady States
 - Finding the Golden Rule Steady State: A Numerical Example
 - The Transition to the Golden Rule Steady State
- 1.3 Population Growth
 - The Steady State with Population Growth
 - The Effects of Population Growth
 - Alternative Perspectives on Population Growth

2. Economic Growth II: Technology, Empirics, Policy, and Human Capital

- 2.1 Technological Progress in the Solow Model
 - The Efficiency of Labor
 - The Steady State with Technological Progress
 - The Effects of Technological Progress
- 2.2 From Growth Theory to Growth Empirics
 - Balanced Growth
 - Convergence
 - Factor Accumulation versus Production Efficiency
- 2.3 Policies to Promote Growth
 - Evaluating the Rate of Saving
 - Changing the Rate of Saving
 - Allocating the Economy's Investment
 - Establishing the Right Institutions
 - Encouraging Technological Progress
- 2.4 Beyond the Solow Model: Endogenous Growth Theory
 - The Basic Model
 - A Two-Sector Model
 - The Microeconomics of Research and Development
 - The Process of Creative Destruction

B. TOWARDS MICROECONOMIC FOUNDATIONS OF THE MACRO ECONOMY

3. Understanding Consumer Behaviour

- 3.1 John Maynard Keynes and the Consumption Function
 - Keynes's Conjectures
 - The Early Empirical Successes
 - Secular Stagnation, Simon Kuznets, and the Consumption Puzzle
- 3.2 Irving Fisher and Intertemporal Choice
 - The Intertemporal Budget Constraint
 - Consumer Preferences
 - Optimization
 - How Changes in Income Affect Consumption

How Changes in the Real Interest Rate Affect Consumption
Constraints on Borrowing

3.3 Franco Modigliani and the Life-Cycle Hypothesis
The Hypothesis Implications

3.4 Milton Friedman and the Permanent-Income Hypothesis
The Hypothesis Implications

3.5 Robert Hall and the Random-Walk Hypothesis
The Hypothesis Implications

3.6 David Laibson and the Pull of Instant Gratification

C. INTERNATIONAL MACROECONOMICS: THE OPEN ECONOMY

4. The Open Economy

4.1 The International Flows of Capital and Goods The
Role of Net Exports

International Capital Flows and the Trade Balance International
Flows of Goods and Capital: An Example

4.2 Saving and Investment in a Small Open Economy Capital
Mobility and the World Interest Rate

Why Assume a Small Open Economy? The
Model

How Policies Influence the Trade Balance
Evaluating Economic Policy

4.3 Exchange Rates

Nominal and Real Exchange Rates

The Real Exchange Rate and the Trade Balance The
Determinants of the Real Exchange Rate How Policies
Influence the Real Exchange Rate The Effects of Trade
Policies

The Determinants of the Nominal Exchange Rate The
Special Case of Purchasing-Power Parity

5. Open Economy Revisited: The Mundell-Fleming Model and the Exchange Rate Regime

5.1 The Mundell-Fleming Model, The Key Assumption: Small Open
Economy with Perfect Capital Mobility, The Goods Market and the
IS* Curve, The Money Market and the LM* Curve, Putting the Pieces
Together

5.2 The Small Open Economy Under Floating Exchange Rates Fiscal
Policy, Monetary Policy, Trade Policy

5.3 The Small Open Economy Under Fixed Exchange Rates How a
Fixed-Exchange-Rate System Works

Fiscal Policy
Monetary Policy
Trade Policy

Policy in the Mundell-Fleming Model: A Summary

5.4 Interest Rate Differentials

Country Risk and Exchange-Rate Expectations

- Differentials in the Mundell–Fleming Model
- 5.5 Should Exchange Rates Be Floating or Fixed?
Pros and Cons of Different Exchange-Rate Systems Speculative
Attacks, Currency Boards, and Dollarization The Impossible
Trinity
- 5.6 From the Short Run to the Long Run: The Mundell–Fleming Model With a
Changing Price Level

D. MACROECONOMIC POLICY

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

- 6.1 Should Policy Be Active or Passive?
Lags in the Implementation and Effects of Policies The Difficult Job of Economic
Forecasting Ignorance, Expectations, and the Lucas Critique The Historical Record
- 6.2 Should Policy Be Conducted by Rule or by Discretion? Distrust
of Policymakers and the Political Process
The Time Inconsistency of Discretionary Policy Rules
for Monetary Policy
- 6.3 Making Policy in an Uncertain World

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

- 7.1 The Size of the Government Debt
- 7.2 Problems in Measurement 1: Inflation Measurement Problem 2: Capital Assets
Measurement Problem 3: Uncounted Liabilities Measurement Problem 4: The
Business Cycle
Summing Up
- 7.3 The Traditional View of Government Debt
- 7.4 The Ricardian View of Government Debt the Basic Logic of Ricardian Equivalence
Consumers and Future Taxes
Making a Choice
- 7.5 Other Perspectives on Government Debt Balanced Budgets Versus Optimal Fiscal
Policy Fiscal Effects on Monetary Policy

Recommended Texts:

1. Mankiw, N. Gregory (2013). Macroeconomics. Eighth or latest Edition, Worth Publishers.
2. Weil, David N. (2012). Economic Growth. Third Edition, Pearson.

Additional Texts:

1. Abel, Andrew, B., Bernanke, Ben S. & Croushore, D. (2010). Seventh or latest Edition. Addison-Wesley.
2. Williamson, Stephen D. (2010). Macroeconomics. Fourth or latest Edition, Prentice Hall.

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3. Romer, David - Advanced Macroeconomics -(latest edition)- McGraw Hills, New York.

Other readings and handouts, as required.

Rev No. 00	Course Code: ECO 307	Credit Hours: 2-1
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ECONOMETRICS-II

Course Objectives:

This course follows up the data analysis and data estimation techniques included in Econometrics I. The major objective of this course is to enable the student for competing in a job market where positive analysis is increasingly becoming subject to highly intensive and extensive analytical formulations, largely owing to the unprecedented and remarkable development in information technology. The main contents of the course include panel data estimation techniques, identification problem and dummy on dependent variable, the Logit/Probit model. Hence, this 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. The students have to learn certain computer packages like SPSS, E-views and STATA besides Excel.

Lab work: The students are required to devote at least two hour per week to computer laboratory. They have to attend classes to learn various Econometrics softwares for practical

application of Econometric models they have learnt so far.

Course Contents:

➤ **Matrix Approach of the Classical Linear 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, OLS estimation: variance-covariance matrix of estimators, Coefficient of determination, R^2 , in matrix notations, Correlation matrix

➤ **Dummy Variable Regression Models:**

Nature of dummy variables, ANOVA models with qualitative variables, Regression with dummy dependent and independent variables, Technical aspects of the dummy variable.

➤ **Econometric Modeling: Model Specification:**

Model selection criteria, Types of specification errors, Consequences of model, specification errors, Tests of specification errors, Errors of measurement, Model selection criteria, Endogeneity: where X is not fixed in repeated sampling, Nature of Endogeneity, OLS estimation in presence of Endogeneity, Detection of Endogeneity, BLUE estimator in the presence of Endogeneity, Consequences of Endogeneity in OLS estimation, Remedial measures.

➤ **Pool the Cross-sectional and Time-series Data:**

Why panel data regression models, Estimation of pool data regression models, Common intercept method, Fixed effects model, Least Square Dummy Variables Approach, Random effects model, Generalized Least Square Approach, Fixed effects model vs. random effects model, Hausman Specification Test.

➤ **Simultaneous Equation Models & Estimation Methods:**

Simultaneous equation models, Nature of simultaneous equations, Examples of simultaneous equation models from economic theory, Inconsistency of OLS estimators, Identification problem, Notations and definitions, Unidentified, exactly identified and over identified, Rules for identification, Simultaneous equation approaches to estimation, Method of indirect least squares (ILS), Method of two stage least squares (2SLS), Instrumental Variable approach to 2SLS, Seemingly unrelated equations (SUR), Nature of SUR equations, Method of GLS, Equations having characteristics of simultaneity and SUR, Three stage least squares technique (3SLS), Full information maximum likelihood estimation (FIML)

➤ **Time Series Econometrics:**

Concept of Stationarity, Tests of Stationarity, Unit Root test, Transforming Non-stationary Time Series, ARMA and ARIMA Models, Comparison of forecast based on ARIMA and regression models, Cointegration and Error Correction Mechanism (ECM), ARCH models

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Recommended Texts:

1. Stock H. J. and M. W. Watson (2003), *Introduction to Econometrics*, India: Pearson Education. Latest edition
2. Gujarati, D.J. - *Basic Econometrics* (2003)- McGraw Hill Company. Latest edition
3. Jeffrey M. Wooldridge J. M., (2001) “*Econometric Analysis of CrossSection and Panel Data*”, The MIT Press, Latest edition
4. Dimitrios A. (latest edition), “*Applied Econometrics: A Modern Approach using Eviews and Microfit*”, Palgrave, Macmillan

Additional Texts:

1. Johnston, J & John Dinardo- *Econometric Methods* – (1997) The McGraw Hill Companies, Inc, Singapore. Latest edition
2. Greene W. H (latest edition), *Econometrics Analysis*, Pearson Education, Inc
3. Intrilligator, M - *Econometric Models: Techniques and Applications*- N. J. Prentice Hall, (Latest edition).
4. Judge, George G. et al - *The Theory and Practice of Econometrics*-(1988), John Wiley and Sons.
5. Maddala, G.S. & Kim –*Unit Roots, Co-integration and Structural Change* - (1998)

Rev No. 00	Course Code:ECO 308	Credit Hours: 3-0
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MATHEMATICAL ECONOMICS II

Course Objectives:

The objective of this course is to confront the students to advanced mathematical techniques so as to enable them handle economic models, interpret the results and solve complex problems.

