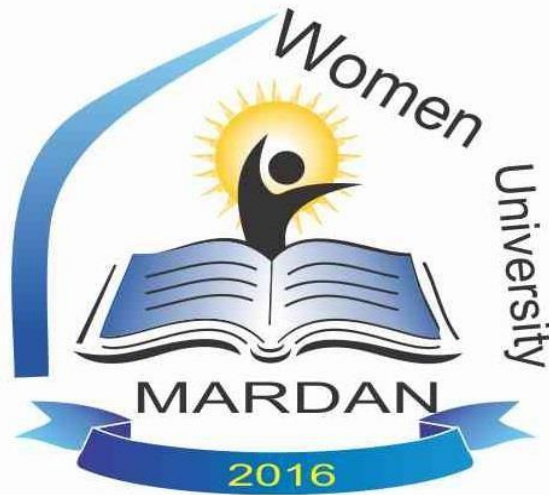


CURRICULUM OF ECONOMICS
FOR
BS-4 YEAR
(8 Semesters)
(2023 Onwards)



WOMEN UNIVERSITY MARDAN

BS- Economics 4 Years (8 Semester)

1st Year

1st Semester			2nd Semester		
Codes	Subject	Credit Hour	Codes	Subject	Credit Hour
SCI-121	Everyday Science	03	ISI-302	History of Islamic Civilization	02
SOC-101	Introduction to sociology	02	ENG-102	Expository Writing	03
ENG-101	Functional English	03	BBA-122	Entrepreneurship	02
ISL-121	Islamic Studies	02	PSC-301	Ideology and Constitution of Pakistan	02
PSC-301	Civic and Community Engagement	02	MTH-444	Statistics (QR-I-Tools for Quantitative Reasoning)	03
ECO-311	Principles of Microeconomics	03	ECO-321	Principles of Macroeconomics	03
BBA-112	Introduction to Business	03			
Total		18	Total		15

2nd Year

3rd Semester			4th Semester		
Codes	Subject	Credit Hour	Codes	Subject	Credit Hour
MTH-433	Mathematics (QR-II- Exploring Quantitative Skills)	03	BBA-321	Principle Management	03
CS-301	Application of Information and Communication Technology	03	PCS-311	Introduction to Political Science	03
ECO-431	Development Policy	03	ECO-441	Intermediate Macroeconomics	03
ECO-432	Intermediate Microeconomics	03	ECO-442	Islamic Economics	03
ECO-433	History of Economic Thought	03	ECO-443	Development Studies	03
Total		15	Total		15

3rd Year

5th Semester			6th Semester		
Codes	Subject	Credit Hour	Codes	Subject	Credit Hour
ECON-551	Microeconomics	03	ECO-561	Macroeconomics	03
BBA-352	Logic and critical thinking	03	ECO-562	Econometrics-II	03
ECO-552	Econometrics-I	03	ECO-563	Mathematical Economics-II	03
ECO-553	Mathematical Economics-I	03	ECO-564	Environmental and Natural Resource Economics	03
ECO-554	Research Methods	03	ECO-565	Agricultural Economics	03
Total		15	Total		15

4th Year

7th Semester			8th Semester		
Codes	Subject	Credit Hour	Codes	Subject	Credit Hour
ECO- 671	International Trade theory	03	ECO- 681	World Economic History	03
ECO- 672	Issues in Pakistan economy	03	ECO- 682	Economic Growth	03
ECO- 673	Public Sector economics	03	ECO- 683	Monetary Economics	03
ECO- 674	Managerial Economics	03	ECO- 684	Labor Economics	03
ECO- 675	Field Experience	03	ECO-699	Capstone Project	03
Total		15	Total		15

****University has the option to offer Optional & Elective Courses subject to the availability of concern teacher

FRAMEWORK FOR BS (4-YEAR) ECONOMICS

Compulsory Requirements (student has no choice)		Diversification Requirements, (from other departments)		Discipline Specific Foundation Courses	
9 courses		7-8 courses		10-11 courses	
25 Credit hours		21-24 Cr. Hours		30-33 Credit hours	
Subject	Credit Hours	Subject	Credit Hours	Subject	Credit Hours
1. English I	3	1. Sociology	3	1. Principles of Microeconomics	3
2. English II	3	2. History	3	2. Principles of Macroeconomics	3
3. English III	3	3. Logic and Critical Thinking	3	3. Intermediate Microeconomics	3
4. English IV/Univ. optional *	3 2	4. Project Management	3 3	4. Intermediate Macroeconomics	3
5. Pakistan Studies	2	5. Money & Banking	3	5. Statistics I	3
6. Islamic Studies/ Ethics	3 3	6. Consumer Behavior	3	6. Statistics II	3
7. Mathematics I		7. Entrepreneurship		7. Development Economics	3
8. Mathematics II /Uni Optional**	3	8. Business		8. Research Methods	3
9. Computer Applications		9. Commerce		9. Mathematical Economics I	3
		10. Political Science		10. World Economic History	3
		11. International Relations		11. Development Policy	
		12. Principles of Management		12. History of economic thought	
		13. Foreign Language			
Courses: 9	25	Courses: 7	21	Courses: 10	30

Major courses***		Elective Courses within the major	
11-13 courses		5 courses	
36-42 Credit hours		15 Credit Hours	
1. Microeconomics	3	1. Elective-I	3
2. Macroeconomics	3	2. Elective-II	3
3. Econometrics I	3	3. Elective-III	3
4. Econometrics II	3	4. Elective-IV	3
5. International Trade Theory	3	5. Elective-V (Project Report*** /Internship)	6
6. Public Sector Economics	3	(List of Elective subjects are given	
7. Economic Growth	3		
8. Mathematical Economics II	3		
9. Issues in Pak Economy	3		
10. Islamic Economics	3		
11. Entrepreneurial Economics	3		
12. Monetary Economics	3		
Courses: 11	33	Courses: 5	18

Total Credit Hours with Project Report = 123

List of Elective Courses (3 Credit Hours each)

1. (ECO- 564) Environmental and Natural Resource Economics
2. (ECO- 565) Agricultural Economics
3. (ECO- 366) Population Economics
4. (ECO- 367) Comparative Economic System
5. (ECO- 369) Ethics and Economics
6. (ECO- 370) Financial Markets
7. (ECO- 371) Institutional Economics
8. (ECO- 372) Political Economy
9. (ECO- 674) Managerial Economics
10. (ECO- 475) Project Appraisal and Investment Analysis
11. (ECO- 484) Industrial Economics
12. (ECO- 485) Labor Economics
13. (ECO- 699) Project Report*** /Internship

Semester-I

Course Breakdown

Semester I

1 st Semester		
Codes	Subject	Credit Hour
SCI-121	Everyday Science	03
SOC-101	Introduction to Sociology	02
ENG-101	Functional English	03
ISL-121	Islamic Studies	02
PSC-301	Civic and Community Engagement	02
ECO-311	Principles of Microeconomics	03
BBA-112	Introduction to Business	03
Total		18

Everyday Science

SCI-121

Credit Hours: 03

Objectives:

The aims of the teaching and study of sciences are to encourage and enable students to: develop inquiring minds and curiosity about science and the natural world.

Course Outline

1. Biological Sciences

The Basis of Life: Cell Structures and Functions (Subcellular Organelles such as Nucleus, Mitochondria and Ribosomes).

Biomolecules: Proteins, Lipids, Carbohydrates, Fats and Enzymes.

Common diseases and Epidemics: Polio, Diarrhoea, Malaria, Hepatitis, Dengue their Causes and Prevention.

Environment and Pollution: The Atmosphere (Layered Structure and Composition), Hydrosphere (Water Cycle, Major Water Compartments), Biosphere (Major Biomes) and Lithosphere (Minerals and Rocks, Rock Types, Plate Tectonics).

Concept of Balance Diet: Vitamins, Carbohydrates, Protein, Fats and oil, Minerals, Fiber.

Quality of Food: Bioavailability of Nutrients, Appearance, Texture, Flavor, Quality of Packed and Frozen Food, Food Additives, Preservatives and Antioxidants

2. Physical Science:

Constituents and Structure: Universe, Galaxy, Light, Year, Solar System, Sun, Earth, Astronomical System of Units

Process of Nature: Solar and Lunar Eclipses, Rotation and Revolution, Weather Variables (Global Temperature, Pressure, Circulation, Precipitation, Humidity) and Weather Variations.

Nature Hazards and Disasters: Earthquake, Volcanic Eruption, Tsunami, Floods, Avalanche, Travelling Cyclone (Tropical Cyclone, Middle Latitude Cyclone and Tornadoes), Drought, Wildfire, Urban Fire. Disaster Risk Management.

3. Chemistry:

Atomic Structure: Chemical Bonding, Electromagnetic Radiations.

Modern Materials /Chemicals: Ceramics, Plastics, Semiconductors. Antibiotics, Vaccines, Fertilizers, Pesticides.

Communication: Basics of Wireless Communication (Mobile, Satellite, Surveillance and GPS and Fiber Optic etc.

Recommended Books:

- Exploring Life Science 1975 Walter A. Thurber, Robert E. Kilburn, Peter S. Howell.
- Food Science 1998 Norman N. Potter, Joseph H. Hotchkiss.
- Environmental Science: Systems and Solutions. 5th ed. 2013 Michael L. McKinney, Robert Schoch and Logan Yonavjak.
- Environmental Science: A Global Concern 2012 William P. Cunningham, Barbara Woodworth Saigo.
- Fundamentals of Telecommunications 2005 Roger L. Freeman.
- Exploring Life Science 1975 Walter A. Thurber, Robert E. Kilburn, Peter S. Howell
- Principles of Animal Biology 2011 Lancelot Hogben.

- Forensic Science Fundamentals & Investigation 2008 Anthony J. Bertino.
- Basics of Environmental Science 2002 Michael Allaby.
- Food Science 1998 Norman N. Potter, Joseph H. Hotchkiss.
- Environmental Science: Systems and Solutions. 5th ed. 2013 Michael L. McKinney, Robert Schoch and Logan Yonavjak.
- Environmental Science: A Global Concern 2012. William P. Cunningham, Barbara Woodworth Saigo.

INTRODUCTION TO SOCIOLOGY

SOC-101

Credit Hours: 02

AIMS AND OBJECTIVES

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.

Introduction to Sociology

- Definition
- Scope of Sociology,
- Sociology as Science,
- Relationship of Sociology with other Social Sciences

Society

- Meaning and Definition of Society
- Characteristics of Society
- Types of Society
- Basis of Society

The Culture

- Definition of Culture
- Types of Culture
- Culture and Society
- Social and Cultural Change Characteristics of Culture

Social Stratification

- Definition of Social Stratification
- Types of Social Stratification
- Theories of Stratification

Social Groups

- Definition and Functions,
- Types of Groups
- Formal and Informal Groups and Pressure Groups

Social Mobility

- Definition of Mobility
- Types of Mobility
- Horizontal Mobility
- Vertical Mobility

- Zero Mobility
- Territorial Mobility/ Geographical
- Social Mobility
- Different Factor Favorable to Social Mobility

Family Institution

- Definition of Family
- Characteristics of Family
- Types/Classification of Families
- Functions of Family Institution

Religious Institutions

- Definition, Components of Religion, Beliefs, Symbols, Rituals,
- Sacred Objects, Functions of Religion,
- Religion of the World, Christianity, Judaism, Hinduism, Buddhism, Confucianism, Islam

Educational and Political institutions

- Social Functions of Education
- Education and Social Change
- Democracy & Dictatorship
- The welfare state

Recommended Books

1. Rao, C.N.S., SOCIOLOGY: Principles of Sociology with an Introduction to Social Thought, 7th revised edition
2. Paul B. Horton. and Chester L. Hunt. SOCIOLOGY-. 6th Edition
3. DOWN TO EARTH SOCIOLOGY- James Henslin

FUNCTIONAL ENGLISH

ENG-101

Credit Hours: 03

Course Description:

This course introduces the students with the basic grammatical / structural rules of English Language. It will help the students in improving their basic Language Skills to an optimum level so as to enable them to communicate effectively in English language through proper usage of vocabulary & knowledge of English grammar.

