



NOTIFICATION

The Academic Council in its 19th (4/2023) meeting held on 13.09.2023, has recommended the curricula of the following academic programs for implementation on provisional basis w.e.f Fall 2023 subject to approval by the Syndicate:-

1.	BS in Urdu	(Annex-'A')
2.	BS in Islamic Studies	(Annex-'B')
3.	BS in English (Linguistics)	(Annex-'C')
4.	BS in English (Language & Literature)	(Annex-'D')
5.	BS in Media and Communication Studies	(Annex-'E')
6.	BS in Physical Education	(Annex-'F')
7.	BS in Fine Arts	(Annex-'G')
8.	BS in Textile Design	(Annex-'H')
9.	BS in Graphic Design	(Annex-'I')
10.	BS in Chemistry	(Annex-'J')
11.	BS in Physics	(Annex-'K')
12.	BS in Statistics	(Annex-'L')
13.	BS in Botany	(Annex-'M')
14.	BS in Mathematics	(Annex-'N')
15.	BS in Geology	(Annex-'O')
16.	BS in Geography	(Annex-'P')
17.	BS in Zoology	(Annex-'Q')
18.	BS in History	(Annex-'R')
19.	BS in Pakistan Studies	(Annex-'S')
20.	BS in Education	(Annex-'T')
21.	BS in Sociology	(Annex-'U')
22.	BS in Social Work	(Annex-'V')
✓ 23.	BS in Economics	(Annex-'W')
24.	BS in Psychology	(Annex-'X')
25.	BS in International Relations	(Annex-'Y')
26.	BS in Political Science	(Annex-'Z')


(WAQAR AHMAD)
Additional Registrar (General)

No. SU/Acad/23/1015

Dated: 01.11.2023

Distribution:

- Controller of Examinations (with the request to upload on University Website for affiliated Colleges)

C.C:

- Director Academics
- Director, QEC
- Additional Registrar (Affiliation & Registration)
- Secretary to the Vice-Chancellor
- PA to Registrar
- Notification File

University of Sargodha
Department of Economics
Scheme of Studies of B.S (4-years) Economics
Single Major

Program Learning Objectives: Bachelor of Science in Economics program is designed for those students who, after completing their 12 years of education, are looking for some knowledge based, career oriented and market determined educational program in the field of Economics. The program is the blend of different courses like theoretical, quantitative, and applied areas in economics, which will enable the students to review, analyze and provide solutions to complex problems of households, nations as well as global level with intellectual independence. The main purpose is to achieve the highest possible standards of education, teaching and research in economics. More specific goals are:

1. Encourage intellectual development and scholarship in economics.
2. Impart sound theoretical and applied knowledge of Economics.
3. Develop awareness in students to prepare themselves for national and international challenges.
4. Develop an ability in students to become effective independent researchers and learners.
5. Develop curriculum as per market needs and demand of institutions and society; considering the changing global and national requirements.
6. Prepare students to enhance knowledge and welfare of the society.

Program Structure:

Duration	Minimum 4-Years (8 Semesters), Maximum 6-Years (12 Semesters)
Admission Requirements	At least 45% marks in HSSC (Part-I / II) (FA, FSc, ICS, I.Com, D.Com), DAE (1st & 2nd Year) or Equivalent qualification
Degree Completion Requirements	120-144 Credit Hours Field experience/ Internship 6-8 weeks Capstone Project 03 credit hours

Semester-I

Category	Course Code	Name of Subject	Credits	Pre-Requisite
GE-I	URCG-5118	Functional English	3(3-0)	Nil
GE-2	URCG-5105/ URCG-5126	Islamic Studies Ethics (For Non-Muslims Students)	2(2-0)	Nil
GE-3	URCG-5123	Applications of Information Communication Technologies (ICTs)	3(2-1)	Nil
Major-1	ECON 5101	Principles of Micro Economics	3(3-0)	Nil

Major-2	ECON 5102	Principles of Macroeconomics	3(3-0)	Nil
Major-3	ECON 5103	Islamic Economics	3(3-0)	Nil

Semester Total Credit Hours: 17

Semester-II

Category	Course Code	Name of Subject	Credits	Pre-Requisite
GE-4	URCG-5111	Translation of Holy Quran-I (for Muslims Students Only)	01 (Non Credited)	
GE-5	URCG-5112	Fables, Wisdom, and EPICS	2(2-0)	Nil
GE-6	URCG-5116	Sciences of Society I	2(2-0)	Nil
GE-7	URCG-5120	Exploring Quantitative Skills	3(3-0)	Nil
GE-8	URCG-5127	Seerat of the Holy Prophet (SAW) (for Muslims Students Only)	01(1-0)	Nil
Major-4	ECON 5104	Intermediate Microeconomics	3(3-0)	ECON 5101
Major-5	ECON 5105	Intermediate Macroeconomics	3(3-0)	ECON 5102
Major-6	ECON 5106	Mathematical Economics I	3(3-0)	Nil

Semester Total Credit Hours: 17

Semester-III

Category	Course Code	Name of Subject	Credits	Pre-Requisite
GE-9	URCE-5119	Expository Writing	3(3-0)	
GE-10	URCG-5121	Tools for Quantitative Reasoning –I	3(3-0)	URC G-5120
GE-11	URCG-5122	Ideology and Constitution of Pakistan	2(2-0)	Nil
Major-7	ECON 5107	Statistics for Economics-I	3(3-0)	Nil
Major-8	ECON 5108	Development Economics	3(3-0)	Nil
Major-9	ECON 5109	Political Economy and Global Order	3(3-0)	Nil

Semester Total Credit Hours: 17

Semester-IV

Category	Course Code	Name of Subject	Credits	
GE-4	URCG-5111	Translation of Holy Quran-II (for Muslims Students Only)	01 (Non Credited)	
GE-12	URCG-5114	Course-I: Basic Science	3(2-1)	Nil
GE-13	URCG-5124	Entrepreneurship	2(2-0)	Nil
GE-14	URCG-5125	Civics and Community Engagement	2(2-0)	Nil
Major-10	ECON 5110	Statistics for Economics-II	3(3-0)	ECON 5107
Major-11	ECON 5111	Agriculture Economics	3(3-0)	Nil
Major-12	ECON 5112	Environmental Economics	3(3-0)	Nil

Semester Total Credit Hours: 16

Semester-V

Category	Course Code	Name of Subject	Credits	
ID-1	SOC 106	Introduction to Sociology	3(3-0)	Nil
Major-13	ECON 6113	Mathematical Economics II	3(3-0)	ECON 5106
Major-14	ECON 6114	Econometrics I	3(3-0)	Nil
Major-15	ECON 6115	Poverty and Income Distribution	3(3-0)	Nil
Major-16	EOCN 6116	Issues in Pak Economy	3(3-0)	Nil

Semester Total Credit Hours: 15

Semester-VI

Category	Course Code	Name of Subject	Credits	
GE-4	URCG-5111	Translation of Holy Quran-III	01 (Non	

		(for Muslims Students Only)	Credited)	
ID-2	ULAW 5130	Introduction to Law	3(3-0)	Nil
Major-17	ECON 6117	Microeconomics	3(3-0)	ECON 5104
Major-18	ECON 6118	Econometrics-II	3(3-0)	ECON 6114
Major-19	ECON 6119	Managerial Economics	3(3-0)	Nil
Major-20	ECON 6120	Energy Economics	3(3-0)	Nil
Major-21	EOCN 6121	Research Methodology	3(3-0)	Nil

Semester Total Credit Hours: 18

Summer Semester (lasting 6-8 weeks)

Category	Course Code	Name of Subject	Credits	
Compulsory	INT 02	Internship	03	

Semester-VII

Category	Course Code	Name of Subject	Credits	
ID-3	INTR 5101	Introduction to International Relations	3(3-0)	Nil
Major-22	ECON 6122	Macroeconomics	3(3-0)	EC ON 510 5
Major-23	ECON 6123	Applied Economics	3(3-0)	Nil
Major-24	ECON 6124	General equilibrium and Welfare Economics	3(3-0)	Nil
Major-25	ECON 6125	Public Finance	3(3-0)	Nil

Semester Total Credit Hours: 15

Semester-VIII

Category	Course Code	Name of Subject	Credits	
GE-4	URCG-5111	Translation of Holy Quran-IV (for Muslims Students Only)	01 (Non Credited)	
ID-4	PSYC 5101	Introduction to Psychology	3(3-0)	Nil

Major-26	ECON 6126	International Trade Theory	3(3-0)	Nil
Major-27	ECON 6127	Research Paper	3(3-0)	Nil
Major-28	ECON 6128	Monetary Economics	3(3-0)	Nil
Compulsory	ECON 6129	Capstone Project	3(0-3)	Nil

Semester Total Credit Hours: 15

Degree Program Total: 133

BS 1st Semester

URCG-5118

Functional English

3(3+0)

The course aims at providing understanding of a writer's goal of writing (i.e. clear, organized and effective content and to use that understanding and awareness for academic reading and writing. The objectives of the course are to make the students acquire and master the grammatical academic writing skills. The course would enable the students to develop argumentative writing techniques. The students would be able to logically add specific details on the topics such as facts, examples and statistical or numerical values. The course will also provide insight to convey the knowledge and ideas in an objective and persuasive manner. Furthermore, the course will also enhance the students' understanding of ethical considerations in writing academic assignments and topics including citation, plagiarism, formatting and referencing the sources as well as the technical aspects involved in referencing.

Contents

1. Developing Analytical Skills
2. Transitional devices (word, phrase and expressions)
3. Development of ideas in writing
4. Reading Comprehension
5. Precis Writing
6. Developing argument
7. Sentence structure: Accuracy, variation, appropriateness, and conciseness

8. Appropriate use of active and passive voice
9. Organization and Structure of a Paragraph
10. Organization and structure of Essay
11. Types of Essays

Recommended Texts

1. Bailey, S. (2011). *Academic writing: A handbook for international students* (3rd ed.). New York: Routledge.
2. Eastwood, J. (2011). *A Basic English grammar*. Oxford: Oxford University Press.
3. Swales, J. M., & Feak, C. B. (2012). *Academic writing for graduate students: Essential tasks and skills* (3rd ed.). Ann Arbor: The University of Michigan Press.
4. Swan, M. (2018). *Practical English usage* (8th ed.). Oxford: Oxford University Press.

Suggested Readings

1. Biber, D., Johansson, S., Leech, G., Conrad, S., Finegan, E., & Quirk, R. (1999). *Longman grammar of spoken and written English*. Harlow Essex: MIT Press.
2. Cresswell, G. (2004). *Writing for academic success*. London: SAGE.
3. Johnson-Sheehan, R. (2019). *Writing today*. Don Mills: Pearson.
4. Silvia, P. J. (2019). *How to write a lot: A practical guide to productive academic writing*. Washington: American Psychological Association
5. Thomson, A. J., & Martinet, A. V. (1986). *A Practical English Grammar*. Oxford: Oxford University Press

URCG-5105

Islamic Studies (Compulsory)

2(2-0)

Introductory/compulsory foundation course

Islamic Studies engages in the study of Islam as a textual tradition inscribed in the fundamental sources of Islam; Qur'an and Hadith, history and particular cultural contexts. The area seeks to provide an introduction to and a specialization in Islam through a large variety of expressions (literary, poetic, social, and political) and through a variety of methods (literary criticism, hermeneutics, history, sociology, and anthropology). It offers opportunities to get fully introductory foundational bases of Islam in fields that include Qur'anic studies, Hadith and Seerah of Prophet Muhammad (PBUH), Islamic philosophy, and Islamic law, culture and theology through the textual study of Qir'an and Sunnah..

- To make students understand the relevance and pragmatic significance of Islam in their lives.
- To make learners comprehend the true spirit of Islam with reference to modern world.
- To generate a sense of Islamic principles as a code of living that guarantee the effective solutions to the current challenges of being.
- To provide Basic information about Islamic Studies
- To enhance understanding of the students regarding Islamic Civilization
- To improve Students skill to perform prayers and other worships
- To enhance the skill of the students for understanding of issues related to faith and religious life.