Course Contents:

➤ **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.

Recommended Texts:

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

SEMESTER - VII

Rev No. 00	Course Code: ECO 401	Credit Hours: 3-0
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RESEARCH METHODOLOGY

Course Objective:

This course is designed to provide students, enrolled in the undergraduate program of Economics, with the skills required to understand different scientific research tools, using for academic as well as professional investigation of the information. Topics, which will be covered, are scientific method, research design; measurement; sampling; quantitative, qualitative, and mixed data collection techniques; data analysis and interpretation; and research proposal development. With the help of existing literature, students will be enabled to find gaps and to identify core problems in different economic situations. They will learn how to define a research question, explore the strengths of various methods, and experience different data collection methods. Students will be helped for drafting a preliminary research proposal. Students will also learn about some ethics, which are essential for the research.

Course Contents:

➤ **Introduction to Research:**

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

➤ **Research Ethics:**

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

➤ **Problem Identification:**

Analysis of the area of interest, The relationship between theory and method, What makes a problem/ topic interesting? What is researchable? Feasibility...The 'so what?!' factor The value of simplicity,

➤ **Research Questions:**

General and Specific Research Questions, Developing Research Questions in Different Situations, Role of Research Questions, Hypothesis

➤ **Elements of Research Design:**

Units of Analysis, Variables, Relationships, Statistically Significant Relationship, Research Purpose and Research Design, Qualitative Research Design, Quantitative Research Design

➤ **Proposal Writing:**

How to draft a quality Proposal

➤ **Research Method:**

Overview of research methods, Quantitative (multivariate) methods, Qualitative (interpretive) methods, Using available data, Multi-method and applied research methods

➤ **Data Collection:**

Experiments, Survey Design, Field Study, Secondary Data Collection

➤ **Sampling:**

Population Definition, Sampling Designs, Probability Sampling, Non Probability Sampling, Factors Affecting Choice of Sample Design, Sample Size and Factors Affecting Sample Size. Sampling Error

➤ **Data Analysis:**

Data Processing, Preliminary Descriptive Analysis, Quantitative Data Analysis, Qualitative Data Analysis, Interpretation of Results

➤ **Report Writing:**

Abstract, Introduction, Literature Review, Methods and Data Collection, Findings and

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Interpretation, Conclusion and Suggestions. References.

Recommended Texts:

1. Singleton & Straits, “*Approaches to Social Research*” *latest Edition*, Oxford University Press
2. Keith F, Punch, “Introduction to Social Research: Quantitative and Qualitative Approaches” *latest Edition*, Sage Publication

Rev No. 00	Course Code: ECO 402	Credit Hours: 3-0
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HISTORY OF ECONOMIC THOUGHTS

Course Objectives:

This course evaluates the development of economic thought through the eyes of Greek and European traditions before exploring economic thought in the context of the 20th Century. The course is historical in content and international in perspective allowing students to develop a critical understanding of the influence of evolving economic thought on contemporary global economics.

Course Contents:

➤ Introduction

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

➤ Mercantilists and the 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 18th Century. The Theory of Rent. Profit Concepts of Colonization. Economic

➤ Socialism

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

➤ Keynesian and Post Keynesian School

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

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

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

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

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

Recommended Texts:

1. A History of Economic Ideas, (1959), Robert Lekachman, McGraw Hill Company.
2. Economic Theory in Retrospect, Blaug, (1978), Cambridge University Press.
3. Frank A. G., (1998), Global Economy in the Asian Age, Univ., of California Press.
4. Henry John D., The Future of Economics, (1992), Black Wall Publishers.
5. Marx k., and Engels F., The Communist Manifesto, Peoples Publishing House, Moscow, latest edition.
6. Rima Ingrid, Development of Economic Analysis, Routledge Publishers (Latest ed.).
Spechler, Martin C., (1990), Perspective in Economic Thought, McGraw Hills.
7. 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.
8. Twenty Contemporary Economist ed. (1981). Schach and Locksley, MacMillan Press.

Rev No. 00	Course Code: ECO 403	Credit Hours: 3-0
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INTERNATIONAL TRADE THEORY

Course Objectives:

The main objective of the course is to offer a detailed introduction to the economics of international trade. In the first, we will develop an analytical framework for studying international trade. The question that we answer is,

‘Why do nations trade?’ Secondly, we use the analytical framework to examine policies that government adopts toward international trade.

Course Contents:

➤ Introduction:

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

➤ The Ricardian Model:

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

➤ The Specific Factors Model:

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

➤ The Heckscher Ohlin Model:

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

➤ The Standard Trade Model:

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

➤ Economics of Scale and Imperfect Competition:

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

➤ International Factor Mobility:

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

➤ Instruments of Trade Policy:

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

➤ **Trade Policies in Developing Countries:**

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

Recommended Texts:

1. Paul R. Krugman and Maurice Obstfeld, International Economics: Theory and Policy, Addison Wesley, Latest edition.
2. Donomick Sal Vatore B., International Economics: Prentice Hall, Latest edition.

SEMESTER – VIII

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO 404	Credit Hours: 3-0
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ISLAMIC ECONOMICS

Course 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:

➤ **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 Texts:

1. Ahmed, Khurshid – Studies in Islamic Economics- (1980) King Abdul Aziz University Jeddah and The Islamic Foundation UK

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

2. Ziauddin et al (Ed) – Money and Banking in Islam – (1983)- King Abdul Aziz University Jeddah and Institute of Policy Studies Islamabad.
3. Ziauddin et al (Ed) – Fiscal Policy and Revenue Allocation in Islam – (1983) King Abdul Aziz University Jeddah and Institute of Policy Studies Islamabad.
4. Siddiqui, M.N.- (1983)- Issues in Islamic Banking - Leicester, The Islamic Foundation, UK.
5. Iqbal, Munawar (Ed) – Distributive Justice and Need Fulfillment in an Islamic Economy – (1986) – IIIE, International Islamic University Islamabad.
6. Mannan, M.A.- Islamic Economics: Theory and Practice, A Comparative Study - (1986) - Cambridge, Hodder and Stoughton.
7. Chapra, M. Umer – Just Monetary System – (1993) – IIIT New York and Islamic Research Institute, IIU Islamabad.
8. Taqi Usmani, Justice M – (2000) - Introduction to Islamic Finance Idarat-al- Ma'arif Karachi.
9. Siddiqui, M.N. – (2001)- Economics: An Islamic Approach – Institute of Policy Studies Islamabad and The Islamic Foundation, UK.
10. Yasin, Hafiz M. – Economic System of Islam – (1993) -Lecture Notes (mimeographed) – IIIE, International Islamic University Islamabad.
11. 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.
12. Chapra M. Umer (1991)- The Economic System of Islam- University of Karachi.
13. Khan, M. Fahim – (1983) - Macro Consumption Function in an Islamic Economic Framework - International Centre for Research In Islamic Economics, King Abdul Aziz University, KSA.
14. Khan M. Fahim – (1995) - Human Resource Mobilization through the Profit-Loss Sharing – IRTI, Islamic Development Bank Jeddah.
15. Khan, Tariqullah, (1996), Practice and Performance of Mudarbah: A case study of Pakistan, IRTI, Islamic Development Bank, Jeddah.
16. Mahdi, M. Ahmad, (1995), Islamic Banking Modes for House Building Finance - IRTI, Islamic Development Bank, Jeddah.
17. Mannan M.A. - (1996) - Financing Development in Islam - IRTI, Islamic Development Bank, Jeddah.
18. Naqvi, Syed Nawab Hyder- (1981)- Ethics and Economics - Leicester, The Islamic Foundation, UK.
19. Nomani, Farhad & Rehnuma., Ali- (1994) - Islamic Economic Systems – Zed Books Ltd., London.
20. Nuti, D. Haris, (1995), The Economics of Participation, IRTI, Islamic Development Bank, Jeddah.
21. Yusaf, Imam Abu, Kita bur Kharaj, Lahore, Islamic Book Centre, 1979.
22. CII Reports – Consolidated Recommendations on the Islamic Economic System (1983, 1994)- the Council of Islamic Ideology, Govt. of Pakistan.
23. Siddiqui, M.N. - (1985)- Muslim Economic Thinking - Leicester, The Islamic Foundation, UK.