Outcomes:

1. Students will be familiarized with the technical methods of reading / comprehension.
2. They will be exposed to different reading materials, which will help them in improving their vocabulary, grammar and sentence structure etc.
3. The experience of this course will also help them to overcome those problems due to which they are unable to express themselves properly Parts of Speech

Course Contents:

- Vocabulary (Frequently confused / misused words,
- Phrases,
- synonyms,
- antonyms,
- idioms & General vocabulary),
- Practical Use of Grammar (Nouns, Pronouns, Verbs, Adjectives, Adverbs, Prepositions, Conjunctions, Articles, Interjections & Tenses),
- Sentences (Types of sentences, Parts of sentences),
- Direct and Indirect Speech,
- Active & Passive Voice & Conditional Sentences),

Recommended Reading:

1. High School English Grammar & Composition by Wren and Martin.
2. Practical English Grammar by A.J. Thomson & A.V. Martinet. Exercises 1 & 2. 3rd edition. Oxford University Press.
3. Writing. Intermediate by Marie-Christine Boutin, Suzanne Brinand & Françoise Grellet. Oxford Supplementary Skills. 4th Impression 1993. 4. Reading. Upper Intermediate. Brian Tomilson & Rod Ellis. Oxford Supplementary Skills. 3rd Impression 1992.
4. Précis writing by R. Dhillon.
5. Systems Student Companion English for lower secondary schools by Magdalene Chew & Surinder Kaur.

ISAMIC STUDIES

Course Code: ISL-121

Credit Hours: 02

Objectives of the Course

This course is aimed at:

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

Course Contents

Introduction to Qur'anic Studies

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

Study of Selected Text of Holy Quran

- 1) Verses of Surah Al-Baqara 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 Ahkam (Verse No-152-154)

Study of Selected Text of Holy Quran

- 1) Verses of Surah Al-Ahzab 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 Tafakkur, Tadabbur (Verse No-1,14)

Seerat of Holy Prophet (S.A.W)-I

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

Seerat of Holy Prophet (S.A.W)-II

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

Introduction to Sunnah

- 1) Basic Concepts of Hadith
- 2) History of Hadith
- 3) Kinds of Hadith

- 4) Uloom-ul-Hadith
- 5) Sunnah & Hadith
- 6) Legal Position of Sunnah

Selected Study from Text of Hadith

First Twenty Ahadith (Narrations of the Holy Prophet Muhammad peace be upon him) from the book “Al-Arbaeen Nawawi” by Imam Abu Zakaria Yahya bin Sharf Al-Deen Al-Nawawi

Introduction to Islamic Law & Jurisprudence

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

Islamic Culture & Civilization

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

Islam & Science

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

Islamic Economic System

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

Political System of Islam

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

Islamic History

- 1) Period of Khilaft-e-Rashida
- 2) Period of Umayyad's
- 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

Reference Books:

1. Hameedullah Muhammad, "Emergence of Islam" , IRI, Islamabad
2. Hameedullah Muhammad, "Muslim Conduct of State"
3. Hameedullah Muhammad, 'Introduction to Islam
4. Maulana Muhammad Yousaf Islahi,"
5. Hussain Hamid Hassan, "An Introduction to the Study of Islamic Law" leaf Publication Islamabad, Pakistan.
6. Ahmad Hasan, "Principles of Islamic Jurisprudence" Islamic Research Institute, International Islamic University, Islamabad (1993)
7. Mir Waliullah, "Muslim Jurisprudence and the Qur'anic Law of Crimes" Islamic Book Service (1982)
8. H. S. Bhatia, "Studies in Islamic Law, Religion and Society" Deep & Deep Publications New Delhi (1989)
9. Dr. Muhammad Zia-ul-Haq, "Introduction to Al Sharia Al Islamia" Allama Iqbal Open University, Islamabad (2001)
10. Imam Yahya bin Sharf Al-Deen Al-Nawawi, "Arbaeen Nawawi" Maktaba Khuddam Al-Quran, 36-K, Model Town, Lahore (2nd Edition: 2008)

Civic and Community Engagement

PSC-301

Credit Hours: 02

Learning Outcomes:

- Understand, critically think about, and reflect upon the history of democracy and civic engagement in the Pakistan.
- Identify and utilize - civic/community engagement skills such as: (advocacy, organizing, communications) and knowledge- (working in groups and teams, leadership, diversity, how systems work)
- Create civic sense and establish importance of civic and community engagement.
- Identify and explain the values and ethics for community engagement.
- Carry out a civic engagement activity incorporating some of their new knowledge and skills of civic engagement and reflect on their learning about the community, the issue addressed, and about themselves.

Course Contents-

Divided into categories for in-depth comprehension-

Category A: General

1. The historical background of civic and community engagement
2. Conceptual understanding of Human Rights and Minority Rights
3. Dimensions of Citizens engagement in Community: Political, Social, Economic
4. Rights and duties of Citizens in Community
5. Organizations (National & International) and Groups
 - Role of non-governmental organizations and their contributions
 - NGOs: Nature and Scope
 - International Commission for Red Cross (ICRC)
 - Amnesty International
 - Asia Watch

Category B: Pakistan's context

6. Role of Citizens in Governance of Pakistan
7. Democratic Accountability and Civic Engagement
8. Enhancement of leadership skills among women and youth of Pakistan through civic community engagement programs

Suggested Books

- Hoefler, R. (2012). Advocacy for Practice. 3rd Edition. Chicago, IL: Lyceum Books, Inc. (ISBN-13: 978-1935871828)
- Putnam, R. and Feldstein, L (2003). Better Together. New York, NY: Simon and Schuster. (ISBN-13: 978-0743235471)
- Civic Engagement—What Is It and Why Is It Important? Kerry J. Kennedy
- Universal Human Rights in Theory and Practice by Jack Donnelly

- Adamantia Pollis and Peter Schwab, Human Rights Cultural and Ideological Perspectives. Preager Publishers, Preager Publishers, London, 1980.
- Promoting and Protecting Minority Rights- A Guide for Advocates by United Nations.
- Human Rights in International Law, Council of Europe press, 1992.
- United Nations, Human Rights Status of International Instruments, United Nations, Baltimore, New York, 1987.

Principles of Microeconomics

ECO-311

Credit Hours: 03

COURSE DESCRIPTION

Principles of Microeconomics is an introductory undergraduate course that teaches the fundamentals of microeconomics. This course introduces microeconomic concepts, supply and demand analysis, theories of the firm and individual behavior, competition, and monopoly. Students will also be introduced to the use of microeconomic applications to address problems in current economic policy throughout the semester. The course will rely heavily on graphical analysis and simple numerical calculations.

COURSE OBJECTIVES

By the end of the course, students will be able to understand introductory microeconomic theory, solve basic microeconomic problems, and use these techniques to think about a number of basic policy questions relevant to the operation of the economy. More specifically, this course aims:

- To develop an understanding of introductory microeconomic theory and its relevance to the real world
- To sharpen the problem-solving tactics required to solve basic microeconomic problems
- To give a broader implications of microeconomics principles and their applications
- To train the students to work with others as a part of team to solve problems

COURSE LEARNING OUTCOMES

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

- **UNDERSTAND** consumer and firm behavior
- **APPLY** graphical analysis for a variety of economic situations.
- **CALCULATE** and **INTERPRET** elasticities
- **DEFINE** and **DERIVE** short-run and long-run production costs
- **EXPLAIN** various market structures

COURSE CONTENT

1. Introduction

- The Economic Problem
- Economic Decision Makers
- The Circular Flow Model
- Distinction Between Microeconomics and Macroeconomics
- The Market System

2. Demand & Supply:

- Demand, Demand Function, Demand Curve, Engel Curve, Changes in Demand, Law of Demand, Shift in Demand, Factors Affecting Demand,

Consumer Surplus

- Supply, Supply Function, Supply Curve, Changes in Supply, Factors Affecting Supply, Law of Supply, Producer Surplus
 - Equilibrium of Demand and Supply, Market Equilibrium, Price Controls, Taxes and Subsidies
3. ***Elasticity of Demand & Supply:***
- Price Elasticity of Demand & Supply
 - Point Elasticity of Demand & Supply
 - Arc Elasticity of demand & Supply
 - Income Elasticity of Demand & Supply
 - Cross Elasticity of demand & Supply
4. ***Consumer Behavior:***
- Utility Analysis (Cardinal Approach), Marginal Utility
 - Law of Diminishing Marginal Utility and Law of Equi-Marginal Utility, Consumer Equilibrium
 - Ordinal Approach of Consumer Behavior, Indifference Curves, Features of Indifference Curves, Budget Line, Consumer Equilibrium, Comparison between two approaches
5. ***The Theory of production & Theory of Cost:***
- Cost of Production, Short Period and Long Period Analysis
 - Economies of Scale, Elasticity of Cost, Graphical Representation of Long Run Cost
 - Production, Factors of Production, Production Function, Short Period Production Relations, Total, Average and Marginal Product, Elasticity of Production
 - Laws of Returns to Scale
 - Duality Between Production and Cost of Production
6. ***Market Structure:***
- Basics of Perfect Competition, Monopoly, Monopolistic Competition and Oligopoly
 - Different Possibilities of Short Run firm Equilibrium under Perfect Competition
 - Profit Maximization in Short-run and long-run under Perfect Competition
 - Supply Curve of Perfectly Competitive Firm under Short and Long Run
 - Short-run and long-run Equilibrium under Monopoly

TEACHING METHODOLOGY:

- Lectures
- In Class Activities
- Group Discussion
- Written Assignments
- Term Paper (optional)
- Guest Speaker (if required)

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid-term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

Suggested Readings:

- Michael J. Swann, William A. McEachern *Microeconomics: A Contemporary Introduction*, 3rd edition (or latest available)
- Mankiw N. Gregory, *Principles of Microeconomics* 7th edition (or latest available).
- Campbell R. McConnell, Stanley L. Brue, *Principles of Economics*, 17th edition (or latest available).
- Paul A. Samuelson, William D. Nordhaus, *Economics*, Latest Edition

Note: Further references will be suggested by the course teacher. The concerned teacher must supplement his lectures with latest development in this relevant subject/discipline. The concerned teacher must teach from the latest edition of the recommended books.

INTRODUCTION TO BUSINESS

BBA-112

Credit Hours: 03

COURSE OBJECTIVE

This course is intended to broaden the perspectives of the students to understand the environment, structure and system of business. Introduction to business is especially designed for the students of business administration to equip them with the fundamental knowledge of business and its requisites.

COURSE CONTENT

Week 1	Introduction to Business <ul style="list-style-type: none">• Definition of business• Characteristics of business• Nature & Importance of Business.• Qualities of a successful business man.
Week 2	Legal Forms of Business ownership Sole proprietorship <ul style="list-style-type: none">• Characteristics• Advantages and disadvantages
Week 3	Partnership <ul style="list-style-type: none">• Definition & features of partnership• Partnership deed• Types of partners• Position of a minor in a partner ship
Week 4	Joint stock company <ul style="list-style-type: none">• Features and classification of companies• Advantages and disadvantages of company
Week 5	<ul style="list-style-type: none">• Private limited company• Public limited company• Company promoter and their functions
Week 6	Organizational Structure
Week 7	Management of Business <ul style="list-style-type: none">• Level of management• Managerial skills
Week 8	Mid-Term Examination
Week 9	Human Resource Management <ul style="list-style-type: none">• Objectives of HRM Business• Process of selection

Week 10	Business Accounting <ul style="list-style-type: none"> • Accounting Cycle
Week 11	Business Finance & Types <ul style="list-style-type: none"> • Financial sources • Comparing equity and debt financing
Week 12	<ul style="list-style-type: none"> • Sources of short term financing • Sources of medium and long term financing
Week 13	Marketing In Business <ul style="list-style-type: none"> • Marketing Mix. • Advertising
Week 14	Warehousing Insurance <ul style="list-style-type: none"> • Principles and Types
Week 15	➤ Business Ethics and social Responsibility
Week 16	Final-Term Examination

Recommended Books

1. Saeed Nasir, M (2010). Introduction to business.
2. Madura , J. (2009). Fundamentals of business.
3. Brown, Richard and Patrello. Introduction to business.
4. Karen Collins, Introduction to business
5. Prof. Fazli Wahid , Introduction to business, IBMS/CS Agricultural University Peshawar.
6. Koonts and Flums , A practical to business.
7. Askan Zaidi , Fundamentals Of Business.