Contents

Introduction to Qur'anic Studies

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

مطالعہ قرآن (تعارف قرآن، منتخب آیات کا ترجمہ و تفسیر: سورۃ البقرہ آیات 1-5، 284-286؛ سورۃ الحجرات آیات 1-18؛ سورۃ الفرقان آیات 63-77؛ سورۃ المؤمنون آیات 1-11؛ سورۃ الاحزاب آیات 6، 21، 32-33، 40، 56-59؛ سورۃ الانعام آیات 151-153؛ سورۃ الصف آیات 1-14؛ الحشر آیات 18-20؛ آل عمران آیات 190-192؛ النحل آیات 12-14؛ لقمن آیت 20، حم السجدہ آیت 53)

Introduction to Sunnah

- 1) Introduction of Hadith
- 2) Legal Status of Hadith
- 3) History of the compilation of Hadith
- 4) Kinds of Hadith

حدیث کا تعارف، حدیث کی دینی حیثیت، حفاظت و تدوین حدیث، حدیث کی اقسام متن، حدیث: [درج ذیل موضوعات پر احادیث کا مطالعہ

1. اعمال کا اجر نیت پر منحصر ہے۔ 2. بہترین انسان قرآن کا طالب علم اور اس کا معلم ہے۔ 3. کتاب و سنت گمراہی سے بچنے کا ذریعہ ہیں۔ 4. ارکان اسلام۔ 5. اسلام، ایمان، احسان اور قیامت کی نشانیاں، 6. بچوں کی نماز کی تلقین۔ 7. دین کا گہرا فہم اللہ کی خاص عنایت ہے۔ 8. حصول علم، تلاوت قرآن اور عمل کی اہمیت و فضیلت، 9. روز محشر کا محاسبہ، 10. حقوق اللہ کے ساتھ ساتھ حقوق العباد کا لحاظ رکھنا بھی لازم ہے۔ 11. حسن خلق کی عظمت اور فحش و بد گوئی کی مذمت۔ 12. دنیا و آخرت کی بھلائی کی ضامن چار چیزیں، 13. ہلاک کر دینے والی سات چیزیں، 14. بے عمل مبلغ کا عبرت ناک انجام۔ 15. ہر شخص نگران ہے اور ہر شخص مسئول

- 1) Sirah of the Prohet
- 2) Importance of the Study of Sirah
- 3) Character building method of the Prophet

(سیرت النبی ﷺ) مطالعہ سیرت کی ضرورت و اہمیت، تعمیر، سیرت و شخصیت کا نبوی منہاج اور عملی نمونے، اقامت دین کا نبوی طریق کار، اقامت دین بعدِ خلافت راشدہ، میثاق مدینہ، خطبہ حجۃ الوداع، اخلاقی تعلیمات، تشکیل اجتماعیت اور اسوہ حسنہ، قرآن مجید میں سیرت سرور عالم کا بیان، غزواتِ نبوی ﷺ کے مقاصد و حکمتیں)

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

4. اسلامی تہذیب و تمدن (اسلامی تہذیب کا مفہوم، اسلامی کے عوامل و عناصر، اسلامی تہذیب کی خصوصیات، اسلامی تہذیب، علمی، معاشرتی اور سماجی اثرات، تہذیبوں کے تصادم کے نظریے کا تنقیدی جائزہ، تہذیبی تصادم کے اثرات و نتائج، طبعی، حیاتیاتی اور معاشرتی علوم میں مسلمانوں کا کردار، نام ور مسلمان سائنسدان)

Pre-Requisite: Nil

Recommended Books

- 1) Hameed ullah Muhammad, —Emergence of Islam I, IRI, Islamabad
- 2) Hameed ullah Muhammad, —Muslim Conduct of State
- 3) Hameed ullah Muhammad, —Introduction to Islam
- 4) Ahmad Hasan, —Principles of Islamic Jurisprudencel Islamic Research, Institute, International Islamic University, Islamabad (1993)
- 5) Dr. Muhammad Zia-ul-Haq, —Introduction to Al Sharia Al Islamial Allama Iqbal Open University, Islamabad (2001)
- 6) Dr. MuhammadShahbaz Manj, Teleemat-e- Islam

URCG-5123 Applications of Information Communication Technologies (ICT) 3 (2+1)

The course introduces students to information and communication technologies and their application in the workplace. Objectives include basic understanding of computer software, hardware, and associated technologies. How computers can be used in the workplace, how communications systems can help boost productivity, and how the Internet technologies can influence the workplace. Students will get basic understanding of computer software, hardware, and associated technologies. They will also learn how computers are used in the workplace, how communications systems can help to boost productivity, and how the Internet technologies can influence the workplace.

Contents

1. Introduction, Overview of Information Technology.
2. Hardware: Computer Systems & Components, Storage Devices.
3. Software: Operating Systems, Programming and Application Software.
4. Databases and Information Systems Networks.
5. File Processing Versus Database Management Systems.
6. Data Communication and Networks.
7. Physical Transmission Media & Wireless Transmission Media.
8. Applications of smart phone and usage.
9. The Internet, Browsers and Search Engines.
10. Websites and their types.

11. Email Collaborative Computing and Social Networking.
12. E-Commerce.
13. IT Security and other issues.
14. Cyber Laws and Ethics of using Social media.
15. Use of Microsoft Office tools (Word, Power Point, Excel) or other similar tools depending on the operating system.
16. Other IT tools/software specific to field of study of the students if any.

Recommended Book

1. Discovering Computers 2022: Digital Technology, Data and Devices by Misty E. Vermaat, Susan L. Sebok; 17th edition.

Suggested Books

1. Computing Essentials 2021 by Timothy J. O'Leary and Linda I. O'Leary, McGraw Hill Higher Education; 26th edition.
2. Computers: Understanding Technology by Fuller, Floyd; Larson, Brian: edition 2018.

ECON 5101

Principles of Micro Economics

3(3+0)

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

Contents

1. Introduction

- a) An overview of the social system, Economy as integral part of the social system
- b) Economic agents and economic problem
- c) Classification of economics, Importance and scope of micro-economics, Basic concepts

2- The Price Mechanism

- a) The concept of a market economy, Laws of demand and supply
- b) Market equilibrium and determination of price
- c) Concept of elasticity of demand and supply, Importance of elasticity.

3- Consumer's Behaviour

- a) Consumers/ households as economic agents, Problem of the consumers, The utility theory

- b) Laws of diminishing marginal utility and equi-marginal utilities,
 - c) Budget constraint and consumer's equilibrium, Individual demand and market demand
- 4- Firms and Industries
- a) Business enterprises, Forms of business organization: Proprietorship, Partnership, Joint stock companies, Multi-national corporations,
 - b) Classification of the firms, Production and supply of commodities Objectives of the firm
 - c) Output maximization and cost minimization, Industrial structure & market supply.
- 5- Production and Cost Functions
- a) Production function, Primary inputs: factors of production, Secondary/intermediate inputs
 - b) The laws of returns, Revenues of the firm
 - c) Cost function Short-run and Long-run costs, Equilibrium of the firm.
- 6- Market Structure
- a) Classification of markets i.e. Perfect competition, Imperfect competition: Monopoly and Monoposony, Monopolistic competition
 - b) Price determination

Recommended Book

1. Mankiw, G. - Principles of Economics – Latest Edition, South-West Publishers.
2. Samuelson and Nordrons - Economics –Latest Edition- McGraw Hill.

Suggested Books

1. McConnel and Bruce - Principles of Economics -17thEdition (2006)- McGraw Hill.
2. Lipsey and Goerant-Principles of Economics-10thEdition (2003)- Oxford University Press

ECON 5102

Principles of Macro Economics

3(3-0)

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

Contents

1. Introduction

- a) The economy in aggregate, Complexities of the world of business, Scope of macroeconomics
- b) Brief account of the development of macro-economics after the World War-II
- c) Concept of business cycles, Concepts of Inflation and Unemployment
- d) Macroeconomic variables and their mutual relationship, Macro-models

2. National Income

- a) Definition and various concept of national income, Measures of national income
- b) Computation of national income: Product, Income and Expenditure approaches
- c) Circular flow of income, Nominal versus Real income, Per capita income and the standard of living

3. Components of Aggregate Demand

- a) The Concept of Open and closed economy models
 - b) Concept of aggregate markets: Product, Money, Labor and Capital markets
 - c) Components of aggregate demand: Consumption, Investment and Government spending
4. Money and Banking
- a) Money: definition, forms and functions
 - b) Central Bank and its functions with reference to the State Bank of Pakistan, Commercial banking
 - c) The Quantity Theory of money, Inflation: measurement and impacts, causes of inflation and remedies
 - d) Monetary policy: brief introduction
5. Public Finance and Taxation
- a) Sources of public revenue, Various forms of taxes
 - b) Major heads of public expenditure, Revenue and Capital account, Concept of budget deficits
 - c) Sources of filling the gaps, Deficit financing, Fiscal policy: meaning and objectives.
6. International Trade
- a) Global distribution of resources, Concept of imports and exports,
 - b) Theory of absolute and comparative advantage, Currency exchange rates,
 - c) Balance of Payments: causes of deficits in BOP of Pakistan and remedial measures,
 - d) Custom Unions, The problem of external debt, Commercial Policy: objectives and scope

Recommended Books

1. Mankiw, G–*Principles of Economics*-(Latest Edition)- South-West Publishers.
2. Samulson and Nordrons - *Economics* –18thEdition (2004)- McGraw Hill. Inc.

Suggested Books

1. Parkin, Michael - *Macroeconomics*, 7thEdition (2004)- Prentice Hall.
2. Miller, R.L. *Economics Today* -14thEdition (2005) - Addison Wesley.

ECON 5103 Islamic Economics

3(3-0)

The objective of this course is to let them realize that Islam provides full guidance to its followers in all spheres of social life. The students have to understand the Islamic injunctions ordained for economic behavior, both in the individual as well as collective capacity. They have to compare the prevailing system with that devised by Islam, to capture the socio-economic problems faced by the present-day Muslim countries and to find ways and means to reconstruct the system in vogue according to Islamic guidelines.

Content

1. Introduction Islamic Economics
 - a) Islamic Economics Versus Secular Economics, foundations, Basic Values of Islam,
 - b) The lawful and unlawful (Halal and Haram).
2. Islamic Economic Thought
 - a) Contribution of prominent scholars (Imam Abu Yousuf, Imam Abu Ubaid Al-Qasim, Ibne-Khuldoon, Imam Ibn-e-Taimiyah, Shah Walliullah Dehlawi, Maulana Maududi, Baqar-al-Sadaretc).
3. Microeconomics in Islamic Framework
 - a) Consumer's Behavior

- b) Firm's Behavior
 - c) Market structure
6. Macroeconomics in Islamic Framework.
- a) Basic Macroeconomics concepts (i.e. Consumption, Saving, Investment, Inflation, Unemployment, etc.)
 - b) Money, Banking and Monetary Policy (i.e. Interest, Modes of financing, central banking, etc.)
 - c) Public Finance and Fiscal Policy (i.e. Sources of revenues, heads of expenditures, Zakah, etc.)
7. Islamic Economic System
- a) Salient features of an Islamic Economic System
 - b) The institution of Zakah and Bait-ul-Mal, Wider circulation of wealth.
8. Islamization Process in Pakistan
- a) Islamization of the banking and financial system
 - b) Islamic Banking practice and the role of the State Bank of Pakistan

Recommended Books

1. Ahmed, Khurshid, *Studies in Islamic Economics*. (King Abdul Aziz University Press. 1980)
2. Ziauddin et al., *Money and Banking in Islam*. (King Abdul Aziz University Press, 1983) Islamabad.

Suggested Books

1. Siddiqui, M.N., *Issues in Islamic Banking*, (The Islamic Foundation, 1983)
2. Iqbal, Munawar, *Distributive Justice and Need Fulfillment in an Islamic Economy* – (International Islamic University, 1986)

2nd Semester
URCG-5111 Translation of the Holy Quran – I 01(Non-Credited)

Topic	Details
Semester/Level	In some discipline 1 st semester and in some discipline 2 nd Semester/ ADP Program 1 st Year
Course Code	URCQ-5111
Course Title	Translation of the Holy Quran – I
Credit Hours	1(0-1)
Objectives	<ul style="list-style-type: none"> • To familiarize the students to keys and fundamentals of recitation of the holy Quran. • To develop the skill of the students of recitation the last revelation. • Students will learn the basic Arabic grammar in a practical way. • To develop an eagerness among the students to explore the last divine Book.
Course Contents:	<ul style="list-style-type: none"> • تیسواں پارہ - ناظرہ مع تجوید • بنیادی عربی گرامر اسم اور اسکے متعلقات : اسم فاعل ، مفعول ، تفضیل ، مبالغہ فعل اور اسکی اقسام : ماضی ، مضارع ، امر ، نہی حرف اور اسکی اقسام : حروف علت ، حروف جارہ ، مشبہ بالفعل
Memorization:	تیسویں پارے کی آخری بیس سورتیں (حفظ مع ترجمہ)

URCG-5112

Fables, Wisdom, and EPICS

2(2+0)

The course will enable students to explore human experiences, cultivate an appreciation of the past, enrich their capacity to participate in the life of their times, and enable an engagement with other cultures and civilizations, both ancient and modern. But independently of any specific application, the study of these subjects teaches understanding and delight in the highest achievements of humanity. The three components of the course, including fables, wisdom literature and epic, will enable the learners to explore and understand the classic tradition in literature. Development of personal virtue, a deep Sufi ethic and an unwavering concern for the permanent over the fleeting and the ephemeral are some of the key themes explored in the contents that will develop an intimate connection between literature and life.

