UNIVERSITY OF POONCH RAWALAKOT AZAD JAMMU AND KASHMIR

SCHEME OF STUDY FOR BS ECONOMICS

Semester-I			
Course Code	Course Title	Credit hours	Category
GEN-3101	Functional English	3(3-0)	General
GEN-3102	Quantitative Reasoning-I	3(3-0)	General
GEN-3103	Islamic Studies	2(2-0)	General
GEN-3104	Ideology and Constitution of Pakistan	2(2-0)	General
GEN-3105	General Science	3(2-1)	General
GEN-3106	Entrepreneurship	2(2-0)	General
Total		**15(15-0)**	

Semester-III

(Any two courses can be opt from list of optional non-Economics)

Course Code	Course Title	Credit hours.
ENG-211	English-III (Report writing)	3(3-0)
STA- 212	Statistics-I	3(3-0)
ECO-213	Intermediate Micro Economics	3(3-0)
ECO-214	Development Economics	3(3-0)
	Optional-I(Non Economics)	3(3-0)
	Optional-II(Non Economics)	3(3-0)
Total		**18(18-0)**

Semester-V

Course Code	Course Title	Credit hours
ECO-311	Advanced Microeconomics	3(3-0)
ECO- 312	Econometrics-I	3(3-0)
ECO- 313	Mathematical Economics-I	3(3-0)
ECO-	Optional-I(Economics)	3(3-0)
ECO-	Optional-II (Economics)	3(3-0)
Total		**18(18-0)**

SEMESTER-VII

Course Code	Course Title	Credit hours
ECO-411	International Trade Policy	3(3-0)
ECO-412	Research Methods and Techniques	3(3-0)
ECO-413	Public Finance	3(3-0)
ECO-	Optional-I(Economics)	3(3-0)
ECO-	Optional-II(Economics)	3(3-0)
	Internship/Practical Examination	S/U Basis
Total		*15(15-0)*

Note: Any two courses can be opt in semester 5th and 7th as optional Economics from list of optional courses

List of Optional (Economics) Courses

Course Code	Course Title	Credits.Hrs
ECO-424	Human Resource Development	3 (3-0)
ECO-425	Human Resource Management	3 (3-0)
ECO-426	Labor Economics	3 (3-0)
ECO-427	Managerial Economics	3 (3-0)
ECO-428	Institutional Economics	3 (3-0)
ECO-429	Economics of Happiness	3 (3-0)
ECO-430	Environmental Economics	3 (3-0)
ECO-431	Demographic Economics	3 (3-0)
ECO-432	Dynamic Macro Economics	3 (3-0)
ECO-433	Monetary Policy	3 (3-0)
ECO-434	Fiscal Policy	3 (3-0)
ECO-435	Development policy	3 (3-0)
ECO-436	Rural Development	3 (3-0)
ECO-437	Sustainable Development	3 (3-0)
ECO-438	Political Economy	3 (3-0)
ECO-439	Industrial Economics	3 (3-0)
ECO-440	Transport Economics	3 (3-0)
ECO-441	Health Economics	3 (3-0)
ECO-442	Experimental Economics.	3 (3-0)
ECO-444	Urban Economics	3 (3-0)
ECO-445	Regional Economics	3 (3-0)
ECO-446	Disaster Economics	3 (3-0)
ECO-447	Advanced Econometrics	3 (3-0)
ECO-448	Financial Econometrics	3 (3-0)
ECO-449	Institutional Economics	3 (3-0)
ECO-450	Growth Theories	3 (3-0)
ECO-451	Game Theory	3 (3-0)
ECO-452	Ethics, Economics and Universal Values	3 (3-0)
ECO-453	Project monitoring and Evaluation	3 (3-0)
ECO-454	Economic Planning	3 (3-0)

ECO-455	Islamic Banking & Finance	3 (3-0)
ECO-456	General Equilibrium and Welfare Economics	3 (3-0)
ECO-457	Energy Economics	3 (3-0)
ECO-458	Economics of Education	3 (3-0)
ECO-459	Thesis	6

List of optional (Non Economics) Courses

Semester III		
POL-215	Political Science	3 (3-0)
MCM-216	Mass communication	3 (3-0)
LAW-217	Introduction to Law	3 (3-0)
ACT-218	Principle of Accounting	3 (3-0)
MGT-219	Introduction to Management	3 (3-0)

Semester V		
BNK-314	Banking Law and Practices	3 (3-0)
GSC-315	General Science	3 (3-0)
COM-316	Introduction to Commerce	3 (3-0)

SEMESTER-I

FUNCTIONAL ENGLISH **COURSE CODE: GEN: 3101** **CREDIT HRS: 3(3-0)**

Course Objectives: The course is developed to enhance the language skills and critical thinking of students by

● Enabling them to correct use of grammar and language structures

● Enabling them to communicate effectively

Course Contents:

Grammar:

Basics of grammar

Parts of speech and their use in communication

Sentence structure

Correct use of Tenses

Active and passive voice

Practice in unified sentences (unity and coherence)

Analysis of Phrase, Clause and sentence structures

Transitive and Intransitive Verbs

Punctuation and Spellings

Reading skills:

Comprehension skills

Literal understanding of text, reading between lines (interpret text), reading beyond lines (to assimilate, integrate knowledge)

Answers to the questions on a given text

Discussion:

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

Introducing ourselves, describing things, recounting past events, agreeing and disagreeing, compare and contrast

Listening:

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

Listening and note taking

Translation Skills:

Urdu to English

Writing Skills:

Paragraph Writing

Basic structure of paragraph and guidelines for writing an effective paragraph
Speaking Skills:

Presentation Skills

Introduction (types of presentation, structure of presentation)

Prepared and unprepared talks

Note: Extensive reading is required for vocabulary building

Recommended Books:
1. **Functional English**
a) Grammar
    1. Practical English Grammar by A. J. Thomson and A. V. Martinet. Exercises 1. Third edition. Oxford University Press. 1997. ISBN 0194313492
    2. Practical English Grammar by A. J. Thomson and A. V. Martinet. Exercises 2. Third edition. Oxford University Press. 1997. ISBN 0194313506

b) Writing

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

c) Reading/Comprehension
    1. Reading. Upper Intermediate. Brain Tomlinson and Rod Ellis. Oxford Supplementary Skills. Third Impression 1992. ISBN 0 19 453402 2.

d) Speaking

1) Ellen, K. 2002. Maximize Your Presentation Skills: How to Speak, Look and Act on Your Way to the Top
2) Hargie, O. (ed.) Hand book of Communications Skills
3) Mandel, S. 2000. Effective Presentation Skills: A Practical Guide Better Speaking
4) Mark, P. 1996. Presenting in English. Language Teaching Publications

Course Break up

WEEK 1	LECTURES	TOPICS
WEEK 1	Lecture 1	Introduction to Grammar, Definitions, basic concepts, importance
	Lecture 2	Subject, verb, object, predicate
	Lecture 3	Parts of speech (basic concepts: types, subtypes) Noun, pronoun, adjective, adverb, conjunction, interjection, preposition
WEEK 2	Lecture 1	Noun (proper noun, common noun, abstract noun, concrete noun, material noun, collective noun, compound noun, countable noun, uncountable noun) Functions of noun Pronoun (personal pronoun, possessive pronoun, indefinite pronoun, relative pronoun, intensive pronoun, demonstrative pronoun, interrogative pronoun, reflexive pronoun)
	Lecture 2	Adjective (descriptive, quantitative, proper, demonstrative, possessive, interrogative, indefinite, compound adjectives, articles as adjective) Degrees of adjective Adverb (adverb of manner, time, place, frequency, degree) Preposition (simple, double, compound, participle, phrase preposition)
	Lecture 3	Verb (action verb, stative verb, transitive and intransitive verb, auxiliary verb, modal verb, phrasal verb, regular and irregular verbs) Conjunctions (co-ordinating conjunction, correlative conjunction, sub-ordinating conjunction) Interjection
WEEK 3	Lecture 1	Article (definite and indefinite) Use of articles
	Lecture 2	Basic sentence structure (simple, negative, interrogative, negative interrogative)

	Lecture 3	Correct use of tenses (Present Tense)
WEEK 4	Lecture 1	Correct use of tenses (Past Tense)
	Lecture 2	Correct use if tenses (Future Tense)
	Lecture 3	Basics of active and passive voice (definition of voice, active, passive) Rules for passive transformation (all tenses + imperative sentences)
WEEK 5	Lecture 1	Active and passive voice (practice)
	Lecture 2	Practice in unified sentences (definition, characteristics, rules)
	Lecture 3	Continued
WEEK 6	Lecture 1	Phrases (definition, structure, types)
	Lecture 2	Continued
	Lecture 3	Worksheets on phrases and unified sentences
WEEK 7	Lecture 1	Clauses (definition, structure, types: Independant clause, dependent clause)
	Lecture 2	Continued
	Lecture 3	Continued + practice
WEEK 8	**Mid Term Exam**	
WEEK 9	Lecture 1	Transitive and intransitive verbs: a detailed discussion
	Lecture 2	Types of sentences on the basis of structure: simple, compound, complex, compound-complex sentences On the basis of function: declarative, imperative, interrogative, exclamatory sentences

	Lecture 3	Practice of phrase, clause and sentence Types of sentences on the basis of structure: simple, compound, complex, compound-complex sentences
WEEK 10	Lecture 1	Punctuations and spellings Definition, basic punctuation marks and their uses, importance of using punctuations
	Lecture 2	Spellings (basic rules and tips)
	Lecture 3	Continued
WEEK 11	Lecture 1	Comprehension (definition, levels of comprehension, principles/rules of comprehension)
	Lecture 2	Continued (practice of paragraphs)
	Lecture 3	Discussion (speaking and communication skills) Definitions, basic skills, strategies
WEEK 12	Lecture 1	Continued
	Lecture 2	Listening skills (definition, strategies)
	Lecture 3	Continued (practice)
WEEK 13	Lecture 1	Translation skills (basic rules)
	Lecture 2	Continued (practice of Urdu to English translation)
	Lecture 3	Worksheets for practice
WEEK 14	Lecture 1	Paragraph writing (definition, parts of a good paragraph, rules and tips for writing effective paragraph)
	Lecture 2	Continued (practice) **Assignment**
	Lecture 3	Presentation skills: Types of presentation, structure of presentation

WEEK 15	Lecture 1	Continued
	Lecture 2	Discussion on prepared and unprepared talks
	Lecture 3	Continued
WEEK 16	**Revesion**	
Week 17	**Terminal Exam**	

QUANTITATIVE REASONING-I (EXPLORING QUANTITATIVE SKILLS)

GEN-3102   **CREDIT HRS: 3(3-0)**

Objectives: Students will get familiarized with the importance of quantitative reasoning skills in the modern age.

Week No.	Lecture No.	Topics Detail
Week 01		Introduction to Number System (Natural, Whole, Integers, Rational, Irrational, Real & Imaginary), Notations, Binary, Decimal and Octal Number system and their conversions.
		Real Line, Intervals Basic Arithmetic Operations on Numbers (Addition, Subtraction, Multiplication and division)
		Quantitative Reasoning Exercise Using Number System.
Week 02		Units, Units rates, measurements and their Conversions, Dimension and its types, Dimension of Shapes.
		Area, Perimeter and Volume of shapes
		Quantitative Reasoning Exercise Using units, dimension, area, perimeter and volume.
		Rates, Ratio and Percentage (Definition, formulas)
		Proportions, Direct and inverse Proportion

Week 03		Comparison of Ratios, Rates, Percentages and proportions. Exercise using statements and number system.
Week 04		Data , Primary data, Secondary data, Qualitative data Quantitative data, Discrete data, Continuous data, Structured and unstructured data with their differences, Semi structured data and big data.
		Sou ces of Data, External and internal Sources of d ta.
		Methods for collecting Data, Exercise Using Word problems.

Week 05		Introduction to Measurement Scales,
		Nominal Scale , Ordinal Scale
		Interval Scale, Ratio Scale, Quantitative Reasoning exercise measurement scales.
Week 06		Tabular representation of data (Qualitative, Quantitative, Temporal and Spatial)
		Graphical representation of Data (Line graph, Bar graph, histograms, line plot, frequency table, Circle graph, steam and leaf plot, Box and whisker graph.
		Objectives and limitations, exercise.
(Mid Term)		
Week 07		Introduction to Basics of Geometry, Branches Types of Geometry (Plane-2D, Solid-3D)
		Plane Geometry (Lines, Angels & Polygons with their types, point, Collinear & Non- Collinear Points, Plane, Mid point, Circle, Semi Circle)
		Solid Geometry (edges, Faces & Vertices of solid shapes), Exercise
Week 08		Sets and their operations (Union, Intersection, Difference & Complement)
		Types of set, Demorgan's Law, Venn Diagram
		Properties of set operations, Exercise using sets operations
Week 09		Relation (Domain and range, inverse, binary, reflexive, symmetric, transitive, power, closure)
		Function (Domain and Range, algebraic and Transcendental, Even, odd, injective, surjective, bijective, piecewise)
		Graphing of Relation and function, exercise
Week 10		Exponents, Exponent rules
		Factoring & Simplifying the Algebraic expressions
		Exercise using Algebraic expressions
Week 11		Linear equations with one, two and three variables,
		Quadratic equation and methods to solve quadratic equation Algebraic and graphical solutions.
		Inequalities and their solution sets, Exercise
Week 12		Population & its types (Finite Population, Infinite Population, Existent Population & Hypothetical Population)
		Sample (Probability sampling & Non-probability sampling)
		Difference between Population and Sample Population and sample formulas (MAD, Variance, S.D), Exercise
Week 13		Measure of central tendency, Mean (A.M., G.M., H.M.,), Median & Mode for grouped and ungrouped data .
		Measure of Dispersion (Absolute Measure of Dispersion & Relative Measure of Dispersion) Types, Formulas, Exercise.
		Data Interpretation, Types & Methodology, Exercise.

Week 14		Rules of Counting (Multiplicative, Permutation, Partitions & Combinations)
		Formulas and exercise using Counting Rules
		Introduction to probabllin theory
Week 15		Theoretical probability, Empirical probability, sample space, events, Random variable, Conditional probability Probability mass function, Probability density function
		Addition Rule, Complementary Rule , Exercise
Week 16		Introduction to Random Variable and their probability distribution
		Mean & Variance of random Variable
		Standard Deviation of random Variable, Exercise
Terminal Examination		

Recommended Books:

- Fundamental of Mathematics, Denny Burzynski and Wade Ellis, Latest Edition.
- Jeffrey O. Bennett, William L. Briggs - Using & Understanding Mathematics_ A Quantitative Reasoning Approach (7th Edition)-Pearson (2018)
- Richard N. Aufmann, Joanne S. Lockwood, Richard D. Nation, Daniel K. Clegg

- Mathematical Thinking and Quantitative Reasoning   -Houghton Mifflin Company (2008)
- Ethan Bueno de Mesquita, Anthony Fowler - Thinking Clearly with Data_ A Guide to Quantitative (2021)   Reasoning and Analysis-Princeton University Press
- (Chapman and Hall_CRC Texts in Statistical Science) Chatfield, Chris - Statistics for Technology_ A Course in Applied Statistics, Third Editio Routledge (2018)
- Robin H. Lock, Patti Frazer Lock, Kari Lock Morgan, Eric F. Lock, Dennis F. Lock - Statistics_ Unlocking the Power of Data, 3rd Edition- John Wiley & Sons, Inc. (2021)

ISLAMIC STUDIES

GEN-3103   **CREDIT HRS: 2(2-0)**

Title	Description
Semester	1st
Course code	GEN.3103
No. of C.Hrs.	02
Teaching weeks	18
Objectives of the Course	۱۔طلباءکوعلوم القرآن سے متعارف کروانا ۲طلبا کو بنیادی علوم حدیث سےمتعارف کروانا ۔ ۳سیرت نبی ﷺ کا تعارفی مطالعہ کروانا۔ ۴۔ارکان اسلام کی اہمیت اور ان کے مسائل سے آگاہ کرنا ۔ ۵۔اسلام کے تصور جہاد اور فلسفہ جہاد سےآگاہ کرنا