Semester II

Course Breakdown Semester II

2 nd Semester		
Codes	Subject	Credit Hour
ISI-302	History of Islamic Civilization	02
ENG-102	Expository Writing	03
BBA-122	Entrepreneurship	02
PSC-302	Ideology and Constitution of Pakistan	02
MTH-444	Statistics (QR-I-Tools for Quantitative Reasoning)	03
ECO-321	Principles of Macroeconomics	03
Total		15

HISTORY OF ISLAMIC CIVILIZATION

Course Code: ISI-302

Credit Hours: 02

تاریخ تہذیب اسلامی

Objectives of the Course

1. Definition of Islamic Culture & Civilization
2. Analysis of the Rise and Fall of Islamic Culture in various parts of the World
3. A Critical Study of the Effect and benefits of Islamic Civilization on other Cultures

Course Description

	Title	Description
1	Introduction to civilization- 1	<ul style="list-style-type: none">• Introduction of Civilization• Foundation of Civilization• Elements of Civilization
2	Important Civilization in the Pre-Islamic Era	<ul style="list-style-type: none">• Greek Civilization• Roman Civilization
3	Important Civilization in the Pre-Islamic Era	<ul style="list-style-type: none">• Egypt Civilization• Hindu Civilization
4	Principles of Islamic Civilization	<ul style="list-style-type: none">• Pillars of Culture & Civilization
5	Foundations of Islamic Civilization in the Era of the Prophet (SAW) and the Caliphates	<ul style="list-style-type: none">• Reasons for the evolution of Islamic Civilization in the Era of the Prophet (SAW)
6		<ul style="list-style-type: none">• Islamic Civilization in the Era of the Caliphates•
7		<ul style="list-style-type: none">• Elements of Islamic Civilization in the era of Caliphates
8	Islamic Civilization in the era of Banu Ummayads- 1	<ul style="list-style-type: none">• Introduction of Banu Ummayads• Intellectual development among the Banu Ummayads• Educational Centers for the Banu Ummayads

MID TERM

- | | | |
|----|---|---|
| 9 | Islamic Civilization in the era of Banu Ummayads- 2 | <ul style="list-style-type: none"> • Social developments of the Banu Ummayads • Causes of the civilization development of the Banu Ummayads • Results of the civilization development of the Banu Ummayads |
| 10 | Islamic Civilization in the era of Banu Ummayads- 3 | <ul style="list-style-type: none"> • Religious Movements in the era of Ummayads • Internal Disputes in Ummayads era • Reasons for the decline of the Ummayads |
| 11 | Islamic Civilization in the era of Abbasids- 1 | <ul style="list-style-type: none"> • Beginning of Abbasid civilization • Educational movements of the Abbasid period |
| 12 | Islamic Civilization in the era of Abbasids- 2 | <ul style="list-style-type: none"> • Cultural development in the Abbasid period • Social development in the Abbasid period • A Comparative study of the Islamic Culture of Abbasids with other Civilization |
| 13 | Islamic Civilization in the era of Abbasids- 3 | <ul style="list-style-type: none"> • Battles of Crusades • Battlers of Tartarians • The Causes of the Fall of the Abbasids and its Effects on Islamic Civilization |
| 14 | Islamic Civilization in Spain | <ul style="list-style-type: none"> • Causes of the spread of Islamic civilization in Spain • Manifestations of Islamic civilization in Spain • Influence of Islamic civilization in Spain on European civilization |
| 15 | Islamic Culture and Civilization in the Sub-Continent | <ul style="list-style-type: none"> • Islamic civilization achievements in the Sub-Continent • Reasons for the spread of Islamic cultural in Sub-Content |

16.

- The effects of the publication of Islamic civilization in the Sub-content on other civilization

Recommended Books

1. Muslim History and Civilization by Ehsan ul Karim
2. Islamic Religion History and Civilization, Seyyed Hossein Nasr
3. Tareekh-e-Islam Shah Nadvu Moin-ud-din
4. Islamic History by Dr. Kabeer Ali
5. An Atlas of Islamic History, H.W.Hazard
6. A Short History of Islam, S.F.Mehmood

تاریخ تمدن اسلامی، شاہ معین الدین ندوی

.7

تاریخ اسلام، اکبر شاہ نجیب آبادی

.8

EXPOSITORY WRITING

Course Code: ENG-102

Credit Hours: 03

Course Description:

This course will introduce students to the basic principles of effective / skillful writing and will develop the understanding of the students on academic and technical writing skills. Students will understand and know how to follow the stages of writing process and will apply these to technical and workplace writing tasks. Students will learn how to incorporate clarity and utility in their writing, learn stylistic methods for effective writing and to be aware of ethical issues in technical writing. Also, Students will read, analyze, and interpret material from technical fields, and will practice research and writing skills appropriate for technical topics.

Outcomes:

1. Students will be familiarized with basic sources and methods of research and documentation on topics including on-line research.
2. They will be able to synthesize and integrate material from primary and secondary sources wedded to their own ideas in research papers.

Course Contents:

- Topic sentence
- Paragraph writing:
- Essay writing:
 - Introduction and Practice: Essay types: descriptive, narrative, discursive, argumentative.
- CV and job application
- Letter and memo writing
- Minutes of meetings
- Summary and précis writing
- Comprehension

Recommended Reading:

1. Boutin, M.,& Brinand,S.,& Grellet, F. (1993). Oxford Supplementary Skills. Fourth Impression. Pages 45-53.
2. Nolasco, R. (1992). Oxford Supplementary Skills (3rd ed.). Fourth Impression.
3. Langan, J. (2004). *College Writing Skills*. Mc-Graw-Hill Higher Education.

ENTREPRENEURSHIP

Course Code: BBA-122

Credit Hours: 02

COURSE OBJECTIVE

With more than half of the new jobs being created in the world economy by small businesses, the particular problems and experiences encountered in starting and developing new enterprises are clearly worth studying. This course of Entrepreneurship has been designed to provide the participants with an overall understanding of the concept of entrepreneurship and small business management. Participants will be prepared to start, survive, and succeed in their own businesses.

COURSE CONTENT

Week 1	Entrepreneurship: an evolving concept Entrepreneurship – a perspective
Week 2	The Role of Entrepreneurship Kinds of Entrepreneurs Role and Functions of Entrepreneurs
Week 3	Understanding strategic issues in business plan development
Week 4	Pitfalls in selecting new ventures
Week 5	Innovation: the creative pursuit of ideas Opportunity identification: the search for new ideas
Week 6	Reason for failures of new ventures
Week 7	Legal challenges for entrepreneurial ventures
Week 8	Sources of capital for entrepreneurial ventures
Week 9	Mid-Term Examination
Week 10	Assessment of entrepreneurial plan
Week 11	Marketing challenges for entrepreneurial ventures
Week 12	Developing an effective business plan
Week 13	Strategic entrepreneurial growth
Week 14	Problems Faced by Newly Established Company Post and Field Problems Faced by a New Enterprise
Week 15	Franchising and the Entrepreneur
Week 16	Final-Term Examination

Reference Books:

- Small Business Management: Entrepreneurship and Beyond, Timothy S. Hatten. South-Western, Cengage Learning
- Norman M. Scarborough., Essentials of Entrepreneurship and Small Business Management. Pearson Education

- Donald F. Koratko , Entrepreneurship –Theory Process Practice (10th Edition), South Western -Cengage Learning.
- David L. Kurtz& Louis E. Boone, Contemporary Business (latest edition).
- Philip Kotler &Gary Armstrong, Principles of marketing (latest edition).
- Any Other Resources such as: Internet and Resource Notes and Modules
- Local and international newspapers and financial journals

IDEOLOGY AND CONSTITUTIONAL DEVELOPMENT OF PAKISTAN

Course Code: PSC-302

Credit Hours: 02

COURSE DESCRIPTION

Learning Objectives

- To develop critical thinking for understanding Constitutional development in Pakistan;
- To develop understanding of the legal and constitutional structure of the state;
- To develop comprehension of the interconnectivity between the Constitutional provisions and political practice;
- To develop the understanding of students regarding ideological basis of Pakistan as well as role of ideology in building national character.

Contents of the Course

Course is divided into two sections to cover the maximum portion of the course.

Section A: Ideological understanding and development of Pakistan

1. Basis of Ideology of Pakistan and Two Nations Theory
2. Ideology of Pakistan: Vision of Quaid e Azam and Allama Iqbal
3. Role of ideology in building national character
4. Democratic system of Pakistan (Issues)
5. Major causes of the Imposition of martial Law (1958, 1969, 1977&1999).

Section B: Constitutional Development of Pakistan

6. Pakistan's Constitutional Development from 1947 onward.
7. An Overview of the Constitution of Pakistan (Features of 1973 Constitution).
8. Basic Concepts—Federalism and the 1973 Constitution.
9. Islam and the Constitution of Pakistan -1973.
10. Constitutional Amendments and Reforms- 1973.

Recommended Books:

Students are advised to take notes during lectures. Certain books have been recommended for reference and quality of analysis.

- Constitution of Pakistan
- The Constitutional History of Pakistan—1947-2012, Malik Muhammad Owais Khalid, 2012
- Constitutional History and Political Development, Hamid Khan, 2005
- Constitutional Development in Pakistan, G.W. Chaudhary
- Constitution Making in Pakistan 1947-85, Dr. Baz Muhammad
- Allen Gledhill, Pakistan: The Development of its Laws and Constitution

- “Military, State and Society in Pakistan” by Hasan Askari Rizvi, 2000.
- Kazmi, Raza, Pakistan Studies, Karachi Oxford University Press.
- Qureshi, I. H., A Short History of Pakistan, University of Karachi Press.
- Qureshi, I. H., Struggle for Pakistan, University of Karachi Press.
- Sayeed, K. B., Pakistan Formative Phase, National Book Service
- Ziring, Lawrence, Pakistan in Twentieth Century: A Political History, London; Oxford University Press
- Government and politics in Pakistan by Mushtaq Ahmad
- Ideology and Dynamics of Politics in Pakistan by Muhammad Asif Malik

STATISTICS (QR-I-Tools for Quantitative Reasoning)

Course Code: MTH-444

Credit Hours: 03

Specific Objectives of the Course:

Introduce students to variables, sampling data and statistical approach in decision making.

Course Outline:

- Investigating relationships between variables
- Exploring tools to find relationship between variables
- Population and samples,
- Exploring and summarizing data
- Finding a representative value in a data
- Measure and spread of a data, measuring degree of relationship among variables
- Measure of central tendency, dispersion, data interpretation
- Basic probability theory
- Basics of estimation and confidence interval
- Testing hypothesis
- Statistical inferences in decision making
- Survey sampling

Recommended Books:

- Heumann, Christian, and Schomaker, Michael. Introduction to Statistics and Data Analysis: With Exercises, Solutions and Applications in R. Switzerland, Springer International Publishing, 2023.
- James, Gareth, et al. An Introduction to Statistical Learning: With Applications in R. Germany, Springer New York, 2013.
- Reid, Howard M.. Introduction to Statistics: Fundamental Concepts and Procedures of Data Analysis. United States, SAGE Publications, 2013.

PRINCIPLES OF MACRO-ECONOMICS

Course Code: ECO-321

Credit Hours: 03

Contact Hours: 48

COURSE DESCRIPTION:

The course is specially designed for the beginners with no formal background or little association with economics. This course is an introduction to the macroeconomic indicators and issues such as national income, unemployment, inflation etc. The course will establish the students understanding on the behavior and performance of the economy as a whole.

COURSE OBJECTIVES:

By the end of the course, students will be able to understand introductory macroeconomic theory and understand the concepts of macro aggregates like National Income, inflation, unemployment and etc. More specifically, this course aims:

- To familiarize the student with the generally accepted principles of macroeconomics.
- To understand the computation of National Income Accounts.
- To Interpret and evaluate media reports on the macro-economy.

COURSE LEARNING OUTCOMES:

After completing this course, students should have developed a range of skills enabling them to understand basic concepts of macroeconomics. By the end of this course, it is expected that the student should be able to:

- **ACQUIRE** the basic knowledge of terminologies used in macroeconomics and the key elements involved in the business decision
- **UNDERSTAND** the meaning and components of the National Income Accounts, especially GDP and GNP.
- **APPLY** three different approaches to **MEASURE** National Income, and the problems associated with calculating, interpreting, and comparing National Income statistics
- **UNDERSTAND** the tools, advantages and drawbacks of fiscal policy and monetary policy and how these policies operate.