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO 405	Credit Hours: 3-0
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APPLIED ECONOMICS

Course Objectives:

After studied this course students will not only learn the data analysis techniques, which will be very helpful in quantitative research in Economics, but also become skilled at the building of best econometric modelling which is the nitty-gritty for the students of Economics to carrying their research work.

Course Contents:

Introduction to MS Office, Composing Models and Mathematical Equations, graphs

➤ **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 Economic Relationships**

Use of Computer, SPSS, E-View, STATA to Estimate Production Functions.

Cob-Douglas Production Function, Constant Elasticity Production Function etc. Consumption Functions

➤ **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. Choose Best Econometrics Model Based on the Model Selection Criterion (Coefficient of Determination, Adjusted Coefficient of Determination, Mean Dependent Variable, S.D. Dependent Variable, S.E. of Regression, Sum of Squared Residual, Prob(F-statistic), Durbin-Watson statistic, Determinant residual covariance,

Maximum likelihood, Log likelihood, Avg. log likelihood, Akaike Information Criterion, Schwarz Information Criterion, Hannan-Quinn Information Criterion and Determinant residual covariance

➤ **Econometrics Analysis of Time Series Data (Use Eviews)**

Unit Root Test, Johanson Cointegration Test, Vector Error Correction Model & its diagnostic Test, VAR Model and Its diagnostic tests, Auto-Regressive Distribution Lag Model and its diagnostic tests, Forecasting Models-Autoregressive Models, Exponential Smoothing and ARMA & ARIMA Models. Forecasting Evaluations-Root Mean Squared Error Model, Mean absolute Error, Means-Abs percent Error, Theil Inequality Coefficient, Bias proportion, Variance proportion and covariance proportion

➤ **Econometric Analysis of Panel Data (Eviews)**

Pooled Regressions, LSDV Model, Random Effects Models, Hausman Test, Wald TestDiagnostic Tests: Redundant Fixed effect, Normality Tests, Cross-Sectional Dependence Tests, Panel Unit Root Tests, ARDL Model, Crosse-sectional Short Run Coefficients, Cointegrassion Regression.

Recommended Texts:

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

OPTIONAL COURSES **(ECONOMICS)**

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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POPULATION ECONOMICS

Course Objective:

This course introduces the students to the subject of demography. The course aims to educate students regarding basic demographic theories, study of demographic processes and population characteristics, demographic trends, basic methods of demographic analysis and the important demographic transitions. In the latter part of the course the focus will be on the relationship between population and issues such as urbanization, family change, population aging and health.

Course Contents:

1. Introduction:

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

2. Theories of Population

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

3. Fertility

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

4. Mortality

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

5. Migration

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

6. Population Composition: Age & Sex Composition

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

7. Population Growth & Ageing

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

8. Urbanization

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

9. Population Policy

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

Recommended Texts:

1. **Weeks J. R.** (1989), *Population: An Introduction to Concepts and Issues*, Wadsworth Publishing Company, USA.
2. **Poston D. L. & L. F. Bouvier** (2010), *Population and Society: An Introduction to Demography*, Cambridge University Press, UK.

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS

Course Objective:

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. Economic implications of environmental policy are also addressed as well as valuation of environmental quality, quantification of environmental damages, tools for evaluation of environmental projects such as cost-benefit analysis and environmental impact assessments. Selected topics on international environmental problems are also discussed.

Course Contents:

➤ **Introduction:**

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

➤ **Limitation of market:**

Excludable and rival goods, common pool resources and public goods

➤ **The Theory of Externalities:**

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

➤ **Valuing the Environment: Methods**

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

➤ **Benefit–Cost Analysis and Other Decision-Making Metrics:**

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

➤ **The Design and Implementation of Environmental Policy:**

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

➤ **International Environmental Problems:**

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

➤ **Measuring the Benefits of Environmental Improvements:**

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

➤ **Contemporary Issues in Environmental Economics with Reference to Pakistan:**

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

➤ **Sustainable Development:**

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

Recommended Texts:

1. Tom Tietenberg and Lynne Lewis *Environmental & Natural Resource Economics* Pearson Education, Inc., 9th Edition 2012
2. Charles Kolstad, *Intermediate Environmental Economics*, Oxford University Press, 2nd edition, 2010.
3. Robert N. Stavins (ed.), *Economics of the Environment: Selected Readings*, W.W.Norton, 5th edition, 2005.
4. Roger Perman, Yue Ma, James McGilvray and Michael Common, *Natural Resource and Environmental Economics*, Pearson Education/Addison Wesley, 3rd edition, 2003.
5. Ian Wills, *Economics and Environment; A signaling and incentive approach*, 2nd edition, 2007
6. Freeman, A M, *The measurement of Environment and resource Values; Theory and Methods*, resource for the future, 2nd edition, 2003
7. Thomas Sterner, *Policy Instruments for Environmental and Natural Resource Management*, Resource for the future, 2003
8. Haab, T C and McConnell, K E, “*Valuing Environmental and Natural Resources; The Econometrics of Non-Market Valuation*”, Edward Elgar Publishing Ltd, 2002.

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MANAGERIAL ECONOMICS

Course Objectives:

This course of managerial economics will help to understand the concept of this economic efficiency and will explain the procedure, how to measure it. Through this course, student will enable to discuss the effects of policy intervention on efficiency of resources as well as effects of government intervention on it. Students who successfully complete the course will have a good understanding of economic concepts and tools that have direct managerial applications. The course will sharpen their analytical skills through integrating their knowledge of the economic theory with decision making techniques.

Course Contents:

➤ The Fundamentals of Managerial Economics:

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

➤ Market Forces: Demand and Supply, Quantitative Demand Analysis:

Demand, Supply, Demand Analysis, Elasticity, Price elasticity of demand and supply and use of derivative in finding elasticity of demand & supply, Point elasticity & Arc elasticity, income elasticity of demand, cross elasticity of demand, Promotional elasticity of demand, Concept of partial elasticity.

➤ Marginal Analysis:

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

➤ Production and Cost:

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

➤ Market Structure:

Perfect Competition, Monopolies, Monopolistic Competition. Oligopoly. Selected Pricing Models. Marginalist Pricing. Mark up pricing. New Product Pricing. Oligopoly Model.

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Contestable Markets. Pricing Strategies for Firms and Market Power. Monopolistic Competition. Price Discrimination, Monoposony and Price Product. Measuring Firms' Performance, Making Decisions under Noncompetitive Conditions, Oligopolies, Game Theory: Inside Oligopoly, Pricing Methods, Pricing Strategies for Firm with Market Power.

➤ **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.

➤ **Regulating the Market Economy:**

Economies of Scale, Taxes and Subsidies, Costs of Regulation

➤ **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.

➤ **Decision Making:**

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

Recommended Texts:

1. Baye, Michael, Managerial Economics and Business Strategy. Sixth Edition. Boston: McGraw-Hill Irwin, latest edition
2. Mark, Hirschey, Managerial Economics, latest edition, Thomson/South-Western College Publishing: 2003
3. Peterson, Craig, H., Lewis, W. Cris and Jain, Sudhir, K., Managerial Economics, latest Edition Pearson Education: 2009

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ENERGY ECONOMICS

Course Objective:

This course is the study of economic relationships in energy production, consumption, demand and supply, pricing and conservation, energy policy and the development of new and renewable energy sources. This course aims to provide students with the opportunity to study and develop a broader understanding of the economics of energy. There is mounting evidence that the current global energy system has been growing far beyond what is globally sustainable and already poses a serious, and potentially irreversible, threat to global environmental quality and stability in future decades.

Course Contents:

➤ Overview and Fundamental Concepts:

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

➤ Oil Resources and Economic Issues:

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

➤ Overview of Energy Economics and Global Energy Sustainability:

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

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

Climate change and primary and secondary energy use, Energy Conservation policies, demand side management, Non-conventional and renewable alternative energy: Solar, Biomass, Wind, Geothermal, Tidal & other, Hydrogen energy, fuel cells

➤ Energy Supply from Non-Renewable Fossil Fuel Resources:

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

➤ **Energy Conversion and Supply by Electric Utility Industries:**

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

➤ **Sustainable Energy Policy**

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

Recommended Texts:

1. Mark Jaccard, *Sustainable Fossil Fuels: The Unusual Suspects in the Quest for Clean and Enduring Energy*, Cambridge University Press (2005)
2. Subhes C. Bhattacharyya *Energy Economics Concepts, Issues, Markets and Governance* Springer-Verlag London Limited (2011)
3. J.M. Griffin, and H.B. Steele (1985): *Energy Economics and Policy*, Academic Press
4. Tom Tietenberg and Lynne Lewis *Environmental & Natural Resource Economics* Pearson Education, Inc., 9th Edition 2012

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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ECONOMICS OF EDUCATION

Course Objectives:

The course aims to analyze the ways through which the education is organized and delivered to achieve economic growth in the most efficient ways. It helps to understand the efficacy of reforms pertaining to teacher salaries, student teacher ratio and charter schools. The course helps to develop an understanding of the importance of education in economic growth of a country. This course is intended to make students aware of the fact as to how education enhances labour productivity, earnings and distribution of income. It will further help the students to analyze the relation between education, inequality and poverty prevailing in the developing economies of the world.