Week	Lecture No.	Topic		Activity
Week 1	Lecture 1	قرآن پاک کا تعارف،فضائل ، اعجاز	•	
	Lecture 2	قرآن پاک کا نزول قرآن ، جمع و تدوین	•	
			•	
Week 2	Lecture 3	علوم قرآن: علم تفسیر ، ماخذ تفسیر	•	
	Lecture 4	علم اسباب نزول، علم ناسخ و منسوخ	•	
			•	
Week 3	Lecture 5	سورہ حجرات آیت (01 تا ۰۹)	•	
	Lecture 6	سورہ حجرات آیت (10 تا 18)	•	**Quiz # 01**
			•	
Week 4	Lecture 7	سنت و حدیث کا تعارف: معنی و مفہوم، اقسام	•	**Assignment# 01**
	Lecture 8	تاریخ تدوین حدیث	•	
			•	
Week 5	Lecture 9	سنت کی آئینی حیثیت	•	
	Lecture 10	منتخب متون احادیث کا مطالعہ: حدیث نمبر ۰۵-1	•	
			•	

Week 6		• **Mid Term**		
Week 7	Lecture 11	منتخب متون احادیث کا مطالعہ: حدیث نمبر 10- ۵	•	
	Lecture 12	منتخب متون احادیث کا مطالعہ: حدیث نمبر ۱۵- ۱۰	•	
			•	
Week 8	Lecture 13	منتخب متون احادیث کا مطالعہ: حدیث نمبر ۲۰- ۱۵	•	
	Lecture 14	پیدائش سے بعثت تک نبی کریمﷺ کی زندگی کے اہم واقعات	•	
			•	
Week 09	Lecture 15	نبی پاکﷺ کی مکی زندگی کے اہم واقعات	•	
	Lecture 16	نبی پاکﷺ کی مدنی زندگی کے اہم واقعات	•	
			•	
Week 10	Lecture 17	خلافت راشدہ(حضرت ابو بکر صدیق رضی اللہ عنہ و حضرت عمر رضی اللہ عنہ کے دور کی اہم خصوصیات	•	**Quiz # 02**
	Lecture 18	خلافت راشدہ(حضرت عثمان رضی اللہ عنہ و حضرت علی رضی اللہ عنہ کے دور کی اہم خصوصیات	•	
			•	
Week 11	Lecture 19	عقائد :ایمانیات ثلاثہ (ایمان باللہ ، ایمان بالرسالت اور ایمان بالاخرت)(الف)	•	**Assignment# 02**
	Lecture 20	عقائد :ایمانیات ثلاثہ (ایمان باللہ ، ایمان بالرسالت اور ایمان بالاخرت)(ب)		
	Lecture 21		•	
Week 12	Lecture 22	فقہ کا تعارف : پس منظر	•	
	Lecture 23	فقہی مسالک کا تعارف		
	Lecture 24		•	
Week 13	Lecture 25	نماز: اہمیت ، طریقہ نماز ، مسائل نماز (الف)	•	
	Lecture 26	نماز: اہمیت ، طریقہ نماز ، مسائل نماز (ب)	•	
			•	
Week 14	Lecture 27	روزہ : اہمیت ، مسائل روزہ	•	
	Lecture 28	زکوۃ : اہمیت ، مسائل زکوۃ	•	

		•	
Week 15	Lecture 29	حج اور عمرہ : اہميت ، طريقہ کار ، مسائل (الف)	•
	Lecture 30	حج اور عمرہ : اہميت ، طريقہ کار ، مسائل(ب)	•
			•
Week 16	Lecture 31	جہاد: اہميت ، مقاصد جہاد ، اداب جہاد (الف)	•
	Lecture 32	جہاد: اہميت ، مقاصد جہاد ، اداب جہاد (ب)	•
			•
Week17		**Terminal Examination**	

منتخب متن حديث :

ان اللہ لاينظرالى اجسادکم ــ	.2	الايمان بضع وسبعون شعبۃــ	.1
من عادى لى وليا ــ	.4	من صلى على واحدۃ	.3
اياکم و الظن ــ	.6	بحسب امرى من الشر ــ	.5
من کايؤمن باللہ فليصل رحمہ	.8	اللہ فى عون العبد ــ	.7
من حسن اسلام المرء ــ	.10	من کان يؤمن باللہ و اليوم الآخر فيکرم جارہ	.9
لا يجتمع غبار ــ	.12	الکلمۃ الطيبۃ صدقۃ	.11
آيۃ المنافق ثلاث	.14	اکثروا ذکر ہازم اللذات ــ	.13
ما تواضع احد للہ	.16	جزوا الشوارب ــ	.15
الرجل على دين خليلہ ــ	.18	الحياء شعبۃ من الايمان	.17
ليس شئى اکرم على اللہ من الدعاء	.20	تردون على غرا ــ	.19

Reference Material:

1. Hameedullah Muhammad, "Emergence of Islam" , IRI, Islamabad
2. Hameedullah Muhammad, "Muslim Conduct of State"
3. Hameedullah Muhammad, „Introduction to Islam
4. Mulana Muhammad YousafIslahi,"
5. Hussain Hamid Hassan, "An Introduction to the Study of Islamic Law" leaf Publication Islamabad, Pakistan.
6. Ahmad Hasan, "Principles of Islamic Jurisprudence" Islamic Research Institute, International Islamic University, Islamabad (1993)
7. Mir Waliullah, "Muslim Jurisprudence and the Quranic Law of Crimes" Islamic Book Service (1982)
8. H.S. Bhatia, "Studies in Islamic Law, Religion and Society" Deep & Deep Publications New Delhi (1989)
9. Dr. Muhammad Zia-ul-Haq, "Introduction to Al Sharia Al Islamia" AllamaIqbal Open University,

Islamabad (2001)

10.The five pillars of Islam: A journey Through the Divine Acts of worship, Muhammad Mustafa al Azami

11.The five pillars of Islam: A framework of Islamic values and character building, MusharafHussain

12.Towards understanding Islam, Abu al'laMoudodi

13اسلامی نظریہ حیات، خورشید احمد

14اسلامیات لازمی، ڈاکٹر محمد عرفان، ڈاکٹر حبیب الرحمان، مکتبہ البیت ، اسلام آباد

IDEOLOGY & CONSTITUTION OF PAKISTAN

GEN-3104   **CREDIT HRS: 2(2-0)**

Title	Description
Semester	1st
Course code	GEN.3104
No. of C.Hrs.	02
Teaching weeks	18
Course Objectives	• To develop vision of Historical Perspective, Government, Politics,Contemporary Pakistan, ideological background of Pakistan. • To study the process of governance, national development, issuesarising in the modern age and posing challenges to Pakistan. S

Course Outline

1. **Historical Perspective**

a. Ideological rationale with special reference to Sir Syed Ahmed Khan, Allama Muhammad Iqbal and Quaid-e-Azam Muhammad Ali Jinnah.

b. Factors leading to Muslim separatism

c. People and Land

d. Indus Civilization

e. Muslim advent

f. Location and Geo-Physical features.

2. **Government and Politics in Pakistan**

Political and constitutional phases:

a. 1947-58

b. 1958-71

c. 1971-77

d. 1977-88

e. 1988-99

f. 1999 onward

Recommended Books:

1. Burki, ShahidJaved. *State & Society in Pakistan,* the MacMillan Press Ltd 1980.

2. Akbar, S. Zaidi. *Issue in Pakistan's Economy.*Karachi: Oxford University Press, 2000.

3. S.M. Burke and Lawrence Ziring. Pakistan's Foreign policy: AnHistorical analysis. Karachi: Oxford University Press, 1993.

4. Mehmood, Safdar. *Pakistan Political Roots & Development.*Lahore, 1994.

5. Wilcox, Wayne. *The Emergence of Bangladesh.,* Washington: American Enterprise, Institute of Public Policy Research, 1972.

6. Mehmood, Safdar. *Pakistan KayyunToota,* Lahore: Idara-e- Saqafat-e-Islamia, Club Road, nd.

7. Amin, Tahir. *Ethno - National Movement in Pakistan,* Islamabad: Institute of Policy Studies, Islamabad.

8. Ziring, Lawrence. *Enigma of Political Development.*Kent England: WmDawson& sons Ltd, 1980.

9. Zahid, Ansar. *History & Culture of Sindh.*Karachi: Royal Book Company, 1980.

10. Afzal, M. Rafique. *Political Parties in Pakistan,* Vol.I, II & III. Islamabad: National Institute of Historical and cultural Research,1998.

11. Sayeed, Khalid Bin. *The Political System of Pakistan.*Boston: Houghton Mifflin, 1967.

12. Aziz, K.K. *Party, Politics in Pakistan,* Islamabad: National Commission on Historical and Cultural Research, 1976.

13. Muhammad Waseem, Pakistan under Martial Law, Lahore: Vanguard, 1987.

14. Haq, Noor ul. *Making of Pakistan: The Military Perspective.*Islamabad: National Commission on Historical and CulturalResearch, 1993.

GENERAL SCIENCE

GEN-3105   CREDIT HRS: 3(3-0)

Course Contents:

Unit I: Observations, Hypothesis, Theory

Unit II: Types of matter ,Atomic theory of Matter, Elements and Compounds, Mixtures and Solution, Force, Motion ,Speed, Velocity and Acceleration, Laws of Motion, Light and splitting of its into its color and various phenomena associated with light i.e. refraction :

Unit III: Energy and Work,Types of Energy , Conversion of Energy from one form to another, Law of conversation of energy :

Unit VI: Structure of animal and plant cell, Cell division, Cell Theory

Unit V: Blood circulatory system, Digestive system, Reproductive system , Execratory system

Unit VI: pH , Acid, ,Bases, Difference between metals and non metals ,Formulae of different compounds, Extraction of Metals from its or Alloys Rusting and corrosion ,

Unit VII: A brief description of planets of solar system

Lab:

- Finding pH of samples by using pH paper
- Studying the properties of acids and bases on the basis of their reaction with metals and nonmetals
- Experimentally show that carbon dioxide is given out during respiration
- Tracing the path of ray through prism
- Tracing the path of a ray of light through a slab .Measure angle of incidence and refraction
- Onion peel experiment

Reference Material:

Text books

- General Science text book for class 8th and 10th Punjab Text book Board Lahore
- **Recommended Books**
- Agha Khan University Examination Board (2002) General Science IX- X (based on National Curriculum 2002). Karachi: AGKEB. William Lewis
- Eikenberry (2008) The teaching of general science, The University of Chicago Press.

Course Objectives:
Objectives:

- Understand scientific concepts
- Differentiate between scientific products and scientific processes
- Understand the underlying principle of science education

Schedule for Quizzes and Final Exam:

- Quizzes will be normally announced atleast one day in advance, and may be given in lecture or in tutorial. Quizzes will usually be closed-book(some might be open-book) and will typically require about 10 minutes to complete. A student who misses a quiz for any reason will be assigned a score of zero for that quiz. There will be atleast two quizzes throughout the semester.
- Exams will be conducted on schedule announced by department.
- Midterm and terminal exam will be from the syllabus covered in the whole semester.
- The examinations will focus on understanding and applying the concepts taught in class and practiced in lab/tutorial exercises and assignments.

Grading Policy:
As per institution policy

Teaching Methodology:
Class room lectures on multimedia and whiteboard both, surprise quizzes can be at the start or end of lecture.

Attendance and Assignment Policy:
All students are expected to attend all lectures. Latecomers, coming in class after 10 minutes all be marked absent, must be on time.
Late assignment submission will result in negative marking. Copying will not be tolerated and will be dealt with very seriously.

Note:
Teacher reserves the right to change the lecture schedule, contents and assessment criteria based upon the class situation.

Details of lecture/Activities

Weeks	Lecture No	Topic of Lecture	Activity
1st	1	Introduction to Science	

	2	Observations 1.2. Hypothesis 1.3. Theory	
	3	**Demonstration of Finding pH of samples by using pH paper**	
2nd	4	Types of matter , Atomic theory of Matter	
	5	Elements and Compounds	
	6	**Demonstration of Finding pH of samples by using pH paper**	
3rd	7	Mixtures and Solutions	Assignment
	8	Force , Motion	
	9	**Performance Finding pH of samples by using pH paper**	
4th	10	Speed, Velocity and Acceleration	
	11	Laws of Motion	
	12	**Performance Finding pH of samples by using pH paper**	
5th	13	Light and its splitting into various colours	
	14	Refraction	
	15	Demonstration Studying the properties of acids and bases	
6th	16	Energy	
	17	Work	
	18	**Demonstration Studying the properties of acids and bases**	
	19	Conversion of Energy from one form to another	
7th	20	Types of Energy	
	21	Performance Studying the properties of acids and bases	
8th	22	Law of conversation of energy	Mid term exam

	23	Relation between work and energy	
	24	**Performance Studying the properties of acids and bases**	
9th	25	Structure of plant	
	26	Structure of animal cell	
	27	**Demonstration of Experimentally show that carbon dioxide is given out during respiration**	
10th	28	Cell division	
	29	Mitosis	
	30	**Demonstration of Experimentally show that carbon dioxide is given out during respiration**	
11th	31	Meiosis –I	Quiz
	32	Meiosis –II	
	33	**Performance of Experimentally show that carbon dioxide is given out during respiration**	
12th	34	Cell theory	
	35	Circulatory system ,	
	36	**Demonstration Tracing the path of ray through prism**	
13th	37	Digestive system,	
	38	Reproductive system	
	39	**Performance Tracing the path of ray through prism**	
14th	40	Execratory system	
	41	pH, acids ,bases	
	42	**Demonstration Onion peel experiment**	
15th	43	Metals and non metals	
	44	Extraction of metals	
	45	**Performance Onion peel experiment**	
16th	46	Alloys	

47	Rusting and corrosion	
48	Brief introduction to solar system	

GEN-3106 **ENTREPRENEURSHIP** **CREDIT HRS: 2(2-0)**

Objectives of the Course	To help the students to understand the fundamental concepts of entrepreneurship, focusing on developing an entrepreneurial mindset, recognizing opportunities, and understanding the key components of starting and managing a business.

Course Contents:

Unit I: Introduction to Entrepreneurship
- Definition of entrepreneurship and its significance
- Traits and characteristics of successful entrepreneurs
- Types of entrepreneurship: Small business vs. high-growth start-ups

Unit II: Entrepreneurial Mind-set and Creativity
- Developing an entrepreneurial mind-set
- Importance of creativity and innovation in entrepreneurship
- Techniques for fostering creativity and thinking outside the box

Unit III: Identifying Business Opportunities
- Recognizing market gaps and customer needs
- Market research and feasibility analysis
- Evaluating the potential of a business idea

Unit IV: Business Planning and Model
- Elements of a comprehensive business plan
- Business model canvas and lean startup approach
- Defining the value proposition and revenue streams

Unit V: Funding and Financial Management
- Sources of funding for startups (angel investors, venture capitalists, crowd funding)
- Budgeting, financial projections, and managing startup costs
- Financial management and sustainability strategies

Unit VI: Marketing and Sales Strategies

- Creating a marketing plan and target audience analysis

- Branding, digital marketing, and social media strategies

- Sales techniques and customer relationship management

Unit V: Legal and Regulatory Aspects
- Legal forms of business (sole proprietorship, partnership, corporation)

- Intellectual property protection and legal considerations

- Compliance with regulations and licensing requirements

Unit VI: Operations and Supply Chain Management
- Managing day-to-day operations and processes

- Supply chain management and vendor relationships

- Quality control and efficiency optimization

Unit VII: Growth Strategies and Scaling
- Strategies for business growth and expansion

- Challenges and opportunities in scaling a startup

- Internationalization and entering new markets

Unit VIII: Entrepreneurial Leadership and Ethical Considerations
- Leadership styles and characteristics of effective entrepreneurial leaders

- Ethical challenges in entrepreneurship and social responsibility

- Balancing profit goals with ethical decision-making

Recommended Books:

1. The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses" by Eric Ries
2. Entrepreneurship: Successfully Launching New Ventures" by Bruce R. Barringer and R. Duane Ireland
3. Disciplined Entrepreneurship: 24 Steps to a Successful Startup" by Bill Aulet
4. Zero to One: Notes on Startups, or How to Build the Future" by Peter Thiel with Blake Masters
5. The Art of Startup Fundraising: Pitching Investors, Negotiating the Deal, and Everything Else Entrepreneurs Need to Know" by Alejandro Cremades
6. Good to Great: Why Some Companies Make the Leap and Others Don't" by Jim Collins

SEMESTER III

ENGLISH-III (REPORT WRITING)   **COURSE CODE:ENG-211**   **CREDIT HOURS: 3**

Course Contents

Presentation Skills:
Meaning, Preparing a Presentation, Structuring the presentation, Problems of presentation, Preparing Content, Questions & Answers, Handling Problems during a Presentation, Important Presentation Pointers: During and After, handling problems during a presentation

Essay Writing:
Essay Writing: How to write a well-structured essays on different types such as: Descriptive, Narrative, Discursive and Argumentative and also be able to write a real life essay topics

Academic Writing
How to Write a Proposal for Research:
Students will be taught the principal rules and procedure for writing a proposal for research/term paper
How to write a Research/Term Paper:
Structuring a research paper, steps in writing a research paper, sources, checklist. Examples of Research Papers Introduction, Choose an interesting question, Be specific, Focus your thesis statement, Make your question challenging, Begin looking for sources to answer your question, Use a variety of sources to support your question, Refine your keyword searches, Take notes while you are reading, Create an outline for your paper and write your first draft, Write your final revision.