COURSE CONTENT:

1. Introduction:

- What is macroeconomics and how economist thinks?
- The economy in aggregate,
- Complexities of the world of business,
- Scope of macroeconomics,
- Brief account of classical and the development of macro-economic after the World War-II,
- Concept of business cycles: Boom and Depression,

- Three concerns of macroeconomics, Inflation, GDP growth and unemployment
- Macroeconomic variables and their mutual relationship,
- Macro-models as abstraction from the real economy.

2. **National Income Accounting:**

- 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, GDP deflator
- 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.
- Measuring the cost of living: the consumer price index, CPI versus GDP deflator
- Measuring Unemployment rate

3. **Components of Aggregate Demand:**

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

TEACHING METHODOLOGY:

- Lectures
- In Class Activities
- Group Discussion
- Written Assignments
- Term Paper (optional)
- Guest Speaker (if required)

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid-term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

SUGGESTED READINGS:

- N. Gregory Mankiw. *Principles of Macroeconomics*, (latest edition)
- Samuelson and Nordrons. *Economics*, 18th Edition, (or latest available)
- Parkin, Michael. *Macroeconomics*, Edition Wesley International Inc. (latest edition)

Note: Further references will be suggested by the course teacher. The concerned teacher must supplement his lectures with latest development in this relevant subject/discipline. The concerned teacher must teach from the latest edition of the recommended books.

Semester III

Course Breakdown Semester III

3rd Semester		
Codes	Subject	Credit Hour
MTH-433	Mathematics (QR-II-EXPLORING QUANTITATIVE SKILLS)	03
CS-301	Application of Information and Communication Technology	03
ECO-431	Development Policy	03
ECO-432	Intermediate Microeconomics	03
ECO-433	History of Economic Thought	03
Total		15

MATHEMATICS (QR-II-EXPLORING QUANTITATIVE SKILLS)

Course Code: MTH-433
03

Credit Hours:

Specific Objectives of the Course:

Introduce students to importance of quantitative reasoning skills, history of mathematics and numbers in the real World.

Course Outline:

- Different types of standard numbers and their operations.
- Understanding relationship between parts and whole
- Practical life scenarios involving parts & whole
- Money management (profit, loss, discount, zakat, simple interest, compound interest and taxation)
- Practical life scenarios involving units and rate, percentage, ratio, proportions
- Basic of Geometry (line, angles, circles, polygon etc)
- Golden ratio in sculptures
- Equating two expressions in one variable & using it to solve practical problems
- Sets and their operations, Venn diagrams
- Relations, Functions and their graphs
- Algebraic solution of quadratic equations and inequalities
- System of linear equations and their solutions
- Introduction to logic, prepositions, logical connectives, truth tables etc

Recommended Books:

- Bennett, J. & Briggs, W. (2015). Using and understanding mathematics (6th Edition).
Pearson Education, Limited.

http://xn--webeducation-dbb.com/wp-content/uploads/2019/09/Jeffrey-Bennett-William-Briggs-Using-Understanding-Mathematics_-A-Quantitative-Reasoning-Approach-Pearson-2015.pdf

- Blitzer, R. (2014). Precalculus. (5th Edition). Pearson Education, Limited.
https://www.ilearnacademy.net/uploads/3/9/2/2/3922443/precalculus_edition_5f.pdf

APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY

Course Code: CS-301

Credit Hours: 03

Course Introduction:

This is an introductory course in Computer Science designed for beginners. Apart from leading the participants through a whirlwind history of computing, the course also develops a feel for web programming through a series of lectures that help the students develop their own web page. Main objective of the course is to build an appreciation for the fundamental concepts in computing and to become familiar with popular PC productivity software.

CLO No. Course Learning Outcomes Bloom Taxonomy

CLO-1 Understand basics of computing technology C1 (Knowledge)

CLO-2 Do number systems conversions and arithmetic C2(Understand)

CLO-3 Have knowledge of types of software C2(Understand)

CLO-4 Have knowledge of computing related technologies C3 (Apply)

Course Outline:

Brief history of Computer, Four Stages of History, Computer Elements, Processor, Memory, Hardware, Software, Application Software its uses and Limitations, System Software its Importance and its Types, Types of Computer (Super, Mainframe, Mini and Micro Computer), Introduction to CBIS (Computer Based Information System), Methods of Input and Processing, Class2. Organizing Computer Facility, Centralized Computing Facility, Distributed Computing Facility, Decentralized Computing Facility, Input Devices.

Keyboard and its Types, Terminal (Dump, Smart, Intelligent), Dedicated Data Entry, SDA (Source Data Automation), Pointing Devices, Voice Input, Output Devices. Soft- Hard Copies, Monitors and its Types, Printers and its Types, Plotters, Computer Virus and its Forms, Storage Units, Primary and Secondary Memories, RAM and its Types, Cache, Hard Disks, Working of Hard Disk, Diskettes, RAID, Optical Disk Storages (DVD, CD ROM), Magnetic Types, Backup System, Data Communications, Data Communication Model, Data Transmission, Digital and Analog Transmission, Modems, Asynchronous and Synchronous Transmission, Simplex, Half Duplex, Full Duplex Transmission, Communications, Medias (Cables, Wireless), Protocols, Network Topologies (Star, Bus, Ring), LAN, LAN, Internet, A Brief History, Birthplace of ARPA Net, Web Link, Browser, Internet Services provider and Online Services Providers, Function and Features of Browser, Search Engines, Some Common Services available on Internet.

Reference Materials:

1. Charles S. Parker, Understanding Computers: Today and Tomorrow, Course Technology, 25 Thomson Place, Boston, Massachusetts 02210, USA
2. Livesley, Robert Kenneth. An introduction to automatic digital computers. Cambridge University Press, 2017.
3. Zawacki-Richter, Olaf, and Colin Latchem. "Exploring four decades of research in Computers & Education." Computers & Education 122 (2018): 136-152.
4. Sinha, Pradeep K., and Priti Sinha. Computer fundamentals. BPB publications, 2010.
5. Goel, Anita. Computer fundamentals. Pearson Education India, 2010

DEVELOPMENT POLICY

Course Code: ECO-431

Credit Hours: 03

COURSE DESCRIPTION

This course will provide a review of development theories and empirical evidences on the major drivers of economic development including growth, geography, institutional quality, resource abundance and culture. The focus here is to spell out various policy options and to evaluate their effectiveness in dealing with the developmental issues of developing countries.

COURSE OBJECTIVES

1. To explore and debate development issues and policies
2. To present an overview of the existing evidence in designing policies for developing countries

COURSE LEARNING OUTCOMES

Upon Successful Completion, the students should be able to:

- UNDERSTAND and critically assess the mainstream economic literature relating economic development
- ASSESS and formulate development policies and develop critical thinking
- DEMONSTRATE the empirical approaches to understand the process of development

COURSE CONTENTS

1. What is Development?

- Describing and analyzing the development landscape of developing countries
- Evolving thinking on development
- Endogenous and exogenous theories of growth, convergence
- Inclusive growth, human development
- Why some countries are rich and others poor?
- East Asian miracles and China

2. Growth and Development

- Millennium Development Goals (MDGs)
- Sustainable Development Goals (SDGs)
- Human Development paradigm for development: Beyond growth in income
- Pakistan's progress, Dimensions of development, Development policy beyond MDGs

3. Development policy and Governance

- Role of Institutions in Development
- Governance and Corruption
- Globalization and Changing Role of State

4. Global Influences on Development Policy

- Policy debate on foreign aid, Pros and cons, and channels of foreign aid
- Trade and International Finance,
- World Trade Organization (WTO)

5. Poverty and Inequality

- Defining and measuring poverty, inequality
- Policies to manage poverty
- Income distribution and social welfare
- Middle-income trap,
- Vulnerability, trickledown effect
- Employment and Income Distribution
- Social Entrepreneurship, Role of Microfinance in poverty alleviation

6. Education and Healthcare

- The role of primary, secondary, tertiary and vocational education in development
- Human Capital Accumulation and Human Development Index

7. Environment and Sustainable Development

- Food security
- Agricultural Market Interventions and Reforms
- Agricultural Research and Extension
- Water Scarcity and Management
- Mineral Resources and their Exploitations

8. Migration, Urbanization, Issues facing Megacities

TEACHING METHODOLOGY:

- Lectures
- In Class Activities
- Group Discussion
- Written Assignments
- Term Paper (optional)
- Guest Speaker (if required)

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid- term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

SUGGESTED READINGS:

- Zaidi, S. Akbar, (2015). Issues in Economy of Pakistan. Karachi: Oxford University Press
- Ahmed, Vaqar, (2017). Pakistan's Agenda for Economic Reform. Oxford University Press

Note: Further references will be suggested by the course teacher. The concerned teacher must supplement his lectures with latest development in this relevant subject/discipline. The concerned teacher must teach from the latest edition of the recommended books

INTERMEDIATE MICROECONOMICS

Course Code: ECO-432

Credit Hours: 03

COURSE DESCRIPTION:

Intermediate Microeconomics is the second course of Microeconomics in the BS (Economics) program that builds up an extended knowledge of microeconomic concepts, principles and theories. This course mainly focuses on the conceptual foundations of microeconomics: prices, markets, optimization, equilibrium, and comparative statics. The course presents a logical and analytical framework for the observed economic phenomena. The course includes the study of consumer theory, theory of demand, producer theory, perfect competition, imperfect competition, externalities, public goods, and government interventions. Basic algebra and calculus, along with graphical techniques, will be used to analyse these microeconomic concepts.

COURSE OBJECTIVES:

The objective of the course is to extend the knowledge of the basic microeconomic principles that will provide the foundation for future studies in economics.

1. The course is aimed to develop the economic way of thinking to tackle the issues like resource allocation of consumers and producers.
2. The course is aimed to give an insight into how economic models can help us think about important real-world phenomena, like reasons behind the rise and fall of prices and wages, how firms earn profits and why they go out of business.
3. The course is aimed to analyze the role of decision-making agents in the economy and their impact on input and output prices and resource allocation.
4. The course is aimed to analyze critically the role of free markets, the possible reasons behind market failure and the effects of government intervention in the market.
5. The course is aimed to obtain basic knowledge of the issues that may arise when market information is asymmetric.

COURSE LEARNING OUTCOMES:

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

- **ACQUIRE** proficiency to employ numerical and graphical techniques as well as verbal presentation of microeconomic concepts.
- **UNDERSTAND** the concepts microeconomic theories and models in terms of their policy implications, advantages, and limitations.
- **EXPLAINS** consumers', firms', and market behavior using mathematical tools and diagrams the problems.
- **DEMONSTRATE AND APPLY** microeconomic models to design solutions to practical economic issues and real-world scenarios.