Course Contents:

1. Introduction : Defining economics and educational problem
2. Importance of Schooling
3. Econometrics overview, empirical research methods in the economics of education
4. Human Capital theory: The basic economic perspective on education
5. Education as a Signal: Signalling in the labour market
6. Returns to education in developing countries, with special reference to Pakistan, social rate of returns to education
7. Educational Production
8. Education and health
9. Education and inequality
10. School Accountability and Standards
11. Technology and Education
12. Role of state in education
13. Educational privatization

Recommended Texts:

1. Economics of Education by Dominic J. Brewer and Patrick J. McEwan (2010)
2. Autor, David, Frank Levy, and Richard J. Murnane. "The Consequences of Increasing the Nation's Supply of College Graduates." Policy Brief Written for the Gates Foundation. December, 2003
3. Feinstein, Leon. "Inequality in the Early Cognitive Development of British Children in the 1970 Cohort." *Economica* 70, no. 277 (2003): 73-97.
4. Introduction to Econometrics: 4th Edition by Christopher Dougherty, Oxford University Press (2011, 512pp)

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5. Modern Labour Economics, Theory and Public Policy: Ronald Ehrenberg, Robert Smith, 11th edition.
6. Borjas, G. 2008. Labour Economics, pp.268-273.
7. Hanushek, E. A. 1986. "The Economics of Schooling: Production and Efficiency in Public Schools." *Journal of Economic Literature* 24(3): 1141-77.
8. Clotfelter, Charles T., and Helen F. Ladd. "Recognizing and Rewarding Success in Public Schools." Chapter 2 in *Holding Schools Accountable*. Edited by Helen Ladd. Washington, DC: Brookings Institution Press, 1996. ISBN: 9780815751038.
9. Rouse, Cecilia Elena, and Alan B. Krueger. "Putting Computerized Instruction to the Test: A Randomized Evaluation of a 'Scientifically Based' Reading Program." *Economics of Education Review* 23, no. 4 (2004): 323-338.

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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PUBLIC POLICIES

Course Objective:

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

Course Contents:

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

II. Policy Science

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

III. Institutions, Actors and Instruments

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

IV. Implementation and Evaluation

Policy Design and Implementation Styles, Policy Evaluation

V. Policy Development And Change In Practice

Policy Regimes and Policy Dynamics
Evaluation: Does Policy Matter?

Recommended Texts:

1. Michael Howlett and M. Ramesh, Studying Public Policy: Policy Cycles and Policy Subsystems, Latest ed. (Toronto: Oxford University Press).
2. Michael C. Munger, Analyzing Policy: Choices, Conflicts, and Practices (New York: Norton). Latest Edition.

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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INVESTMENT AND PROJECT APPRAISAL

Course Objective:

This course is related to the methodologies used in the selection and appraisal of investment decisions in both the private and the public sectors. Course will focus on the theory and practice of project appraisal and cost-benefit analysis and will discuss their theoretical underpinnings and practical limitations. The debates about how to account for secondary, external and environmental effects and about basing economic valuation on international prices are explored in some detail. An extended case study exercise, along with computer application, will provide practical exposure in financial and economic appraisal techniques, which helps the students to make right decisions about their future investment.

Course Contents:

➤ **Introduction and Overview:**

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

➤ **Investment Appraisal – Basic Evaluation Techniques:**

Introduction, Traditional Methods, Time Value of Money Methods

➤ **Cash Flows, Capital Budgeting and Investment Decisions:**

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

➤ **Social and Economic Cost-Benefit Analysis:**

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

➤ **Discount Rate, Risk and Uncertainty in Cost Benefit Analysis:**

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

➤ **Different Criterion for Project Evaluation:**

Discounted Measures, Like NPV, IRR, BCR, Net Benefit-Investment Ratio. Undiscounted measures for project worth. Comparative Analysis for Discounted Measures.

➤ **Income Distribution through Project Appraisal within and between Generations:**

Introduction – Income Distribution and Thorny Questions, Diminishing Marginal Utility of Income and Intergenerational Welfare Weights, Income Classes for Distributional Weights, Further Issues, Intergenerational Distribution, Case Study

➤ **Significance and Importance of Investment and Project Appraisal in Developing Countries:**

Recommended Texts:

1. Steve Lumby and Chris Jones: Corporate Finance: Theory & Practice, latest edition,
2. HM Treasury, “The Green Book, a UK government publication detailing the methods it uses in evaluating public service projects.” latest edition
3. David Potts,” Project Planning and Analysis for Development, latest edition
4. Tan (2001) Economic Analysis of Investment Operations, latest edition
5. Richard Layard and Stephen Glaister, Cost-Benefit Analysis, latest edition

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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ETHICS, UNIVERSAL VALUES AND ECONOMICS

Course Objective:

This course starts with basic concepts and definitions relating to ethics. Then it discusses the ethical theories. Special emphasis is given to those ethical theories which led to different classic and neo-classic theories of economics. The course introduces the Islamic philosophy of ethics along with its relevance to economics. The interrelationship between markets and virtues, vices or moral moderation is explained to investigate the role that ethics can play in economic behaviors. Some major types of professional ethics in economic life are also analyzed to generate insights for fruitful economic understanding and analyses.

Course Contents:

1. Introduction:

Definitions, concepts and origin of ethics. Concept of Values, definition and meanings of value, concept of good and bad, right and wrong, concept of values in all the religions of the world. Difference between ethics, value and norm. kinds of values; Moral values, cultural values, social values, spiritual values, religion values etc.

2. Ethical Theories Behind Economics:

Outcomes-based ethics, Utilitarian ethics, Economic ethics, Duty-based ethics, Religious ethics, Kantian ethics, Virtue-based ethics; Aristotle, Adam Smith, Bentham, J.S Mill and McCloskey on ethics

3. Ethical Philosophy of Islam:

Moral Virtues and Vices, economics implications of moral virtues and vices Diseases of the Soul and their Treatment

Types of Moderation and Deviation, economics implications of moral deficiency, excess and moderation Diseases of soul

1. Diseases of the Power of Intellect, their treatment and economic relevance.
2. Diseases of the Power of Anger, their treatment and economic relevance.
3. Diseases of the Power of Passion, their treatment and economic relevance.
4. Diseases relating to combinations of all three powers and economic relevance.

4. Universal Values:

Definitions and concepts, Values in World Religions; values in Islam, Christianity, Judaism, Hinduism, Buddhism. Common ethical values in world religions, common ethical values in Islam vs. West.

Universal Values and Economics; Production, Consumption, Exchange, Distribution and Growth in perspective of universal values.

5. Application of Ethics in Economics:

Applications of Ethics in different fields of life:

Ethics in Professions

Research ethics

Intellectual property ethics

Ethics and cooperation

Ethics and competition

Ethics and marketing and media

Ethics and economic performance of manpower

6. Case Studies:

Success and failure economic stories based on ethical reasons [The instructor will give examples of such stories throughout the course and will ask every student to submit a success or failure story as a term paper of 10 marks]

Recommended Texts:

1. Ethics, Universal Values and Economics, a manual of selected essays, KIE, University of AJK
2. Economics and Ethics, Syed NawabHaider Naqvi , The Islamic Foundation UK (1981)
3. On Ethics and Economics, Amartya Sen
4. Jami' al-Sa'adat (The Collector of Felicities) by Naraaqi; English translation by Gul M. Naqvi
5. Economic Analysis of Ethical Doctrines and Behavior Henry Hazlitt, *The Foundations of Morality*
6. Daniel Kahenman, Peter Walker and Rakesh Sarin, “Back to Bentham? Explorations of Experienced Utility,” 112 *Quarterly Journal of Economics* (1997), pp. 375 – 405.

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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TRANSPORT ECONOMICS

Course 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:

Economic analysis of transportation projects and transportation infrastructure investment, optimal pricing and investment, Travel demand analysis and the value of travel time saving consumers' surplus and producers' surplus measures, General equilibrium models for transportation economics, analysis of travel demand, benefits, costs, equilibrium, pricing, and market structure. Intro to microeconomic principles in transportation, Pricing alternatives, road pricing and sustainable transportation, fare increases and the public transport fare adjustment mechanism, Price discrimination, Road congestion pricing, Equity dimensions of transport policy, Cost function for transport firm, City formation and transport cost, peak load and cost allocation problem, project appraisal and financing, Economics of transport logistics, Efficiency measurement theory and its application to transport, Theory of external cost, Transport and energy, Competition, regulation and public service obligations, Public private partnership in transport, transportation improvements and land values, returns to scale and road durability, Project evaluation, Congestion, Air quality, Fuel economy and safety, Transportation technology. Transportation and international Trade, Transportation and Economic Development.