Technical Report Writing
Defining Technical writing, Types of technical reports, Characteristics of effective technical writing, Where to find material to write a technical report, Basic Technical Overview

Progress Report
Overview: Definition, What you need to write in a progress report, Content of a progress report –
1) Introduction 2) Work Status 3) Problems encountered 4) Conclusion ,

Reference Material
a) Essay Writing and Academic Writing
1. Writing. Advanced by Ron White. Oxford Supplementary Skills. Third Impression 1992. (Particularly suitable for discursive, descriptive, argumentative and report writing).
2. College Writing Skills by John Langan. Mc-Graw-Hill Higher Education. 2004.
3. Patterns of College Writing (4th edition) by Laurie G. Kirszner and Stephen R. Mandell. St. Martin's Press.
b) Presentation Skills
c) Reading:
The Mercury Reader. A Custom Publication. Compiled by norther Illinois University. General Editiors: Janice Neulib; Kathleen Shine Cain; Stephen Ruffus and Maurice Scharton.
(A reader which wikkl give students exposure to the best twentieth century literature, without

taxing the taste of engineering students)

Course Breakup

Week No	Lecture	Topics	Activity
Week 1	Lecture 1	Introduction to Presentation Skills	
	Lecture 2	Definition, Preparing a Presentation	
	Lecture 3	Structuring the presentation	
Week 2	Lecture 4	Problems of presentation	
	Lecture 5	Preparing Content	
	Lecture 6	Questions & Answers Session	
Week 3	Lecture 7	Handling Problems during a Presentation	Quiz# 01
	Lecture 8	Important Presentation Pointers: During and After	
	Lecture 9	Introduction to Essay Writing Basics	
Week 4	Lecture 10	How to write a Descriptive Essay Writing	Assignment# 01
	Lecture 11	How to write a Narrative Essay Writing	
	Lecture 12	How to write a Discursive Essay Writing	
Week 5	Lecture 13	How to write a Argumentative Essay Writing	
	Lecture 14	Writing a Descriptive Essay	
	Lecture 15	Writing a Narrative Essay	
Week 6	Lecture 16	Writing a Discursive Essay	Midterm Exam
	Lecture 17	Writing a Argumentative Essay	
	Lecture 18	How to write a Research Proposal (Introduction)	
Week 7	Lecture 19	Framework of the Research Proposal	
	Lecture 20	The introduction section of your proposal	
	Lecture 21	The method section of your proposal	
Week 8	Lecture 22	Research participants	
	Lecture 23	Design Section	
	Lecture 24	Apparatus and/or instruments	
Week 9	Lecture 25	Procedure Section	
	Lecture 26	The data analysis Section of your proposal	
	Lecture 27	How to write a Research Paper	

		(Introduction)	
Week 10	Lecture 28	Structuring a research paper,	Quiz # 02
	Lecture 29	steps in writing a research paper,	
	Lecture 30	Sources for writing a Research Paper, Checklist.	
Week 11	Lecture 31	Examples of Research Paper	Assignment # 02
	Lecture 32	Introduction Section of Research Paper	
	Lecture 33	Choose an interesting question, Be specific, Focus on your thesis statement,	
Week 12	Lecture 34	Make your question challenging, Begin looking for sources to answer your question,	
	Lecture 35	Use a variety of Sources to support your question, Refine your keyword searches, Take notes while you are reading,	
	Lecture 36	Create an outline for your paper and write your first draft, Write your final revision.	
Week 13	Lecture 37	Technical Report Writing (Introduction)	
	Lecture 38	Defining Technical writing,	
	Lecture 39	Types of technical reports,	
Week 14	Lecture 40	Characteristics of effective technical writing,	
	Lecture 41	Where to find material to write a technical report,	
	Lecture 42	Basic Technical Overview	
Week 15	Lecture 43	Progress Report (Introduction)	
	Lecture 44	Overview & Definition	
	Lecture 45	What you need to write in a progress report,	
Week 16	Lecture 46	Content of a progress report	
	Lecture 47	1) Introduction Section of your Progress Report	
	Lecture 48	2) Work Status Section of your Progress Report	
Week 17			Terminal Exam

STATISTICS I   **COURSE CODE:STA-212**   **CREDIT HOURS: 3**

Course outline
Chapter 1.   What is Statistics?

Introduction to Statistics
Key Statistical Concept
Practical Application
How managers use Statistics
Scope of Statistics
Limitations of Statistics
Measurement Scales
Concept of Error, Accuracy and Precision

Chapter 2.   Collection and Presentation of data

Types of Data
Collection of Primary and Secondary Data
Classification of Data and Types of Classifications
Presentation of Data
Frequency Distribution
Stem and Leaf Diagram
Graphical Techniques for Quantitative data
Histogram, Frequency Polygon, Ogive and Frequency Curve
Scatter diagrams, Pie Charts, Bar Charts and Line Charts

Chapter 3.   Numerical Descriptive Measures
Measures of Central Location
Characteristics of measure of central tendency
A.M, Median, Mode, G.M, H.M, weighted Mean, Quartiles, Deciles and Percentiles
Empirical relation between A.M, Median and Mode
Measures of Variability
Quartile Deviation, Mean Deviation, Range, Standard Deviation and Variance
Interpreting the Standard Deviation and Coefficient of Variation
Measures of Moments, Skewness and Kurtosis

Chapter 4.   Index Numbers
Introduction of Index Number
 Simple and Composite Index Numbers
 Main Steps in the Construction of Index Numbers of Cost of Living index and whole sale   Prices
Problems in the Construction of Index Numbers of whole sale   Prices
 Fixed Base Method and Chain Base Method
 Weighted Index Numbers (Laspeyre's index, Paassche's index, Dorbish and Bowley's index, Fisher and Marshall Index, Walsch's index and kelly's index)
Unweighted Index Numbers (Simple Aggregative and Simple average of relative methods)
 Quantity Index Numbers
Test of Adequacy of Index Number
Deflating, Base Shifting and Splicing of Index Number
Uses and limitation of Index Number

Chapter 5.   Simple Regression and Correlation
Simple Regression
Deterministic and Probabilistic Models

Simple Linear Regression Model
Standard Deviation of Regression Estimate Correlation
Pearson Product Moment Correlation Coefficient and Rank Correlation method
Coefficient of Determination
Correlation and causation
properties of OLS estimator

Chapter 6.   Multiple Regression and Multiple Correlation
Multiple Regression and Multiple Correlation
Partial Correlation AND MULTIPLE coefficient of determination

Chapter 7.   Probability
Introduction
Assigning Probabilities to events
Conditional Probability
Rules of Probability
Events and its types
Independent and Dependent Events
Baeye's Theorem
concept of combination and permutation

Chapter 8.   Random Variables and Probability Distributions
Introduction of Random Variables
Mathematical Expectation and some important laws concerning Expectation
Distribution Function
Discrete and Continuous Random Variables and its Density   Functions
Binomial and Poisson probability Distributions
Normal Probability Distribution

Reference Material

- Introduction to Statistical Theory, Part 1, by Prof. Sher Muhammad   Chaudhry.(2009 Edition)
- Basic Statistics for Business and Economics by EARLK. BOWN AND MARTIN STARR
- Introduction to Business Statistics 2004 Edition, Shamim Khan, Research and Development Center Peshawar
- Spiegel, M.R. Schiller, J.L and Sirinivasan, R.L. (2000) "Probability and Statistics" 2nd ed. Schaums Outlines Series. McGraw Hill. N.Y.
- Business Statistics by Padmalochan Hazarika

Course Breakup

Week No	Lecture	Topics	Activity

Week 1	Lecture 1	Introduction to Statistics Key Statistical Concept Practical Application	
	Lecture 2	How managers use Statistics Scope of Statistics Limitations of Statistics	
	Lecture 3	Measurement Scales Concept of Error, Accuracy and Precision	
Week 2	Lecture 4	Types of Data Collection of Primary and Secondary Data Classification of Data and Types of Classifications	
	Lecture 5	Presentation of Data Frequency Distribution	
	Lecture 6	Stem and Leaf Diagram	
Week 3	Lecture 7	Graphical Techniques for Quantitative data	Quiz# 01
	Lecture 8	Histogram, Frequency Polygon, Ogive and Frequency Curve	
	Lecture 9	Scatter diagrams, Pie Charts, Bar Charts and Line Charts	
Week 4	Lecture 10	**Measures of Central Location** Characteristics of measure of central tendency A.M	Assignment# 01
	Lecture 11	Median, Mode,	
	Lecture 12	G.M, H.M,	
Week 5	Lecture 13	Quartiles, Deciles and Percentiles	
	Lecture 14	Continue	
	Lecture 15	weighted Mean, Combined Mean Empirical relation between A.M, Median and Mode	
Week 6	Lecture 16	**Measures of Variability and its types**	Midterm Exam
	Lecture 17	Quartile Deviation, Range	
	Lecture 18	Mean Deviation	
Week 7	Lecture 19	Standard Deviation and Variance	
	Lecture 20	Interpreting the Standard Deviation and Coefficient of Variation	
	Lecture 21	Absolute Measure Dispersion	
Week 8	Lecture 22	Measures of Moments	
	Lecture 23	Skewness and Kurtosis	
	Lecture 24	**Cont…**	
	Lecture 25	Introduction of Index Number	

Week 9		Simple and Composite Index Numbers Main Steps in the Construction of Index Numbers of Cost of Living index and whole sale Prices Problems in the Construction of Index Numbers of whole sale Prices	
	Lecture 26	Fixed Base Method and Chain Base Method	
	Lecture 27	Weighted Index Numbers (Laspeyre's index, Paassche's index, Dorbish and Bowley's index, Fisher and Marshall Index, Walsch's index and kelly's index)	
Week 10	Lecture 28	Unweighted Index Numbers (Simple Aggregative and Simple average of relative methods) Quantity Index Numbers	Quiz # 02
	Lecture 29	Test of Adequacy of Index Number	
	Lecture 30	Deflating, Base Shifting and Splicing of Index Number	
Week 11	Lecture 31	Simple Regression Deterministic and Probabilistic Models Simple Linear Regression Model	Assignment # 02
	Lecture 32		
	Lecture 33	Standard Deviation of Regression Estimate Correlation Difference Correlation and causation	
Week 12	Lecture 34	Pearson Product Moment Correlation Coefficient and Rank Correlation method	
	Lecture 35	Pearson Product Moment Correlation Coefficient and Rank Correlation method	
	Lecture 36	Coefficient of Determination and Properties of OLS estimators	
Week 13	Lecture 37	Multiple Regression and Multiple Correlation	
	Lecture 38	Partial Correlation and multiple coefficient of determination	
	Lecture 39	**Probability** Introduction Events ant its types	
Week 14	Lecture 40	Conditional Probability	
	Lecture 41	Assigning Probabilities to events	
	Lecture 42	Conditional Probability	
	Lecture 43	Baeye's Theorem and concept of	

		combination and permutation	
Week 15	Lecture 44	**Random Variables and Probability Distributions**	
	Lecture 45	Mathematical Expectation and some important laws concerning Expectation	
Week 16	Lecture 46	Distribution Function, Discrete and Continuous Random Variables and its Density Functions	
	Lecture 47	Binomial and Poisson probability Distributions	
	Lecture 48	Normal Probability Distribution	
Week 17			Terminal Exam

INTERMEDIATE MICROECONOMICS   **COURSE CODE: ECO-213**   **CREDIT HOURS: 3**

Course Contents

An introduction to Economic models optimization techniques

Theoretical models, Production possibility frontier, Maximization of function of one variable Functions of several variables, Constrained maximization ,Homogeneous functions

Consumer theory preferences and utility maximization

Axioms of rational choice, Utility, Indifference curves and marginal rate of substitution

Utility functions for specific preferences, Utility maximization: optimization principle

Indirect utility function, Lump sum principle , Expenditure minimization properties of expenditure functions

Income and substitution effects Demand relationship among goods

Demand functions, Changes in income ,Changes in goods price ,Individual demand curve

Compensated demand curve , Mathematical development response to price changes Demand elasticity, Consumer surplus revealed preferences, Substitutes and compliments Substitutability with many goods composite commodities, home production , attributes of goods and implicit prices

Production function

Marginal productivity, Iso quant maps and the rate of technical substitution Returns to scale, The elasticity of substitution , Four simple production functions Technical progress

Cost function

Definitions of cost , Cost minimization input choices , Cost functions Cost functions and the shifts in the cost curves , Short run long run distinction

Profit maximization

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

Analysis of competitive markets

Market demand , Timing of supply response , Pricing in the very short run , Short run price determination , Shifts in supply and demands curve , Mathematical model of market equilibrium , Long run equilibrium : constant cost case , Comparative statics : analysis of long run equilibrium

Monopoly monopoly and price discrimination and models of monopoly

Barriers to enter, Profit maximization and output choice, Monopoly and resource allocation

Monopoly, product quality and durability, Price discrimination, Second degree price discrimination through price schedules , Regulation of monopoly, Dynamic views of monopoly

Oligopoly Pricing under homogeneous oligopoly , Product differentiation , Entry

Game theory

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

Recommended Text

Nicholson, W (2005)   Microeconomic theory Basic Principles And Extensions, ninth edition , Thomson south western.

 Pindyck, R. and D.Rubinfeld and   MEHTA (2009) Microeconomics, Seventh Edition, PEARSON

Varian, H.(2006) ,Intermediate Microeconomics :A Modern Approach , seventh edition ,Norton ,London .

Perloff, J. (2007), Microeconomics, fourth edition ,Pearson, Boston.

Course Breakup

Week	Lecture No	Topics	Activity
Week 1	Lecture 1	**An introduction to Economic models optimization techniques**	
	Lecture 2	Theoretical models, Production possibility frontier,	

	Lecture 3	Maximization of function of one variable	
Week 2	Lecture 4	Functions of several variables, ,	
	Lecture 5	Constrained maximization	
	Lecture 6	Homogeneous functions	
Week 3	Lecture 7	**Consumer theory preferences and utility maximization** Axioms of rational choice, Utility,	Quiz# 01
	Lecture 8	Indifference curves	
	Lecture 9	marginal rate of substitution	
Week 4	Lecture 10	Utility functions for specific preferences	Assignment 01
	Lecture 11	,Utility maximization:optimization principle	
	Lecture 12	Cont……	
Week 5	Lecture 13	Indirect utility function	
	Lecture 14	Lump sum principle	
	Lecture 15	Expenditure minimization properties of expenditure functions	
Week 6	Lecture 16	**Income and substitution effects Demand relationship among goods** Demand functions, Changes in income	Midterm Exam
	Lecture 17	Changes in goods price ,Individual demand curve	
	Lecture 18	Compensated demand curve	
Week 7	Lecture 19	Mathematical development response to price changes Demand elasticity	
	Lecture 20	Consumer surplus revealed preferences,	
	Lecture 21	Substitutes and compliments Substitutability with many goods composite commoditie	
Week 8	Lecture 22	Cont….	

	Lecture 23	home production , attributes of goods and implicit prices	
	Lecture 24	**Production function** Marginal productivity, Iso quant maps and the rate of technical substitution	
Week 9	Lecture 25	Returns to scale	
	Lecture 26	The elasticity of substitution	
	Lecture 27	Four simple production functions Technical progress	
Week 10	Lecture 28	**Cost function** Definitions of cost , Cost minimization input choices	Quiz # 02
	Lecture 29	Cost functions, Cost functions and the shifts in the cost curves ,	
	Lecture 30	Short run long run distinction	
Week 11	Lecture 31	**Profit maximization** The nature and behavior of firms	Assignment # 02
	Lecture 32	Profit maximization, Marginal revenue	
	Lecture 33	Short run supply by a price taking firm Profit functions ,	
Week 12	Lecture 34	Profit maximization and input demands	
	Lecture 35	**Analysis of competitive markets** Market demand , Timing of supply response	
	Lecture 36	Shifts in supply and demands curve	
Week 13	Lecture 37	Comparative statics : analysis of long run equilibrium	
	Lecture 38	Mathematical model of market equilibrium	
	Lecture 39	Long run equilibrium : constant cost case	
Week 14	Lecture 40	Monopoly and resource allocation Monopoly, product quality and durability	
	Lecture	Price discrimination, Second degree price discrimination	

	41	through price schedules	
	Lecture 42	Regulation of monopoly, Dynamic views of monopoly	
Week 15	Lecture 43	**Oligopoly** Pricing under homogeneous oligopoly	
	Lecture 44	Product differentiation , Entry	
	Lecture 45	**Game theory** Basic concepts , Nash equilibrium , Existence of Nash equilibrium	
Week 16	Lecture 46	The prisoners dilemma , A two period game	
	Lecture 47	Pricing in static games , Entry exit and strategy	
	Lecture 48	Games of incomplete information	
Week 17			Terminal Exam

DEVELOPMENT ECONOMICS   COURSE CODE: ECO-214   CREDIT HOURS: 3

Course Contents

An overview of Development:

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

Domestic problems and Policies:

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

International problems and Policies:

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

Markets and Development:

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

Institutions and Development:

What are institutions, how do they facilitate or hinder economic development? The political economy, democracy vs dictatorship, decentralization, good governance, corruption, rent seeking, ethnic conflict, gender inequality, voting and lobbying, the role of civil society.