Contents

1. Fables

The Fables of Bidpai
The Lion and the Bull
The Ring-dove
The Owls and the Crows

Selected poem from Bang-i-Dara

2. Gulistan-e- Sa'di

Ten hikāyāt from John T. Platts, *The Gulistan*

3. Epic

THE SHĀHNĀMA OF FIRDAUSI

Recommended Texts

1. John T. P. (1876). *The Gulistan; or, Rose Garden of Shaikh Muslihu'd- Dīn Sa'dī of Shīrāz*. London: Wm. II. Allen.
2. Chishti, Y.S. (1991). *Sharaḥ-i bāng-i darā*. Lāhaur: Maktaba-i ta'mīr-i insāniyat

Suggested Readings

1. Thackston, W. (2000). *A Millennium of Classical Persian Poetry*. Maryland: Ibex Publishers.
2. Wood, R. (2013). *Kalila and Dimna: Fables of Conflict and Intrigue*. United Kingdom: Medina Publishing, Limited.

URCG-5116**Sciences of Society-I****2 (2+0)**

This course will introduce students with the subject matter of social science, its scope, nature and ways of looking at social phenomenon. It will make the participants acquaintance with the foundations of modern society, state, law, knowledge and selfhood. While retaining a focus on Pakistani state and society, students will encounter theoretical concepts and methods from numerous social science disciplines, including sociology, politics, economics anthropology and psychology and make them learn to think theoretically by drawing on examples and case studies from our own social context. Students will be introduced to the works of prominent social theorists from both western and non-western contexts. Instruction will include the use of written texts, audio-visual aids and field visits.

Learning Outcomes:

The course has following outcomes:

It will

- Introduce student with the nature of human social behavior and foundations of human group life
- Analyze the reciprocal relationship between individuals and society.
- Make student aware with the nature of societies existing in modern world
- Make students familiar with the philosophy of knowledge of social sciences
- Introduce students with the works of prominent theories explain human group behavior
- Help students to understand the foundations of society including culture, socialization, politics and economy
- Introduce students with various dimensions of social inequalities with reference to gender, race, ethnicity and religion
- Make them aware about the understanding of various themes pertains to social science in local context
- Help them recognize the difference between objective identification of empirical facts, and subjective formulation of opinionated arguments

Course Outlines:**1. Introduction to Social Sciences**

- Social world, Human Social behavior, Foundations of society
- Evolution of Social sciences
- Philosophy of Science
- Scope and nature of social sciences
- Modernity and social sciences
- Branches of social science: Sociology, Anthropology, Political Science, Economics

2. Society and Community, Historical evolution of Society

- Types of Societies
- Foraging society, Horticultural society, Pastoralist society
- Agrarian societies, Industrial society, Postindustrial society

3. Philosophy of Knowledge in social Science and social inquiry

- Understanding social phenomenon
- Alternative ways of knowing
- Science as a source to explore social reality
- Objectivity, Value-Free research
- Positivism vs Interpretivism
- Qualitative vs Quantitative

4. Culture and Society

- Idea of Culture, Assumptions of Culture
- Types, Components, Civilization and culture
- Individual and culture. Cultural Ethnocentrism, Cultural Relativism
- Outlook of Pakistani culture
- Global Flows of culture, Homogeneity, Heterogeneity

5. Social Stratification and Social inequality

- Dimensions of inequality, Social class
- Gender, Race, Religion, Ethnicity, Caste
- Patterns of social stratification in Pakistan
- Class, caste system in agrarian society
- Ascription vs Achievement, Meritocracy
- Global stratification in modern world, Global patterns of inequality

6. Personality, Self and Socialization

- Concept of self, Personality
- Nature vs Nurture, Biological vs Social
- Development of Personality
- Socialization as a process, Agents of socialization
- Socialization and self/group identity

7. Gender and Power

- Understanding Gender
- Social construction of Patriarchy
- Feminism in Historical context, Gender Debates
- Gender and Development
- Gender issues in Pakistani society, Women Participation in politics, economy and education
- Toward a gender sensitive society, Gender mainstreaming

8. Pakistan: State, Society, Economy and Polity

- Colonialism, colonial legacy, National identity
- Transformation in Pakistani society: Traditionalism vs Modernism
- Economy, Informality of Economy, Modern economy and Pakistan

- Political Economy, Sociology of Economy

Recommended Textbooks and Reading Materials:

1. Giddens, A. (2018). *Sociology* (11th ed.). UK: Polity Press.
2. Henslin, J. M. (2018). *Essentials of Sociology: A Down-to-Earth Approach*. (18th Edition) Pearson Publisher.
3. Macionis, J. J. (2016). *Sociology* (16th ed.). New Jersey: Prentice-Hall.
4. Qadeer, M. (2006) *Pakistan - Social and Cultural Transformation in a Muslim Nation*.
5. Smelser, N.J. and Swedburg, R., *The Handbook of Economic Sociology*, Chapter 1 'Introducing Economic Sociology', Princeton University Press, Princeton.
6. *Systems of Stratification | Boundless Sociology* (no date). Available at: <https://courses.lumenlearning.com/boundless-sociology/chapter/systems-of-stratification/>
7. Jalal, A. (ed.) (1995) 'The colonial legacy in India and Pakistan', in *Democracy and Authoritarianism in South Asia: A Comparative and Historical Perspective*. Cambridge: Cambridge University Press (Contemporary South Asia)
8. Zaidi, S. A. (2015) *Issues in Pakistan's Economy: A Political Economy Perspective*. Oxford University Press. Chapter 26
9. Akhtar, A. S. (2017) *The Politics of Common Sense: State, Society and Culture in Pakistan*. Cambridge: Cambridge University Press.
10. Smelser, N.J. and Swedburg, R., *The Handbook of Economic Sociology*, Chapter 1 'Introducing Economic Sociology', Princeton University Press, Princeton.

URCG-5120
3(3+0)

Exploring Quantitative Skills

Since ancient times, numbers, quantification, statistics and mathematics has played a central role in scientific and technological development. In the 21st century, Quantitative Reasoning (QR) skills are essential for life as they help to better understand socio-economic, political, health, education, and many other issues, an individual now faces in daily life. The skills acquired by taking this course will help the students to apply QR methods in their daily life and professional activities. This course will also change student's attitude about statistics and mathematics. It will not only polish their QR skills, but also enhance their abilities to apply these skills.

Contents

1. Introduction to quantitative reasoning
2. Overview of contributions of Mathematicians and Statisticians especially Muslim scholars.
3. Types of standard numbers
4. Proportions, rates, ratio and percentages
5. Odds and odds ratio
6. Scale of measurements
7. Number sequence and series
8. Unit analysis as a problem-solving tool
9. Data handling (small and large)
10. Data errors, absolute and relative and their applications
11. Descriptive statistics
12. Rules of counting: multiplication rule, factorial, permutation and combination
13. Probability and its application in real life
14. A graphical perspective through Venn Diagram
15. Financial indicator analysis, and money management (profit, loss, simple and compound interest)
16. Practical scenarios involving algebraic expressions: linear and quadratic

Recommended Texts

1. Akar, G. K., Zembat, İ. Ö., Arslan, S., & Thompson, P. W. (2023). *Quantitative Reasoning in Mathematics and Science Education*. 1st Ed., Springer, USA.
2. Peck, R., Olsen, C., & Devore, J. L. (2015). *Introduction to statistics and data analysis*. 5th Ed., Brooks Cole, USA.
3. Devlin, K. J. (2012). *Introduction to mathematical thinking*. Palo Alto, CA: Keith Devlin.

Suggested Readings

1. Triola, M. F., Goodman, W. M., Law, R., & Labute, G. (2006). *Elementary statistics*. Reading, MA: Pearson/Addison-Wesley.
2. Blitzer, R., & White, J. (2005). *Thinking mathematically*. Pearson Prentice Hall.

ECON 5104
3(3-0)

Intermediate Micro Economics

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

Contents

1. Introduction
 - a) Scope of Microeconomics and areas of its concern.
 - b) The role of markets and importance of price signals in efficient allocation of resources.
 - c) Economic models as abstraction from the reality.
2. Theory of Consumer Behavior
 - a) Cardinal and ordinal approach to utility
 - b) The indirect utility function
 - c) Homothetic and Non-homothetic Preferences, Introduction to the Revealed Preference Theory.
3. Demand & Elasticity
 - a) Derivation of demand functions using indifference curves,
 - b) Elasticity of demand, its Importance and different types.
4. Production Functions
 - a) Different production functions: Cobb Douglas and CES etc.
 - b) Iso-quant maps, the cost line and equilibrium of the firm.
5. Cost of Production
 - a) Different types of costs.
 - b) Cost minimization subject to given/pre-determined level of output.
6. Behavior of the Firm
 - a) Equilibrium of the firm when it faces the market.
 - b) Economic profit and rent, Short-run, Long-run position of a price taking and price seeking firm
7. Market Structure and Price Determination
 - a) The Perfectly Competitive Market.
 - b) Monopoly and Monopsony, bilateral monopoly, price discrimination.
 - c) Monopolistic Competition and Oligopoly.
 - d) Pricing of the Factors of Production.

Recommended Books

1. Walter Nicholson- *Intermediate Microeconomics*- 6th Edition (1994) or latest –The Dryden

Press: Harcourt Brace College Publishers

2. Koutsoyiannis, A.-*Modern Microeconomics*- 2nd edition (1979)-Macmillan.

Suggested Books

1. Varian Hall R.-*Intermediate Microeconomics: Modern Approach*-6th edition (2002)- W. W. Norton Publishing Company, New York.

2. Dowling, Edward – *Mathematics for Economists*-(1980) -(Schaum's Outline Series) McGraw Hill Inc.

0)

This course offers the student a comprehensive introduction of macroeconomics so as they develop the capacity to understand the issues and problems of the economy in a global scenario. In particular, they have to capture the nature and scope of various public policies. In addition to diagrammatic approach, the students are confronted to simple mathematical analysis.

Content

1. The introduction of Keynesian revolution and growth of Macroeconomics
 - a) Oken's Law and unemployment, Price Indices and Inflation
 - b) Exogenous and Endogenous variables and their functional relationships
 - c) Introduction to the Classical and Keynesian Schools of Thought
2. Measurement of National Income
 - a) The circular flow of National Income, GDP and GNP
 - b) Personal and disposable income
 - c) Injections into and Leakages from the economy: Saving and Investment
 - d) The closed and open economy models
3. Theories of Consumption
 - a) The Absolute income, Relative income, Permanent income and Life-cycle income
 - b) Kuznet's findings and Reconciliation of Marginal and Average Propensity to Consume
4. Saving and Investment
 - a) Real and Financial investment, Autonomous and Induced investment
 - b) Lags in Investment Demand, Volatility of Investment, Equilibrium in the goods market
 - c) Derivation of IS curve (graphic), Factors affecting the position and slope of the IS curve, the Saving-Investment gap in developing countries
5. The Demand for and Supply of Money
 - a) The demand for money, The Quantity Theory of Money, The Liquidity Preference
 - b) The supply of money: M1, M2, M3 concepts, Derivation of LM Curve (graphic)
6. Aggregate Supply and the Labour Market
 - a) Labor market and its Equilibrium: The flexible and sticky wage models
 - b) The concepts of full-employment and underemployment, Supply shocks and stabilization
 - c) Interaction of aggregate demand and supply and price determination
7. Inflation and Unemployment
 - a) Types, causes and measurement of inflation
 - b) Transitory and structural unemployment
 - c) Phillips curve in the short-run and long-run

Recommended Books

1. Shapiro, Edward, *Macroeconomic Analysis*. (Harcourt Brace Inc. 2000)
2. Froyen, Richard, *Macroeconomics: Theories and Policies*. (Pearson Publisher, 2012)

Suggested Books

1. Mankiw, Gregory N., *Macroeconomics*. (Worth Publishers, 2018)
2. Blanchard, Oliver, *Macroeconomics*. (Prentice Hall International, 2017)

ECON 5107 Mathematical Economics-I 3(3-0)

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

Contents

1. The Nature of Mathematical Economics
 - a) The use of mathematical tools in social sciences particularly in economics
 - b) Economic theory (logical argument) as description of some kind of relationship between variables and its functional form
 - c) Types of functions and graphs of various functions
 - d) The importance and limitations of mathematical models
2. Equilibrium Analysis
 - a) Equation of a straight line
 - b) Intercept and Slope parameters and their economic interpretation
 - c) Partial and general equilibrium analysis
 - d) Calculation of elasticity's at equilibrium
 - e) The effect of an excise tax on market equilibrium
 - f) National Income determination
3. Linear Models and Matrix Algebra
 - a) Simultaneous equations models and the use of matrices
 - b) Types of matrices
 - c) transpose and their properties
 - d) Laws of matrix operations
 - e) Determinant & its properties
 - f) Properties of inverse matrix
 - g) Solution of linear equations through Gaussian method
 - h) Cramer's rule and Inverse of a matrix method
 - i) Use of matrix approach in market & national income models
4. Differentiation
 - a) Rules of differentiation
 - b) Free and Constrained optimization
 - c) Partial differentiation & its rules
 - d) Total differentials & total derivatives
 - e) Hessian and Jacobian determinants

5. Economic Applications of Differential Calculus
 - a) Utility, profit & revenue maximization and minimization of cost
 - b) Comparative static analysis
 - c) Homogenous, Cobb Douglas and CES Production function
6. Linear Programming
 - a) Graphical and Simplex method
 - b) Duality theorems

Recommended Books

1. Chiang, A. C., **Fundamental Methods of Mathematical Economics**, 4th ed. (McGraw Hill Publishing Company, 2004).
2. Dowling E. T., **Mathematics for Economists, Schaum's Outline Series**, 3rd ed. (McGraw Hill Publishing Company, 2009).