Recommended Texts:

1. Palma, Andre De. A Handbook of Transport Economics. Edward Elgar Publishing, 2011
2. Émile Quinet, R. Roger William Vickerman, Principles of Transport Economics, Edward Elgar Publisher 2005
3. John Robert Meyer, José A. Gómez-Ibáñez, W. William B. Tye, Essays in Transportation Economics and Policy. A Handbook in Honor of John R. Meyer.
4. A Handbook of Transport Economics by Andre De Palma, Elgar Original Reference Series, Edward Elgar Publishing, 2011.
5. Principles of Transport Economics by Émile Quinet, R. Roger William Vickerman

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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INSTITUTIONAL ECONOMICS

Course Objectives:

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.

Course Contents:

1. 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.
2. Transaction costs: The concept of transaction. Market and intrafirm 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.
3. 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.

4. 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.
5. 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.
6. 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.
7. 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 Texts:

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

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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POVERTY AND INEQUALITY

Course Objective:

The aim of this course is to introduce students to the subject of poverty and inequality. The emphasis will be on problems in the modern contemporary economy, but the topic will also be approached from an historical perspective, taking a longer term view of the distribution of income in human societies. In particular, we will examine why some individuals and groups have less access to resources and income than others. Students will learn the fundamental concepts, theories and methodologies that are used by economists to measure and understand questions related to the distribution of income. By the end of the course, students should expect to not only have a greater knowledge of the forces determining the extent of poverty and the distribution of income, but to have also gained some understanding of the methods used by economists and policy-makers to deal with them.

Course Contents:

What Is Poverty and Why Measure It?, The Concepts of Well-Being and Poverty, Measuring Poverty, Steps in Measuring Poverty, monetary poverty, capability approach, Poverty Lines, Relative Poverty, Absolute Poverty, Issues in Choosing an Absolute Poverty Line, Measures of Poverty, Headcount Index, Poverty Gap Index, Squared Poverty Gap (Poverty Severity) Index, Sen Index, The Sen-Shorrocks-Thon Index, FGT class of measures, multidimensional poverty index, Poverty Indexes: Checking for Robustness, Sampling Error, Measurement Error, Equivalence Scales, Choice of Poverty Line and Poverty Measure, Definition of Inequality, Measures of Inequality, Decile Dispersion Ratio, Gini Coefficient of Inequality, Generalized Entropy Measures, Atkinson's Inequality Measures, Inequality

Comparisons, Measuring Pro-Poor Growth, Decomposition of Income Inequality, Poverty Profiles, Additive Poverty Measures, Determinants of Poverty, Household and Individual-Level Characteristics, Analyzing the Determinants of Poverty: Regression Techniques, Poverty Reduction Policies, The Analysis of Poverty over Time, Vulnerability to Poverty, Quantifying Vulnerability to Poverty. Poverty and inequality in Pakistan- How does Pakistan compare? Historical Trends- the longer term picture.

Recommended Texts:

1. Jonathan Houghton and ShahidurKhandker(2009) Handbook on Poverty and Inequality. (World Bank Training Series) **ISBN-10: 0821376136**
2. Atkinson, A.B., B. Cantillon, E. Marlier and B. Nolan (2002), *SocialIndicators. The EU and Social Inclusion*. Oxford: Oxford UniversityPress.
3. Cowell, F. (1992), *Measuring Inequality*, 2nd edn. Hemel Hempstead: Harvester Wheatsheaf.
4. Fields, G. S. (2001), *Distribution and Development*. Cambridge, MA: MIT Press.

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

5. Foster, J.E., J. Greer and E. Thorbecke (1984), “A class of decomposable poverty measures”, *Econometrica*, 52(3): 761-66.
6. Kakwani, N. (2003), “Issues in Setting Absolute Poverty Lines”,
Poverty and Social Development Paper 3. Asian Development Bank. .
7. Ravallion, M. (1994), *Poverty Comparisons*, Chur: Harwood Academic Publishers.
8. Sachs, Jeffrey (2005) *End of Poverty: Economic Possibilities for our Time* (New York, Penquin).

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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INTERNATIONAL FINANCE

Course Objectives:

International Finance is built on belief to understand the international economy, students need to learn how economic models are applied to real world problems. This subject develops a unified model of the international macroeconomy. The text provides detailed descriptions of major macroeconomic variables, covers the interest rate parity and purchasing power parity theories of exchange rate determination, takes an exhaustive look at the pros and cons of trade imbalances and presents the well-known AA-DD model to explore the effects of fiscal and monetary policy under both fixed and flexible exchange rates.

Course Contents:

1. Introductory Finance Issues: Current Patterns, Past History, and International Institutions
2. National Income and the Balance of Payments Accounts
3. The Trade Imbalances
4. Foreign Exchange Markets and Rates of Return
5. Interest Rate Parity
6. Purchasing Power Parity
7. Interest Rate Determination
8. National Output Determination
9. The AA-DD Model
10. Exchange Rates and its management
11. Policy Effects with Floating Exchange Rates
12. Policy Effects with Fixed Exchange Rates
13. Short and long term financing
14. International finance in context of Pakistan

Recommended Texts:

1. Steve Suranovic, International Finance: Theory and Policy latest edition
2. Madura, International Financial Management 8th , Ed. Thomson/Southwest

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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LABOR ECONOMICS

Course Objectives:

The objective of this course is to provide an introduction to the broad field of labor economics. Students will become familiar with models of how firms make decisions about their need for workers, how workers make labor supply decisions, and how wages and other benefits are determined. Historical labor market trends and other important issues that affect the labor market such as immigration, discrimination, and unions are also discussed. Throughout the course we will investigate the effects of relevant public policies (such as minimum wage, employment subsidies, and unemployment insurance) on the labor market.

Course Contents:

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

Recommended Texts:

1. G. Borjas, Labor Economics, latest edition, McGraw-Hill.
2. McConnell et al., Contemporary Labor Economics, latest edition, McGraw-Hill,

Additional Texts:

1. R. Ehrenberg and R. Smith, Modern Labor Economics, latest edition, Addison Wesley,
2. R. Elliott, Labor Economics: A Comparative Text, latest edition McGraw-Hill.
3. Hamermesh and A. Rees, The Economics of Work and Pay, latest edition, Harper and Row.
4. Sapsford and Z. Tzannatos, The Economics of the Labour Market, latest edition Macmillan.

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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REGIONAL ECONOMICS

Course Contents:

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 Texts:

1. Armstrong, Harvey, (2000), Regional Economics and Policy, Black wall Publishing Company.
2. Choi, Rok-Byung, (2003), High Technology Development in Regional Economic Growth, Policy Implications of Dynamic Externalities, Amazon.com.
3. Davis H., Craig, (1990), Regional Economics, Impact Analysis and Project Evaluation, Amazon.com.

4. Hijkamp (Editor), Handbook of Regional and Urban Economics, North Holland.
5. Lee Roger (ed). (1997), Geographics of Economics, John Wiley and Sons.
6. Marshall Peter, (1998), Competitiveness, Localized learning and Regional Development: Specialization and Prosperity in Small Open Economies, (Routledge Functions of Political Economy), Amazon.com.
7. Mcker David L., (1970), Regional Economics: Theory and Practice, The Free Press, New York.
8. Philip McCann, (2001), Urban and Regional Economics, Oxford University Press.
9. 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.
10. Simon David, (1990), Third World Regional Development: A Reappraisal, Paul Chapman Educational Publishing.
11. Shrivastava D.S. (1985), Advanced Economics of Development and Planning, Allied Publications, New Delhi.
12. Thisse, Fujita, M.J., (2002), Economics of Agglomeration: Cities, Industrial Location, and Regional Growth, Cambridge University Press.
13. Taylor, Jim, and Armstrong, H.W., (2000), Regional Economics and Policy, Amazon.com.
14. Treyz, George, (1993), Regional Economic Modeling: A Systematic Approach to Economic Forecasting and Policy Analysis, Kluwer Academic Publishers.
15. Winters L. Alam, Regional Integration and Development, Amazon.com, latest edition.
16. Zaidi, Akbar, (1999), Issues in Pakistan Economy, Oxford Univ. Press, Karachi.

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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URBAN ECONOMICS

Course Contents:

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 Urban Transportation 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 Texts:

1. Beckmann, M.J., Location Theory, Random House, (1968). (An old book, but still the best one in location theory.)
2. Fujita, M., Urban Economics Theory, Cambridge University Press, (1989), (An up-to-date survey of technical aspects of urban land use theory.)

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

3. Henderson, J.V., Economic Theory and the Cities, (2nd Edition), Academic Press, (1985). (A standard graduate textbook.)
4. Kanemoto, Y., Theories of Urban Externalities, North-Holland, (1980).
5. Miles, D., Housing, Financial Markets and the Wider Economy, Wiley, (1994). (A book on housing economics with special emphasis on the financial side.)
6. 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.)
7. Small, K. A., Urban Transportation Economics, Harwood, (1992). (A good survey of recent research on transportation economics with special emphasis on the empirical side.)
8. Wildasin, D. E., Urban Public Finance, Fundamentals of Pure and Applied Economics 10, Harwood Academic Publishers: Chur, Switzerland, (1986).