Recommended Text

Todaro, M.P and S.C Smith Economic Development, 11th edition (2011)

Sokoloff, K. and S. Engerman (2000), "History Lessons: Institutions, Factor Endowments, and Paths of Development in the New World," Journal of Economic Perspectives.

Acemoglu, D., Johnson, S. and J. Robinson (2001), "The Colonial Origins of Comparative Development: An Empirical Investigation," American Economic Review.

S. Anderson and D. Ray (2010), "Missing Women: Age and Disease," Review of Economic Studies.

K. Munshi and J. Myaux (2006), "Social Norms and the Fertility Transition," Journal of Development Economics.

Course Breakup

Week No	Lecture	Topics	Activity
	Lecture 1	Historical experiences of developing countries	
	Lecture 2	Broad conceptual	

Week 1		explanation of underdevelopment	
	Lecture 3	Comparative economic development	
Week 2	Lecture 4	Emerging major issues of developing world	
	Lecture 5	Basic theories of growth and development	
	Lecture 6	Cont…	
Week 3	Lecture 7	Cont…	Quiz# 01
	Lecture 8	Cont…	
	Lecture 9	Basic contemporary models of underdevelopment /development	
Week 4	Lecture 10	Cont…	Assignment# 01
	Lecture 11	Cont…	
	Lecture 12	Cont…	
Week 5	Lecture 13	Cont…	
	Lecture 14	Cont…	
	Lecture 15	The nexus of poverty	
Week 6	Lecture 16	Inequality and underdevelopment	Midterm Exam
	Lecture 17	The distribution of wealth and resources	
	Lecture 18	Poverty and nutrition	
Week 7	Lecture 19	Demographic transition	
	Lecture 20	Population growth its causes and consequences	
	Lecture 21	Rural-urban migration	
Week 8	Lecture 22	Its causes and consequences	
	Lecture 23	Human capital,education,health and development	
	Lecture 24	Agriculture and rular development	
Week 9	Lecture 25	Wars and conflicts	
	Lecture 26	Environment and natural resources	
	Lecture 27	Sustainable development	
	Lecture 28	Trade /access to factor	

Week	Lecture	Topic	
Week 10		and product markets and development	Quiz # 02
	Lecture 29	Balance of payment and its problems	
	Lecture 30	Stabilization policies	
Week 11	Lecture 31	International shocks	Assignment # 02
	Lecture 32	Migration and remmittances	
	Lecture 33	The role of markets in development	
Week 12	Lecture 34	Credit financing	
	Lecture 35	SME's industrial and trade policies	
	Lecture 36	Land labor and agriculture livestock	
Week 13	Lecture 37	Market failure and government intervention	
	Lecture 38	Stabilization policies	
	Lecture 39	What are institutions	
Week 14	Lecture 40	How do they facilitate economic development	
	Lecture 41	The political economy	
	Lecture 42	Democracy vs decentralization	
Week 15	Lecture 43	Good governance	
	Lecture 44	Corruption	
	Lecture 45	Rent seeking	
Week 16	Lecture 46	Ethnic conflict	
	Lecture 47	Gender inequality	
	Lecture 48	The role of civil society	
Week 17			Terminal Exam

SEMESTER V

ADVANCE MICROECONOMIC   **COURSE CODE: ECO-311**   **CREDIT HOURS: 03**

Course Contents
Theory of Consumption and Demand

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

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

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

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

Recommended Text
Nicholson, Walter - Microeconomic Theory: Basic Principles and Extensions- 8 th Edition (2002) or latest -Thomson & Learning Inc. • Henderson &Quandt - Microeconomic Theory: A Mathematical Approach- • 3 rd Edition (1980)– McGraw Hill International • Silberberg, E. &Suen, W.- The Structure of Economics: A Mathematical Analysis3 rd Edition (2001) – McGraw Hill International • Layard& Walters – Microeconomic Theory- (1978) – McGraw Hill Book Company.

• Perloff, Jeffrey – Microeconomics – (1999) - Addison Wesley Longman, Inc. •
Pindyck&Rubinfeld – Microeconomics- 6 th Edition (2004) – Pearson Education Asia

Course Breakup

Week No	Lecture	Topics	Activity
Week 1	Lecture 1	The Theory of Consumption and Demand Axioms of Rational Behavior	
	Lecture 2	, The utility function and budget line, Constrained	
	Lecture 3	optimization and the Lagrange function,	
Week 2	Lecture 4	Utility maximization and ordinary functions,	
	Lecture 5		
	Lecture 6	Cont…	
Week 3	Lecture 7	(Marshallian) demand Cost minimization and compensated (Hicksian) demand functions	Quiz# 01
	Lecture 8	Cont…	
	Lecture 9	The inter-relationship between ordinary and compensated demands,	
Week 4	Lecture 10	Cont…	Assignment # 01
	Lecture 11	The indirect utility function and expenditure function,	
	Lecture 12	Cont…	
Week 5	Lecture 13	Homogeneity of demand function Elasticity of Demand,	
	Lecture 14	Cont…	
	Lecture 15	Euler's relation and demand elasticities	
Week 6	Lecture 16	Engel's Law and income elasticity, Impact of a price change on demand,	Midterm Exam
	Lecture 17	Cont…..	
	Lecture 18	Bifurcation of the price effect into income and substitution effects	
Week 7	Lecture 19	**Cont..**	
	Lecture 20	The Slutsky Equation derivation and interpretation,	

	Lecture 21	Con…	
Week 8	Lecture 22	Gross and net substitutes, Classification of goods: Normal, Inferior and Giffen goods,	
	Lecture 23	Con…	
	Lecture 24	Clarification of the concepts by using Cobb-Douglas and CES utility functions.	
Week 9	Lecture 25	**Cont…**	
	Lecture 26	**The Theory of Production and Supply**	
	Lecture 27	**The Production function** Properties of, : components, different forms,	
Week 10	Lecture 28	Cont…	Quiz # 02
	Lecture 29	Cobb-Douglas and CES production functions	
	Lecture 30	The iso-quant and its slope, The marginal rate of technical substitution, Diminishing MRTS and convexity of iso-quant	
Week 11	Lecture 31	Cont..	Assignment # 02
	Lecture 32	The cost function in relation to production function	
	Lecture 33	Relationship between Average and Marginal cost functions, The short-run marginal cost and supply function,	
Week 12	Lecture 34	Relationship between the short-run and longrun average cost functions,	
	Lecture 35	Relationship between marginal revenue and marginal cost functions, Equilibrium of the firm in the short and long run,	
	Lecture 36	The role of technical progress and shifting of production function overtime. Demand for variable factors, Expansion path and returns to scales, Elasticity of substitution	
Week 13	Lecture 37	**Market Structures and Price Determination** Critical appraisal of the competitive market assumptions, Efficiency of competitive market,	
	Lecture	Factors responsible for shifting of demand	

	38	and supply functions overtime and impact on price	
	Lecture 39	, Govt. intervention in the market: price and quantity restriction and impact of taxation on price and consumer's surplus	
Week 14	Lecture 40	The imperfect competition: Monopoly and Monopsony, Duopololy and Oligopoly, Monopolistic competition The economic cost of imperfect competition, Elasticity of demand and Lerner index of market power	
	Lecture 41	The case of public utilities and marginal cost pricing, Natural monopolies and the global markets, The multinational corporations, Introduction to: Game theory	
	Lecture 42	and strategic behaviour, Market with uncertainty and imperfect information	
Week 15	Lecture 43	**General Equilibrium and Welfare Economics** The concept of efficiency and welfare, Conditions of allocative efficiency: consumption, production and product mix, ,	
	Lecture 44	Theorems of optimality/welfare, The efficiency of competitive market system,	
	Lecture 45	, Equity and efficiency trade off, Partial versus general equilibrium	
Week 16	Lecture 46	The pure exchange economy, Two sector economy (consumption and production),	
	Lecture 47	Diagrammatic approach: The Edgworth Box, Production possibility frontier and Social indifference curve	
	Lecture 48	Introduction to computation of general equilibrium in a 2x2x2 (two consumers, two sectors/ commodities, two factors) economy	
Week 17			Terminal Exam

ECONOMETRICS-I   **COURSE CODE: ECO-312**   **CREDIT HOURS: 3**

Course Contents:
  Introduction

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

The Classical Linear Regression Model (CLRM) The Simple Two- Variable Model

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

The Multiple Linear Regression Model (MLRM)

Multiple Regression Analysis, Difference between simple and multiple regression analysis, Interpretation of multiple regression function, Multiple Regression Analysis: Estimation, OLS estimation of multiple regression equation, Standard error of partial regression coefficients, Properties of OLS estimators, Coefficient of determination (R2), R2 and Adjusted R2 , Multiple Regression Analysis: Inference, Test of individual significance (t-test), Test of overall significance (F-test) Multiple Regression Function: Extensions, Testing the equality of parameters, Testing linear equality restriction, Testing for structural stability of regression models: The Chow test

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

(i) **Multicollinearity**
Linear relationship between any two explanatory variables, Nature and severity of the problem, OLS estimation of regression equation in the presence of perfect multicollinearity, Causes of multicollinearity, Distinction between perfect and partial

Multicollinearity, Detection of the problem and remedial measures.

(ii)   Heteroskedasticity

Meaning of Heteroskedasticity, The nature of the problem with reference to economic theory, Cross-section data and the problem of non-constant variances, Consequences for OLS estimators, Detection of the problem and remedial measures in brief, Introduction to the Generalized Least-Squares model (GLS).

(iii)   Autocorrelation

Autocorrelation and its causes, Time-series data and emergence of the problem with reference to economic theory, Serial Correlation, The AR(1) process, Consequences of Autocorrelation for OLS estimators, Detection of the problem and remedial measures. Recent Development

Reference Material:

- Gujrati, D.J. - Basic Econometrics – 4th Edition (2003)- McGraw Hill Company.

- Dougherty, Christopher – Introduction to Econometrics – 2nd edition (2002) Oxford University Press.

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

- Wonnacot & Wonnacot –Econometrics – 2nd Edition (1970)-John Wiley, New York.

- Pindyck & Rubinfeld- Econometric Models & Economic Forecasts- 3rd Edition (1992)- McGraw Hill Inc.

- Maddala, G.S. – Econometrics - (1988) - McGraw Hill Company.

- Stock H. J. and M. W. Watson (2003), Introduction to Econometrics, India: Pearson Education.

Stewart G. K. (2005), Introduction to Applied Econometrics, United States of America: Curt Hinrichs.

Course Breakup

Week	Lecture No	Topic	Activity
Week 1	Lecture 1	Definition and scope of Econometrics, Economic theory as the basis for empirical analysis, Mathematical and Econometric models,	
	Lecture 2	Application of Statistical techniques to Economic data,	
	Lecture 3	Ingredients of Econometric modeling: Specification, Estimation, Evaluation and Forecasting.	
Week 2	Lecture 4	Data Types and Sources, Cross-sectional data,	

	Lecture 5	time-series data and pool data, Data at current and constant prices,	
	Lecture 6	Sources of data.	
Week 3	Lecture 7	Simple Regression function, population and regression function,	**Quiz # 01**
	Lecture 8	linear regression function: linearity in variables and linearity in parameters,	
	Lecture 9	Simple Regression Analysis: Estimation, Method of Ordinary Least Squares (OLS),	
Week 4	Lecture 10	Estimation of regression equation using OLS, Standard error of estimates,	**Assignment# 01**
	Lecture 11	Numerical properties of OLS estimators, Statistical properties of OLS estimators (BLUE), Classical Linear Regression Model (CLRM), Assumptions of CLRM, Estimation of the coefficient of determination,	
	Lecture 12	Interval estimation of regression coefficients, Classical Normal Linear Regression Model (CNLRM), Difference between CLRM and CNLRM, Properties of OLS estimates under CNLRM,	
Week 5	Lecture 13	Simple Linear Regression Analysis: Inference,	
	Lecture 14	Confidence interval approach for regression coefficients,	
	Lecture 15	Test of significance approach for regression coefficients	
Week 6	Lecture 16	Analysis of variance (ANOVA)	**Midterm Exam**
	Lecture 17	Test of the overall significance of the model, Simple Linear Regression Analysis:	
	Lecture 18	**COnt…….**	
Week 7	Lecture 19	Extensions, Regression through the origin, Scaling and	

		measurement of variables,	
	Lecture 20	Regression on standardized variables Functional Forms of Regression Function, Log linear models,	
	Lecture 21	Cobb Douglas production function Log-Lin models, The constant growth model, Estimating the growth rate, Lin-Log models, Engel curve, Reciprocal models	
Week 8	Lecture 22	Multiple Regression Analysis, Difference between simple and multiple regression analysis, Interpretation of multiple regression function,	
	Lecture 23	Multiple Regression Analysis: Estimation,	
	Lecture 24	OLS estimation of multiple regression equation, Standard error of partial regression coefficients,	
Week 09	Lecture 25	Multiple Regression Function: Extensions, Testing the equality of parameters,	
	Lecture 26	Testing linear equality restriction, Testing for structural stability of regression models:	
	Lecture 27	The Chow test, Properties of OLS estimators,	
Week 10	Lecture 28	Coefficient of determination (R2), R2 and Adjusted R2	
	Lecture 29	Multiple Regression Analysis: Inference, Test of individual significance (t-test),	**Quiz # 02**
	Lecture 30	Test of overall significance (F-test)	
Week 11	Lecture 31	Assumptions of the classical model and economic reality,	
	Lecture 32	Relaxation of the assumptions and estimation issues,	**Assignment# 02**
	Lecture 33	Brief introduction to the nature of problems and alternatives.	

Week 12	Lecture 34	Linear relationship between any two explanatory variables, Nature and severity of the problem,	
	Lecture 35	OLS estimation of regression equation in the presence of perfect multicollinearity, Causes of multicollinearity,	
	Lecture 36	Distinction between perfect and partial Multicollinearity, Detection of the problem and remedial measures.	
Week 13	Lecture 37	Meaning of Heteroskedasticity, The nature of the problem with reference to economic theory,	
	Lecture 38	Cross-section data and the problem of non-constant variances, Consequences for OLS estimators,	
	Lecture 39	Detection of the problem and remedial measures in brief, Introduction to the Generalized Least-Squares model (GLS).	
Week 14	Lecture 40	Autocorrelation and its causes,	
	Lecture 41	Time-series data and emergence of the problem with reference to economic theory,	
	Lecture 42	Serial Correlation,	
Week 15	Lecture 43	The AR(1) process,	
	Lecture 44	Consequences of Autocorrelation for OLS estimators,	
	Lecture 45	(Continued) Consequences of Autocorrelation for OLS estimators,	
Week 16	Lecture 46	Detection of the problem and remedial measures.	
	Lecture 47	(Continued) Detection of the problem and remedial measures.	
	Lecture 48	Recent Development	
Week17			**Terminal Exam**

MATHEMATICAL ECONOMICS 1   COURSE CODE: ECO-313   CREDIT HOURS: 3

Course Contents

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

Equilibrium Analysis

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

Linear Models and Matrix Algebra

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

Differentiation

The concept of derivations, Functions of one variable and rules of differentiation: Sumdifference, product and quotient rules, chain rule, power function rule, inverse function rule, Implicit functions rule, Combinations of rules, differentiation of logarithmic & exponential functions, Higher order derivatives, Concept of maxima & minima, First and second derivative tests, point of inflection, Free and Constrained optimization, Partial differentiation & its rules, Hessian and Jacobian determinants, Higher order & cross partial derivatives (Young's theorem), Total differentials & total derivatives, Optimizing cubic functions.