COURSE CONTENT:

1. Introduction

- Analyzing Economic Problems
- Constructing Economic Models
- Optimization Principle

2. Consumer Theory

- Budget Constraint and its Application
- Utility and Preferences
- Indifference Curve Analysis
- Optimal Choice of Consumer
- Application of Consumer Theory in choosing Taxes
- Income Effect
- Substitution Effect
- Price Effect as a combination of Income and Substitution Effect
- Decomposition of Price Effect into income & substitution effects (all approaches)
- Marshallian and Hicksian Demand Curves (normal, inferior and Giffengoods)

3. Theory of Demand and Supply

- Income Consumption Curve and Engel Curves
- The Price Consumption Curve and the Demand Curve
- Derivation of Demand Curve
- Demand Function
- Supply Function
- Supply and Demand Equilibria
- Comparative Statics
- The Inverse Demand Function

4. Producer Theory

- Producer's Objective
- Technology Constraints
- Short Run and Long Run Production Function and Cost
- Diminishing Marginal Product
- Diminishing Technical Rate of Substitution
- Returns to Scale and Cost Function
- Isoquant and Iso-cost Analysis
- Cost Minimization in Short and Long run
- Short-Run and Long run Profit Maximization

5. Markets Analysis

- Perfectly Competitive Markets: Analysis and Application
- Short Period Analysis (equilibrium cases, supply curve of firm)
- Long Period Analysis (equilibrium of firm, supply curve of industry)
- Monopoly Markets: Analysis and Application

- Short Period Analysis (equilibrium cases, why no supply curve of firm)
- Long Period Analysis (equilibrium of firm, sub-optimum, optimum and super-optimum cases)
- Price Discrimination (concept, need, possibility, forms, and degrees of price discrimination)
- Monopolistic Competition: Analysis and Application
- Short Period Analysis (equilibrium cases)
- Long Period Analysis (equilibrium of firm)
- Oligopoly: Analysis and Application
- Cournot Model
- Bertrand Model
- Stackelberg Model
- Sweezy's Kinked Demand Model

TEACHING METHODOLOGY:

- Lectures
- In Class Activities
- Group Discussion
- Written Assignments
- Term Paper (optional)
- Guest Speaker (if required)

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid- term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

Suggested Readings:

- Hal R. Varian, *Intermediate Microeconomics*, 9th Edition, 2014, W.W. Norton & Company, ISBN-13: 9780393123968
- Walter Nicholson and Christopher M. Snyder, *Intermediate Microeconomics and Its Application*, 11th Edition, Thomson South-Western, ISBN- 13: 9781133189022
- Robert S. Pindyck and Daniel L. Rubinfeld, *Microeconomics*, Prentice Hall, Fifth Edition, ISBN: 0130165832

Note: Further references will be suggested by the course teacher. The concerned teacher must supplement his lectures with latest development in this relevant subject/discipline. The concerned teacher must teach from the latest edition of the recommended books

HISTORY OF ECONOMIC THOUGHT

Course Code: ECO-433

Credit Hours: 03

COURSE DESCRIPTION:

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

COURSE OBJECTIVES:

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

COURSE LEARNING OUTCOMES:

Upon Successful Completion, the Students Should be able to:

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

COURSE CONTENTS:

1) Classical Economics

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

2) Marxian Economics

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

3) Neo-Classical Economics

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

4) Keynesian Economics

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

5) Post Keynesian Economics

TEACHING METHODOLOGY:

- Lectures
- In Class Activities
- Group Discussion
- Written Assignments
- Term Paper (optional)
- Guest Speaker (if required)

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid- term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

SUGGESTED READINGS:

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

Note: Further references will be suggested by the course teacher. The concerned teacher must supplement his lectures with latest development in this relevant subject/discipline. The concerned teacher must teach from the latest edition of the recommended books.

Semester IV

Course Breakdown Semester IV

4 th Semester		
Codes	Subject	Credit Hour
BBA-321	Principle Management	03
PCS-311	Introduction to Political Science	03
ECO-441	Intermediate Macroeconomics	03
ECO-442	Islamic economics	03
ECO-443	Development Studies	03
Total		15

PRINCIPLES OF MANAGEMENT

Course Code: BBA-321

Credit Hours: 03

COURSE CONTENTS

- **An Overview of Management**
Definitions
of Management
Characteristics of
Management
- Difference between Management and Administration
- **Functions of Management**
Functions a brief Treatment
Planning, Organizing, Staffing
Directing, Controlling,
Coordination
- **Principles of Management**
- Taylor's
Principles
Fayol's
Principles
General
Principles
- Importance and Scope of
Management
Importance of
Management
- Scope of Management
- **Nature of Management**
Management as an art
Management as a
Science
Management
as a Profession
- **Planning**
- Definition, Nature and

Characteristics Importance of
Planning

- Limitations of
Planning Essentials
of a good Plan Steps
in Planning Process
Types of Planning

- **Decision Making**
- Meaning and Elements of Decision
Making Importance and Process of
Decision Making
- Salient Features of a good or an Effective
Decision An Effective Decision Making

- **Organizing**
- Nature and Importance of
Organization Steps in the Process
of Organization Formal and
Informal Organization Principles
of Organization

- **Communication**
- Definition of
Communication Process
of Communication
Importance of
Communication Types of
Communication Barriers
to Communication Over
Coming the Barriers
- Characteristics of a good Communication System

- **Staffing**
- Definition of Staffing, Sources of
Recruitment Steps in Selection Process

- Orientation or Induction Training and Education
- Types and Methods of Training

- **Directing / Direction**
- Definition, Nature and Importance Principles & Techniques

- **Leadership**
- Definition
- Traits / Qualities of a Successful Leader Leadership Styles, Function of Leader Ship

- **Motivation**
- Meaning and Importance
- Financial and Non Financial Incentives Theory X and Theory Y
- Maslow's Need Priority Model

- **Controlling**
- Definition of Controlling Characteristics of Controlling Objectives of Controlling
- Steps in the Process of Controlling
- Essentials of an Effective Control System

RECOMMENDED BOOKS

- Principles and Practice of Management 1998 Edition, Terry, Prentice Hall USA.
- Practice of Management, 1997 Edition P.F. Duck Ker, Macmillan, London.
- Fundamentals of Management 2004 Edition, Prof. Fazli Wahid IBMS/CSAgricultural University Peshawar.

INTRODUCTION TO POLITICAL SCIENCE

Course Code: PCS-311

Credit Hours: 03

Objectives:

The objective of this course is to introduce the students with the fundamentals of the subject of Political Science and prepare them for advanced studies in the forthcoming semesters. The very basic concepts and terminology commonly used in the further courses of studies are taught to make the students friendly with the subject.

Contents:

1. Definition, Nature, Scope and Sub-fields of Political Science.
2. Relationship of Political Science with other social sciences.
3. Approaches to the study of Political Science: Traditional and behavioral approach.
4. State: its origin and evolution; Western and Islamic concepts of State,
5. Basic Concepts: Nation and Sovereignty, Power, Authority, Legitimacy
7. Organs of Government: Legislature, Executive, Judiciary.
8. Forms of State: Unitary, Federation, Confederation.
9. Forms of Government: democracy, Authoritarian, Parliamentary, Presidential
10. Law: Definition, Sources, kinds; rule of law, its relationship with Morality, individual Liberty and Rights & Duties.
11. Political Parties, Interest Groups: Kinds, Functions, Relationship with Political Parties, Public Opinion
12. Political Ideologies: Liberalism, Fascism, Nazism, Socialism, Marxism, Nationalism.

Recommended Books:

1. Haq, Mazher ul, *Theory and Practice in Political Science*, Lahore Bookland, 1996.
2. Ian Mackenzi (Ed.), *Political Concepts: A Reader and Guide*, Edinburgh, University Press, 2005.
3. Mohammad Sarwar, *Introduction to Political Science*, Lahore Ilmi Kutub Khana, 1996.
4. R. C. Agarwal, *Political Theory (Principles of Pol. Science)*, New Delhi, S. Chand & Co., 2006.
5. Robert Jackson and Dorreen Jackson, *A Comparative Introduction to Political Science*, New Jersey, Prentice – Hall, 1997
6. Rodee Anderson etc. *Introduction to Political Science*, Islamabad, National Book Foundation, Latest Edition.
7. Roskin, Michael G., *Political Science: An Introduction*, London: Prentice Hall, 1997.

INTERMEDIATE MACROECONOMICS

Course Code: ECO-441

Credit Hours: 03

COURSE DESCRIPTION:

The course is designed to teach the basic concepts and terms used in Macroeconomics. It will help the students to understand how the economies behave keeping in view the National Income, inflation, unemployment and macroeconomic fluctuations in the long run and short run. It will discuss Aggregate Demand and Aggregate Supply. The course will help students to think like economists.

COURSE OBJECTIVES:

1. To understand concept of National income what is it and how it works, causes and effects of inflation and unemployment,
2. To learn how to critically analyze the economic fluctuation including short run and long run shocks in the economy
3. To be able to analyze and relate the facts and figures (numbers) with theory to support and strengthen the research and critical analysis.

COURSE LEARNING OUTCOMES:

By the end of this course, it is expected that the students will be able to

- **AQUIRE** the knowledge about the monetary system, inflation, and unemployment
- **UNDERSTAND** the concept of market Equilibrium keeping in view the demand and supply of goods and services
- **INTERPRET and ANALYZE** the data, graphs, and trends in the macroeconomic indicators
- **UNDERSTAND** the concepts of Economic Fluctuations in the goods and money market in the light of IS and LM curves
- **DEMONSTRATE** macroeconomic concepts by using appropriate terms and explaining them with country specific examples
- **APPLY** macroeconomic theories and models to address the Macroeconomic issues

COURSE OUTLINE:

1. **Introduction to Macroeconomics**
2. **National Income: Where it Comes from and Where it Goes**
 - What determines the Total Production of Goods and Services?
 - How Is National Income Distributed to the Factors of Production?
 - What Determines the Demand for Goods and Services?
 - Equilibrium in the Market for *Goods and Services*
3. **Money, Prices and Unemployment**
The Monetary System: What it is and How it Works?

- What Is Money, its types and role
- How the Quantity of Money is Controlled and measured

Inflation: It Causes, Effects, and Social Costs

- The Quantity Theory of Money
- Seigniorage: The Revenue from Printing Money
- Inflation and Interest Rates
- The Nominal Interest Rate and the Demand for Money
- The Social Costs of Inflation
- Hyperinflation

Unemployment

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

4. The Economy in The Short Run: Economic Fluctuations

Introduction to Economic Fluctuations

- The Facts About the Business Cycle
- How the Short Run and Long Run Differ
- The Model of Aggregate Supply and Aggregate Demand
- Aggregate Demand: The Quantity Equation, Slope and Shifts in the Aggregate Demand Curve
- Aggregate Supply curve in the Long Run and Short Run
- Stabilization Policy: Shocks to Aggregate Demand and Aggregate Supply

Aggregate Demand I: Building the IS-LM Model

- The Goods Market and the IS Curve
- The Money Market and the LM Curve
- The Short-Run Equilibrium

Aggregate Demand II: Applying the IS-LM Model

- Explaining Fluctuations with the IS-LM Model
- IS-LM as a Theory of Aggregate Demand
- The Great Depression

Aggregate Supply & the Short-run Tradeoff between Inflation & Unemployment

- The Basic Theory of Aggregate Supply
- Inflation, Unemployment, and the Phillips Curve

TEACHING METHODOLOGY:

- Lectures
- In Class Activities
- Group Discussion
- Written Assignments
- Term Paper (optional)
- Guest Speaker (if required)

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid- term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

Suggested Readings:

- Mankiw, N. Gregory. *Macroeconomics*. 8th Edition, Worth Publishers.
- Abel, Andrew, B., Bernanke, Ben S. & Croushore, D. *Macroeconomics*, Seventh Edition. Addison-Wesley.
- Williamson, Stephen D. *Macroeconomics*, 4th Edition, Prentice Hall.

Note: Further references will be suggested by the course teacher. The concerned teacher must supplement his lectures with latest development in this relevant subject/discipline. The concerned teacher must teach from the latest edition of the recommended books

ISLAMIC ECONOMICS

Course Code: ECO-442

Credit Hours: 03

COURSE DESCRIPTION:

The objective of studying social sciences is to help in achieving human wellbeing. However, framework in conventional economics is secular. Hence, the objective of every member in a society is to maximize his/her own material well-being. According to neo-classical paradigm individuals maximize the welfare of a society while maximizing private self-interest. In other words there exist no fallacies of composition. That is, whatever is in the self-interest of an individual, is also in the interest of a society as a whole. Hence, there is no need to motivate economics agent for behaving in line with the interest of society. Keynesians though believe on the clash between self and social interest and admit the existence of fallacies of composition such as 'paradox of thrift' and 'liquidity trap' however, they believe that such anomalies can be resolved by appropriate government intervention and not by changing the fundamental objective of individuals. Still we are observing many economic issues in the world. In this subject we will discuss how Islam provides a better alternative.

COURSE OBJECTIVE:

The objectives of this course are:

1. To provide an introduction to the basic concepts and principles of Islamic economics.
2. To enable the students for comparative analysis of different economic systems.
3. To enable the students to understand the role of values in economy
4. To explain the theories and concepts of the Sharia'h compliant financial system in an Islamic economy.
5. To appraise the efforts undertaken in Pakistan and other Islamic countries at the state level as well as in private sector to revamp overall economy on the universal principles of Shariah.
6. To outline the challenges faced in transformation of contemporary interest-based economy into interest free economy.