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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HEALTH ECONOMICS

Course 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:

➤ 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 Texts:

1. 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.
2. Bootman JL, Townsend RJ, McGhan WF. (2005). Principles of Pharmacoeconomics. Harvey Whitney Books, Cincinnati.
3. Drummond MF, O'Brien BJ, Stoddart GL, Torrance GW (1998).
4. Methods for the Economic Evaluation of Health Care Programmes. 2nd edition, Oxford University Press, Oxford.
5. Duckett SJ (2004). The Australian Health Care System. Oxford University Press, Oxford.
6. Gold MR, Siegel JE, Russell LB, Weinstein MC (1996). Cost- Effectiveness in Health and Medicine. Oxford University Press, Oxford.
7. Petitti DB (2000). Meta-Analysis, Decision Analysis, and Cost- Effectiveness Analysis:
8. Methods for Quantitative Synthesis in Medicine, 2nd edition. Oxford University Press, Oxford.
9. Rychlik R (2002). Strategies in Pharmacoeconomics and Outcomes Research. The Haworth Press, New York.
10. Vogenburg, FR (2001). Introduction to applied pharmacoeconomics. McGraw Hill, New York.
11. Zweifel and Breyer, Economics of Health, North Hollan

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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RESOURCE ECONOMICS

Course 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:

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 Texts:

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

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INDUSTRIAL ECONOMICS

Course 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 microeconomics 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.

Course Contents:

➤ 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.

➤ Estimation of Industry Demand & Forecasting

- a) Demand Model: 1) Linear Model 2) Semi log Model 3) Log Linear Model 4) Reciprocal Model 5) Log Reciprocal Model
- b) Introduction to Demand Forecasting: Importance of time series, components of Time Series, Determination of Trend-free hand graphic method, Semi-average method, moving-average method, least square method, non-linear trend-quadratic and exponential, conversions of trend equation, estimation of sectional indices-simple average method, ratio to trend method, ration to moving average method, link relative method, Industry verses company sales forecasting, factors affecting company sales and applications of forecasting in Economics

➤ **Econometrics Analysis of Market Power**

Market Structure, Econometric analysis of Market power- Lerner Index, Concentration Ratio & Herfindahl–Hirschman Index, or HHI. Derivation of Lerner Index & Elasticity Adjusted Lerner Index. Estimation of Adjusted Lerner Index by using Regression analysis, Simultaneous Equation System and autoregressive models- Production technology, Marginal Cost Equation, price Equation. Estimation of Conduct parameter

➤ **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.

➤ **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.

➤ **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 Texts

1. Adams W.J., and J.L. Yellen, 1976, “Commodity Bundling and the Burden of Monopoly”, Quarterly Journal of Economics, vol. XC, 475-498.
2. Averch H., and L.L. Johnson, 1962, Behavior of the Firm under Regulatory Constraint, American Economic Review, vol. 52, 1052-1069.

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

3. 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.
4. Baumol W.J., J.C. Panzar, and R.D. Willig, 1982, Contestable Markets and the Theory of Industry Structure, New York: Harcourt Brace Jovanovich.
5. Becker G., 1991, A Note on Restaurant Pricing and Other Examples of Social Influences on Price, Journal of Political Economy, vol. 99, 1109-1116.
6. Braeutigam R., 1989, Optimal Policies for Natural Monopolies, in R. Schmalensee and R.D. Willig eds.: The Handbook of Industrial Organization, Elsevier North-Holland.
7. Buchanan J.M., 1969, External Diseconomies, Corrective Taxes, and Market Structure, American Economic Review, vol. 59, 174-177.
8. Coase R.H., 1992, The Institutional Structure of Production, American Economic Review, vol. 82, 713-719.
9. Farrel J., and C. Shapiro, 1990, Horizontal Mergers: An Equilibrium Analysis, American Economic Review, vol. 80, 107-126.
10. Krugman P., 1991, Geography and Trade, The MIT Press.
11. Krugman P., 1991, Increasing Returns and Economic Geography, Journal of Political Economy, vol. 99, 483-499.
12. Krugman P., 1995, Development, Geography, and Economic Theory, The MIT Press.
13. Loury G.L., 1979, "Market structure and Innovation", Quarterly Journal of Economics, vol. XCIII, No. 3, 395-410.
14. Mankiw G., 1985, Small Menu Costs and Large Business Cycles: A Macroeconomic Model of Monopoly, Quarterly Journal of Economics, vol. 100, 529-537.
15. Martin S., 1993, Advanced Industrial Economics, Blackwell.
16. 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.
17. Posner R.A., 1975, The Social Costs of Monopoly and Regulation, Journal of Political Economy, vol. 83, 807-827.
18. Rotemberg J.J., and G. Saloner, 1987, The Relative Rigidity of Monopoly Pricing, American Economic Review, vol. 77, 917-926.

19. 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.
20. Salinger M.A., 1988, Vertical Mergers and Market Foreclosure, Quarterly Journal of Economics, vol. 77, 345-356.
21. Shy O., 1995, Industrial Organization, The MIT Press.
22. Tirole J., 1988, The Theory of Industrial Organization, The MIT Press.

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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POLITICAL ECONOMY

Course Contents:

➤ 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 Texts:

1. Azhar, H. Nadeem (2002), Pakistan: The Political Economy of Lawlessness, Oxford University Press
2. Gupta, S. Dev, The Political Economy of Globalization, Kluwer Academic Publishers. (Latest eds.)
3. Hagen Everett E., The Economics of Development, Richard D. Irwin, Inc. (Latest eds.).
4. Hussain Ishrat, (2004), Dollars, Debt and Deficits, Reform and Management of Pakistan Economy, Oxford University Press.
5. Pakistan, the Economy of an Elitist State,(1999), Oxford University Press.
6. Kardar Shahid, The Political Economy of Pakistan, Progressive Publishers, Pakistan.(Latest eds.).
7. Kher, R.S. (2004), SAARC: Political & Economic Aspects, Dominant Publishers and Distributors.
8. Noman Omar (1988), The Political Economy of Pakistan 1947- 1985, KPI, London and New York.
9. Stubbs Richard and Underhill Geoffrey R.D., (2000), Political Economy and the Changing Global Order, Oxford University Press.
10. Szentes J., The Political Economy of Underdevelopment, Akademiai Kiado, Budapest. (Latest Eds.).

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FINANCIAL MARKETS AND INSTITUTIONS

Course Contents:

➤ **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 Texts:

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

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DEVELOPMENT POLICY

Course Contents:

➤ 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 ladder 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

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

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

Recommended Texts:

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

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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RURAL DEVELOPMENT

Course 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:

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 Texts:

1. Malcolm Moseley, Rural Development: Principles and Practice, Sage Publications 2003
2. Young, F/Clark, J., Interdisciplinary Theories of Rural Development, Jai Press 2006
3. Hasan, Ibnul, Integrated Rural Development in Pakistan, Sterling Press Limited 1989
4. Kator Singh, Rural Development: Principals and Policy Institute of Rural Management (1999)
5. Desilva, G. Haque, Towards A Theory of Rural Development, Progressive Publishers 1988
6. James, Jeffrey, Improving Traditional Rural Technologies, Macmillan Press 1989

7. Kenneth Lynch, Rural Urban Interaction in the Developing World, Routledge 2005
8. Khan, Mahmood Hasan, Community Organizations and Rural development, Vanguard 2001
9. Khana, B., Rural Development in South Asia, Deep & Deep Publications 1992
10. Shoaib Sultan Khan, Rural Development in Pakistan, Vikas Publishers, 1982
11. The African Development Bank, African Development Report 2002, Oxford 2002
12. World Bank, Agriculture and Rural Development, Washington D.C. 2005
13. Dar, S. U, Impact of Integrated Rural Development Programme, Anmol, New Delhi 1992

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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COMPARATIVE ECONOMIC SYSTEM

Course Contents:

➤ Evaluation of Economic Systems

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

➤ 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 Texts:

1. Capitalism, Socialism and Islam by Syed A. Ala Maududi, Islamic Book Publisher, Lahore.
2. Comparative Economic System by William, Louks and William G. Whitney (latest edition).
3. Comparative Economic Systems by Martin C. Schmelzter and James W. Hordyke (1977).

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

4. Economic System of Islam by M. Omer Chapra.
5. Islam or Socialism by Wilicaynaki.
6. Comparative Economic Systems by Gregory, Stuart, Houghton Mifflin Company, Boston (1985).

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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MONETARY POLICY

Course 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:

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 Texts:

1. Bruce Champ and Scott Freeman (2001) Modeling Monetary Economies, Cambridge University Press, 2nd Edition
2. Carl Walsh (2003) Monetary Theory and Policy, 2nd Edition, MIT Press,
3. 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.
4. Olivier J. Blanchard, and Stanley Fischer (1989) Lectures on Macroeconomics, MIT Press.