Suggested Books

1. George, Alvery et al., *Essentials of Mathematics with Business Applications*, 18th ed. (McGraw Hill Publishing Company, 2004).
2. Frank, Budnick, *Applied Mathematics for Business, Economics and Social Sciences*, 4th ed. (McGraw Hill Publishing Company, 2011).

3rd Semester

URCG- 5119

Expository Writing

3

(3+0)

This course prepares undergraduates to become successful writers and readers of English. The course helps students develop their fundamental language skills with a focus on writing so that they can gain the confidence to communicate in oral and written English outside the classroom. The course is divided into five units and takes a Project-based Learning approach. Unit themes target the development of 21st century skills and focus on self-reflection and active community engagement. The course completion will enable the students to develop communication skills as reflective and self-directed learners. They will be able to intellectually engage with different stages of writing process, and develop analytical and problem-solving skills to address various community-specific challenges.

Contents

1. Self-Reflection

- Introduction to the basics of the writing process
- Introduction to the steps of essay writing
- Prewriting activities: Brainstorming, listing, clustering and freewriting
- Practicing Outlining of the essay

2. Personalized Learning

- Learning Process, Learning Styles, Goal Setting and Learning Plan

3. Oral Presentation

- Structure and Significance, Content Selection and Slide Presentation, Peer Review

4. Critical Reading Skills

- Introducing Authentic Reading (Dawn and non-specialist academic books/texts)
- Reading Strategies and Practice: Skimming, scanning, SQW3R, Annotating, Detailed reading and note-taking, Standard Test Practice: TOEFL and IELTS, Model Review Reports and Annotated Bibliographies

5. Community Engagement

- Student-led brainstorming on local versus global issues, Identifying research problems
- Drafting research questions, Drafting interview/survey questions for community research (in English or L1)
- Engaging students in Critical reading, Presenting interview/ survey information, Field work
- Writing Community Engagement Project

6. Letter to the Editor

- Types of letters, Format and purpose of letter to the editor, Steps in writing letter-to-editor

Recommended Texts

1. Bailey, S. (2011). *Academic writing: A handbook for international students* (3rd ed.). New York: Routledge.
2. Swales, J. M., & Feak, C. B. (2012). *Academic writing for graduate students: Essential tasks and skills* (3rd ed.). Ann Arbor: The University of Michigan Press.

Suggested Readings

1. Cresswell, G. (2004). *Writing for academic success*. London: SAGE.
2. Johnson-Sheehan, R. (2019). *Writing today*. Don Mills: Pearson.
3. Silvia, P. J. (2019). *How to write a lot: A practical guide to productive academic writing*. Washington: American Psychological Association.

URCG-5121**Tools for Quantitative Reasoning****3(3+0)**

This course is based on quantitative reasoning 1 course. It will enhance the quantitative reasoning skills learned in quantitative reasoning 1 course. Students will be introduced to more tools necessary for quantitative reasoning skills to live in the fast paced 21st century. Students will be introduced to importance of statistical and mathematical skills in different professional settings, social and natural sciences. These quantitative reasoning skills will help students to better participate in national and international issues like political and health issues. This course will prepare the students to apply quantitative reasoning tools more efficiently in their professional and daily life activities. This course will help them to better understand the information in form of numeric, graphs, tables, and functions.

Contents

1. Types of data and its graphical representation (Histogram, Stem and Leaf display, Box Plot, Scatter diagram, Histogram, Bar chart, etc)
2. Solving practical problems using linear and exponential models
3. Population growth models
4. Analytical approach to solve simultaneous equations
5. Inequalities and their application
6. Comparing quantities using analytical tools
7. Logical reasoning and their application in modern age
8. Logical reasoning and decision making
9. Data tendencies via measure of location
10. Variability and Measure of dispersion
11. Measuring relationships via Regression analysis and correlation
12. Statistical inference: sampling techniques, estimation techniques and hypothesis testing for decision and policy making

Recommended Texts

1. Akar, G. K., Zembat, İ. Ö., Arslan, S., & Thompson, P. W. (2023). *Quantitative Reasoning in Mathematics and Science Education*. 1st Ed., Springer, USA.
2. Sharma, A. K. (2005). *Text book of elementary statistics*. Discovery Publishing House.
3. Blitzer, R. (2014). *Precalculus*, 5th Ed.. Pearson Education, Limited. New York

Suggested Readings

1. Gupta, S. C., & Kapoor, V. K. (2020). *Fundamentals of mathematical statistics*. 12th Ed, Sultan Chand & Sons.

2. Aufmann, R. N., Lockwood, J., Nation, R. D., & Clegg, D. K. (2007). *Mathematical thinking and quantitative reasoning*. Cengage Learning
3. Blitzer, R., & White, J. (2005). *Thinking mathematically*. Pearson Prentice Hall.

URCG-5122

Ideology and Constitution of Pakistan

2(2-0)

This course focuses on ideological background of Pakistan. The course is designed to give a comprehensive insight about the constitutional developments of Pakistan. Starting from the Government of India Act, 1935 till to date, all important events leading to constitutional developments in Pakistan will be the focus of course. Failure of the constitutional machinery and leading constitutional cases on the subject. Moreover, students will study the process of governance, national development, issues arising in the modern age and posing challenges to Pakistan. It will also cover the entire Constitution of Pakistan 1973. However, emphasis would be on the fundamental rights, the nature of federalism under the constitution, distribution of powers, the rights and various remedies, the supremacy of parliament and the independence of judiciary

Outline:

- **Ideology of Pakistan**
 - Ideological rationale with special reference to Sir Syed Ahmed Khan, Allama Muhammad Iqbal and Quaid-e-Azam Muhammad Ali Jinnah.
 - Two Nation Theory and Factors leading to Muslim separatism.
- **Constitutional Developments**
 - Salient Feature of the Government of India Act 1935
 - Salient Feature of Indian Independence Act 1947
 - Objectives Resolution
 - Salient Feature of the 1956 Constitution
 - Developments leading to the abrogation of Constitution of 1956
 - Salient features of the 1962 Constitution
 - Causes of failure of the Constitution of 1962
 - Comparative study of significant features of the Constitution of 1956, 1962 and 1973
- **Fundamental rights**
- **Principles of policy**
- **Federation of Pakistan**
 - President
 - Parliament
 - The Federal Government
- **Provinces**
 - Governors
 - Provincial Assemblies
 - The Provincial Government
- **The Judicature**

Supreme Court
High Courts
Federal Shariat Courts
Supreme Judicial Council
Administrative Courts and tribunals

- **Islamic Provisions in Constitution**
- **Significant Amendments of Constitution of Pakistan 1973**

Recommended Books:

1. Constitutional and Political History of Pakistan by Hamid Khan
2. Mahmood, Shaukat and Shaukat, Nadeem. Constitution of the Islamic Republic of Pakistan, 3rd re edn. Lahore: Legal Research Centre, 1996.
3. Munir, Muhammad. Constitution of the Islamic Republic of Pakistan: Being a Commentary on the Constitution of Pakistan, 1973. Lahore, Law Pub., 1975.
4. Rizvi, Syed Shabbar Raza. Constitutional Law of Pakistan: Text, Case Law and Analytical Commentary. 2nd re edn. Lahore: Vanguard, 2005.
5. The Text of the Constitution of the Islamic Republic of Pakistan, 1973 (as amended).
6. Fundamental Laws of Pakistan by A.K. Brohi

ECON 5107 Statistics for Economics-I

3(3-0)

The main objective of this course is to acquaint students with the basic techniques of statistical methods with a strong emphasis on its application to economic theories and principles.

Content

1. What is Statistics
 - a) The basic concepts
 - b) Type of measurement scale
 - c) Types of data, errors, data collection
 - d) Significant digits, Rounding of a Number
2. Presentation of Data
 - a) The frequency distribution and its types
 - b) Graphic and diagrammatic representation.
3. Measures of Central Tendency
 - a) Types of Averages,
 - b) Quantiles
 - c) Relative Merits and Demerits of various Averages
 - a) Box and Whisker Plot, Stem and Leaf Display and Outliers
4. Measures of Dispersion
 - a) Absolute and relative measures,
 - b) Properties of variance and standard Deviation, Standardized variables,
 - c) Moments and Moments ratios.
5. Probability and Probability Distribution
 - a) Basics of Probability
 - b) Discrete distributions
 - c) Continuous distributions
6. Index Numbers and Time Series Analysis
 - a) Index Numbers
 - b) Time series analysis

Recommended Books

1. Lind, Douglas A., Marshal, William G. and Mason, Robert D., *Statistical Techniques in Business and Economics*, 15th ed. (Boston: McGraw Hill, 2015).
2. Chaudhry, Sher Mohammad and Kamal, Shahid, *Introduction to Statistical Theory*, 7th ed. (Lahore: Ilmi Kitab Khana, 2010).

Suggested Books

1. Siegel, Andrew F., *Practical Business Statistics*, 7th ed.(Boston: McGraw Hill, 2012).
2. Newbold, Paul, Carlson, William L. and Thorne, Betty M, *Statistics for Business and Economics*, 5th ed. (New Jersey: Prentice-Hall, 2002).

This course provides an understanding the evolution and relevance of Development Economics concepts and its policy suggestions in addressing the widespread issues like inequality, unemployment, poverty, gender disparities, labor productivity etc. The course would explain the humanistic perspective of economics and explicitly involves the explanation of multi-dimensional nature of Development Economics.

Content

1. Economic Development
 - a) Economic Development and Growth
 - b) Measurement of Economic Development and Growth.
 - c) Characteristics of Least Developing Countries (LDCs)
2. Major Theories of Development
 - a) Classical and Contemporary Theories
3. Agriculture and Industry
 - a) Complementarity of Sectors
 - b) Green Revolution and Industrialization
4. Population, Education and Human Capital
 - a) Demographic Significance for Development
 - b) Investment in education and returns.
5. Debt and Aid/Assistance
 - a) Sources of Borrowing
 - b) Policies to combat debt problem
6. WTO, Liberalization and International Trade
 - a) Trade as an engine of growth
 - b) WTO and Regional Trade
7. Poverty and Income Distribution
 - c) Poverty concepts
 - d) Income inequality
8. Economic Growth and Environment
 - a) Sustainable Development

Recommended Books

1. Todaro, M. and Smith, S., *Economic Development* (Pearsons New York, 2015).
2. Meier G. M. and Rauch J. E., *The globalization of World Politics: An Introduction to International Relations*. (Oxford University Press, 2000).

Suggested Books

1. Cypher J. M. and Dietz James L., *The Process of Economic Development*. (Routledge New York, 2004)
2. Jhingan, M. L., *The Economics of Development and Planning*. (New Delhi)

ECON 5109 Political Economy and Global Order 3(3-0)

This course is designed to provide students with an introduction to the field of political economy. Political economy seeks to understand and explain policy outcomes and political behavior. The approach taken is an interdisciplinary one that utilizes tools and concepts from economics to study politics and political behavior. The course will presume that political actors are rational and goal oriented. Political outcomes are then explained by the interaction between these actors within the (institutional) constraints of their environment. This course aims to enable students to apply economic theories and concepts to the study of political action and the formation of policy.