Economic Applications of Differential Calculus

Analysis of Utility, Demand, Production, Cost and Supply functions, Lagrange function: Profit maximization and cost minimization under perfect competition and monopoly, Maximizing excise tax revenue in monopolistic competitive market, Comparative static analysis: Partial equilibrium market model, National Income model, Partial and Substitution elasticity's, Optimization of unconstrained functions and their economic applications, Profit maximization by a multi-product

and multi-plant firms, Price discrimination and monopoly, Optimization by using Cobb- Douglas, CES and Translog functions with interpretation of the results.

Linear Programming

Ingredients of linear Programming, Graphical approach, Simplex method, Economic application of linear programming, Concept of primal & dual, Duality theorems, Solving of Primal via dual, Economic interpretation of a dual.

Referance Material

Chaing, Alpha, C. (2004), "Fundamental Methods of Mathematical Economics", 4th edition, McGraw Hill. Additional Reading Budnick, Frank.S. (2001), "Applied Mathematics for Business Economics and Social Sciences", Useful Websites en.wikipedia.org/wiki/Mathematical economics www.cumbavac.org/Math.htm

Course Breakup

Week No	Lecture	Topics	Activity
Week 1	Lecture 1	Introduction: Nature of Mathematical Economics	
	Lecture 2	Ingredients of Mathematical model:	
	Lecture 3	, Parameters, constants and variables.	
Week 2	Lecture 4	Classification of nos. and Real number system.	
	Lecture 5	The concept of set ordered pairs and Cartesian product.	
	Lecture 6	Function and Relation. Types of functions —Linear, Quadratic, Hyperbolic, Logarithmic and Exponential functions.	
Week 3	Lecture 7	. Graphic representation and the idea of domain and range. Equations and identities simultaneous equations	Quiz# 01
	Lecture 8	Equilibrium Analysis in Economics: Partial market equilibrium—.	
	Lecture 9	liner model partial market equilibrium,	
Week 4	Lecture 10	nonlinear model. General market equilibrium.	Assignment# 01
	Lecture 11	National income equilibrium,	
	Lecture 12	IS and LM equation	
Week 5	Lecture 13	Liner Algebra: Linear algebra vector and matrix, types of matrices, Solution of system of linear equations, Cramers rule for	

		matrix solution, matrix inversion method, application of matrices in economics. Input—output analysis	
	Lecture 14	matrix operations addition, subtraction	
	Lecture 15	. scalar multiplication and multiplication of matrix, transpose and its properties.	
Week 6	Lecture 16	Laws of matrix, operations—cumulative, associative and distributive laws, rank of a matrix	
	Lecture 17	Determinants and their properties, minors and cofactors,	
	Lecture 18	Laplace expansion matrix, inversion, Gaussain elimination, properties of inverse matrix.	
Week 7	Lecture 19	Comparative Static and Derivatives: The derivative and the slope of variable. .	
	Lecture 20	. The concept of limit. Limit theorems.	
	Lecture 21	The derivative and the rule of differentiation	
Week 8	Lecture 22	Differentiation of function involving more than one choice	
	Lecture 23	curve Continuity and differentiability of a function..	
	Lecture 24	Jacobian determinant. Partial and higher order partial derivatives	
Week 9	Lecture 25	Differentials and total derivatives.	
	Lecture 26	logarithmic function. Applications of derivatives in economics	
	Lecture 27	Total, average and marginal relationships.	
Week 10	Lecture 28	Elasticities production functions and their average and marginal products.	Quiz # 02
	Lecture 29	**Cont..**	
	Lecture 30	Returns to scale. Cobb—Douglas production functions	
Week 11	Lecture 31	**Cont**	Assignment # 02
	Lecture 32	the constant elasticity's of substitutions production functions	
	Lecture 33	**Cont..**	

Week 12	Lecture 34	and the constant elasticity's of substitutions production functions	
	Lecture 35	**Cont..**	
	Lecture 36	Problems of Optimization: and minimum.. First,	
Week 13	Lecture 37	Optimum values and extreme values. Relative maximum	
	Lecture 38	Point of inflection	
	Lecture 39	second and higher derivatives test	
Week 14	Lecture 40	Nth – derivative,	
	Lecture 41	**Cont..**	
	Lecture 42	**Cont..**	
Week 15	Lecture 43	**Cont..**	
	Lecture 44	test for relative extreme of a function of one variable.	
	Lecture 45	Ingredients of linear Programming dual.	
Week 16	Lecture 46	, Graphical approach,	
	Lecture 47	Simplex method, Economic application of linear programming,	
	Lecture 48	Concept of primal & dual, Duality theorems, Solving of Primal via dual, Economic interpretation of dual	
Week 17			Terminal Exam

INTERNATIONAL TRADE POLICY   COURSE CODE: ECO-411   CREDIT HOURS: 3

Course Outline:
Free Trade versus protected Trade

Free trade; meaning: The case for free trade The case against free trade The case against free trade, Protection; meaning: arguments for protection Meaning and types of tariff Effects of tariff under partial equilibrium. Effects of tariff under general equilibrium

Optimum tariff and welfare Effects of a tariff on income distribution import quota

Meaning and types of import quota Effects of import quotas The equivalence of tariff and quotas Import quota vs. tariff Meaning; objectives of exchange control Direct methods; indirect methods, Merits and demerits of exchange control

International economic integration

Types of integration Merits and demerits of Economic integration,

Custom Union
Theories of custom union, The partial equilibrium approach, The general equilibrium approach, Dynamic effects of custom union

Balance of Payments:
Introduction to balance of payment; meaning and structure, balance of payments accounts; theories of balance of payments; Introduction to IMF and World Bank. Meaning; arguments for and against Measures to overcome balance of payment difficulties Export promotion vs. import substitution
Foreign trade and economic development
Introduction and importance Arguments in favor of trade and development Its criticism, Commercial policy and economic development

International Institutions Promoting Trade
GATT, UNCTAD, WTO. SAARC. Economic cooperation among LDCs, Asian Development Bank Origin; its objectives its membership, Generalized System of Preferences

- **Reference Material:**
  - Dominick Salvatore "International Economics", 10thedition 2009
    Krugman, Paul R "International Economics; Theory and Policy"
    8th edition 2008
    Mannan M.A. - (1996) - Financing Development in Islam - IRTI,
    Islamic Development Bank, Jeddah.

Course Breakup

Week	Lecture .	Topic	Activity
Week 1	Lecture 1	- Free Trade versus protected Trade Free trade; meaning: The case for free trade	
	Lecture 2	- The case against free trade	
	Lecture 3	- Protection; meaning: - arguments for protection: - Economic arguments for protection	

Week 2	Lecture 4	• Non-economic arguments for protection	
	Lecture 5	• Meaning and types of tariff.	
	Lecture 6	• Effects of tariff under partial equilibrium	
Week 3	Lecture 7	• Effects of tariff under general equilibrium	
	Lecture 8	• Optimum tariff and welfare Effects of a tariff on income distribution	
	Lecture 9	• Effects of tariffs in a large country	**Quiz # 01**
Week 4	Lecture 10	• Effects of tariffs in a small country	**Assignment# 01**
	Lecture 11	• Optimum tariff and welfare effects of a tariff on income distribution: The Stopler Samuelson Theorem	
	Lecture 12	• Meaning and objectives of import Quotas • Effects of import quotas: partial equilibrium analysis	
Week 5	Lecture 13	• The equivalence of tariff and quotas Import quota vs. tariff	
	Lecture 14	• Meaning; objectives of exchange control • Direct methods; indirect methods,	
	Lecture 15	• Merits and demerits of exchange control •	
Week 6	Lecture 16	• International economic integration • Types of integration	**Midterm Exam**
	Lecture 17	Merits of Economic integration, demerits of Economic integration	
	Lecture 18	Cont……	
Week 7	Lecture 19	• Custom Union • Theories of custom union,	
	Lecture 20	• The Theory of the Second Best	
	Lecture 21	• Other Static Welfare Effects of Customs Unions	
Week 8	Lecture 22	• The partial equilibrium approach,	

	Lecture 23	• The general equilibrium approach,	
	Lecture 24	• Dynamic effects of custom union	
Week 09	Lecture 25	• Balance of Payments: Introduction to balance of payment and balance of trade;	
	Lecture 26	• meanings and differences between (B.O.P&B.O.T)	
	Lecture 27	. accounts balance of payments	
Week 10	Lecture 28	theories of balance of payments	**Quiz # 02**
	Lecture 29	Cont……	
	Lecture 30	• Introduction to World Bank	
Week 11	Lecture 31	• arguments for and against Measures to overcome balance of payment	**Assignment# 02**
	Lecture 32	• difficulties Export promotion vs. import substitution	
	Lecture 33	• Foreign trade and economic development	
Week 12	Lecture 34	• Introduction and importance Arguments in favor of trade and development .	
	Lecture 35	• Introduction and importance Arguments in favor of trade and development Its criticism	
	Lecture 36	• Commercial policy and economic development. The Trade Agreements Act of 1934	
Week 13	Lecture 37	• International Institutions Promoting Trade GATT	
	Lecture 38	• The 1962 Trade Expansion Act and the Kennedy	
	Lecture39	• The Trade Reform Act of 1974 and the Tokyo Round	
Week 14	Lecture 40	• The 1984 and 1988 Trade Acts	
	Lecture 41	• The Uruguay Round (most ambitious round)	

	Lecture 42	• Outstanding Trade Problems and Doha Round	
Week 15	Lecture 43	• UNCTAD	
	Lecture 44	• WTO. Origin and its objectives	
	Lecture 45	• SAARC	
Week 16	Lecture 46	• Economic cooperation among LDCs	
	Lecture 47	• Asian Development Bank Origin; its objectives its membership,	
	Lecture 48	• Generalized System Preferences	of
Week17			**Terminal Exam**

RESEARCH METHODS AND TECHNIQUE   COURSE CODE:ECO-412

CREDIT HOURS: 03

Course Contents

Survey and Research:

Survey and other social research, sources of Information, accuracy of information, Instruments studies design, fieldwork techniques, questionnaire, interview schedules, sample selection

Writing Skills and Presentation of Research Material:

Introduction, Literature review, analytical framework, data, results, conclusion, reference, footnotes, endnotes, Latin abbreviations, bibliography, proof reading techniques/ symbols.

Descriptive Statistical Analysis:

Using SPSS for Descriptive Statistical Analysis (Average, growth, trend, Correlation and Inequality).Computer Application

Econometric Analysis:

Using SPSS for Model Specifications and OLS estimation test of significance independent samples t-test, F-test, Chi-Square test Using e-views / Micro fit for estimating systems of equations, trends and forecasts. Computer application Reading: Text books on statistical/ econometrics and manual or basic material of recommended software

Presentation of Data and Project Reports:

How to present data (use of Figure, charts, pic, bars, Gantt-chart and Pictogram). Computer application

Reference Material

John Creedy (2008), Research Without Tears: From the First

Ideas to Published Output, Edward Elgar**,** Cheltenham, UK.

Further reading:

• Greenlaw, Steven (2006). Doing Economics: A Guide to Understanding and

Carrying out Economic Research. Boston, MA: Houghton Mifflin.

• Babbie, Earl (2006). The Basics of Social Research. Belmont, CA: Wadsworth Publishing/Thomson Learning

Course Breakup

Week No	Lecture	Topics		Activity
	Lecture 1	Introduction research methods and		

		Techniques	
Week 1	Lecture 2	Survey	
	Lecture 3	**Cont..**	
Week 2	Lecture 4	Cont	
	Lecture 5	Cont..	
	Lecture 6	Cont…	
Week 3	Lecture 7	Survey and Research:	Quiz# 01
	Lecture 8	Cont…	
	Lecture 9	Survey and other social research, , accuracy of information, ,	
Week 4	Lecture 10	sources of Information	Assignment# 01
	Lecture 11	Instruments studies design	
	Lecture 12	questionnaire,	
Week 5	Lecture 13	Cont…	
	Lecture 14	Cont…	
	Lecture 15	interview schedules, sample selection	
Week 6	Lecture 16	Cont..	Midterm Exam
	Lecture 17	Writing Skills and Presentation of Research	
	Lecture 18	Cont..	
Week 7	Lecture 19	Material: Introduction, data, results, conclusion,	
	Lecture 20	, Literature review, analytical framework	
	Lecture 21	reference, footnotes, endnotes, Latin abbreviations,	
Week 8	Lecture 22	Cont..	
	Lecture 23	bibliography, proof reading techniques/ symbols.	
	Lecture 24	Cont..	
Week 9	Lecture 25	Cont..	
	Lecture	Cont..	

	26		
	Lecture 27	Descriptive Statistical Analysis: Introduction	
Week 10	Lecture 28	Using SPSS for Descriptive Statistical Analysis (Average, growth, trend, Correlation and Inequality).Computer Application	Quiz # 02
	Lecture 29	Cont..	
	Lecture 30	Cont..	
Week 11	Lecture 31	Cont..	Assignment # 02
	Lecture 32	Cont..	
	Lecture 33	Econometric Analysis: Using SPSS for Model Specifications and OLS estimation	
Week 12	Lecture 34	test of significance independent samples t-test, F-test, Chi-Square test Using e-views / Micro fit for estimating systems of equations, trends and forecasts.	
	Lecture 35	**Cont…**	
	Lecture 36	**Cont..**	
Week 13	Lecture 37	**Cont..**	
	Lecture 38	**Cont..**	
	Lecture 39	**Cont..**	
Week 14	Lecture 40	Computer application Reading: Text books on statistical/ econometrics and manual or basic material of recommended software	
	Lecture 41	**Cont…**	
	Lecture 42	**Cont..**	
Week 15	Lecture 43	**Cont..**	
	Lecture 44	**Cont..**	
	Lecture 45	Presentation of Data and Project Reports:	
	Lecture	How to present data (use of Figure, charts,	

Week 16	46	pic, bars, Gantt-chart and Pictogram). Computer application	
	Lecture 47	**Cont..**	
	Lecture 48	**Cont..**	
Week 17			Terminal Exam

PUBLIC FINANCE   COURSE CODE: ECO-413   CREDIT HOURS: 03

Public Finance:

Role and meaning of public finance, theories of public goods, externalities and congestion; distribution, equity and economic welfare; political and social choice, benefit-cost analysis and public expenditure evaluation principles; positive and normative analysis of taxation informal and black economy.

Fiscal Policy:

Role of public sector in macroeconomics stability, economic growth, poverty reduction and equity; overlapping generations models, social security, pensions and government bonds, analysis of budget deficits, internal and external borrowings and debt dynamics.

Cost-Benefits Analysis & Project Appraisal:

Techniques of cost benefit analysis of investment project, uses of shadows prices; problems of estimating benefits in highway, irrigation, power and other projects; unemployment and use of surplus, alternative Investment criteria, Criteria for cost benefit analysis.

Fiscal Policy in LDCs and Pakistan:

Fiscal and monetary policy in Pakistan, LDC,s and taxation expenditure, problem of balancing. The budget, deficit financing and public borrowing. Federal-provincial relations in Pakistan. Use of budget for promoting economic and social objectives with reference to development planning in Pakistan.

Reference Material

1:Rosen and Harvey S.,(1999), Public Finance, McGraw Hill.

2:Musgrave R.A and B.P., Musgrave, Public Finance in Theory and Practice,McGraw Hill.

3:Stiglitz E.,(2000),Economics of the Public sector, W.W.Norton and Co.