COURSE LEARNING OUTCOMES:

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

- DIFFERENTIATE between the major characteristics of the dominant conventional economic systems (capitalism and Communism/socialism) and one based on the fundamental principles of Islam
- UNDERSTAND the conditions that should be met for a just, well-balanced, stable, and growing economy under Islamic perspective.
- UNDERSTAND the Islamic principles governing Islamic financial system

COURSE CONTENTS:

1. Definitions and Basics

- Definitions, concepts and terminologies,
- Brief History of Islamic Economics,
- Rationale for Islamic Economics,
- Islamic Economic System,

- Sources of Islamic Laws,
- The Holy Qur'an, Sunnah & Hadith, Ijma Ijtihad/Qiyas/Reason

2. Islam and other Economic Systems

- Introduction,
- Capitalism, Socialism, Communism, Mixed Economic System, Comparison and contrast

3. Islamic Economics

- Defining Islamic Economics,
- Principles of Islamic Economics,
- Consumer behavior, Basic values of Islamic economic system,
- Philanthropic and other-regarding behavior

4. Factors of Production

- Land as a Factor of Production,
- Land Tenure System in Islam,
- Place of Capital in Islamic Socio-Economic set-up,
- Labour-Capital Relationship and Islam,
- Rent and Wages in Islam, Islamic Values, and work life

5. Interest, its Prohibitions and Classifications

- Riba /interest definitions and its types,
- Riba in Quran, Riba in Hadith,
- Commercial Interest and Usury,
- The implications of interest

6. Islamic Financial System

- Islamic Contracts,
- Islamic Modes of Financing, Banking in Islam

7. Financial system in Islamic Economy

- Applications of Islamic Financing,
- Project Financing,
- Working Capital Financing,
- Import Financing, Export Financing

8. Islamization of Economy

- Pre-modern Muslim thought on economics,
- Development of "Islamic economics" as an academic discipline,
- Achievements, Challenges,
- Islamization of financial institutions in Pakistan: Achievements, Problems and prospects.

9. Case Studies

- Islamic Financial Institutions (Bank/ Insurance),
- Islamization of economy [at least any two countries]

10. Emerging Trends and Recent Developments

TEACHING METHODOLOGY:

- Lectures
- In Class Activities
- Group Discussion
- Written Assignments
- Term Paper (optional)
- Guest Speaker (if required)

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid- term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

Suggested Readings:

- Asad Zaman *Islamic Economics; A Survey of the Literature*, IRI publications, IIUI, Islamabad (available online)
- Syed Nawab Haider Naqvi, *Perspectives on Morality and Human Well-being*, Leicester(UK): Islamic Foundation, 2003.
- M.A. Mannan, *Islamic Economics, Theory and Practice* (Latest Edition), Sh. Muhammad Ashraf Publisher, Lahore, Pakistan.
- Abdul Hameed Dar and Muhammad Akram, *Islamic Economics*, Ilmikitab Khana, Urdu Bazaar, Lahore
- Abbas Mirakhor, Zamir Iqbal, Hossein Askari, *Introduction to Islamic Economics: Theory and Application*, John Wiley & Sons

Note: Further references will be suggested by the course teacher. The concerned teacher must supplement his lectures with latest development in this relevant subject/discipline. The concerned teacher must teach from the latest edition of the recommended books

DEVELOPMENT STUDIES

Course Code: ECO-443

Credit Hours: 03

COURSE DESCRIPTION:

This course examines the process of economic development, including the determinants of underdevelopment, poverty and inequality. The course focuses on describing and understanding the many problems faced by developing countries and their citizens. Through the course, we discuss policy implications of the topics we explore. We begin with an overview of economic development and models economists use to understand the process of economic development. Afterward, we consider the impediments to development and how they can potentially be addressed. Both microeconomic issues such as, health, education, credit, etc., and macroeconomic issues such as land reforms, industrial policy, savings, trade, etc. will be addressed.

COURSE OBJECTIVES:

1. To introduce students to the basic theory of development economics and to the different economic concerns of developing countries.
2. To facilitate students to be able to engage with the development economic literature on their own with an intermediate level knowledge of current issues and policies.
3. To understand and analyze key development economic theories affecting a number of contemporary development issues.
4. Reflect on and critically examine the links between alternative development economic theories and approaches.
5. Review the policy implications of these key development economic theories.

COURSE LEARNING OUTCOMES:

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

- **ACQUIRE** the UNDERSTANDING of various development theories and their policy outcomes.
- **UNDERSTAND** different concepts in relation to the development of the developing countries.
- **SOLVE** the critical development issues, such as poverty, human development, inequality etc.
- **EVALUATE** the available solutions and alternative outcomes
- **DEMONSTRATE**, compare and Contrast alternative development theories and hypotheses

COURSE CONTENTS

1. An Overview of Development:

- Historical experiences of developing countries
- Broad conceptual explanation of underdevelopment
- Economic Growth versus economic development
- Comparative economic development
- Emerging major issues of developing world
- Basic theories of growth and development, and
- Contemporary models of underdevelopment/development

2. 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
- Human Development Index
- Agriculture and rural development
- Land distribution
- Environment and natural resources
- Feudalism and Asiatic Mode of Production
- Colonial Path and Asiatic Capitalism in South Asia
- Agrarian class relations in Pakistan
- Industrial relations in Pakistan

3. 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 assistance and aids
- International wars, conflicts and refugees
- Migration and remittances

4. Markets and Development:

- The role of markets in development,
- Credit, financing, SME's, industrial and trade policies, land, labor and agriculture and livestock
- Market failure and government intervention
- Property rights and investment incentives
- Technology adoption and learning
- Stabilization policies

5. Institutions and Development:

- What are the institutions?
- Political institutions Versus economic institutions
- The Role of Institutions in Development
- The political economy and corruption
- Democracy Versus dictatorship
- Decentralization and federalism
- Various tiers of government
- Good governance, corruption
- Rent seeking
- Ethnic conflict

- Gender inequality
- Voting and lobbying
- The role of civil society
- The role of state for economic development
- The Informal institutions and development
- Social network and social capital
- Various tiers of government

6. Alternative Theories of Economic Development

- Culture Hypothesis
- Geography Hypothesis
- Institutions Hypothesis

TEACHING METHODOLOGY:

- Lectures
- In Class Activities
- Group Discussion
- Written Assignments
- Term Paper (optional)
- Guest Speaker (if required)

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid-term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

Suggested Readings:

- Todaro, M. P. and S. C. Smith. (2011). *Economic Development*, 11th edition, Palgrave.
- Debraj Ray (1998). *Development Economics*, Princeton University Press.
- Daron Acemoglu and James Robinson (2012). *Why Nations Fail: The Origins of Power, Prosperity and Poverty*, Crown Publishing Group.
- Banerjee and E. Duflo (2012). *Poor Economics*, Public Affairs
- Taimur Rahman. (2012). *The Class Structure of Pakistan*, Oxford University Press.
- Vaqar Ahmed (2017). *Pakistan's Agenda for Economic Reform*, Oxford University Press

Note: Further references will be suggested by the course teacher. The concerned teacher must supplement his lectures with latest development in this relevant subject/discipline. The concerned teacher must teach from the latest edition of the recommended books.

Semester V

Course Breakdown Semester V

5 th Semester		
Codes	Subject	Credit Hour
ECO-551	Microeconomics	03
BBA-352	Logic and critical thinking	03
ECO-552	Econometrics-I	03
ECO-553	Mathematical Economics-I	03
ECO-554	Research Methods	03
Total		15

MICROECONOMICS

Course Code: ECO-551

Credit Hours: 03

Objectives:

The course is designed to make students comfortable with the tools and methods of microeconomic analysis and to teach how to structure and analyze problems on these areas from a quantitative perspective, complemented with numerical examples.

Course Outlines:

Games of Strategy: Game Theory:

- An Overview of Game Theory
- **Static Games**
 - a) Normal-Form Games
 - b) Predicting a Game's Outcome
 - c) Multiple Nash Equilibrium, No Nash Equilibrium, and Fixed Strategies
 - d) Cooperation
- **Dynamic Games**
 - a) Sequential Game
 - b) Repeated Game

Risk, Uncertainty and Expected Utility:

- Degree of Risk
- Probability
- Expected Value
- Variance and Standard Deviation

Decision Making Under Uncertainty:

- Expected Utility
- Attitudes Toward Risk
- Degree of Risk Aversion

Production Efficiency

- Efficient Contract
- Full Information
- Asymmetric Information

Trade-Off between Efficiency in Production and in Risk Bearing:

- Contracts and Efficiency
- Choosing the Best Contract

Externalities and Public Goods:

Externalities

Market Structure and Externalities:

- Monopoly and Externalities
- Monopoly Versus Competitive Welfare with Externalities
- Taxing Externalities in Noncompetitive Markets

Public Goods:**Externalities and Public Goods:**

- Types of Goods
 - Markets for Public Goods
-
- Perloff, J.M. (2013). Microeconomics: Theory & Applications with Calculus, 3rd Edition. Pearson
 - Nicholson, W. & Snyder, C. (2009). Intermediate Microeconomics and Its Application, 11th Edition. Cengage Learning
 - Microeconomics by Pindyck and Rubinfeld 8th Edit.
 - Microeconomic theory Basic Principles and Extensions, 9th Edition by Nicholson, W.
 - Koutsoyiannis. A. Modern Microeconomics. Book Society/MacMillan. Latest – Edition
 - Ferguson. C.E and Gould. J.P, Microeconomic theory’’ Richard D. Irwin. Inc

LOGIC AND CRITICAL THINKING

Course Code: BBA- 352

Credit Hours: 03

COURSE OBJECTIVE

This Course aims to introduce students to practice of argumentation, critical analysis and evaluation. The course aims to help students to understand and develop the skills required for critical thinking and to encourage them to explore the way in which these skills can further their academic and non-academic pursuits.

COURSE CONTENT

Week 1	Definition of logic. Logic as a science an art
Week 2	Scope of logic The laws of logic
Week 3	Induction and essential characteristics of induction
Week 4	Categorical proposition and classes
Week 5	Quality, quantity and distribution The traditional square of opposition
Week 6	Immediate inferences, conversion
Week 7	Symbolism and diagram for categorical proposition
Week 8	Mid-Term Examination
Week 9	Three basic uses of language, discourse serving multiple functions
Week 10	The forms of discourse, Emotive words
Week 11	Kinds of agreement and disagreement.
Week 12	Emotively neutral language
Week 13	The purpose of definition
Week 14	Standard form categorical syllogism
Week 15	Rules and Fallacies
Week 16	Final-Term Examination

Recommended Books

- Critical Thinking: A Beginner's Guide to Critical Thinking, Better Decision Making, and Problem Solving – Jennifer Wilson
- Think Smarter: Critical Thinking to Improve Problem-Solving and Decision-Making Skills – Michael Kallet
- Brain Power: Learn to Improve Your Thinking Skills – Karl Albrecht
- A Rulebook for Arguments – Anthony Weston

ECONOMETRICS-I

Course Code: ECO-552

Credit Hours: 03

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 Outline ranges from data transformation to the analyses of both latitudinal and longitudinal data. The analytical skill is supported by the usage of different Econometrics Software.

Course Outlines:

Introduction of Econometrics

- Definition of Econometrics,
- Scope of Econometrics,
- Econometric Models
- Deterministic and Stochastic Models,
- Theoretical and applied econometrics.
- Methodology of Econometric Research.

Simple Linear Regression Model.

- Two-variable linear model.
- Least square method and its assumptions.
- Maximum likelihood method.
- Properties of estimators.
- Properties of ols estimators.
- R^2 as a measure of goodness of fit.
- Variance and standard errors of estimates.
- Testing hypothesis
- Tests of Significance and confidence intervals of the estimated co-efficient.
- Prediction,
- Conditional and un-Conditional Forecasting analysis of forecasting errors.

General Linear Regression Model

- General linear Regression Model and its estimation.
- Co-efficient of Multiple determination (R^2) and
- Adjusted co-efficient of multiple determination (R^2)
- Tests of significance and
- Confidences intervals of estimated co-efficients using Z and t Statistics.
- Testing the overall significance of regression co-efficient using F-Statistics.

- Matrix approach to linear regression model and
- Estimation of parameters.
- Transformation of Non-linear relationship to linear and its estimation.

Econometric problems

- Autocorrelation.
- Heteroscedasticity and
- Multi-collinearity.
- Detection,
- Consequences and
- Remedial measures.