Contents

1. Introduction to Political Economy:
 - a) Course Introduction, Overview
 - b) Approaches to the Study of Political Economy
 - c) Analyzing Group Choice
 - d) Spatial Models of Majority Rule
 - e) Strategic Behavior and Majority Rule
 - f) Voting and Elections
2. Understanding Collective Action:
 - a) Cooperation
 - b) Collective Action
 - c) Market Failures and Collective Action
3. What Role Do Institutions Play:
 - a) Institutions and Their Impact
 - b) Legislatures
 - c) Bureaucracy, Delegation, and Principal Agent Theory
 - d) Courts and Judges
4. Topics in the Political Economy of Pakistan:
 - a) The Economics of Patronage
 - b) Seven Pillars of Good Governance
 - c) The Political Economy of Reforms
 - d) Pakistan - Dynamics of Elitist Model
 - e) Strategies for Self-preservation
 - f) A military Theocracy
 - g) Different Regimes
 - h) Economic Development
 - i) Ethnic conflict
 - j) The Role of State
 - k) Emerging Economic and Political Issues and their Linkages
 - l) Regionalism
 - m) Poverty
 - n) Governance

Recommended Books

1. Shepsle, K.A. *Analyzing Politics: Rationality, Behavior, and Institutions*, 2nd Edition (2010).
W. W. Norton & Company

2. Kardar, S. (Latest Edition). *The Political Economy of Pakistan*. Progressive Publishers
Supplementary Texts

Suggested Books

1. Nadeem, A.H. (2002). *Pakistan: The Political Economy of Lawlessness*. Oxford University Press
2. Hussain, I. (1999). *Pakistan: The Economy of an Elitist State*. Oxford University Press

- Minorities, Social Inclusion, Affirmative actions

Multi-cultural society and inter-cultural dialogue

- Inter-cultural dialogue (bridging the differences, promoting harmony)
- Promoting intergroup contact/ Dialogue
- Significance of diversity and its impact
- Importance and domains of Inter-cultural dialogue

Active Citizen: Locally Active, Globally Connected

- Importance of active citizenship at national and global level
- Understanding community
- Identification of resources (human, natural and others)
- Utilization of resources for development (community participation)
- Strategic planning, for development (community linkages and mobilization)

Human rights, constitutionalism and citizens' responsibilities

- Introduction to Human Rights
- Human rights in constitution of Pakistan
- Public duties and responsibilities
- Constitutionalism and democratic process

Social Institutions, Social Groups, Formal Organizations and Bureaucracy

- Types of Groups, Group identities, Organizations
- Bureaucracy, Weber's model of Bureaucracy
- Role of political parties, interest groups, and non-governmental organizations

Civic Engagement Strategies

- Grassroots organizing and community mobilization
- Advocacy and lobbying for policy change
- Volunteerism and service-learning opportunities

Social issues/Problems of Pakistan

- Overview of major social issues of Pakistani society

Social Action Project

Recommended Books:

1. Kennedy, J. K., & Brunold, A. (2016). Regional context and Citizenship education in Asia and Europe. New York: Routledge, Falmer.
2. Henslin, James M. (2018). Essentials of Sociology: A Down to Earth Approach (13th ed.). New York: Pearson Education
3. Macionis, J. J., & Gerber, M.L. (2020). Sociology. New York: Pearson Education

Reference Books:

1. Glencoe McGraw-Hill. (n.d.). Civics Today: Citizenship, Economics, and Youth.
2. Magleby, D. B., Light, P. C., & Nemacheck, C. L. (2020). Government by the People (16th ed.). Pearson.
3. Sirianni, C., & Friedland, L. (2005). The Civic Renewal Movement: Community-Building and Democracy in the United States. Kettering Foundation Press.
4. Bloemraad, I. (2006). Becoming a Citizen: Incorporating Immigrants and Refugees in the United States and Canada. University of California Press.
5. Kuyek, J. (2007). Community Organizing: Theory and Practice. Fernwood Publishing.
6. DeKieffer, D. E. (2010). The Citizen's Guide to Lobbying Congress. TheCapitol.Net.

7. Rybacki, K. C., & Rybacki, D. J. (2021). *Advocacy and Opposition: An Introduction to Argumentation* (8th ed.). Routledge.
8. Kretzmann, J. P., & McKnight, J. L. (1993). *Building Communities from the Inside Out: A Path Towards Finding and Mobilizing a Community's Assets*. ACTA Publications.
9. Patterson, T. E. (2005). *Engaging the Public: How Government and the Media Can Reinvigorate American Democracy*. Oxford University Press.
10. Love, N. S., & Mattern, M. (2005). *Doing Democracy: Activist Art and Cultural Politics*. SUNY Press.

The main objective of this course is to acquaint students with the basic techniques of statistical methods with a strong emphasis on its application to economic theories and principles.

Contents

1. Sampling and Sampling Distributions
 - a) Sampling distributions
 - b) The central limit theorem
 - c) Sampling distributions for single mean and proportion
 - d) The difference of means and proportions
2. Hypothesis Testing
 - a) Basics of hypothesis
 - b) General procedure for testing of hypothesis
3. Testing of Hypothesis- Single Population
 - a) C.I about the population mean and proportion
 - b) Testing of hypothesis about the population mean and proportion
4. Testing of Hypothesis- Two or more Population
 - a) C.I about the difference of population means and proportions
 - b) Testing of hypothesis about the difference of population means and proportions
5. Testing of Hypothesis- Independence of Attributes
 - a) Contingency tables
 - b) Testing of Hypothesis about the Independence of Attributes
 - c) ANOVA
6. Simple Linear Regression and Correlation Analysis
 - a) Linear and multiple regression analysis
 - b) Correlation analysis and rank correlation
 - c) Estimation of the mean values and prediction of individual values
 - d) Testing of significance about regression and correlation coefficients

Recommended Books

1. Lind, Douglas A., Marshal, William G. and Mason, Robert D., *Statistical Techniques in Business and Economics*, 15thed. (Boston: McGraw Hill, 2015).
2. Chaudhry, Sher Mohammad and Kamal, Shahid, *Introduction to Statistical Theory*, 7thed. (Lahore: Ilmi Kitab Khana, 2010).

Suggested Books

1. Siegel, Andrew F., *Practical Business Statistics*, 7thed.(Boston: McGraw Hill, 2012).
2. Newbold, Paul, Carlson, William L. and Thorne, Betty M, *Statistics for Business and Economics*, 5thed. (New Jersey: Prentice-Hall, 2002).

This course provides a comprehensive introduction to agriculture economics, focusing in particular on its importance in an economy and its role for other sectors of the economy, its structure and role in economic development. More specifically, the course introduces key concepts related to resource use efficiency, supply response, theory of rent, surplus, and theories and models in agriculture economics.

Content

1. Introduction, Importance, Structure and Role of Agriculture
 - a. Agricultural Revolution, Importance of Agriculture, Agriculture vs. Industrial development
 - b. Current State of Agricultural Development. Brief Overview of Sources of Growth.
 - c. Traditional Agriculture and Productivity.
 - d. Framing Environment: Natural Hazards and Economic Uncertainties
 - e. Farm Size in Pakistan and Productivity
 - f. Product Contribution, Market Contribution, Factor's Contribution
2. Theory of Rent and Agriculture in Dualistic Development Models
 - a. The Theory of Economic Rent. Rent and Quasi-Rent The Ricardian 'Corn Rent.
 - b. Characteristics of Landownership in Underdeveloped Agriculture and Pakistan.
 - c. Tenant's Status in Pakistan. Agricultural productivity in Pakistan and use of inputs.
 - d. The Lewis, Ranis-Fei (FR), Jorgenson and Kelley, Williamson, Cheetham Models
 - e. Dual Economy Models. Agricultural Adequacy; Mellor's Model.
3. Resource Use Efficiency, Technical Change and Supply Response
 - a. Efficiency of Resource Utilization. Technological Change in Agriculture.
 - b. Generation of new Agricultural Technology. Factor-biased Technological Change
 - c. Technical Change in LDCs: with Special Reference to Pakistan.
 - d. The Cobweb Model: An Illustration. Price-Supply Response in Backward Agriculture
 - e. Response in the Underdeveloped Agricultural labour Market, Specifically in Pakistan
 - f. The Concept of 'Marketed Surplus': Some Methods of Estimation.
 - g. Green Revolution in Pakistan and Responses. Present Status of Green Revolution in Pakistan:
4. Population and Food Supplies
 - a. Classical Model. Contra-Malthusian Model. Ecological Disequilibrium.
 - b. Synthesis of Population and Food Supply Theories.
 - c. Malnutrition in Developing Countries like Pakistan and Remedial Manners.
 - d. Choice of Planning Strategy for Agriculture Development, Agricultural Project Planning.

Recommended Books

1. Ghatak S., & Ingersent, *Agriculture and Economic Development*, (Latest Edition), Harvester Press.
2. Capstick Margret, *The Economics of Agriculture*, London, George Allen Unwin Ltd., latest edition.

Suggested Books

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

5th Semester

SOC-106 Introduction to Sociology 3(3-0)

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies.

Introduction

- Nature, scope and subject matter of Sociology
- Society and community
- Relationship with other social
- Sociology as a science
- The Sociological imagination
- The development of Sociology
- Pioneers of Sociology

Social groups

- Definition and functions
- Types of social groups

Social institutions

- Definition
- Structure and function of social institutions
- Inter-relationships among various social institutions

Culture and related concepts

- Definition and aspects of culture
- Elements of culture
- Organization of culture
- Other concepts, cultural relativism, sub cultures, ethnocentrism, cultural lag

Socialization and personality

- Role and status
- Socialization, agents of socialization
- Culture and personality

Deviance and social control

- Definition and types of deviance
- Juvenile delinquency
- Formal and informal methods of social control

Social stratification

- Approach to study social stratification
- Caste class and race as basics of social stratification

Concept of social movement

- Theories of social movement
- Social and cultural change
- Collective behavior

- Definition
- Characteristics
- Causes
- Types
- Social movements
- Mob and crowd behavior

Social and cultural change

- Definition of social change
- Dynamics of social change
- Impact of globalization on society and culture
- Resistance to change

Recommended Books

1. Horton & Hunt, (205), Sociology, 7th Edition,
2. Kendall, Diana, (2001), Sociology in our times, 32nd Edition, Wadsworth.

Suggested Books

1. James. M. Hensline, (1997), Sociology, Needhan Heigwb, Massachusetts, USA.
2. George J. Brgjar, Michael P. Soroke, (1997), Sociology, Needhan Heigwb, Massachusetts, USA.

This course provides a broad coverage of environmental economics for Master-level students. The course covers market failure, the economics of pollution control, market-based instruments, environmental cost-benefit analysis, environmental valuation, the environment and the economy, global environmental problems, and other topics. Students will apply economic approaches to analyse policy options to better manage the environment at both the local and global levels.

Content

1. Introduction and Awareness
 - a) What is Economics of Environment. Historical Framework for Environmental Protection.
 - b) Distinction between natural resource economics and environmental economics. The Economy and the Environment. First and the second laws of thermodynamics.
 - c) The fundamental balance.
2. Analytical Tools: An Environment
 - a) Supply and Demand Issue: Cost of Controlling Environment Benefit – Cost and its Estimation. Willingness to Pay. Equilibrium Principle Technology and Equi.
 - b) Marginal Principles, Marginal Cost and Supply, Economic Efficiency and Markets.
 - c) Equity and Social Efficiency. External costs and external benefits
3. The Economics of Environmental Quality
 - a) Pollution and Impacts on Human Life, quality of life and Environment Quality,
 - b) General Models of Pollution Control. Emission Reduction and Equi.
 - c) Marginal Principle. Long Run Sustainability through Pricing Mechanism.
4. Valuing the Environment and Benefit Cost Analysis
 - a) Measuring environmental benefits: Contingent valuation, the travel cost method and the hedonic approach.
 - b) Benefit Cost analysis: Costs: The value of life, health, safety and risk. Pigovian Analysis, The Coase Theorem.
5. Economic Development and the Environment
 - a) General considerations, Environmental degradation in developing economies.
 - b) Economy and Environment. The Pollution Haven hypothesis. The role of developed countries.
6. Environment and Pakistan
 - a) Emergence of Environment Issue in Pakistan, Industrial Waste, Urban Waste and Agricultural Issues Related to Pesticides use,
 - b) Salinity and Water Logging. Urban Environmental Issues. Public and Private Efforts to Improve Environment Quality and Impacts.
 - c) Air pollution in Pakistan. Public Policies and Awareness to Control Pollution. Environmental Policy and Strategy in Pakistan.
7. The Global Environment
 - a) Ozone Depletion, the Economics of Global Warming. Keyoto – Protocol and Issues.
 - b) International Environmental Agreements. UN and Environmental Cooperation.
 - c) International trade and the Environment. Impacts of Awareness Policy.

Recommended Books

1. Field, B.C and M.K Field., *Environmental Economics: An Introduction*, 7th Ed. (New York: McGraw Hill,2016).
2. Hussen A., *Principles of Environmental Economics and Sustainability*, 4th Ed. (Routledge Publishers,2003).

Suggested Books

1. Baker Steve, *Environmental Economics*, New Delhi (Dominant Publisher and Distributors, 2003).

To prepare the students, not majoring in mathematics, with the essential tools of calculus to apply the concepts and the techniques in the field of economics. In order to satisfy the requirements of this course, students will need to acquire a thorough understanding of the mathematical concepts introduced during the semester, and will need to demonstrate that they can apply the corresponding tools and ideas to unfamiliar problems. The objective is to confront the students to advanced mathematical techniques so as to enable them handle economics models, interpret the results and solve complex problems.