Course Breakup

Week No	Lecture	Topics	Activity
Week 1	Lecture 1	Course introduction	
	Lecture 2	Role and meaning of public finance	
	Lecture 3	Theories of public goods	
Week 2	Lecture 4	Cont…	
	Lecture 5	Cont…	
	Lecture 6	Cont…	
Week 3	Lecture 7	Externalities and congestion	
	Lecture 8	Distribution	Quiz# 01
	Lecture 9	Equity and economic welfare	
Week 4	Lecture 10	Political and social choice	
	Lecture 11	Cost-benefit analysis	
	Lecture 12	Public expenditure evalution principles	Assignment# 01
Week 5	Lecture 13	Cont…	
	Lecture 14	Informal and black economy	
	Lecture 15	Positive and normative analysis of taxation	
Week 6	Lecture 16	Cont…	
	Lecture 17	Role of public sector in macroeconomics stability	Midterm Exam
	Lecture 18	Cont…	
Week 7	Lecture 19	Economic growth	
	Lecture 20	Poverty reduction	
	Lecture 21	Equity	
Week 8	Lecture 22	Overlapping generations model	
	Lecture 23	Cont…	
	Lecture 24	Cont…	
Week 9	Lecture 25	Social security	
	Lecture 26	Pension and government bonds	
	Lecture 27	Cont…	
Week 10	Lecture 28	Analysis of budget deficits	
	Lecture 29	Cont…	Quiz # 02
	Lecture 30	Internal and external borrowings and debt dynamics	
Week 11	Lecture 31	Techniques of cost benefit analysis of investment projects	
	Lecture 32	Cont…	Assignment # 02
	Lecture 33	Uses of shadow prices	
Week 12	Lecture 34	Problems of estimating benefits in highway	
	Lecture 35	Irrigation power and other projects	
	Lecture 36	Unemployment and use of surplus	
	Lecture 37	Alternative investment criteria	

Week 13	Lecture 38	Criteria for cost benefit analysis	
	Lecture 39	Fiscal and monetary policy in Pakistan	
	Lecture 40	Cont…	
Week 14	Lecture 41	LDSs and taxation	
	Lecture 42	Expenditure	
	Lecture 43	Problem of balancing	
Week 15	Lecture 44	The budget financing	
	Lecture 45	Public borrowings	
	Lecture 46	Federal provincial relation in Pakistan	
Week 16	Lecture 47	Use of budget for promoting economic and social objectives with reference to development planning in Pakistan	
	Lecture 48	Cont…	
Week 17			Terminal Exam

OPTIONAL NON ECONOMICS

POLITICAL SCIENCE **COURSE CODE: POL-125** **CREDIT HOURS: 0**

Course Outline:
Introduction:
The course has designed in such a way that it will help the students with the Fundamentals of the subject of Political Science and prepare them for advanced studies in the forthcoming semesters. The very basic concepts and terminology commonly used in the further courses of studies are taught to make the students friendly with the subject.

Introduction to Political Science
Scope of Political science, Importance and utility, Methods of study, Approaches to study of Political Science

Subject Matter of Political Science
Relations with other Sciences, Modern Trends and Schools of Thoughts, Systematic Approach, Behavioral Approach

State
Definition, Essential Elements, State & Government, Islamic Concepts of State, State and Society, State and Associations, Ends and Functions of the State, Divergent Views, Idealism, Utilitarianism,

Individualism, Welfare Concept of State, Real Purpose, Essential Functions, Secondary Functions, Islamic Concept of Welfare State

Sovereignty

Definition, Characteristics and kinds of Sovereignty, Attributes, Austin's Concept, Critical View, Islamic Concept, Attributes, Implications

Law

Definition, Kinds, Characteristics, Source of Law, Types of Law, Islamic concept of Law, Source of Islamic Law

Forms of Government

Classification, Dictatorship, Aristocracy, Monarchy, Democracy, Parliamentary form of Government, Presidential form of Government, Unitary and Federal form of government, Characteristics and features, Merits and Demerits

Liberty

Definitions, Kinds of Liberty, Nature of Rights, Kinds of Rights, Rights and Obligations, Safeguards of Liberty, Law and Liberty, Liberty and Equality, Basic Human Rights in Islam, Rights of Non-Muslims in an Islamic State

Organs of Government

Legislature, Executive, Judiciary

The political Process

Elections and Electorate, Advantages and disadvantages, Political parties, Public opinion, interest groups

Reference Material:

- Ahmad, Sheikh Bashir, Riyasat Jo Ilm (Sindhi meaning Science of State), Jamshoro, Institute of Sindhalogy, University of Sindh, 1985.

- Mazherul, Haq Theory and Practice in Political Science, Lahore Book land, 1996.

- Ian Mackenzi (Ed.),Political Concepts: A Reader and Guide, Edinburgh, University Press, 2005

- Mohammad Sarwar, Introduction to Political Science, Lahore Ilmi Kutub Khana, 1996.

Course Breakup

Week	Lecture No.	Topic	Activity
Week 1	Lecture 1	- Introduction - Introduction to the political science - Definitions, meanings - Importance of the Subject	
	Lecture 2	- Scope of political science - Nature of political Science - Utility - Methods of Study	
	Lecture 3	The State	

		• Evolution • Definition • Essential Elements of State	
Week 2	Lecture 4	• Approaches to study of Political Science • Relationship with the other social sciences • Subject/Matter of Political Science • Modern Trends and School of Thought •	
	Lecture 5 Lecture 6	• The State • Evolution • Definition • Essential Elements of State	
Week 3	Lecture 7	• State and Society • State and Government • State and Association • Ends and functions of the state • Divergent views	
	Lecture 8	• Idealism view • Utilitarianism view • Individualism view	
	Lecture 9	• Welfare State • Function of welfare state	**Quiz # 01**
Week 4	Lecture 10	• Real Purpose of State • Essential Functions of State • Secondary functions • Islamic concept of welfare State	
	Lecture 11	• SOVEREIGNTY • Definition • Kinds of sovereignty • Attributes	
	Lecture 12	• Austin's Concept of sovereignty • Critical view • Islamic concept • Attributes • Implications	
Week 5	Lecture 13	• LIBERTY • Meanings • Kinds of Liberty • Nature of Rights • Kind of Rights and Obligations • Safeguards of Liberty • Law and Liberty • Liberty and Equality	**Assignment# 01**

	Lecture 14	• Basic Human Rights in Islam • Rights • Important rights of citizen	
	Lecture 15	• Rights of Non-Muslims in Islamic State • Separate Identity	
Week 6	Lecture 16	• Classification of Minorities	
	Lecture 17	Presentations	
	Lecture 18	Cont……	
Week 7	Lecture 19	• LAW • Definition • Modern School of Jurisprudence • Source of Law • Classification	
	Lecture 20	• Law and Morality • Islamic Law • Source of Islamic Law • Importance of Ijtihaad	
	Lecture 21	• Organization of Government • Forms of Government • Classification of Governments • Democracy	
Week 8	Lecture 22	• Definitions, characteristics • Conditions of democracy • Advantages of democracy • Disadvantages of democracy • Islamic concept of democracy	
	Lecture 23	• Salient Features of Democracy • Dictatorship • Kinds • Characteristics • Merits and demerits	
	Lecture 24	• Advantages and Disadvantages • Condition for Dictatorship • Pakistan faced Dictatorship more than four times • Causes of Dictatorship in Pakistan	
Week 09	Lecture 25	• Presidential and Parliamentary form of • Government • Features of Presidential System • Features of Parliamentary System	**Quiz # 02**

		• Merits and Demerits	
	Lecture 26	• Unitary and Federal system of Government • Definitions • Unitary Government • Federal Government • Salient Features of Federation	
	Lecture 27	• Federation and confederation • Formation of Federation • Conditions of Federation • Advantages and Disadvantages • Future of Federation	
Week 10	Lecture 28	• The Legislature • Evolution • Organization and procedure • Functions of Legislature	
	Lecture 29	• Legislature remaining part • Bicameral and Unicameral • Upper chamber • Lower chamber • Advantages and Disadvantages	**Assignment# 02**
	Lecture 30	• The Executive • Kind of Executive • Organization • Executive head • Executive council	
Week 11	Lecture 31	• Civil services and its Characteristics • Functions of Political Executive • Powers of political executive	
	Lecture 32	• THE JUDICIARY • Organization • Independence of Judiciary • Relationship with the Executive	
	Lecture 33	• Relationship with the Legislature • Separation of power	
Week 12	Lecture 34	• POLITICAL PROCESS AND INSITUTIONS • Electorate • Adult and Restricted Franchise	
	Lecture 35	• Direct Legislation • Advantages and Disadvantages • Referendum	
	Lecture 36	• Initiative • Plebiscite	

		• Recall • Free Elections	
Week 13	Lecture 37	• Direct and indirect Elections • Voting Behavior • Method of Voting • Voting and Election in Islamic state • Representation of Minorities • Single and multi-members Constituencies • Advantages and Disadvantages	
	Lecturen38	• Electoral Districts • Proportional Representation • Communal Representation • Functional Representation	
	Lecture 39	• POLITICAL PARTIES • Importance of political parties • Promotions • Objectives • Functions of Political Parties	
Week 14	Lecture 40	• Advantages and Disadvantages of political parties • Two party and Multiple Party system • Classification of political parties • Single party system	
	Lecture 41	• Public Opinion • Meaning • Definition • Importance • Effective public opinion • Formation and Expression	
	Lecture 42	• Public opinion and cultural aspects • Measurement of Public opinion • Problems of opinion polls • Public opinion and propaganda	
Week 15	Lecture 43	• Interest groups and pressure groups • Interest groups • Pressure groups	
	Lecture 44	• Almonds concept • Importance of pressure groups	
	Lecture 45	• Modes of political actions • lobbying	

	Lecture 46	• Factors affecting group activities • Interest groups and Democracy	
Week 16	Lecture 47	• Interest groups and political parties	
	Lecture 48	• Role of pressure groups on molding public opinion	
		Cont….	
Week17			**Terminal Exam**

INTRODUCTION TO MANAGEMENT   COURSE CODE: MGT-219   CREDIT HOURS: 03

Course Contents:

The contents of the course include: overview, nature & challenges of the management profession, managers and entrepreneurs, the evolution of management thought, the changing managerial environment, international & cross- cultural management, management's social & ethical responsibilities, the basics of planning, strategic, long-term planning, decision-making & creative problem solving, organization's structure, effectiveness, & culture, newer approaches to organizing, human resources management, communicating in the computer age, motivating job performance, group dynamics & teamwork. Influence processes and leadership, production & organization control processes, improving product & service quality

Reference Material

Recommended Text:
1. Robbins P.S. and Coulter M. : Management (10th Edition), Prentice Hall.
2. Ricky W. Griffin. Fundamental of Management. 3rd ed. Texas and A. M. University

Course Breakup

Week	Lecture .	Topic	Activity
Week 1	Lecture 1	Foundation of management.	
	Lecture 2	Definition, Scope and Functions of Management	
	Lecture 3	Management & Organization.	
Week 2	Lecture 4	Different Levels of Management	

	Lecture 5	Roles and Skills of Management,	
	Lecture 6	Management Process	
Week 3	Lecture 7	Evolution of Management.	**Quiz # 01**
	Lecture 8	Management theories and perspectives,	
	Lecture 9	Scientific Management.	
Week 4	Lecture 10	History of Scientific Management	**Assignment# 01**
	Lecture 11	Administrative Management, Bureaucratic Management.	
	Lecture 12	Behavioral theories	
Week 5	Lecture 13	System Approach, Contingency Approach.	
	Lecture 14	Cont…..	
	Lecture 15	Corporate social responsibility	
Week 6	Lecture 16	Organizational culture & environment:	**Midterm Exam**
	Lecture 17	Different Views and Sources of Culture.	
	Lecture 18	Cont…..	
Week 7	Lecture 19	Current Trends & Issues of Management; workforce diversity.	
	Lecture 20	Ethics in management,	
	Lecture 21	Factors affecting ethics and improving ethical behaviors.	
Week 8	Lecture 22	Globalization and Management	
	Lecture 23	Discussion	
	Lecture 24	Organizational & Environmental Analysis: SWOT & PEST analysis.	
Week	Lecture 25	Cont….	

09			
	Lecture 26	External & Internal Environmental Factors, Task & Mega Environment.	
	Lecture 27	Decision making: Decision making process of eight steps and its Conditions.	
Week 10	Lecture 28	Cont…..	
	Lecture 29	Decision Making Errors and Biases	**Quiz # 02**
	Lecture 30	Types of Problems & Respective Decisions.	
Week 11	Lecture 31	Cont……	
	Lecture 32	Foundation of planning: Conceptual View of Planning and its Purpose & importance.	**Assignment# 02**
	Lecture 33	Challenges & Types of planning, Developing Organizational Goals, Types of Goals.	
Week 12	Lecture 34	Cont…..	
	Lecture 35	Types of Organizational Strategies:	
	Lecture 36	Corporate and business Strategies	
Week 13	Lecture 37	Functional strategies, Strategic Flexibility.	
	Lecture 38	Cont….	
	Lecture 39	Strategic management: Strategic Management Process & Formulation of Strategies.	
Week 14	Lecture 40	Types of Organizational Structure Departmentalization & Chain of Command.	
	Lecture 41	Cont…..	
	Lecture 42	Leadership & management: Who are Leaders? What is Leadership?	
Week 15	Lecture 43	Presentation	
	Lecture 44	Presentation	
	Lecture 45	Presentation	
Week 16	Lecture 46	Discussion	
	Lecture 47	Foundation of management.	

	Lecture 48	Definition, Scope and Functions of Management	
Week17			**Terminal Exam**

INTRODUCTION TO COMMERCE   COURSE CODE: COM-316   CREDIT HOURS: 03

Course Contents**:**

Commerce: Nature of Commerce,

Business: Meaning, Nature, Scope and Importance. Problems, Functions and Qualities of a Businessman, Types of Businesses.

Preparing the Online Business:

Competitor Analysis on the Internet, the Fourth Channel, Paradigms in the   New Economy, Driving Business Process Re-engineering, Designing, Developing and Deploying the System, Supply Chain Management

Sole Proprietorship:

Features, Importance, Merits and Demerits.

Partnership:

Features, Merits and Demerits, Co-Ownership vs. Partnership; Classification of Partners; Rights, Duties and Liabilities of Partners, Dissolution of Partnership.

Joint Stock Company:

 Features, Merits And Demerits, Formation, Memorandum Of Association; Articles Of Association, Prospectus, Capital, Management, Meetings, Winding Up.

Cooperative Society:

Features, Kinds, Merits and Demerits.

Combination:

 Meaning, Causes and Purposes, Advantages and Disadvantages. Types of Combination. Forms of Combination.

Trade:

Wholesales, Retail, Import And Export. Export Promotion Bureau and Its Role.

Marketing Operation:

Definition, Functions, Scope, Advantage and Disadvantage, Marketing Versus Selling.

Channels of Distribution:

Meaning, Functions, Kinds, Selection of Channels, Advantages.

Sales Promotion:

Meaning, Objects and Methods.

Advertising:

Meaning, Objects, Types, Merits and Demerits, Advertising Media.

Warehousing:

Definition, Functions, and Kinds.

Business Risk:

Definition, Types, Methods of Handling Risk.

Insurance:

Meaning, Principles, Kinds (Life, Fire, Marine) Importance.

Management:

Definition, Basic Functions and Management.

Reference Material

1. Amit Vikram, Introduction to Commerce Saeed Nasir, Introduction to Busienss

2. Kenneth C. Laudon, Carol GuercioTraver (Latest Edition), E-Commerce : Business Technology, Society, PearsonEducation Marilyn Greenstein, Miklos Vasarhelyi (Latest Edition),

3. Nisar-Ud-Din. Business Organization. Aziz Publishers, Urdu Bazaar, Lahore.

4. Muhammad Irshad, Introduction to Business, Naveed Publishers Lahore.

5. Khalid Mehmood Cheema, Introduction To Business, Syed Mobin Mahmood & Co. Lahore.Glass & Baker. Introduction to Business.

2   Ali M.H. Introduction to Business

Course Breakup

Week No	Lecture	Topics	Activity
Week 1	Lecture 1	Course introduction **Commerce:** Nature of Commerce,	
	Lecture 2	Problems, Functions and Qualities of a Businessman,	
	Lecture 3	Types of Businesses.	
Week 2	Lecture 4	Cont…	
	Lecture 5	**Preparing the Online Business**:	
	Lecture 6	Cont…	
Week 3	Lecture 7	Competitor Analysis on the Internet, the Fourth Channel	Quiz# 01
	Lecture 8	, Paradigms in the New Economy	
	Lecture 9	Driving Business Process Re-engineering	
Week 4	Lecture 10	Driving Business Process Re-engineering, Designing, Developing and Deploying the System, Supply Chain Management	Assignment# 01
	Lecture 11	**Cont...**	
	Lecture 12	**Cont....**	
Week 5	Lecture 13	Cont…	
	Lecture 14	**Sole Proprietorship**: Features, Importance, Merits and Demerits.	
	Lecture 15	**Partnership**: Features, Merits and Demerits, Co-Ownership vs. Partnership; Classification of Partners; Rights, Duties and Liabilities of Partners, Dissolution of Partnership.	