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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FISCAL POLICY

Course 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:

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 Texts:

1. Auerbach, A. and L. Kotliko(1987), Dynamic Fiscal Policy, Cambridge University Press.
2. Burda, M. and C. Wyplosz (2001), Macroeconomics, A European Text, 3rd Edition, Oxford University Press.
3. Lord, W. (2002), Household Dynamics, Economic Growth and Policy, Oxford University Press.
4. Rosen, S. (2002), Public Finance, 6th Edition, Mc-Graw-Hill.

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ECONOMICS OF ENTREPRENEURSHIP AND INNOVATION

Course Objective:

This course will be enabled the students to establish evolutionary and innovative ideas for the personal as well as economic growth. Students will become familiar, through a mix of theory and case studies, with both the major characteristics of innovation and key aspects of the nature of entrepreneurship. This course helps the students to start their own small or medium scale businesses as the need of the economy. This course is designed for better understanding of personal as well as business finance.

Course Contents:

➤ **Economics of Daily Life:**

Producers and Consumers, Goods and Services, Scarcity, Trade-offs and Opportunity Cost, Supply and Demand, Economic Systems

➤ **Concept of Entrepreneurship:**

Definition of Entrepreneurship, Difference between Inventor and Entrepreneur, Identification of entrepreneurs, Ethnic Issues related to Entrepreneurship, Differentiation between product based and service based business, Factors differentiating Regional Economies.

➤ **Theories of Entrepreneurship:**

Early Theories, Occupational Choice Models, Theory of the Firm Consideration, Agency Cost Theory, Macroeconomic Theories for Entrepreneurs, Equilibrium Model.

➤ **Role of Entrepreneur in an Economy:**

Ways to Define the Strength of the Economy, Connecting Economics to Entrepreneurship, Role of Entrepreneur in Different Economic Systems, Importance of Entrepreneurs for the Growth of Nation and Economy, Discrimination of Entrepreneurship in Different Markets (Labor, Capital and Product)

➤ **Income Generation and Entrepreneurs:**

Pros and Cons of Self-Employment, Reasons for Self Employment, Characteristics and Skills for Entrepreneur, Career Options

➤ **Effects of Principles of Economics on Entrepreneur:**

Profit and Loss Evaluation, Competition, Supply and Demand, Factors of Production, Investment Decisions.

Recommended Texts:

CURRICULUM FOR BS-ECONOMICS (4 Years – 8 Semesters) PROGRAM

1. Parker, Simon C., “The economics of Entrepreneurship” latest Edition,
Cambridge University Press, USA, New York.
2. Hisrich, Robert D., Peters, Michael P. and Shepherd, Dean A.,
“Entrepreneurship” latest Edition, McGraw-Hill Companies, Inc. USA, New York.
3. Naqi, S. M., “Entrepreneurship: A Recipe for Economic Development”
Latest Edition, Newfine Printing Press, Lahore.

Material Provided by the Course Instructor.

Rev No. 00	Course Code: ECO	Credit Hours: 3-0
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ECONOMIC GROWTH

Course Objective:

This is an advanced undergraduate course in Economics, dealing with theoretical and empirical examination of economic growth and income differences between countries. The course focuses on both the historical experience of countries that are currently rich and the process of catch-up among poor countries. Topics include underlying determinants of economic growth, including population growth, accumulation of physical and human capital, technological change, natural resources, income distribution, geography, government, and culture.

Course Contents:

➤ Introduction and Overview:

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

➤ Factors of Production:

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

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

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

➤ Productivity and Technology:

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

➤ Growth in the Open Economy:

Autarky versus openness, Globalization, the effect of openness on economic growth, effects of geographical barriers, openness and factor accumulation, growth with capital mobility, openness and productivity, trade as a form of technology, openness and technological

progress, and opposition to openness.

➤ **Fundamentals behind Economic Growth:**

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

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

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

Geography, Climate and Natural Resources: Location, trade and growth, geographic concentration and spillovers, climate and productivity, climate and disease, natural resource endowment and economic growth, the curse of natural resources, incorporating natural resources into the analysis of economic growth.

Recommended Texts:

1. David N. Weil, *Economic Growth*, 3rd edition (2012). Pearson Addison-Wesley.
There is a website for this book <http://www.aw-bc.com/weil/>, on which you will find some useful materials.
2. Charles I. Jones and Dietrich Vollrath, *Introduction to Economic Growth*, 3rd edition (2013). W. W. Norton & Company.

Additional Texts:

1. Elhanan Helpman, *The Mystery of Economic Growth*, (2010). Belknap Press of Harvard University Press.
2. William R. Easterly, *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*, (2008). The MIT Press.

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PUBLIC FINANCE

Course Contents:

➤ **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 Expanded 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.

➤ **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.

Recommended Texts:

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

OPTIONAL COURSES **(NON-ECONOMICS)**

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FUNDAMENTAL OF BUSINESS

Course Objectives:

Main objectives of this subject are to familiarize the students with the basics of business so that students are able to understand the fundamentals of business and to provide them the basic concept of management and promotional strategies. Also to make them understandable of the different structures and forms of business organization.

Course Contents:

1. The concept of business and the concept of profits, factors of production, types of economic systems, markets, demand and supply, private enterprise
2. Types of business organizations.
3. Managing the business enterprise, setting goals and formulating strategy, the managing process
4. Types of managers. Levels of management, basic management skills.
5. What is organizational structure, the building blocks of organizational structure?
6. Basic forms of organizational structure, formal and informal organizational systems.
7. Managing human resources, the foundation of human resource management, planning for human resources.
8. Developing the work force, compensation and benefits
9. Managing operations, operation processes, operation planning
10. Operations scheduling, operations control, completing the operations management process.
11. What is marketing? The marketing environment, planning and executing marketing strategy.
12. The marketing mix, target marketing and market segmentation, identifying market segments.
13. The importance of promotion, promotional objectives, promotional strategies, the promotional mix.
14. The distribution mix, intermediaries and distribution channels, distribution strategies, wholesaling and retailing.

Recommended Texts-

1. Business by Ricky W. Griffin, Ronald J. Ebert. (4th edition)
2. Business Studies by Stephen Danks with Andrew Torkington and Sarah Holliday. (3rd Edition)

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INTRODUCTION TO POLITICAL SCIENCE

Course Contents:

1. Definition, Nature, Scope and Sub-fields of Political Science.
2. pApproaches 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 Texts:

1. 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.
3. Mohammad Sarwar, Introduction to Political Science, Lahore Ilmi Kutub Khana, 1996.
4. Ahmad Shafi Choudhry, Usul-e-Siyasiat, Lahore Standard Book Depot, 1996.
4. Bashir Ahmad Sheikh, (Sindhi) Riyasat Jo Ilm (Science of State), Jamshoro, Institute of Sindhalogy, University of Sindh, 1985.

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PRINCIPLES OF MANAGEMENT

Course Objective:

The objective of the course is to expose students to the theories of management, organizational theory, and the practice of management in contemporary organizations from a conceptual, analytical, and pragmatic perspective. The course will also allow students to develop their own framework for analyzing and understanding management as well as exploring and developing their personal philosophy of management.

Course Contents:

1. Introduction to Management, Organization, The management Process
2. The History and evaluation of Management, Organizational theories and different approaches to management
3. The organizational Culture and the Manager, The external environment and the Manager, The internal environment and the manager
4. Foundations and basic elements of Planning, Process of planning and MBO, Effective strategic planning
5. Decision Making, The manager's role as decision maker, Decision making process
6. Basics of Strategic Management, Case of Strategic Management, Strategic management process
7. Organizational Structure, Types of organizational structures
8. Case Decision-making
9. Human Resource Management, HRM processes
10. Motivation its theories, Current issues in Motivation
11. Team work and Group Behavior, Case of team and team work
12. Leadership and its characteristics, Leadership styles and behaviors
13. The process of Control, The Control Standards
14. Case of Controlling, Presentation
15. Staffing, Presentation

Recommended Texts:-

- 1) Stephen P. Robbins and Mary Coulter: Management.
- 2) Harold Knootz & Heins Weihrich: Management

Additional Texts:-

- 1) Human Resource Management By Gary Dessler and Biju Varkkey 11th Edition
Published by Prentice Hall
- 2) Drucker, P.F, The Practice of Management.

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PRINCIPLES OF ACCOUNTING

Course Objective:-

The primary aim of Principles of Accounting is to provide students with an introduction to the process and function of financial reporting. Whilst a large proportion of the course is aimed at understanding accounting as a process, taking a preparers' perspective, we will also seek to develop an understanding of the importance of the role of accounting in today's society.

Main objectives of this subject are to familiarize the students with the basics of business language so that students are able to understand the Recording of monetary impacts till its final report preparation.