Contents

1. Complex Number and Circular Functions
 - a) Imaginary and Complex Numbers
 - b) Properties of Sine & Cosine functions
 - c) Euler and Maclaurin series
2. Integral Calculus
 - a) Rules of Integrations and Operation
 - b) Definite integrals, their properties and area under a curve
 - c) Improper integral
 - d) Economic Applications of Integrals
 - e) The Domar growth model
3. Differential Equations
 - a) First order linear and non linear differential equations
 - b) Phase diagrams
 - c) Types of time paths and the dynamic stability of equilibrium
 - d) Market models and Solow growth model
 - e) Solution of second order linear differential equations and its dynamic stability
 - f) The Interaction of inflation and unemployment in continuous time
 - g) Convergence and the Routh theorem
4. Difference Equations
 - a) First order linear and non linear difference equations its solution and verification of results
 - b) Conditions for dynamic stability of equilibrium
 - c) The Cobweb model, market model with inventory and model with price ceiling
 - d) The qualitative/graphic approach and phase diagrams
 - e) Second-order linear difference equations
 - f) The convergence and divergence of the time paths
 - g) The Multiplier-Acceleration interaction model
 - h) Inflation-unemployment model in discrete time
 - i) Convergence and the Schur's theorem
 - j) Solution of simultaneous difference equations
5. Non-Linear Programming
 - a) Non-linearity's in Economics
 - b) The Kuhn-Tucker Sufficiency theorem
 - c) The Arrow-Enthoven Sufficiency theorem
 - d) Quasi-concave programming

Recommended Books

1. Chiang, A. C., **Fundamental Methods of Mathematical Economics**, 4th ed. (McGraw Hill Publishing Company, 2004).
2. Dowling E. T., **Mathematics for Economists**, Schaum's Outline Series, 3rd ed. (McGraw Hill Publishing Company, 2009).

Suggested Books

1. George, Alvery et al ., *Essentials of Mathematics with Business Applications*, 18th ed. (McGraw Hill Publishing Company, 2004).
2. Frank, Budnick *Applied Mathematics for Business, Economics and Social Sciences*, 4th ed. (McGraw Hill Publishing Company, 2011).

The course is designed for undergraduates for their understanding to derive relationship between economic variables from the available data. The students should be in a position to apply statistical methods to data via simple mathematical models and to interpret the results by using economic theory. The teacher should expose the students to the use of computer in solving simple econometric problems and assignments.

Contents

1- Introduction

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

2- The Classical Linear Regression Model (CLRM)

- a) Explaining Variables and parameters, Regressors and Regress and, Estimators and estimates, Correlation theory, Simple and multiple Regression theory, Mathematical versus econometric model. Structure of the linear econometric model with two or more variables
- b) Rationale for inclusion of the disturbance term, Assumptions of the model with special reference to the disturbance term, The least squares principle, BLUE properties of the OLS estimators, Extensions of the model: Time as explanatory variable, Dummy variables, Regression through the origin, Standardized regression coefficients.
- c) The estimation procedure, The economic interpretation of the estimated coefficients, Hypothesis testing and the use of Z, t, F, test statistics, The confidence interval and tests of significance approaches, The ANOVA technique, The explanatory power of the model, Coefficient of determination vs. correlation coefficient:, Econometric forecasting Important features of a good forecast. Computation of elasticities.

3- Deviation from the Classical Assumptions

- a) Multicollinearity
- b) Heteroscedasticity
- c) Autocorrelation

4- The Simultaneous Equations Models

- a) Types of equation systems (Simultaneous, Recursive, Block-Recursive & Seemingly unrelated)
- b) Identification problems
- c) Indirect Least Squares (ILS) & Two Stages Least Squares (2SLS) methods.

Recommended Books

Koutsoyiannis, A.- Theory of Econometrics - 2nd Edition (1977) - McMillan.

Gujrati, D.N. - Basic Econometrics – Latest Edition - McGraw Hill Company.

Suggested Books

Dougherty, Christopher – Introduction to Econometrics – Latest Edition Oxford

University Press.

ECON 6115 Poverty and Income Distribution

3(3-0)

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

Contents

- 1- Introduction
 - a) Absolute Poverty
 - b) Relative Poverty
 - c) Multi-dimensional Poverty
 - d) Determinants of poverty/ Inequality
 - e) Some important aspects i.e. Sen's approach, Vulnerability etc.

- 2- Choice of poverty line and measurement of poverty
 - a) Headcount Index
 - b) Poverty Gap Index
 - c) Squared Poverty Gap
 - a) Sen's Index
 - b) The Sen-Shorrocks-Thon Index,
 - c) FGT class of measures, multidimensional poverty index

- 3- Measurement and decomposition of income inequality
 - a) Docile Dispersion Ratio
 - b) Gini Coefficient of Inequality
 - c) Generalized Entropy Measures,
 - d) Atkinson's Inequality Measures
 - e) Comparison of inequality measures

- 4- Poverty and inequality reduction strategies
- 5- Pro-poor growth
- 6- Poverty \Inequality profile of Pakistan

Recommended Books

Jonathan H. and Shahidur K. (2009) Handbook on Poverty and Inequality. (W.B. Training Series)

Sachs, J. (2005) End of Poverty: Economic Possibilities for our Time (New York, Penquin).

Suggested Books

Fields, G. S. (2001), *Distribution and Development*. Cambridge, MA: MIT Press.

Foster, J. E., J. Greer and E. Thorbecke (1984), "A class of decomposable poverty measures", *Econometrica*, 52(3): 761-66

ECON 6116 Issues of Pakistan Economy

3(3-0)

To introduce students about the key features of macroeconomic management, its process in Pakistan, and also critical issues facing macroeconomic management in Pakistan.

Contents

1. National Income Accounts
 - a) GDP (Nominal and Real) and GNP
 - b) Measure of Inflation and Employment and GDP
2. Review of Alternative Models of Economic Management
 - a) Capitalism and Mixed Economy
 - b) Islamic Economics or Islamic Capitalism
 - c) Pakistan's Models of Economic Management
3. Background of Pakistani Economic Management
 - a) British Colonialism and Muslim Responses
 - b) Ali Garh and the Upbringing of Muslim Nationalism
 - c) Relationship between Muslim Nationalism and Capitalism
4. Agricultural Sector of Pakistan
 - a) Agriculture Sector and its key issues in Pakistan
 - b) The Green Revolution and its Impacts
 - c) Land Reforms (both of Ayub and Bhutto)
5. Industrial Sector of Pakistan
 - a) Process of industrialization from 1947-88
 - b) Industry after Structural Adjustment Program—1988-onwards
 - c) Key Issues in Pakistani Industry
6. Fiscal and Monetary Policies and Inflation in Pakistan
 - a) Fiscal Development
 - b) Monetary Policy Management and Inflation in Pakistan
 - c) Inflation and its Causes in Pakistan
7. Public and External Debts in Pakistan
 - a) Difference between the Debts
 - b) Concerns Regarding Pakistan's Fiscal Deficit
8. Structural Adjustment Program (SAP) and Pakistan
 - a) Globalization and Export of Development Thinking
 - b) SAP, Did Pakistan need to go for SAP?
 - c) Why does Pakistan Adopt IMF Program
9. Performance of Pakistan on Foreign Economic Front
 - a) BOP
 - b) Impacts of Trade Policy, Globalization and WTO on poverty in Pakistan
 - c) Exchange Rate Regimes in Pakistan
10. Social Sector in Pakistan
 - a) Health Sector and Education and its Issues
 - b) Poverty and Income Distribution

11. Recent Challenges Facing Pakistan Economy

- a) Deteriorating law and order Situation
- b) Energy Crises and Rising Circular Debt

Recommended Books

1. Zaidi Akbar, *Issues in Pakistan's Economy*, (Oxford University Press, Karachi, 2011)
2. Ishrat Hussain, *The Economy of an Elite State*, (Oxford University Press, Karachi, 2007)

Suggested Books

1. Ishrat Hussain, (2009) "Pakistan's Economy-1999/2000-2007/2008: An Objective Appraisal", *Business Review*, Vol 4 (1): p. 7-48; IBA, Karachi

6th Semester

ECON 6117

Micro Economics

3(3-0)

The course is designed for senior undergraduates. The objective is to confront them to advanced theoretical concepts and rigorous analysis with mathematical tools at hand. They have to develop the analytical skills and to enhance the capabilities to solve somewhat complicated problems. As usual, the teacher is expected to draw examples from the surrounding world for exposition. The students may be given frequent assignments and exercises from the texts, which may be discussed by the teacher in the class after submission. The students should be motivated to use computer for solving the assignments.

Contents

1. The Theory of Consumption and Demand
 - a) Utility maximization and ordinary (Marshallian & Hicksian) demand functions.
 - b) The inter-relationship between ordinary and compensated demands,
 - c) Homogeneity of demand functions, Euler's relation and demand elasticities,
 - d) The Slutsky Equation: derivation and interpretation, Gross and net substitutes.
2. The Theory of Production and Supply
 - a) Different production functions, Properties of Cobb-Douglas and CES production functions,
 - b) Equilibrium of the firm in the short and long run, Demand for variable factors,
 - c) Elasticity of substitution, the role of technical progress.
3. Market Structures and Price Determination
 - a) Perfect competition, price and output determination,
 - b) The imperfect competition: Monopoly and Monopsony, Duopoly and Oligopoly, Monopolistic competition,
 - c) Natural monopolies and the global markets, The multinational corporations,
 - d) Introduction to: Game theory and strategic behaviour, Market with uncertainty and imperfect information.
4. General Equilibrium and Welfare Economics
 - a) The concept of efficiency and welfare, Conditions of allocative efficiency.
 - b) Theorems of optimality/welfare Production possibility frontier and Social indifference curve,
 - c) Introduction to computation of general equilibrium in a 2x2x2 (two consumers, two sectors/ commodities, two factors) economy.

Recommended Books

1. Nicholson, Walter - *Microeconomic Theory: Basic Principles and Extensions- 8th Edition* (2002) or latest -Thomson & Learning Inc.
2. Henderson & Quandt - *Microeconomic Theory: A Mathematical Approach-3rd Edition* (1980)-McGraw Hill International.

Suggested Books

1. Silberberg, E. & Suen, W.-*The Structure of Economics: A Mathematical Analysis- 3rd*

Edition (2001) – McGraw Hill International

2. Layard & Walters – *Microeconomic Theory*- (1978) – McGraw Hill Book Company.

ECON 6118

Econometrics-II

3(3-0)

The course is designed for senior undergraduates more inclined towards quantitative studies. The objective is to enable the students dive deep into complex problems of the real world economic life. They have to understand data problems, to have good grasp over advanced estimation techniques and to have the capability of inferring results accurately. The students have to learn certain computer packages like SPSS, E-views and Strata besides Excel. The students are required to devote at least one hour per week to computer laboratory. They have to develop the capacity to read and understand research papers to understand estimation techniques and their interpretations.

Contents

- 1- Overview of the Classical Regression Model
 - a) The multiple regression (K-variable) model in matrix format, Assumptions of the model, The Least-Squares estimation procedure in matrix notation, Properties of the OLS estimators, Interpretation of the Beta coefficients ($\beta_1, \beta_2, \dots, \beta_k$), Hypothesis testing using matrix approach.
 - b) Forecasting in OLS model, Time as an explanatory variable, Regression on Dummy variables, Dummy variable trap, Chow test, Specification bias and Errors in variables, Estimation with endogenous lagged variables, Restricted Least Squares,
- 2- The Generalized Least-Squares Model
 - a) Deviation from the assumptions of the classical regression model, The problem of heteroscedasticity,
 - b) The GLS model in matrix format, Detection of the problem and consistent estimators, The problem of autocorrelation: Autoregressive and Moving Average processes, The Durbin-Watson statistics, Alternative estimation techniques.
- 3- The Maximum Likelihood Estimators
 - a) The likelihood function, Properties of ML estimators
 - b) Consistency, Asymptotic normality, efficiency, Comparison with OLS estimators, Instrumental variable (IV) estimators
- 4- Time Series Analysis
 - a) Rationale for univariate analysis, ARMA and ARIMA Models, Comparison of forecast based on ARIMA and regression models.
 - b) Stationarity, Unit roots, co-integration and error correction models, Introduction to Autoregressive Distributed Lag models, ARCH models

Recommended Books

1. Asteriou, D. – Applied Econometrics: A Modern Approach Using EViews and Microfit – Revised Edition (2007) Palgrave Macmillan
2. Judge, George G. et al - The Theory and Practice of Econometrics- (1988) John Willey and Sons

Suggested Books

1. Gujrati, D.N. - Basic Econometrics – Latest Edition - McGraw Hill Company.

ECON 6119 Managerial Economics
3(3-0)

Managerial Economics is a core course of BS Economics aimed at presenting and developing a microeconomic approach to business decisions. The concepts and problems are analyzed from the perspective of the firm and the managers' decisions. Emphasis is thus placed on the study of the production process and the analysis of interactions in markets, both with the customers and the rival firms.