Week 6	Lecture 16	Cont…	**Midterm Exam**
	Lecture 17	**Cont....**	
	Lecture 18	Cont…	
Week 7	Lecture 19	**Joint Stock Company**: Features, Merits And Demerits, Formation, Memorandum Of Association; Articles Of Association, Prospectus, Capital, Management, Meetings, Winding Up.	
	Lecture 20	**Cont....**	
	Lecture 21	**Cooperative Society**: Features, Kinds, Merits and Demerits.	
Week 8	Lecture 22	**Combination:** Meaning, Causes and Purposes, Advantages and Disadvantages. Types of Combination. Forms of Combination.	
	Lecture 23	Cont…	
	Lecture 24	Cont…	
Week 9	Lecture 25	**Trade**: Wholesales, Retail, Import And Export. Export Promotion Bureau and Its Role.	
	Lecture 26	**Cont....**	
	Lecture 27	Cont…	
Week 10	Lecture 28	**Marketing Operation**: Definition, Functions, Scope, Advantage and Disadvantage, Marketing Versus Selling.	**Quiz # 02**
	Lecture 29	Cont…	
	Lecture 30	**Cont....**	
Week 11	Lecture 31	**Channels of Distribution**: Meaning, Functions, Kinds, Selection of Channels, Advantages.	**Assignment # 02**

	Lecture 32	Cont…	
	Lecture 33	**Cont...**	
Week 12	Lecture 34	**Sales Promotion**: Meaning, Objects and Methods.	
	Lecture 35	**Cont.....**	
	Lecture 36	**Advertising:** Meaning, Objects, Types, Merits and Demerits, Advertising Media.	
Week 13	Lecture 37	**Cont....**	
	Lecture 38	**Cont.....**	
	Lecture 39	**Warehousing**: Definition, Functions, and Kinds.	
Week 14	Lecture 40	Cont…	
	Lecture 41	**Business Risk**: Definition, Types, Methods of Handling Risk.	
	Lecture 42	**Cont....**	
Week 15	Lecture 43	**Insurance**:	
	Lecture 44	Meaning, Principles, Kinds (Life, Fire, Marine) Importance.	
	Lecture 45	Financial statements, Balance sheet, Income statement	
Week 16	Lecture 46	Income statement	
	Lecture 47	Financial position of business, Audit of financial statements	
	Lecture 48	**Management:** Definition, Basic Functions and Management.	
Week 17			Terminal Exam

LABOR ECONOMICS   COURSE CODE: ECO-426   CREDIT HOURS: 03

Introduction

Labor Market Definition, Scope of Labor Markets, Labor market, Demand, Supply, wages and equilibrium in the labor market.

Labor Supply

Measuring the labor force, The worker preferences, Hours of work decisions, Effect of non labor income, wage rate on hours of work, labor supply curves, estimation of the labor supply elasticity, policy application welfare program and worker incentives.

Topics in Labor Markets

Labor supply over the life cycle and business cycle, retirement, household production, fertility.

Labor Demand

The production functions, the employment decisions in the (short run, long run) estimation of demand elasticity's, Marshall's Rules of Derived demand, Overview of labor market equilibrium, extension and policy applications

Labor Market equilibrium

Equilibrium in a single competitive labor market, Competitive equilibrium across labor markets, taxation, labor supply and demand, the cobweb model, non competitive labor markets (monophony, monopoly

Compensating wage differentials

The market of risky jobs, hedonic wage function, wage structures, policy application, labor mobility, discriminations in the labor markets

Unemployment

Types of unemployment, The steady state rate of unemployment, job search, the Inter temporal substitution hypothesis, other policy of unemployment

Efficiency wage Theories

Work Shirk models, labor turn over model, adverse selection model and sociological theory.

Human Capital Investment

Job markets signaling and screening models, ability hypothesis, migration, poverty and earning distribution, education policy.

Recommended Books

1. Cuhac, Pierre, and Andre "Zylberberg, Labor Economics, MIT Press, 2004 (CA) in this case is not available, DS would be followed

2. Ashenfelter, Orley and Richard Layard, Ed. Handbook of Labor Economics, Vol. 1to 11 (AL).

3. George J. Borjas, George, Labor Economics, McGraw-Hill, 3rd Edition (2005)

4. Hamdani, Syed Nisar Hussain (2004), Religious Orientation as a Factor in time Allocation, PhD Dissertation Quaid-e- Azam University Islamabad.

5. Hamdani Syed Nisar Hussain and Eatzaz Ahmed (2002), "Towards Divine Economics: some Testable Propositions", Pakistan Development Review, No. 4, Pp Vol. No.4, Pp.607-26

6. **Course Breakup**

Week No	Lecture	Topics	Activity
Week 1	Lecture 1	Course introduction	
	Lecture 2	**Introduction** Labor Market Definition, Scope of Labor Markets,	
	Lecture 3	Labor market, Demand, Supply	
Week 2	Lecture 4	wages and equilibrium in the labor market	
	Lecture 5	**Labor Supply** Measuring the labor force, The worker preferences,	
	Lecture 6	Hours of work decisions, Effect of non labor income,	
Week 3	Lecture 7	wage rate on hours of work, labor supply curves	Quiz# 01
	Lecture 8	estimation of the labor supply elasticity, policy application welfare program and worker incentives	
	Lecture 9	**Topics in Labor Markets** Labor supply over the life cycle and business cycle	
Week 4	Lecture 10	retirement, household production, fertility.	Assignment# 01
	Lecture 11	**Labor Demand** The production functions, the employment decisions in the (short run, long run)	
	Lecture 12	estimation of demand elasticity's, Marshall's Rules of Derived demand,	
	Lecture 13	Overview of labor market equilibrium, extension and policy applications	

Week 5	Lecture 14	**Labor Market equilibrium** Equilibrium in a single competitive labor market	
	Lecture 15	Competitive equilibrium across labor markets, taxation	
Week 6	Lecture 16	labor supply and demand, the cobweb model,	Midterm Exam
	Lecture 17	non competitive labor markets (monophony, monopol	
	Lecture 18	Cont…	
Week 7	Lecture 19	**Compensating wage differentials** The market of risky jobs	
	Lecture 20	hedonic wage function	
	Lecture 21	wage structures	
Week 8	Lecture 22	Cont…	
	Lecture 23	policy application	
	Lecture 24	labor mobility	
Week 9	Lecture 25	discriminations in the labor markets	
	Lecture 26	Cont…	
	Lecture 27	**Unemployment** Types of unemployment	
Week 10	Lecture 28	The steady state rate of unemployment	Quiz # 02
	Lecture 29	Cont…	
	Lecture 30	job search	
Week 11	Lecture 31	the Inter temporal substitution hypothesis	Assignment # 02
	Lecture 32	Cont…	
	Lecture 33	other policy of unemployment	
Week 12	Lecture 34	Cont…	
	Lecture 35	**Efficiency wage Theories** Work Shirk models	
	Lecture 36	Cont…	
Week 13	Lecture 37	labor turn over model	
	Lecture 38	Cont…	
	Lecture 39	adverse selection model and sociological theory.	
Week 14	Lecture 40	Cont…	
	Lecture 41	**Human Capital Investment** **Job markets signaling and screening models**	
	Lecture 42	Cont…	
Week 15	Lecture 43	**ability hypothesis**	
	Lecture 44	**migration**	
	Lecture 45	**poverty and earning distribution**	

Week 16	Lecture 46	Cont…	
	Lecture 47	**education policy**	
	Lecture 48	Cont…	
Week 17			Terminal Exam

MANAGERIAL ECONOMICS   **COURSE CODE: ECO-427**   **CREDIT HOURS: 03**

Nature, Scope and Overview of Managerial Economics

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

Demand Analysis: Estimation and Forecasting

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

Production and Cost Analysis

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

Decision Making Under Risk and Uncertainty

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

Pricing Analysis and Decisions

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

Managerial Theories and Models of the Firm

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

Public Sector Production and Pricing of Goods

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

Capital Budgeting and Investment

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

Emerging Trends and Recent Developments

Course Breakup

Week No	Lecture	Topics	Activity
Week 1	Lecture 1	**Nature, Scope and Overview of Managerial Economics** The Nature and Scope of Managerial Economics.	
	Lecture 2	The Managerial decision making process. Theory of the firm	
	Lecture 3	Profit maximization	
Week 2	Lecture 4	Cont…	
	Lecture 5	Cost Minimization. Economic optimization.	
	Lecture 6	Economic relations of variables	
Week 3	Lecture 7	The Incremental concept in Economic Analysis. Demand, Supply and Equilibrium	Quiz# 01
	Lecture 8	**Demand Analysis: Estimation and Forecasting** The Basis for Demand	
	Lecture 9	The Market Demand function. Demand sensitivity analysis:	
Week 4	Lecture 10	Elasticity, Price Elasticity of Demand with Managerial applications.	Assignment# 01
	Lecture 11	Income Elasticity of Demand with Managerial applications.	
	Lecture 12	. Application of Regression Analysis:	
Week 5	Lecture 13	Demand estimation. Demand forecasting	
	Lecture 14	**Production and Cost Analysis** Production functions. Total, Marginal	

		and Average Product.	
	Lecture 15	Revenue and Cost in Production.	
Week 6	Lecture 16	Production function estimation. Productivity Measurement	Midterm Exam
	Lecture 17	Homogenous and Homothetic Production Function	
	Lecture 18	Short run and long run cost curves.	
Week 7	Lecture 19	Learning curves and application.	
	Lecture 20	Cost-value-profit analysis. Cost estimation.	
	Lecture 21	**Decision Making Under Risk and Uncertainty** Introduction. Risk Analysis of Decision Alternatives.	
Week 8	Lecture 22	Adjustment for Risk in Decision Making	
	Lecture 23	The Expected Value Criterion.	
	Lecture 24	The Standard Deviation Criterion	
Week 9	Lecture 25	The Coefficient of Variation Criterion	
	Lecture 26	The Certainty Equivalent Criterion.	
	Lecture 27	The Maximax Criterion, Maximin Criterion and Minimax regret criterion.	
Week 10	Lecture 28	The Decision Tree and Joint Probabilities.	Quiz # 02
	Lecture 29	Optimal decision Strategy	
	Lecture 30	Limit Pricing and Preventing entry.	
Week 11	Lecture 31	**Pricing Analysis and Decisions** A Review of Market Structures and Basic Pricing Models.	Assignment # 02
	Lecture 32	Perfect Competition. Monopoly	
	Lecture 33	Monopolistic Competition. Oligopoly	
Week 12	Lecture 34	Selected Pricing Models.	
	Lecture 35	Marginalist Pricing	
	Lecture 36	Mark up pricing. New Product Pricing.	
Week 13	Lecture 37	Oligopoly Model. Contestable Markets	
	Lecture 38	Pricing Strategies for Firms and Market Power. Monopolistic Competition.	
	Lecture 39	Price Discrimination, Monoposony and Price Product.	
Week 14	Lecture 40	**Managerial Theories and Models of the Firm** Baumol's Theory of Sales Revenue	

		Maximization	
	Lecture 41	Marris's Model of Managerial Enterprise.	
	Lecture 42	Williamson's Model of Managerial Discretion Topics,	
Week 15	Lecture 43	Behavioral Model by Cyert and March.	
	Lecture 44	**Public Sector Production and Pricing of Goods** Public and Private Goods and their pricing mechanism	
	Lecture 45	Decreasing cost Industry and pricing.	
Week 16	Lecture 46	Externalities and Market Pricing issues. Rent seeking and control	
	Lecture 47	Government Policy and International Trade, tariff and pricing.	
	Lecture 48	Import Competitiveness and tax, International pricing Techniques /Strategies.	
Week 17			Terminal Exam

DEMOGRAPHIC ECONOMICS   COURSE CODE: ECO-431 CREDIT HOURS: 3

Course Contents: Introduction:

Introduction to demography/population dynamics, concept, Importance of population studies in the global context, Importance of population studies with reference to Pakistan, Uses & limitations of population data

Major sources of Population data:

Population census, Demographic sample survey, Registration system (NADRA),Qualitative data, Population Size, growth, structure, distribution & Changes, Population size, Population structure (sex structure, Age structure).Age dependence ratio, Error in age reporting),Population pyramid, pyramid profiles population change, Concepts of population growth (Fertility, Morality, Migration).

Demographic measures/ Mortality Measures of Mortality

Balancing Equation,Fertility measures of Fertility,Crude birth rate,Specific birth rate,Standard birth rate,General fertility rate,Gross reproduction rate,Net reproduction rate, Crude death rate**,**Specific death rate**,**Infant mortality **,**Neto-natal Morality

Post-Neo natal Mortality

Population Theories/ Migration & Urbanization

Historical thinking of population (conventional economics and alternative thinking),Malthusian theory & Economic demographic equilibrium,Theory of Demographic Transition,Concept, Historical perspective,Measures of Migration,Reasons for migration,Urbanization

Current population Scenario of Pakistan:

implication for socio economic & Sustainable development for country,Reproductive health & family planning

Application of Stationary population models :

Providing Reproductive Health in Pakistan.

Reference Material:
1. Introduction to Demography & population Studies, Muhamamd Aslam Chaudhry & Dr. Syed Farid-ul-Hassan,3rd edition, (2003)

2. An Historical Perspective on Economic Aspects of the population Explosion ("Ronald Lee"), 5th edition,(2004)

3. The Demographic transition by Maters-Planas, Zavier,5th edition, (2005)

Course Contents

Week	Lecture .	Topic	Activity
Week 1	Lecture 1	Introduction to demography/population dynamics, concepts.	
	Lecture 2	Importance of population studies in the global context.	
	Lecture 3	. Importance of population studies with reference to Pakistan.	
Week 2	Lecture 4	Uses & limitations of population data	
	Lecture 5	Population census	
	Lecture 6	Demographic sample survey	
Week 3	Lecture 7	Registration system (NADRA)	
	Lecture 8	Objectives and functions of NADRA	**Quiz # 01**

	Lecture 9	Qualitative data	
Week 4	Lecture 10	Population size	**Assignment# 01**
	Lecture 11	Population structure (sex structure, Age structure)	
	Lecture 12	Age,dependence ratio, Error in age reporting)	
Week 5	Lecture 13	Population pyramid,	
	Lecture 14	pyramid profiles population change	
	Lecture 15	Concepts of population growth (Fertility, Morality, Migration).	
Week 6	Lecture 16	Balancing Equation	**Midterm Exam**
	Lecture 17	Fertility measures of Fertility	
	Lecture 18	**Cont……**	
Week 7	Lecture 19	Crude birth rate Specific birth rate	
	Lecture 20	Standard birth rate General fertility rate	
	Lecture 21	Cont……	
Week 8	Lecture 22	Gross reproduction rate Net reproduction rate	
	Lecture 23	Crude death rate	

	Lecture 24	Specific death rate	
Week 09	Lecture 25	Infant mortality	
	Lecture 26	Neo-natal Morality	
	Lecture 27	Pos-Neo natal Mortality	
Week 10	Lecture 28	Maternal mortality Life Expectancy	
	Lecture 29	Life tables	**Quiz # 02**
	Lecture 30	What is theory? Historical thinking of population (conventional economics and alternative thinking)	
Week 11	Lecture 31	Malthusian theory	
	Lecture 32	Economic demographic equilibrium	**Assignment# 02**
	Lecture 33	Theory of Demographic Transition	
Week 12	Lecture 34	Concept, Historical perspective Measures of Migration Reason for migration Urbanization	
	Lecture 35	Crude immigration rate, Crude emigration rate Crude gross international migration	
	Lecture 36	Crude net international migration rate, Crude in migration rate , Crude out migration rate	
Week 13	Lecture 37	Current population Scenario of Pakistan	
	Lecture 38	Its implication for socio economic	

		development for country.	
	Lecture 39	Its implication for Sustainable development for country.	
Week 14	Lecture 40	Reproductive health	
	Lecture 41	family planning	
	Lecture 42	Reproductive health & family planning details with respect to Pakistan	
Week 15	Lecture 43	History of Reproductive Health in Pakistan.	
	Lecture 44	Current scenario of Reproductive Health in Pakistan.	
	Lecture 45	Comparison of current and previous reproductive health system in Pakistan	
Week 16	Lecture 46	Stationary population models	
	Lecture 47	Application of Stationary population models	
	Lecture 48	(Continued)Application of Stationary population models	
Week17			**Terminal Exam**

SUSTAINABLE DEVELOPMENT   COURSE CODE: ECO-437   CREDIT HOURS: 3

Course Contents

Introduction to sustainable development

Definition and concept basic concept of sustainable development. Historical background of suitable in case of Pakistan and new economic development approach.

Global environment of poverty and inequality. overall content of development in Pakistan. sustainable development. The development dilemma. The policies occurred in economic planning in past. Policies ensuring outlays for sustainability in development program. Poverty alleviation with social Justice.

Economic growth and social Justice

Introduction..Need to end extreme poverty and hunger. Strategic goals.

Challenges and constraints to development

. Introduction. The international dimensions.Administrative challenges.Economic challenges.

. Social challenge. Environmental challenges. Climate change. D. growth.Development and constraints. Tax Mobilization &its effects . Dependency on foreign aid.