Suggested Readings

- Dougherty, Christopher – Introduction to Econometrics – 2nd edition (2002) Oxford University Press.
- Gujarati, Damodar N. Basic Econometrics. 4th edition. McGraw Hill International edition (2003).
- Johnston, J. Econometric Method. 3rd edition McGraw-Hill (1991).
- Koutsoyiannis. A. Theory of Econometrics. 2nd edition MacMillan - EL-BS.
- Maddala, G.S. Econometrics, McGraw-Hill. International edition (1988).
- Madnani, G.M.K. Introduction to Econometrics, Principles and applications. 5th edition IBH Publishing (1988).
- Pindyck. Robert, S. and Rubinfeld. Daniell, Econometric Models and Econometric Forecasts. 3rd edition McGraw-Hill (1992).
- Wonnacot & Wonnacot –Econometrics – 2nd Edition (1970)-John Wiley, New York.
- Stock H. J. and M. W. Watson (2003), *Introduction to Econometrics*,
- India: Pearson Education. Stewart G. K. (2005), *Introduction to Applied Econometrics*, United States of America: Curt Hinrichs.
- Free online course on Introduction to Econometrics, available from <http://asadzaman.com>

MATHEMATICAL ECONOMICS-I

Course Code: ECO-553

Credit Hours: 03

Objectives:

This is basic mathematical economics with two course segments. The objective of this course is to make the student familiar with the basic mathematical tools for future preparation of applied mathematics in economics.

Course Outlines

Introduction

- Nature of Mathematical Economics,
- Basic Concepts – constants, variables, parameters, coefficients.
- Classification of numbers and the Real Number System.
- The concept of Set, Ordered Pairs and Cartesian Product,
- Functions and Relations.
- Types of function - Linear.
- Quadratic,
- Hyperbolic,
- Logarithmic and
- Exponential Functions.
- Graphic representation and the idea of domain and range.
- Equations and Identities.
- Mathematical Models and their ingredients.

Equilibrium Analysis

- Partial market equilibrium- Linear and non-Linear model
- National Income Equilibrium
- 1S-LM Equations and models.

Linear Algebra

- Vectors and Matrices,
- Matrix operations- addition, subtraction,
- scalar multiplication and
- Multiplication of matrices.
- Laws of matrix operations- commutative, associative and Distributive Laws.
- Determinants and their properties.
- Minors and cofactors.
- Laplace Expansion.
- Matrix Inversion.
- Solution of system of linear equations.
- Cramer's rule for Matrix solution.

Comparative Statistics and Derivatives

- The derivative and
- The rules of differentiation.
- Differentiation of functions involving more than one choice variable.
- Partial and Higher order partial derivatives.
- Differentials and
- Total differentials.
- Differentiation of Exponential and
- Logarithmic Functions.
- Applications of derivatives in Economics (Total, average and marginal relationships.
- Elasticity,
- Production Functions and
- their average and
- Marginal products.
- Returns to Scale.
- Cobb-Douglas production function and the constant elasticity) of substitution (CES) production functions).

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid-term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

Suggested Readings

- Allen, R.G.D, Mathematical Analysis for Economists. London, MacMillan ELBS, 1976.
- Chiang, A.C. Fundamental Methods of Mathematical Economics. 3rd edition, McGraw Hill, 1985.
- Colin, Glass – An Introduction to Mathematical Methods in Economics- (Latest Edition) - McGraw Hill Publishing Company.
- Dowling E. T.- Mathematics for Economists, Schaum's Outline Series- 3rd Edition (2001) – McGraw Hill Publishing Company.
- Frank, Budnick - Applied Mathematics for Business, Economics and Social Sciences- 4th Edition (1993) or latest – McGraw Hill Publishing Company.

RESEARCH METHODS

Course Code: ECO-554

Credit Hours: 03

Objectives:

This course is designed to provide students with the skills required to understand different scientific methods, research design, measurement, sampling, quantitative, qualitative, mixed data collection techniques, data analysis, interpretation and research proposal development. They will learn how to develop research questions, explore the strengths of various methods and experience different data collection methods. Students will be helped in future for drafting a preliminary research proposal.

Course Outlines:

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: (Ethics and Plagiarism)

- 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 (CH#5), 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: (Data Collection)

- Overview of research methods, Quantitative (multivariate) methods,
- Qualitative (interpretive) methods,
- 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: (Proposal Writing:

How to draft a quality Proposal)

- Abstract,
- Introduction,
- Literature Review.
- Methods and Data Collection.
- Findings and Interpretation,
- Conclusion and Suggestions.
- References.

Suggested Readings:

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
3. Research Methods by Ume Skran

Semester VI

Course Breakdown Semester VI

6 th Semester		
Codes	Subject	Credit Hour
ECO-561	Macroeconomics	03
ECO-562	Econometrics-II	03
ECO-563	Mathematical Economics-II	03
ECO-564	Environmental and Natural Resource Economics	03
ECO-565	Agricultural Economics	03
Total		15

MACROECONOMICS

Course Code: ECO-561

Credit Hours: 03

Objectives:

The course is designed for the student to know about the macro-Economic models and macroeconomic policies used in the process of macro-economic development in a country.

Course Outlines:

The economy in the very long run:

- Economic growth 1
 - a) Capitals accumulation
 - b) Population growth
- Economic growth 2
 - a) Technological progress in Solow model
 - b) Beyond the solow model;
 - c) From growth theory to growth empirics
- Economic growth 3
 - a) Effect of culture on economic growth
 - b) Cultural change
 - c) Geography, climate and natural resources

Foundations of the macro economy:

- John Maynard Keynes and the Consumption Function
- Irving Fisher and Intertemporal Choice
- Milton Friedman and the Permanent-Income Hypothesis

Chapter 17

- Business Fixed Investment
- Residential Investment

International macroeconomics:

- The Open Economy chapter-6 Mankiw
 - a) The International Flows of Capital and Goods (this section focuses on distinction between closed and open economies)
 - b) Saving and Investment in a Small Open Economy
 - c) Exchange Rates
- Open Economy Revisited chapter 13
 - a) The Mundell–Fleming Model
 - b) The Small Open Economy Under Floating Exchange Rates
 - c) The Small Open Economy Under Fixed Exchange Rates
 - d) Interest Rate Differentials

Macroeconomic policy: chapter 18

- Should Policy Be Active or Passive?

- Should Policy Be Conducted by Rule or by Discretion?
- Making Policy in an Uncertain World
- Lags in implementation of Monterey policy

Suggested Readings:

1. Mankiw, N. Gregory (2013). Macroeconomics. Eighth or latest Edition, Worth Publishers.
2. Weil, David N. (2012). Economic Growth. Third Edition, Pearson.
3. Abel, Andrew, B., Bernanke, Ben S. & Croushore, D. (2010). Seventh or latest Edition. Addison-Wesley.
4. Williamson, Stephen D. (2010). Macroeconomics. Fourth or latest Edition, Prentice Hall.
5. Romer, David - Advanced Macroeconomics- (latest edition)- McGraw Hills, New York and other readings and handouts, as required.

ECONOMETRICS-II

Course Code: ECO-562

Credit Hours: 03

Objectives:

This course is designed to follow up the data analysis and data estimation techniques included in Econometrics-I. The major objective of this course is to enable the senior undergraduates more inclined towards quantitative studies to solve the complex problems of the real world economic life. The students have to learn certain computer packages like SPSS, E-views and STATA besides Excel.

Course Outlines:

Problems in Regression Model

- Errors in variable.
- Instrumental variables.
- Regression on dummy dependent and independent variables.
- Distributed lag models (Koyck transformation. Polynomial lag)
- Missing observations.
- Pooling of cross-sectional and time series data,
- Logit and Probit models.
- Analysis of times series and Binary time series data.

Simultaneous Equation Model

- Types of simultaneous equation systems.
- The identification problem.
- Simultaneous equation methods
- Indirect least square's,
- Instrumental variables,
- Two stage least squares.
- Three stage least squares.

Simple Linear Model with Varying Coefficient

- Systematically varying coefficients models under alternative specifications,
- Random varying coefficient models under alternative specification.
- A model for discriminating among alternative varying coefficients specifications.

Time Series Analysis

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

Suggested Readings:

1. Hohnston. J. Econometric Method, 3rd edition McGraw-Hill (1991).
2. Koutsoyiannis, A. Theory of Econometrics, 2nd edition MacMillan – EL-Bs.

3. Pindyck, Robert, S. and Tubinfield, Daniell, *Econometric Models and Economic Forecasts*, 2nd edition McGraw-Hill (1989)
4. Maddala, G.S. *Econometrics*, McGraw-Hill, International edition (1988).
5. Madnani, G.M.K. *Introduction to Econometrics, Principles and applications*, 5th edition IBH Publishing (1988)
6. . Stock H. J. and M. W. Watson (2003), *Introduction to Econometrics*, India: Pearson Education. Latest edition
7. Gujrati, D. J. - *Basic Econometrics* (2003) McGraw-Hill Company. Latest edition
8. Jeffrey M. Wooldridge J. M., (2001) “*Econometric Analysis of Cross Section and Panel Data*”, The MIT Press, Latest edition
9. Dimitrios A. (latest edition), “*Applied Econometrics: A Modern Approach Using Eviews and Microfit*”, Palgrave, Macmillan
10. Johnston, J & John Dinardo- *Econometric Methods* – (1997) McGraw Hill Companies, Inc, Singapore. Latest edition
11. . Greene W. H (latest edition), *Econometrics Analysis*, Pearson Education, Inc 45
12. . Intrilligator, M - *Econometric Models: Techniques and Applications*- N. J. Prentice Hall, (Latest edition).
13. Judge, George G. et al - *The Theory and Practice of Econometrics*-(1988), John

MATHEMATICAL ECONOMICS-II

Course Code: ECO- 563

Credit Hours: 03

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

3. 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.

1. Higher Order Differential Equations

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

Difference Equations

(i) First Order Difference Equations

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

(ii) Higher Order Difference Equations

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

Non-Linear Programming

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

TEACHING METHODOLOGY:

- Lectures
- In Class Activities
- Group Discussion
- Written Assignments
- Term Paper (optional)
- Guest Speaker (if required)

ASSESSMENT:

- Mid Term Evaluation: 50%
Sessional Examination
Quizzes
Assignments
In-Class Activities
Class participation
- Final Examination: 50%

Note: The major share in mid-term evaluation will be of sessional examination. The share of mid- term evaluation and final examination can be 40:60 or 60:40, as approved by statutory bodies of university.

Suggested Readings:

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

Note: Further references will be suggested by the course teacher. The concerned teacher must supplement his lectures with latest development in this relevant subject/discipline. The concerned teacher must teach from the latest edition of the recommended books

ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS

Course Code: ECO-564

Credit Hours: 03

OBJECTIVES:

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:

(A) Pareto optimality and market failure in the presence of (2) externalities; (1) property rights and (3) 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,
Economics of climate change
Trade and environment.
Environmental Policy

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

Suggested Readings

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

AGRICULTURAL ECONOMICS

Course Code: ECO-565

Credit Hours: 03

Objectives:

The objective of this course is to give knowledge and information about the agriculture sector and its important role in the economic development.

Course Outlines

Introduction and Importance of Agriculture

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

Structure and Characteristics of Agriculture in LDCs

Traditional Agriculture and Productivity. Access to non-labor resources.

The Framing Environment: Natural Hazards and Economic Uncertainties. The Food problem. Farm Size and Productivity. Farm Size in Pakistan and Productivity Commercial Farms. Impact of Agricultural Reforms on Farm Size.

Role of Agriculture in Economic Development

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

Theory of Rent and the Concept of 'Surplus'

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

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

Agriculture in Dualistic Development Models

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

Resource Use Efficiency and Technical Change in Peasant Agriculture.

Efficiency of Resource Utilization. Technological Change in Agriculture.

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

Supply Response

Introduction. The Cobweb Model: An Illustration. Price-Supply Response in Backward Agriculture. A simple Supply Response Model. Supply Response in the Underdeveloped Agricultural labour Market, Specifically in Pakistan. The Concept of 'Marketed Surplus': Some Methods of Estimation. Some Criticisms of Krishna's Method and the Alternative Approach of Behrman Perennial Crops and Marketed Surplus in Pakistan. Green Revolution in Pakistan and Responses. Present Status of Green Revolution in Pakistan: Empirical Analysis.

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.

Suggested Readings

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

Semester VII

Course Breakdown Semester VII

7 th Semester		
Codes	Subject	Credit Hour
ECO- 671	International Trade theory	03
ECO- 672	Issues in Pakistan economy	03
ECO- 673	Public Sector economics	03
ECO- 674	Managerial Economics	03
ECO- 675	Field Experience	03
Total		15

INTERNATIONAL TRADE THEORY

Course Code: ECO-671

Credit Hrs: 03

Objectives:

The main purpose of this course is the provision of a detailed introduction to the economics of international trade. In the start we will provide an analytical framework for studying international trade, the causes of trade among different nations and the policies adopted by the government for International trade.