Content

- 1. Nature, Scope and Overview of Managerial Economics**
 - a) The Nature and Scope of Managerial Economics. The Managerial decision making process.
 - b) Theory of the firm. Profit maximization. Cost Minimization.
 - c) Economic optimization. Economic relations of variables. The Incremental
 - d) concept in Economic Analysis. Demand, Supply and Equilibrium.
- 2. Demand Analysis, Estimation and Forecasting**
 - a) The Basis for Demand. The Market Demand function. Demand sensitivity
 - b) analysis: Elasticity, Price Elasticity of Demand with Managerial applications.
 - c) Income Elasticity of Demand with Managerial applications. Application of
 - d) Regression Analysis: Demand estimation. Demand forecasting.
- 3. Production and Cost Analysis**
 - a) Production function; Total, Marginal and Average Product. Revenue and Cost in
 - b) Production. Production function estimation. Productivity Measurement.
 - c) Homogenous and Homothetic Production Function. Short run and long run cost
 - d) curves. Learning curves and application. Cost-value-profit analysis. Cost estimation
- 4. Decision Making Under Risk and Uncertainty**
 - a) Introduction. Risk Analysis of Decision Alternatives. Adjustment for Risk in
 - b) Decision Making. The Expected Value Criterion. The Standard Deviation
 - c) Criterion. The Coefficient of Variation Criterion. The Certainty Equivalent
 - d) Criterion. The Maxima and Maximax Criterion. The Decision Tree and Joint
 - e) Probabilities. Optimal decision Strategy. Limit Pricing and Preventing entry.
- 5. Pricing Analysis and Decisions**
 - a) A Review of Market Structures and Basic Pricing Models. Perfect Competition.
 - b) Monopoly. Monopolistic Competition. Oligopoly. Selected Pricing Models.
 - c) Marginalist Pricing. Mark up pricing. New Product Pricing. Oligopoly Model.
 - d) Contestable Markets. Pricing Strategies for Firms and Market Power.
 - e) Monopolistic Competition. Price Discrimination, Monoposony and Price Product

6. Managerial Theories and Models of the Firm

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

7. Public Sector Production and Pricing of Goods.

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

8. Capital Budgeting and Investment

- a) Pre-requisites of Capital Budgeting. Investment Criteria and Decisions. Cash
- b) flowest illation. Internal Rate of Return, Profitability-Index Criterion and other
- c) criterion. Optimal Capital Budget.

Recommended Books

- 1. Salvatore, D. *Managerial Economics in a Global Economy*, 8th Ed. Oxford University Press (McGraw Hill, 2015).
- 2. Hirschey, M. *Managerial Economics*, 14th ed. (U.S.A. Thomson South-Western, 2016).

Suggested Books

- 1. Koutsoyiannis, A., *Modern Microeconomics*, 2nd Ed. (MacMillan, 1979).
- 2. Evan J. Douglas and, Scott Callan., *Managerial Economics analysis and strategy*, 4th Ed. (Prentice Hall, 1992).

ECON 6120

Energy Economics

3(3-0)

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

Contents

1. Overview and Fundamental Concepts:
 - d) Energy in the Economy; Global Energy Problems and Issues
 - e) Fundamental Concepts: Energy, Power; Measuring energy: units and conversion factors,
 - f) Laws of Thermodynamics, 1st Law and Entropy law, Input and output energy, energy efficiency, Energy conversions (technologies)
 - g) Energy markets and energy prices; competitive market valuation and social valuation,
2. Oil Resources and Economic Issues:
 - a) Discounted cash flow analysis, Reserve and resources, resource substitution
 - b) Forecasting prices and speculation, Natural resource (oil) demand and supply, OPEC
3. Overview of Energy Economics and Global Energy Sustainability:
 - a) Primary energy supply, secondary energy and energy end use demand/consumption,
 - b) Economic activity, and growth: energy intensity, global energy use forecasts
 - c) Energy conversion, energy transportation and/or transmission, and clean energy use,
 - d) Conditions for a sustainable global energy system, climate change and clean energy
4. Clean Energy Supply from Non-Conventional, Alternative and Renewable sources:
 - a) Climate change and primary and secondary energy use
 - b) Energy Conservation policies, Demand side management
 - c) Non-conventional and renewable alternative energy: Solar, Biomass, Wind, Geothermal, Tidal & other, Hydrogen energy, fuel cells
5. Energy Supply from Non-Renewable Fossil Fuel Resources:
 - a) Fossil fuel resources and reserves model, Cartel models of global energy markets
 - b) Overview of Oil, Natural gas, and Coal industries, Backstop technologies and Non-renewable resource Pricing (Hotelling model), Clean fossil fuel use; carbon sequestration
6. Energy Conversion and Supply by Electric Utility Industries:
 - a) Electric Power demand and load duration vs. Electric energy consumption
 - b) Electricity production technologies and electricity production cost trade-offs, Thermal, hydro, nuclear and renewable production and transmission of electricity
 - c) Electricity pricing issues, regulation and deregulation issues
 - d) Nuclear energy issues and prospects

7. Sustainable Energy Policy:

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

Recommended Books

1. Mark Jaccard, *Sustainable Fossil Fuels: The Unusual Suspects in the Quest for Clean and Enduring Energy*, Cambridge University Press (2005)
2. Subhes C. Bhattacharyya *Energy Economics Concepts, Issues, Markets and Governance* Springer-Verlag London Limited (2011)

Suggested Books

1. J. M. Griffin, and H. B. Steele (1985): *Energy Economics and Policy*, Academic Press
2. Tom Tietenberg and Lynne Lewis *Environmental & Natural Resource Economics* Pearson Education, Inc., 9th Edition 2012

ECON 6121**Research Methodology****3(3-0)**

This course covers the basics of conducting applied economic research. This includes the selection of topic, literature review and survey, selection of research method and approach, formulation of hypothesis, testing of hypothesis using statistical analysis, and summarizing results. You will organize and complete the research project in stages. This process includes the following steps: • choice of a topic; • finding, critically evaluating and describing the relevant economics literature on this topic; • developing a research proposal; • finding relevant economic data sources and collecting economic data; • analyzing these data using appropriate statistical and econometric techniques; • clearly and meaningfully summarizing, tabulating and explaining the findings; • writing a final report/paper; • preparing a presentation.

Content

1. Importance of Research Methodologies.
2. Research techniques in social sciences and their limitations.
 - a) Theory and basis of research.
 - b) Empirical and theoretical research.
 - c) Stages of research process.
3. Identification of problem/issue, data, theory and estimation and related problems.
4. Thinking, Field Research Designs; the process of field research, Exploratory Research, Casual Inference.
5. Methods of communication in survey.
 - a) Vision survey and communication techniques.
 - b) Art of asking questions and getting quality information.
 - c) Preparation of Research Proposal Questionnaire,
6. Sample Design;
 - a) The Nature of Sampling,
 - b) Measurement and Scaling;
 - c) Measurement, Measurement Scales,
 - d) the Characteristics of Sound Measurement,
 - e) the Development of Measurement Tools,
 - f) Scaling, the Nature of Scaling, Response Methods, Scale Construction.
7. Data Collection Methods
 - a) Survey Instruments and Field Procedures; Survey Instrument Designs,
 - b) the Survey Situations, the Instrument Development Process,
 - c) Questionnaire Development, Field Procedures, Personal Interviewing, Telephone Interviewing,
 - d) Interviewing by mail, observations. Data collection, Observation,
 - e) Experimentation and Simulations;
 - f) Experimentation and Simulation. Choice of Research Technique, Experimental Research Design, Simulation, Observation, Observation Designs.
8. Use of Secondary Data;

- a) the Nature of Secondary Data Sources, the Use of Secondary Data,
 - b) Types of Secondary Data Sources, Statistical Sources, Data Research Procedures,
 - c) Evaluating Secondary Data. Vision Survey:
9. Interpretation of Replies. Data Presentation and Analysis:
- a) Elements of Analysis, Data Preparation, Special Data Problem, Tabulation,
 - b) Data Presentation, and Data Analysis.
10. Report Writing; the Questions and analysis of Research Proposal.
- a) Organization of Research Paper.
 - b) How to format and Write country Research Report.
 - c) Executive summary and abstract of a report. Conclusion and its basis.
 - d) Evaluation of Research Work.
11. The Research Report, Research Report Format, Writing and editing of research Report.

Recommended Books

1. Johnson, Glenn *Research Methodology for Economists: Philosophy and Practice*, (McMillan Publishing Co., 1986).
2. Ranjit Kumar ., *Research Methodology: A Step-by-Step Guide for Beginners*, 5th Edition.(SAGE Publications Ltd , 2018).

Suggested Books

1. Uma Sekaran, Roger Bougie.,*Research Methods for Business. A Skill Building Approach*, 7th Ed.(John Willey & Sons, Inc,1992).
2. Charles M. Judd, Louise H. Kidderand Eliot R. Smith., *Research Methods in Social Relations*, 6th Ed.(Holt, Rinehart & Winston, 1991)

INTR-5101

7th Semester

Introduction to International Relations

3(3-0)

This course offers the major conceptual appreciation of the theory and practice of International Relations. In addition to providing a detailed understanding of the fundamental theoretical perspectives and the issues that divide them. It poses the question of whether it is possible to overcome the main disagreements between these competing approaches. It tends to exam in earange of important issues in contemporary international politics and use these theoretical frameworks to provide better understanding of these events

Contents

1. UnderstandingandExplainingWorldPolitics:The developmentof discipline of International Relations
2. Liberalism and its variances (Idealism, Capitalism,Neo-Liberalism)
3. Realismanditsvariances(ClassicalRealism,Neo-Realism,Neo-Classical, Offensive and Defensive Realism)
4. Hard and SoftPower
5. The English School (International Society)
6. Constructivism
7. Critical Theory
8. Structuralism and Post-Structuralism
9. Feminist Theory
10. Green Politics
11. Globalization
12. Contemporary Trends in International Politics (Media, Non-state Actors)

Recommended Books

1. Burchill,Scottetal.,*TheoriesofInternationalRelations*.(Basingstoke:Palgrave Macmillan,2009).
2. Jackson,Robert,Sorensen,George.*IntroductiontoInternationalRelations: Theories and Approaches* (Oxford University Press,2016

Suggested Books

1. Morgenthau,Hans.J.,*PoliticsAmongNations:TheStruggleforPowerandPeace*(McGraw-Hill, 1993)
2. Devetak, Richard, Anthony Burke, Jim George (eds.), *An Introduction to International Relations* (Cambridge, 2012).
3. Bellamy,Alex (ed.),*International Society and its Critics* (Oxford University Press, 2005).
4. Baylis, Smith and Owens, *The Globalization of World Politics: An Introduction to International Relations* (Oxford University Press, 2011).

ECON 6122

Macro Economics

3(3-0)

This course provides a comprehensive introduction to Macroeconomics; the objective is to enhance their analytical skills and to clarify further their macroeconomic concepts with quantitative tools at hand. They must have a strong theoretical foundation so as to understand the real problems of the economy with particular emphasis on inflation, unemployment, instability, deficit and debt etc. to which the developing countries are confronted at present.

Content

1. Macroeconomics: The Classical Framework
 - a) Ingredients of the Classical model: The Says law of markets.
 - b) The Quantity theory of money, The Marginal Productivity theory, Equilibrium in the goods and money markets.
 - c) A critical appraisal of the Classical model, Dichotomy in the economy.
2. The Demand Management Economy
 - a) The Keynesian framework, liquidity preference function, ISLM model and its mathematical derivation, interaction of the goods and money markets in a closed economy.
 - b) The multiplier effects of fiscal and monetary actions, derivation of aggregate demand function.
 - c) The Neoclassical critique of the Keynesian model: the Keynes effect, the Pigou effect, the Real Balances effect, The Keynesian-Neoclassical Synthesis
3. The Supply Side Economics
 - a) Demand for and Supply of Labour, The wage rate determination, Rigidity versus flexibility of nominal wage rate.
 - b) The short-run Production function, Derivation of Aggregate Supply under the Classical and Keynesian assumptions, the supply side disturbances leading to stagflation.
4. The Open Economy Macroeconomics
 - a) Balance of Payments: Current and Capital account, The IS-LM-FB model due to Mundell and Fleming, The case of a small open economy
 - b) The relative effectiveness of Fiscal and Monetary policies under the Fixed and Floating exchange rate regimes, Devaluation and its impacts for developing countries.
5. Macroeconomic Policy Debate
 - a) Macroeconomics Policy: the Fiscal, Monetary and Commercial policies
 - b) Seignorage and Inflation: Monetarists vs. Activists, the short-run and long-run analysis of the Phillips Curve

Recommended Books

1. Froyen, Richard, *Macroeconomics: Theories and Policies*. (Pearson, 2012)
2. Gupta, G.S., *Macroeconomics: Theory and Applications*. (McGraw Hill, 2014)

Suggested Books

1. Mankiw, Gregory, *Macroeconomics*. (Worth Publisher, 2018)
2. Branson, Willium, *Macroeconomics: Theory and Policy*. (Harper and Row, 1989)

ECON 6123

Applied Economics

3(3-0)

It is a special applied course, which covers different aspects of economic theory and its application. The course is offered in the last semester. In this course, estimation of econometric models and applied economic research is taught. For this purpose, students are required to apply the knowledge and theory to produce a research paper. Completion of this course provides confidence among the students to embark upon research on important national and international economic issues.