: sustainable economic growth and human development

. Introduction.. Sustainability in growth.. Population dynamics and sustainability. Agricultural productivity and food security.. The problems need immediate measures.. Energy for sustainable development. The initiatives needed.. Human development.

sectoral role to sustainable development

. Agricultural. Consumption and industrial production. The main objective.. Trace for sustainable development.. Issues and trends.. Strategic measures needed.. Water resource management. Strategic needs. Education for sustainable development..Tourism fir sustainable development. Measures needed.

Sustainable Development program in Historical Prespective

World energy conference .UN conference on human environment..Earth summit.

.Kyoto protocol. commission on sustainable development..High level plan on Global Sustainability.

.UN world summit 2002. UN economic and social council..The Earth charter focused on.

. Paris conferences on climate change.

: Millennium development goals and Pakistan initiatives

. Introduction .Sustainable development goals and Pakistan performance. Milestones.Cooperation between government and UNDP. special measures.

UN world summit 2002 paved The way for sustainability

. Realizing potential of sustainability

Climate protection and environmental sustainability

politics and climate change.The Earth charter a long term aim.Diverse form of life.. Environmental sustainability.. Management and utilization management of natural resource.overall environmental governance. Protection for nature..Modern industrial policy..Debate has also prompted.The consensus in sinks.

Reference Material.
Sustainable Development with Social Justice(A social Economy Perspective) by Dr. Muhammad Ishaq.

Course Breakup

Week No	Lecture No	Topics	Activity
Week 1	Lecture No 1	**Introduction to sustainable development** .	
	Lecture No 2	Definition and concept basic concept of sustainable development.	
	Lecture No 3	Historical background of suitable in case of Pakistan and new economic development approach,	
Week 2	Lecture No 4	Global environment of poverty and inequality.	
	Lecture No 5	overall content of development in Pakistan. sustainable development.	
	Lecture No 6	The policies occurred in economic planning in past. Policies ensuring outlays for sustainability in development program.	
Week 3	Lecture No 7	The development dilemma. Poverty alleviation with social Justice	Quiz# 01
	Lecture No 8	**Challenges and constraints to development** Introduction..	
	Lecture No 9	Theinternational dimensions.Administrative challenges. Economic challenges.	
Week 4	Lecture No 10	Cont	Assignment# 01
	Lecture No 11	**Cont**	
	Lecture No 12	**Cont**	
Week 5	Lecture No 13	**Cont**	
	Lecture No 14	Social challenge. Environmental challenges. Climate change.	
	Lecture No 15	Cont	
Week 6	Lecture No 16	**Cont**	Mid term
	Lecture No 17	D. growth.	

	Lecture No 18	. **Cont**	
Week 7	Lecture No 19	Development and constraints. Tax Mobilization &its effects.	
	Lecture No 20	Development and constraints.. Introduction..	
	Lecture No 21	**sustainable economic growth and human development**	
Week 8	Lecture No 22	Sustainability in growth.. Population dynamics and sustainability	
	Lecture No 23	Education for sustainable development	
	Lecture No 24	The problems need immediate measures.. Energy for sustainable development.	
Week 9	Lecture No 25	Human development.	
	Lecture No 26	The initiatives needed **sectoral role to sustainable development**.	
	Lecture No 27	Agricultural. Consumption and industrial production	
Week 10	Lecture No 28	The main objective.. Trace for sustainable development.. Issues and trends.. Strategic measures needed	Quiz # 02
	Lecture No 29	Agricultural productivity and food security. Water resource management. Strategic needs.	
	Lecture No 30	..Tourism fir sustainable development. Measures needed.	
Week 11	Lecture No 31	**Sustainable Development program in Historical Prespective**	Assignment # 02
	Lecture No 32	World energy conference .	
	Lecture No 33	Tyoto protocol. commission on sustainable development..	
Week 12	Lecture No 34	High level plan on Global Sustainability. .UN world summit 2002.	
	Lecture No 35	Newly Industrializing Countries (NIC's)	

	Lecture No 36	ootloose Production Process. NIC's	
Week 13	Lecture No 37	UN economic and social council	
	Lecture No 38	The Earth charter focused on.	
	Lecture No 39	Paris conferences on climate change	
Week 14	Lecture No 40	**Millennium development goals and Pakistan initiatives**	
	Lecture No 41	Introduction .Sustainable development goals and Pakistan performance.	
	Lecture No 42	Milestones.Cooperation between government and UNDP. special measures.	
Week 15	Lecture No 43	**UN world summit 2002 paved The way for sustainability**	
	Lecture No 44	**Climate protection and environmental sustainability**	
	Lecture No 45	politics and climate change.The Earth charter a long term aim.	
Week 16	Lecture No 46	Diverse form of life.. Environmental sustainability. Management and utilization management of natural resource.	
	Lecture No 47	overall environmental governance. Protection for nature.Modern industrial policy.	
	Lecture No 48	Debate has also prompted. The consensus in sinks.	
Week 17			Terminal Examination

POLITICAL ECONOMY   COURSE CODE :438   **CRDIT HOURS :3**

Course Contents

Introduction

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

Political Economy and World Order

Problem of Power and Knowledge: New Millennium, Knowledge, Politics and Neo-Liberal Political Economy.

New Voices in the Globalization Debate: Green Perspective, Regional Phenomena and State Order, New State Actors, Theory of Exclusion.

Regional Dynamics

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

Political Economy of Economic Development

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

Political Economy of Pakistan

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

SAARC: Political & Economic Aspects

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

Issues in Lawlessness and Development

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

Socio Economic Developments & Crime

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

Global Issues

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

Emerging Trends and Recent Issues

Recommended Text

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

- Gupta, S. Dev, The Political Economy of Globalization, Kluwer Academic Publishers. (Latest eds.)

- Hagen Everett E., The Economics of Development, Richard D. Irwin, Inc. (Latest eds.).

- Hussain Ishrat, (2004), Dollars, Debt and Deficits, Reform and Management of Pakistan Economy, Oxford University Press.

- (1999), Pakistan, the Economy of an Elitist State, Oxford University Press.

- Kardar Shahid, The Political Economy of Pakistan, Progressive Publishers, Pakistan.(Latest eds.).

- Kher, R.S. (2004), SAARC: Political & Economic Aspects, Dominant Publishers and Distributors.

- Noman Omar (1988), The Political Economy of Pakistan 1947-1985, KPI, London and New York.

- Stubbs Richard and Underhill Geoffrey R.D., (2000), Political Economy and the Changing Global Order, Oxford University Press.

- Szentes J., The Political Economy of Underdevelopment, Akademiai Kiado, Budapest. (Latest eds.).

Course Contents

Week	Lecture .	Topic	Activity
Week 1	Lecture 1	Meaning, Definition and brief Introduction of basic Concepts of Political Economy.	
	Lecture 2	Economic and Political Integration.	
	Lecture 3	Policy Reform and Popular Organization	
		key Social and Economic indicators	
Week 2	Lecture 4	Political and Economic Institutions and their role in decision-making. Linkages of Politics and Economics.	
	Lecture 5	Conceptualizing the Changing Global Order	

	Lecture 6	**Political Economy and World Order** Problem of Power and Knowledge	
Week 3	Lecture 7	New Millennium, Knowledge, Politics and Neo-Liberal Political Economy. New Voices in the Globalization Debate	**Quiz #1**
	Lecture 8	Green Perspective, Regional Phenomena and State Order New State Actors,	
	Lecture 9	Theory of Exclusion.	
Week 4	Lecture 10	**Regional Dynamics**	**Assignment # 1**
	Lecture 11	Regionalism and Globalization,	
	Lecture 12	The Political Economy of European Integration, Regionalism in the Asia-Pacific Political Globalization and the Competition State.	
Week 5	Lecture 13	Economic Blocks,Political Blocks	
	Lecture 14	International Politics and Transfer of Technology	
	Lecture 15	Sector Specific Development Limitation.	
Week 6	Lecture 16	Agriculture and Industry	Midterm Exam
	Lecture 17	Political Slogans and their Implementation,	
	Lecture 18	International challenge of poverty	
Week 7	Lecture 19	The Political Economy of food grain prices	
	Lecture 20	Rural Development.	

	Lecture 21	Cont…….	
Week 8	Lecture 22	Regional Exporting Blocks and their Markets	
	Lecture 23	**Political Economy of Pakistan** The Economics of Patronage,	
	Lecture 24	Cont…	
Week 9	Lecture 25	Seven Pillars of good Governance.	
	Lecture 26	The Political Economy of Reforms.	
	Lecture 27	Pakistan - Dynamics of Elitist Model	
Week 10	Lecture 28	Strategies for self-preservation,	
	Lecture 29	A military Theocracy,	
	Lecture 30	Different Regimes, Economic Development,	
Week 11	Lecture 31	Ethnic conflict, the Role of State.	
	Lecture 32	Emerging Economic and Political Issues Their linkages.	
	Lecture 33	Regionalism,	
Week 12	Lecture 34	Poverty and Governance etc.	
	Lecture 35	Poverty Eradication, Trade & Economic Cooperation, Cooperation with Regional NGO's in South Asia	
	Lecture 36	Pakistan and SAARC: Composition of Trade, Foreign Trade Trends in External Trade, Direction of Foreign Trade, Trends of Trade with SAARC. Future Economic Prospects of SAARC.	

Week 13	Lecture 37	**Issues in Lawlessness and Development** Introduction, Economic Crimes,	
	Lecture 38	Terrorism & Insurgency,	
	Lecture 39	Theories of the Economic impact of Law & Order.	
Week 14	Lecture 40	**Socio Economic Developments & Crime** A Review of Socio-Economic Situation in	Quiz # 02
	Lecture 41	Pakistan, Urbanization, Housing, Unemployment, Poverty, Juvenile	
	Lecture 42	Delinquency, Health Hazards. Environment and Externalities,	
Week 15	Lecture 43	Global Issues in Historical Perspective,	Assignment # 02
	Lecture 44	Capital Mobility and Global Order	
	Lecture 45	Opening up of Services Sector and its benefiters Capital, labor and entrepreneurs etc. Multinationals: Objectives, Contribution and their Mobility	
Week 16	Lecture 46	Multinationals: Objectives, Contribution and	
	Lecture 47	their Mobility. Emerging World Financial Order. The Group of Seven and Political	
	Lecture 48	Management of the Global Economy Big Businesses and New Trade Agreements Trade Blocks	
Week 17		Terminal Exam	

ISLAMIC BANKING & FINANCE   COURSE CODE: ECO-455   CREDIT HOURS: 3

1. **Islamic Economics & Finance**

   An introduction to Islamic banking & finance; Divine guidance for an Islamic economy. Evolution and development of Islamic banking & finance; difference between conventional banking and Islamic banking.

2. **Concept of Riba and its impact on Economy**

   Definition of riba; history of riba; kinds of riba; riba in Islamic prospective; prohibition of riba in the light of shariah.

3. **Islamic Law of Contracts**

   Meaning of contract, Essential elements of Contract, Conditions pertaining to contracts classification of contracts in Commutative & Non commutative.

4. **Islamic Mode of Finance in Banking Industry**

   Comparative Analysis of Asset and Liability side of Banks products i.e. existing in Conventional and Islamic banking Industry.

5. **Shariah Complaint modes of Finance and related issues**

   o Participatory Modes: Musharakah, Mudarabah, Diminishing Muskarakah
   o Trade base modes: Murabaha, Salam, Istisna, Istijrar, Ijarah, Ijarah wa Iqtina
   o Fee-Based Products: Letter of Credit (Wakala), Letter of Guarantee (Kafala), Other Fee-based Services
   o Some contradictory Contracts and their shariah position: Tawarruq, Bai al Dayn, Bai al Innah

6. **Takaful-Islamic Insurance Operations**

   Nature of insurance; concept, objectives, basis of takaful, basic elements and operating principles; different models of takaful prevalent in the world.

   Reference Material

   1.Justice(R) Taqi Usmani (2008). An Introduction to Islamic Finance. Maktaba Ma'ariful Quran August, Karachi Pakistan.

   2.   Mufti Nasim Ahmad Qasmi (2009). Economy the Islamic Approach. Darul Isha'at,

   Karachi Pakistan.
3. Jstice(R) Taqi Usmani (2009). The Historic Judgment on Interest. Maktaba Ma'ariful Quran, Karachi Pakistan.
4. Imran Ashraf Usmani (2002). Meezan Bank's Guide on Islamic Banking. Darul Isha'at, Karachi Pakistan.
5. M.Tahir Mansoori (2008). Islamic law of Contracts and bussiness Transactions. Shariah Academy, International Islamic University, Islamabad, Pakistan
6. Ayub, M, "Understanding Islamic Finance.
7. Obaidullah, M, " Islamic Financial Services

Course Breakup

Week	Lecture	Topics	Activity
Week 1	Lecture 1	**Islamic Economics & Finance** An introduction to Islamic banking & finance;	
	Lecture 2	Divine guidance for an Islamic economy;	
	Lecture 3	Shariah and its meaning,	
Week 2	Lecture 4	Scope of Shariah in Micro and Macro level of the Economy	
	Lecture 5	Evolution and development of Islamic banking & finance	
	Lecture 6	Cont…..	
Week 3	Lecture 7	difference between conventional banking and Islamic banking.	Quiz# 01
	Lecture 8	**Concept of Riba and its impact on Economy** Definition of riba; history of riba;	
	Lecture 9	kinds of riba	
Week 4	Lecture 10	riba in Islamic prospective;	Assignment 01
	Lecture 11	prohibition of riba in the light of shariah.	
	Lecture 12	Cont……	

Week 5	Lecture 13	**Islamic Law of Contracts** Meaning of contract	
	Lecture 14	Essential elements of Contract	
	Lecture 15	Cont…..	
Week 6	Lecture 16	Conditions pertaining to contracts	Midterm Exam
	Lecture 17	classification of contracts in Commutative & Non commutative.	
	Lecture 18	Cont……..	
Week 7	Lecture 19	Different types of trade based sale	
	Lecture 20	Conditions of sale	
	Lecture 21	**Participatory Modes**: Musharakah,	
Week 8	Lecture 22	Cont…..	
	Lecture 23	Cont…..	
	Lecture 24	Cont……. Mudarabah,	
Week 9	Lecture 25		
	Lecture 26	Diminishing Muskarakah	
	Lecture 27	**Cont….**	
Week 10	Lecture 28	Trade base modes: Murabaha,	Quiz # 02
	Lecture 29	Salam	
	Lecture 30	Istisna,	

Week 11	Lecture 31	Istijrar,	Assignment # 02
	Lecture 32	Ijarah, Ijarah wa Iqtina	
	Lecture 33	Cont….	
Week 12	Lecture 34	Fee-Based Products: Letter of Credit (Wakala)	
	Lecture 35	Letter of Guarantee (Kafala)	
	Lecture 36	Other Fee-based Services	
Week 13	Lecture 37	Some contradictory Contracts and their shariah position: Tawarruq, Bai al Dayn, Bai al Innah	
	Lecture 38	Cont….	
	Lecture 39	**Islamic Mode of Finance in Banking Industry** Comparative Analysis of Asset and Liability side of Banks products	
Week 14	Lecture 40	**Takaful-Islamic Insurance Operations** Nature of insurance; concept, objectives,	
	Lecture 41	basis of takaful, basic elements and operating principles;	
	Lecture 42	Cont……	
Week 15	Lecture 43	Different models of takaful prevalent in the world	
	Lecture 44	Cont……	
	Lecture 45		
Week 16	Lecture 46	Evaluation of Islamization process of the economy of Pakistan, Iran and Saudi Arabia	
	Lecture 47	Cont….	
	Lecture 48	Cont	
Week 17			Terminal Exam

DEVELOPMENT POLICY   **COURSE CODE: ECO-435**   **CREDIT HOURS: 3**

COURSE CONTENTS

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

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

3. **Development policy and Governance**
   - Role of Institutions in Development
   - Governance and Corruption
   - Globalisation and Changing Role of State

4. **Global Influences on Development Policy**
   - Policy debate on foreign aid, Pros and cons, and channels of foreign aid
   - Trade and International Finance,
   - World Trade Organisation (WTO)

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

6. **Education and Healthcare**
   - The role of primary, secondary, tertiary and vocational education in development
   - Human Capital Accumulation and Human Development Index

7. **Environment and Sustainable Development**
   - Food security
   - Agricultural Market Interventions and Reforms
   - Agricultural Research and Extension
   - Water Scarcity and Management

- Mineral Resources and their Exploitations

8. Migration, Urbanization, Issues facing Megacities
TEXT AND REFERENCE BOOKS

ಠ   Zaidi, S. Akbar, (2015). *Issues in Economy of Pakistan*. Karachi: Oxford University Press

ಠ   Ahmed, Vaqar, (2017). *Pakistan's Agenda for Economic Reform.* Oxford University Press

ಠ   Any other relevant material