Course Outlines:

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.
- The theory of imperfect competition.
- Monopolistic competition and trade, Dumping, The theory of external economies,

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

Suggested Readings:

1. Paul R. Krugman and Maurice Obstfeld, International Economics: Theory and Policy, Addison Wesley, Latest edition.
2. Dominick Salvatore B., International Economics: Prentice Hal, Latest edition.
3. Chacoliades, Miltiades. International Economics, MacGraw-Hill, Publishing Company, Latest edition.
4. Salvatore, Dominick, International Economics, sixth edition, Prentice Hall International, Inc, 1998.

ISSUES IN PAKISTAN ECONOMY

Course Code: ECO-672

Credit Hours: 03

Objectives:

The basic objective of this course is to know about the current situation of the economy of Pakistan. In this regard the key features and processes of macroeconomic management and critical issues facing in the country are included.

Course Outlines:

Mid Term

An Overview of Pakistan Economy:

- The positive aspect of Pak economy
- The negative aspect of Pak economy
- Measures to correct the situations.

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
- 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 in Pakistan:

- Fiscal policy
Public finance and private finance in Pakistan.
Taxation, revenue and expenditure by government.
Budget of Pakistan.
- Monetary policy
Role of commercial banks in Pak economy.
Functions and importance of SBP in country.
Monetary policy by SBP

Balance of payment of Pakistan:

- Understanding BOP accounts
- Deficit and surplus situation of BOP in Pakistan
- Measures to correct disequilibrium in BOP

Performance of Pakistan on Foreign Economic Front:

- 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
- CPEC

Social Sector in Pakistan:

- Health Sector and its Issues
- Education and its Issues
- Gender Inequality
- **Regional Inequalities**
- Structure of Population
- Urbanization and Housing
- Infrastructure
- **Poverty and Income Distribution**

Recent Challenges Facing Pakistan Economy:

- Deteriorating Law and Order Situation
- Energy Crises and Issues in energy sector of Pakistan
- **Rising Circular Debt**

Suggested Readings:

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*
5. Khawaja Amjed Saeed. "*The economy of Pakistan* "Latest Edition.
6. Saeed Nasir "*Pakistan Economy*" Latest Edition.

PUBLIC SECTOR ECONOMICS

Course Code: ECO-673

Credit Hours: 03

Objectives:

The course is basically designed to understand the impact of the policies of government on resource allocation and equitable distribution of income in the country. It helps to analyze and identify the effects of public policy on various Macro-economic indicators. Further it enables the students to understand the effects and consequences of these policies before and after they are implemented.

Course Outlines:

Introduction to Public Finance:

- Public Finance Vs Private Finance
- Role of the Government.
- Sources of government Revenue.
- Expenditures of Government, Budget of the year
- Functions of the Government.

Public and Private Goods:

- What are public and private goods?
- The free rider problem.
- Pareto optimal supply of Public goods and Public choice

Implications for income distribution

Taxation and Fundamental Tax Reforms:

- Taxation, Kinds of taxation.
- Income Distribution,
- **Tax incidence,**
- Taxation and Efficiency,
- Excess Burden,
- **Impact of taxes on market prices and output;**
- **Deadweight loss** in the long and short run,
- Optimal Income Taxation

Fiscal and Monetary Policies in Pakistan:

- Fiscal policy
Public finance and private finance in Pakistan.
Taxation, revenue and expenditure by government.
Budget of Pakistan.
- Monetary policy
Role of commercial banks in Pak economy.
Functions and importance of SBP in country.

Monetary policy by SBP

Impacts of subsidies:

- What is Subsidy?
- Forms of subsidies
- Impact of Subsidies on market equilibrium,
- Infant and Mature Industries

Market Failures:

Cost Benefit Analysis

Overview of Fiscal Policy in Pakistan

Suggested Readings:

1. Public Finance- 10th edition by Ted Gayer and Harvey S. Rosen, 2010;
2. State and local public finance-3rd edition by Ronald C. Fisher, 2006;
3. Reports of State Bank of Pakistan
4. Reports of World Bank

MANAGERIAL ECONOMICS

Course Code: ECO-674

Credit Hours: 03

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 Outlines:

- **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

- **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.

- **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

Suggested Readings:

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: 200

Field Experience

Course code: ECO-675

Credit hours:03

Semester VIII

Course Breakdown Semester VIII

8 th Semester		
Codes	Subject	Credit Hour
ECO- 681	World Economic History	03
ECO- 682	Economic Growth	03
ECO- 683	Monetary Economics	03
ECO- 684	Labor Economics	03
ECO-699	Capstone Project	03
Total		15

WORLD ECONOMIC HISTORY

Course Code: ECO-681

Credit Hours: 03

Objectives:

The objective of this course is to make the students familiar with the history of economics about the world war, economic development in European Nations and the causes of low development in third world countries.

Course Outlines:

The Discovery of the Americas to the Rise of Industrial Capital,1492-1770:

- Introduction: Dependency Theories.
- The Origins of the Slave Trade.
- Origins of Colonial Expansion in Asia.

Industrial capitalism to monopoly capitalism 1771-1870:

- The First Industrial Revolution (1771-1870)
- Causes of First Industrial Revolution
- The End of the Slave Trade
- The Conquest of India

Monopoly Capitalism to the First World War, 1870 – 1917:

- The Second Industrial Revolution. (1870 – 1917)
- The Opium Wars and the Onslaught on East Asia.
- Russian Political and Economic Developments
- The Japanese Response.

Nationalist thought and indigenous responses to the West:

- Origins of Nationalist Thought I
- The Russian Revolution, 1917
- Rise of East Asia
- Globalization

Suggested Readings:

1. L. S. Stavrianos' *Global Rift: The Third World Comes of Age*, (New York: William Morrow and Company, 1981).
2. Chacholiades, Miltiades, *International Economics*, McGraw-Hill publishing Company, 1990.
3. Salvator, Dominick, *International Economics Edition 6*, prentice Hall International, Inc. 1998
4. Kuhnen, thjof. "Causes of underdevelopment and concepts for development. An introduction to development theories." *The Journal of Institute of Development Studies, NWFP Agriculture* 8 (1987).
5. Arrighi, Giovanni. "Globalization and the Rise of East Asia Lessons from the Past, Prospects for the Future." *International Sociology* 13.1 (1998): 59-77.
6. Findlay, Ronald, and Kevin H. O'Rourke. *Power and plenty: trade, war, and the world economy in the second millennium*. Princeton, NJ: Princeton University Press, 2007.
7. Stiglitz, Joseph E. *Globalization and its Discontents*. Vol. 500. New York: WW Norton, 2002.

ECONOMIC GROWTH

Course Code: ECO-682

Credit Hours: 03

Objectives

This course is designed with theoretical and empirical examination of economic growth and income differences between developed and undeveloped countries. The course focuses on the economic growth and historical experience of rich countries versus poor countries.

Course Outlines:

- **Introduction and Overview:**

This section includes discussions about economic growth, differences in the level of income among countries, differences in the rate of income growth, growth before and after 19th century.

- **Factors of Production:**

- a) Physical Capital:** the nature of capital, capital's role in production, **the Solow growth model**, the relationship between investment and saving.
- b) Population and Economic Growth:** population and output in the **Malthusian model**, population growth in the Solow model, demographic transitions, future population trends and economic growth.
- c) Human Capital:** human capital in the form of health and education, interaction of health and incomes, 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.

- **Growth in the Open Economy:**

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

- **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,

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.

Suggested Readings:

1. David N. Weil, *Economic Growth*, 3rd edition (2012). Pearson Addison- Wesley.
2. There is a website for this book <http://www.aw-bc.com/weil/>, on which you will find some useful materials.
3. Charles I. Jones and Dietrich Vollrath, *Introduction to Economic Growth*, 3rd edition (2013). W. W. Norton & Company.49:
4. Elhanan Helpman, *The Mystery of Economic Growth*, (2010). Belknap Press of Harvard University Press.
5. William R. Easterly, *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*, (2008). The MIT Press.

MONETARY ECONOMICS

Course Code: ECO-683

Credit Hours: 03

Objectives:

This course is basically designed to provide knowledge about the monetary policy enclosed and open economy. It is intended to provide the students to understand monetary theory, financial markets, importance of money and interest rates. In addition to all that this includes a thorough study of monetarists' and Keynesian views regarding inflation.

Course Outlines:

Evolution of money:

- Evolution and importance of Money.
- Definitions of money, M1, M2, M3 and etc.
- Barter system. Money, Function of money.
- Demand for Money & Supply of Money.

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:

- 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.
- 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.
- Determinants of the Money Supply: Velocity of Money and its variability.
- Explaining Depositor and Bank Behavior.

Role of Central Bank:

- Structure and Functions of Central Bank.
- Central Bank role in Economic Growth.
- Monetary policy conducted by Central Bank, objectives, goals and targets of monetary policy.
Major tools of monetary policy impact of monetary policy on the economy

Money & Interest Rates:

- Determinants and Kinds of Interest Rates.
- The Behavior of Interest Rates.
- Understanding & Measuring the Interest Rates. Real and Nominal Interest Rates.

- Theories of Interest Rate Determination.
- The Distinction Between Interest Rates and Returns.
- Maturity & Volatility of Bond Returns. Portfolio Choice: The Theory of Asset Demand.

Money and Inflation:

- Inflation and its Causes:
- Demand – pull Inflation, Cost – push
- Inflation, Stagflation & Hyperinflation. Inflation as a Monetary Phenomenon.
- The Philips Curve and Accelerating Inflation.
- Inflation in Pakistan: Policies to Combat Inflation in Pakistan.

Monetary Policy in International Framework:

- Money Demand and Empirical Evidences.
- Money in Growth Models. Inflationary Spiral.
- Current Issues in Monetary and Financial Sector Reforms. Conduct of Monetary Policy in Fixed and Flexible Exchange Rates.
- Perfect Mobility of Capital and Money Control.
- 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.

Suggested Readings:

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 Readings:

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 Van Hose, (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

LABOR ECONOMICS

Course Code: ECO-684

Credit Hours: 03

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.

Introduction: Industrialization and Emergence of Labor Economics. Tools to Analyze Labor Markets and Conditions. Overview of Labor Issues in Developing and Developed World.

Labor Markets Analysis: Demand for Labor

Labor Market Indicators, Demand for Labor, Decision Making and Labor Hiring. Labor Migration: Reasons and Impacts. Demand for Labor by Firms, Short Run and Long Run Demand for Labor, Industry and Market Demand.

Labor Market: Supply of Labor and Wages

Determinants of Labor Supply. Concepts of Human Capital, Human Capital, Productivity and Wages. The Determinants, Labor Force Participation. Supply of Labor and Household Productions. Labor – Skill, Training and Productivity. The Dual Labor Market Theory. Labor Unions and Wages. Supply and Demand for Labor and Wage Determination. Backward bending Supply Curve of Labor.

Wages, Unemployment and Inflation

Determinants of Wages, Market Determination of Wages and Marginal Productivity, High Wages and Involuntary Unemployment. Stagflation and Unemployment, Structural Adjustment and Wages. Major Sources of Unemployment, Wages and Phillip Curve. Wage Rigidity, Labor Unions and Unemployment. Unemployment and Social Protection.

Labor Market Discrimination

Discrimination in Labor Market: Gender, Race and Ethnicity. Efficiency Wage Theories and Coordination Failure.

Labor Market Information System

Labor Market Information System and Efficiency, Labor Statistics and Labor Policy. Human Welfare and Labor Policy, Minimum Wages, Rationale and Impacts.

Theories of Labor Movements

The Marxist, The Wells, Selling and Pearlman's contributions. Trade Unionism Pakistan, Labor Legislation in Pakistan. Impacts of Labor Union. Labor Policies in Pakistan: Critical Evaluation.

Child Labor

Definition and extent of child labor. Child labor ; moral aspects. Child labor an international issue: Extent of Child labor in developing countries. Child labor in Pakistan. Policies to combat child labor. Child labor and international trade issue.

Recommended Books

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

Course Code: ECO-699

CAPSTONE PROJECT

Credit Hours: 03