Course Contents:

➤ 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 Books:

1. Professor Muhammad Ammanullah Khan: Financial Accounting, Latest Edition
2. Principles of Accounting by M.A.Ghani
3. Principles of Accounting: Ilmi Accounting Latest Edition
4. Meigs, William: “*Accounting*” *The Basis for Business Decisions* 11th Edition, McGraw Hill, Inc.

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INTRODUCTION TO INTERNATIONAL RELATIONS

Course Objective:

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

Course Contents:

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

Recommended Texts:

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.

Additional Texts:

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

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SOCIOLOGY

Course 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:

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 Texts:

1. Anderson, Margaret and Howard F. Taylor. 2001. Sociology the Essentials. Australia: Wadsworth.
2. Brown, Ken 2004. Sociology. UK: Polity Press
3. Gidden, Anthony 2002. Introduction to Sociology. UK: Polity Press.
4. Macionis, John J. 2006. 10th Edition Sociology New Jersey: Prentice-Hall
5. Tischler, Henry L. 2002. Introduction to Sociology 7th ed. New York: The Harcourt Press.

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6. Frank N Magill. 2003. International Encyclopedia of Sociology. U.S.A: Fitzroy Dearborn Publishers
7. Macionis, John J. 2005. Sociology 10th ed. South Asia: Pearson Education
8. Kerbo, Harold R. 1989. Sociology: Social Structure and Social Conflict. New York: Macmillan Publishing Company.
9. Koenig Samuel. 1957. Sociology: An Introduction to the Science of Society. New York: Barnes and Nobel..
10. Lee, Alfred Mclung and Lee, Elizabeth Briant 1961. Marriage and The family. New York: Barnes and Noble, Inc.
11. Leslie, Gerald et al. 1973. Order and Change: Introductory Sociology Toronto: Oxford University Press.
12. Lenski, Gevbard and Lenski, Jeam. 1982. Human Societies. 4th edition New York: McGraw-Hill Book Company.
13. James M. Henslin. 2004. Sociology: A Down to Earth Approach. Toronto: Allen and Bacon.

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LOGIC & CRITICAL THINKING

Course Objectives:-

This course aims at enabling the students to carefully and deliberately determine whether to accept, reject, or suspend judgment about a claim and to determine as to what level of confidence is appropriate if a claim is accepted or rejected. It encompasses a variety of deliberate processes aimed at making wise decisions about what to believe or do. Thus it takes one beyond mere evaluation of arguments. It is the objective of this course to help undergraduate students to think critically.

Course Contents:

Basic Logical Concepts

- What is logic?
- Propositions and Sentences
- Arguments, Premises and Conclusions
- Conclusions and Premise Indicators

Arguments

- Deduction and Validity
- Induction and Probability

- Validity and Truth

The Uses of Languages and Disputes

- Three Basic Functions of Language
- Discourse Serving Multiple Functions
- The Forms of Discourse
- Emotive Words
- Kinds of Agreements and Disagreements
- Emotively Neutral Language
- Disputes: Verbal and Genuine

Categorical Propositions

- Categorical Propositions and Classes
- Quality, Quantity, and Distribution
- The Traditional Square of Opposition
- Further Immediate Inferences

Categorical Syllogisms

- Standard Form Categorical Syllogisms
- The formal Nature of Syllogistic Argument

- Venn Diagram Technique for Testing Syllogisms
- Syllogistic Rules and Syllogistic Fallacies

Symbolic Logic

- Modern Logic and its symbolic language
- Symbols for conjunction, Negation and Disjunction
- Conditional statements and Material Implication
- Testing argument validity using truth tables
- Statement forms and Material equivalence

Analogy and Problem Inference

- Argument by Analogy
- Appraising Analogical Arguments
- Refutation by Logical Analogy

Causal Reasoning

- Cause and Effect
- Causal Laws and the uniformity of nature
- Induction by simple enumeration
- Methods of Causal Analysis
- Limitation of Inductive Techniques

Recommended Texts: -

1. Introduction to Logic by Irving M. Copi and Carl Cohen (13th Edition)
2. A Concise Introduction to Logic by Patrick J. Hurley- 10th Edition
3. Logic: the basics by J. C. Beall

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INTRODUCTION TO HISTORY

Course Contents:

1. What is History?
2. Nature and scope of History
3. Benefits of History: History as a corrective force; History as a repetitive force
4. Branches of History (political, cultural, social, economic, intellectual and art history, history of science, etc.)
5. Relationship of History with other disciplines
6. Causation
7. Objectivity and subjectivity
8. Kinds of History: Narrative History, Scientific History, Philosophy of History, Future History

Recommended Texts:

1. Carr, E. H., *What is History?* Harmondsworth: Penguin, 1961.
2. Collingwood, R. G., *The Idea of History*, Oxford: Oxford University Press, 1978.
3. Govranski, *History Meaning and Methods*, USA, 1969
4. Muttahari, Murtaza, *Society and History*, tr. (Urdu) Mahliqa Qarae. Tehran, 1985.

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INTRODUCTION TO MASS COMMUNICATION

Course Contents:

➤ Communication:

Definitions, types and significance. Process of Communication: source; message; channel; noise; destination; encoding; decoding; and feedback. Barriers in communication. Essentials of effective communication.

Nature and Functions of mass communication. (Information, Education, Opinion Formation, Entertainment and Development.)

➤ Media & Mass Communication

Print Media: newspapers, magazine, books.

Broadcast media: radio, TV, film.

New Media: (Internet) – On-line journalism. Traditional/Folk-Media.

Comparative study of mass media, their components, functions and effects

Recommended Texts:

1. Dominick, J.R. (2006). *Dynamics of Mass Communication* (8th ed.). New York; McGraw-Hill.
2. Straubhaar, LaRose. (2002). *Media Now: Communication Media in the Information Age* (3rd ed.). USA; Wadsworth.
3. Understanding Mass Communication, Defleur Dennis, Houghton Mufflin Co. Boston. 2000
4. Introduction to Mass Communication, Edward J. Whetmore, Wadsworth Publishing Co. California 1995.
5. Journalism for All, Mehdi Hassan and Abdus Salam Khurshid, Aziz Book Depot, Lahore. 6th ed., 1997.
6. Iblagh Kay Nazriyat, Muqaddara Shamsuddin, M. (Nation Language Authority, Islamabad 1990.

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BUSINESS LAW

Course Contents:

➤ **Contract Act**

Definition of Contract, Agreement, Enforceability, Essentials of Contract, Kinds of valid Contract, According to Enforceability, According to Formation, According to Performance

➤ **Offer and Acceptance**

Essentials of Valid Offer, Revocation of Offer, Acceptance
Definition, Essentials of Valid Acceptance, Revocation of Acceptance, Communication of Offer, Acceptance and Revocation

➤ **Performance of Contract**

Performance of Single Promise, Performance of Joint Promises, Order of Performance, Reciprocal Promises, Mode of Performance

➤ **Breach of Contract**

Rescission of the Contract, Suit for Damages, Suit for Quantum Merit, Suit for Specific Performance, Suit for an Injunction

➤ **Indemnity and Guarantee**

Contract of Indemnity, Contract of Guarantee, Essential of Contract of Guarantee, Distinction between Indemnity and Guarantee, Discharge of Surety from Liability

➤ **Contract of Bailment**

Definition & Parties to Bailment, Essential Features of Contract of Bailment
Duties of Bailee, Duties of Bailor, Termination of Bailment

➤ **Contract of Sales of Goods**

Distinction between Sale and Agreement to sell, Kinds of Goods, Conditions and Warrants
Distinction between conditions and warranties, Transfer of Property in Specific Goods, Transfer of Property in Un ascertained, And future goods

➤ **Negotiable Instruments**

Definition & Characteristics of Negotiable Instruments, Definition & Parties to Promissory Note

Essentials of Promissory Note, Definition & Parties to bill of exchange

Essentials of bill of exchange, Distinction between Promissory Note and bill of exchange

Definition & Parties to Cheque, Distinction between Cheque & Bill of Exchange

Recommended Texts:

1. BUSINESS LAW, Khalid Mehmood Cheema, 2004 Edition
2. MERCANTILE LAW, I.R Hashmi
3. MERCANTILE LAW, M.C. Shukla

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ECONOMIC GEOGRAPHY

Course Contents:

1. Introduction and definition of economic geography.
2. Geographical location of Pakistan and its economic importance.
3. Natural Resources
4. Climatic condition
5. Population structure: composition and distribution
6. Urbanization and its problems
7. Agriculture (main crops and livestock of Pakistan)
8. Location of industries (meaning, causes and impacts)
9. Large scale and small scale industries.
10. Trade, means of transport and importance
11. Communication means and importance
12. Characteristics of developing and developed countries.

Recommended Texts:

1. Ahmad Q.S. (1964), Geography of Pakistan, Oxford University, Press.
2. Gerald M. Meier, James Rauch (2004), leading issues in economic development 7th Edition, Oxford University Press.
3. Saeed Khawaja Amjad (2010), The economy of Pakistan, Oxford University Press