Content

1. Introduction to Windows 2000 and Ms-Word
 - a) Operating System, Performance Management, Desktop Management, Printer Management,
 - b) Internet Explorer, E-mail. MS-Word, using Advanced Formatting Features,
 - c) Sharing data with Word, Word Macros, Composing Models and Mathematical Equations.
2. PowerPoint and MS-Access (XP)
 - a) Database Concepts, File Linkages, Data Retrieval, Data Editing / Updating. Data Transferring.
3. SPSS and E-View
 - a) Menu, Tool Bars, File Linkages, Dialog Boxes. Data Analysis, Analysis of Variance. Simple
 - b) Multiple Regression Analysis, Formatting Reports, Creation and Modification of Chart,
 - c) Line Area and Pie Chart. Output Navigator Printing,
 - d) Data Editor Printing, Command Syntax Printing. Use of E-view for Model Estimation.
4. Estimation of Production Function
 - a) Use of Computer, SPSS, E-View to Estimate Production Functions.
 - b) Cob-Douglas Production Function, Constant Elasticity Production Function etc.
5. Computer Applications: Demand – Supply & Equilibrium
 - a) Estimation of Demand and Supply using E-View / SPSS.
 - b) Aggregate Demand – Aggregate Supply and Equilibrium.
6. Model Building and Estimation
 - a) Building Simple Econometric Models and Estimation. Single Equation Models,
 - b) Multiple / Simultaneous Equation Model. Interpretation of Computer Output.
7. Project Appraisal and Computer Application
 - a) Use of Computer Programming (Softwares), E-View etc. for Cost-Benefit Analysis,
 - b) Estimation of Present Values, Estimation of Economic and Social Benefits.

- c) Project Appraisal Using E-View etc. Estimation of Cost Functions and Decision Making.
8. Econometric Analysis and Computer Applications
- a) Regression Functions. Estimation with Qualitative Variables
 - b) Confidence Interval and Hypothesis Testing. Estimation and Improving Model Estimates:
 - c) Autocorrelation, Estimation of Simultaneous Equations. Estimation of VAR and ARIMA Models.

Recommended Books

1. E-View Manual, (Learning help available with package (software)).
2. Gimi, Carter and Annette, Marquis, with Karl Browning, *Mastering Microsoft Office XP Premium*, (Selection B.P.B., Publishers, New Dehli , 2001).

Suggested Books

1. Robertson, D.F., *Computer Applications and Programming*, latest ed..Har Brace Jovanovich Inc. USA SPSS-Manual

General equilibrium and welfare economics helps to compare the different policies and to choose the most appropriate one applying different kinds of criteria. It also encompasses the analysis of the data and making strategic decisions in-line with the objectives of the govt. These decisions are mainly related to the economic stability, financing and investments. This course helps to learn the tools and techniques which govt. uses while planning for the future. The students would go through in depth practice of issues and discussions and real life examples concerning different economic policies.

Contents

1. General Equilibrium

- a) The general equilibrium analysis.
- b) Walras Law; Existence of equilibrium; Stability of equilibrium;
- c) Technical and allocative efficiency.

2. Pareto principle

- a) Pareto principle, consumption, production and product-mix cases
- b) Efficiency of Perfect Competition.

3. Compensation Principle.

- a) Compensation Principle.
- b) The Theory of Social Choice: Social welfare functions,

4. Measurement of Changes in welfare

- a) Producer Surplus,
- b) Consumer Surplus

5. Welfare analysis of market distortion

- a) Price ceiling
- b) Price support
- c) Taxes
- d) Subsidies
- e) Quota and

6. Arrow's Impossibility Theorem

- a) Arrow's Impossibility Theorem.
- b) Externalities: positive and negative and their solutions.

Recommended Books

1. Richard E just, Darrel L. Hueth and Andrew Schmitz Edward Elgar, *Welfare economics of public policy, A practical approach to project and policy evaluation*. Edward Elgar Cheltenham, UK • Northampton, MA, USA

2. Rosen and Harvey S., *Public Finance*, McGraw Hill (latest edition)

Suggested Books

1. Jehle, G.A., & P.J. Reny, *Advanced Microeconomics*, Theory, Addison Wesley, 2001 (2nded.)
2. Varian, H., *Microeconomics Analysis*, Norton 1992 (3rded)

ECON 6125 Public Finance

3(3-0)

This course investigates the role of the public sector in the economic arena. We will attempt to explain why government intervention is needed, how it influences the behavior of the private sector and what the welfare effects of such influences are. We will also survey political economy, which regards actions of the public sector as determined by political processes.

Contents

1. Scope and New Developments
 - a) Definitions: Economic Development and Growth, Identification of Development variables. Scope and Significance of Development Economics.
2. Major Theories of Development
3. Agriculture and Industry
 - a) Agriculture vs. Industry: Development Debate, Lewis' Model of surplus Labor. Rains' Fei Model and its critical review.
 - b) Transforming Agriculture, Underemployment problem. Role of Agriculture: Market for Industrial Output, Provision of Input, food, Complementarities, productivity growth.
4. Terms of Trade Issue and Subsidies
 - a) Land Holdings, Green Revolution and its Performance.
 - b) Problem of Sectoral Dualism. Why Green Revolution? The Spread of Green Revolution in Pakistan and its Status / Contributions.
5. Population, Education and Human Capital
 - a) Demographic Transition, Human Resources as a source of growth and their contributions.
 - b) Investment in education and returns. Models of Employment & Unemployment: Time Criterion, Productivity Criterion and New Index etc., and Employment generation Strategies/Techniques.
6. International Debt, Aid / Assistance
 - a) Why international borrowing? Two Gap Model, Aid commitments and disbursement.
 - b) Sources of borrowing. Debt Cycle Theory/Stages, Debt Burden: Debt Servicing etc.
 - c) Policies to combat debt problem: Forecasting debt and solution for debt burden
7. WTO, Liberalization and International Trade
 - a) Trade vs. Aid. Liberalization of Trade and its impacts/gains etc., Foreign Exchange Constraints and Balance of Payment deficit.
 - b) Role of GATT and its Failure. WTO and LDC's. Trade Instability, Distribution of gains from Trade liberalization.
 - c) Regional Trade Associations (RTA's): their role and contributions.
8. Poverty and Income Distribution
 - a) Definitions and Measurement of Poverty/Poverty Line.

9. Economic Growth and Environment

- a) Market Based Approach and Externalities. Deforestation and Renewable Resources, Measuring environment values.
- b) Urbanization and environmental issues. Sustained development, Ecology and economic progress.

Recommended Books

1. David N Hyman, (1996), Public Finance, A Contemporary Application of—. Harcourt Brace College Publishers.
2. Meier Gerald M., Leading Issues in Economic Development, (Latest Issue), Oxford University Press.

Suggested Books

1. Ghatak Subarta, (2003), Introduction to Development Economics, Routledge, Taylor and Francis Group, London/New York.
2. Rosen and Harvey S., (1999), Public Finance, Mc-Craw Hill.

8th Semester

ECON 6122 International Trade Theory

3(3-0)

This course provides a comprehensive introduction to international trade, focusing in particular on trade theory explaining why trade takes place; its history and key concepts, major theoretical frameworks, main factors and agents. More specifically, the course introduces key concepts related to flow of goods and services, funds, monies and currencies from one country to another country.

Content

1. Importance and Basis of Trade
 - a. Why Study International Economics? Basis of Trade, Gains from Trade.
 - b. Absolute Advantage, Comparative. Pattern of Trade. Offer Curves and Free Trade Equilibrium.
 - c. The Elasticity of Exports Demand and Balance of Payment. Substitution and Income Effects
2. Growth and Trade
 - a. Factor endowment and Heckscher – Ohlin theory, factor price equalization,
 - b. Factor intensity reversal. Newly industrializing countries (NICs). Rybeczunksy theorem.
 - c. Markets, cartels and international trade. Dumping / discrimination and WTO
 - d. Multinationals firms and foreign direct investment, transfer of capital, technology.
3. Technology and Factor Endowment
 - a. Ricardian Trade Model, World Production and Gains. Comparative Cost and Trade Pattern.
 - b. Technical Progress and International Gains. WTO and Gains from Technical Progress
 - c. Free Trade and Income Distribution, Relative Demand, Supply and Pattern of Trade
4. Factor Endowment and Heckscher – Ohlin Theory
 - a. Output and Factors Rewards in 2*2 Model. Heckscher- Ohlin (H.O) Model, The Role of Demand
 - b. Factor's Prices and Commodity Prices, Factor Price Equalization, and Factor Intensity Reversal.
 - c. Newly Industrializing Countries (NIC's). Rybescky Theorem and its critical review.
5. Tariff quota and trade policies
 - a. Tariff and Small Country: Effects of Tariff, Price and Demand for Imports,
 - b. Welfare impacts. Impacts of Tariff on Government Revenue
 - c. The Optimal Tariff. Tariff and Distribution of Income. Brief Introduction of Tariff and WTO
 - d. Subsidies and Quota, Voluntary Quota, Quantitative Restrictions, Voluntary Export Restrictions

6. Major Contemporary International Economic Issues

- a. WTO: GATT and Emergence of WTO. Expected Impacts on Trade, Liberalization and B.O.P
- b. WTO Rules: Sanitary, Phytosanitary, Dumping, Anti-Dumping etc Rules and Their Impacts.
- c. Emerging Regional Trading, Blocks, Special Preference and Monetary

Recommended Books

1. Donomick Salvatore B, *International Economics*. (Latest edition), Prentice Hall.
2. Chacholiades, Miltiades, *International Trade Theory and Policy* (latest edition). McGraw Hill Book Company New York, London.

Suggested Books

1. Sodersten B. and Geoffry Read. *International Economics* (Latest edition), MacMillan Press Ltd.
2. Peter Holinder & Thomas A., Pugel., *International Economic*. (Latest Edition).

ECON 6123

Research Paper

3(3-0)

The basic objective of this course is to train the students to write a good research paper related to the application of the different topics of economics.

This course provides cognizance of the significance of monetary phenomenon within any economy. Understanding of the theoretical base behind the functioning of money and its allied concepts and how they are meaningful in the conduct of monetary policy and its implications within national borders and beyond. Further, it will inculcate ability to understand the formulation, function and execution of monetary policy relative to contemporary national and international circumstances.

Content

1. Introduction and Development Of Monetary Mechanism
 - a. Evolution of Money and Payment System.
 - b. Definition, Function and Measurement of Money
2. Role of Money in the Economy
 - a. Classical Dichotomy and Keynesian IS LM Framework
 - b. Money in Aggregate Demand & Aggregate Supply Analysis.
 - c. Keynesian Vs. Monetarist views of Equilibrium Output, Employment and Prices
3. Demand for Money and Money Supply process
 - a. Theories of Money Demand
 - b. Keynesian Liquidity Preference Framework
 - c. Multiple Deposit Creation and Monetary Base
 - d. Determinants of the Money Supply
4. The Conduct of Monetary Policy: Central Bank
 - a. The Conduct of Monetary Policy: Goals and Targets.
 - b. Tools of Monetary Policy by Central Bank
5. Money & Interest Rates
 - a. Determinants and Kinds of Interest Rates
 - b. The Risk and Term Structure of Interest Rates
6. Money and Inflation
 - a. What is Inflation, its Causes and types
 - b. Philips Curve and Accelerating Inflation.
 - c. Inflation in Pakistan: Sources and Policies to Combat Inflation
7. Monetary Policy in International Framework
 - a. Monetary Policy in Fixed and Flexible Exchange Rates.
 - b. Exchange Rate, Monetary Policy and Balance of Payment.

Recommended Books

1. Mishkin, F. S., *The Economics of Money, Banking & Financial Markets* (Pearsons, New York, 2001).
2. Miller, R. L. and David V. H., *Money, Banking & Financial Markets*. South Western, Singapore. 2001)

Suggested Books

1. Vanish K., *Monetary Theory*, (Vikas Publishing House, Delhi, 2001)
2. Mishkin F. S., *Financial Markets and Money*, (Harper & Row Publisher, 2000).