Scheme of Study (HEC UGEP Fall-2023)
BS ACCOUNTING AND FINANCE (4 YEARS)

SUMMARY	Cr.Hrs
General Courses	32
Allied/Interdisciplinary Courses	12
Disciplinary/Major Courses	75
Internship/Field Experience	03
Capstone Project	03
Total	**125**

SEMESTER-I

S. No	Course Code	Course Title	Credit Hours		Remarks
1.	GER-304	Functional English	3(3-0)	General	HEC Adopted
2.	GER-310	Ideology and Constitution of Pakistan	2(2-0)	General	HEC Adopted
3.	GER-306	Quantitative Reasoning-I	3(3-0)	General	HEC Adopted
4.	GER-302	The Science of Global Challenges	3(2-1)	General (Natural Sciences)	HEC Adopted
5.	MGT-321	Fundamentals of Accounting	3(3-0)	Disciplinary	Approved
6.	MGT-310	Introduction to Business	3(3-0)	Disciplinary	Approved
7.	TOQ-101	Translation of Quran	NC		Approved
Total Credit Hours			**17**		

SEMESTER-II

S. No	Course Code	Course Title	Credit Hours		Remarks
1	GER-311	Expository Writing	3(3-0)	General	HEC Adopted
2	GER-305/ IS-302	Islamic Studies/Ethics	2(2-0)	General	HEC Adopted
3	GER-307	Quantitative Reasoning-II	3(3-0)	General	HEC Adopted
4	GER-309	Civics and Community Development	2(2-0)	General	HEC Adopted
5	GER-308	Application of Information and Communication Technologies (ICT)	3(2-1)	General	HEC Adopted
6	MGT-322	Financial Accounting	3(3-0)	Disciplinary	Approved
Total Credit Hours			**16**		

SEMESTER-III

S. No	Course Code	Course Title	Credit Hours		Remarks
1.	SOS-301	Moral Foundation of Education	2(1-2)	General (Arts & Humanities)	Approved Education dept.
2.	ECON-302	Introduction to Microeconomics	3(3-0)	Allied	Approved Economics dept.
3.	MGT-599	Financial Reporting	3(3-0)	Disciplinary	Approved
4.	MGT-351	Principles of Marketing	3(3-0)	Disciplinary	Approved
5.	MGT-411	Principles of Management	3(3-0)	Disciplinary	Approved
6.	MGT-423	Cost Accounting	3(3-0)	Disciplinary	Approved
7.	TOQ-201	Translation of Quran	NC		Approved
Total Credit Hours			**17**		

SEMESTER-IV

S. No	Course Code	Course Title	Credit Hours		Remarks
1.	GER-312	Entrepreneurship	3(3-0)	General	HEC Adopted
2.	ANTH-401	Social Psychology	3(3-0)	General (Social Science)	Approved Anthropology dept.
3.	ECON-304	Introduction to Macroeconomics	3(3-0)	Allied	Approved Economics dept.
4.	MGT-597	Financial Markets & Institutions	3(3-0)	Disciplinary	Approved
5.	MGT-407	Business Ethics and CSR	3(3-0)	Disciplinary	Approved
Total Credit Hours			**15**		

SEMESTER-V

S. No	Course Code	Course Title	Credit Hours		Remarks
1.	MGT-502	Principles of Auditing	3(3-0)	Disciplinary	Approved
2.	MGT-592	Investment and Portfolio Management	3(3-0)	Disciplinary	Approved
3.	MGT-595	Behavioral Finance	3(3-0)	Disciplinary	Approved
4.	MGT-525	Financial Management	3(3-0)	Disciplinary	Approved
5.	ECON-405	Econometrics-I	3(3-0)	Allied	Approved Economics dept.
6.	TOQ-301	Translation of Quran	NC		Approved
		Total Credit Hours	**15**		

SEMESTER-VI

S. No	Course Code	Course Title	Credit Hours		Remarks
1.	MGT-633	Corporate Finance	3(3-0)	Disciplinary	Approved
2.	MGT-493	Business Research Methods	3(3-0)	Disciplinary	Approved
3.	ECON-406	Econometrics-II	3(3-0)	Allied	Approved Economics dept.
4.		ELECTIVE-I	3(3-0)	Disciplinary	Approved
5.		ELECTIVE-II	3(3-0)	Disciplinary	Approved
Total Credit Hours			**15**		

SEMESTER-VII

S. No	Course Code	Course Title	Credit Hours		Remarks
1.	MGT-600	Corporate Governance	3(3-0)	Disciplinary	Approved
2.	MGT-596	Forensic Accounting	3(3-0)	Disciplinary	Approved
3.	MGT-699	Project	3(0-6)		Approved
4.		ELECTIVE-III	3(3-0)	Disciplinary	Approved
5.		ELECTIVE-IV	3(3-0)	Disciplinary	Approved
6.	TOQ-401	Translation of Quran	NC		Approved
Total Credit Hours			**15**		

SEMESTER-VIII

S. No	Course Code	Course Title	Credit Hours		Remarks
1	MGT-696	Production Operations Management	3(3-0)	Disciplinary	Approved
2	MGT-602	Business Taxation	3(3-0)	Disciplinary	Approved
3	MGT-512	Organizational Behavior	3(3-0)	Disciplinary	Approved
4	MGT-513	Business Law	3(3-0)	Disciplinary	Approved
5	MGT-698	Internship	3(0-6)		Approved
Total Credit Hours			**15**		

Elective Courses

S. No	Course Code	Course Title	Credit Hours	Remarks
		Accounting		
1.	MGT- 604	Public Sector Accounting	3(3-0)	Already Approved for BS Commerce
2.	MGT 661	Advance Taxation	3(3-0)	Approved
3.	MGT - 606	Accounting Information Systems	3(3-0)	Already Approved for BS Commerce
4.	MGT – 531	Analysis of Financial Statements	3(3-0)	Already Approved for BS Commerce {Course code changed from MGT-607}
5.	MGT- 608	International Accounting and Accounting for MNCs	3(3-0)	Already Approved for BS Commerce
6.	MGT 662	E-Accounting	3(3-0)	Approved
7	MGT- 663	Advance Audit and Assurance	3(3-0)	Approved

S. No	Course Code	Course Title	Credit Hours	Remarks
		Finance		
1	MGT - 651	Enterprise Resource Planning system for Finance	3(3-0)	Approved
2.	MGT - 637	Financial Modeling	3(3-0)	Already Approved for BBA 4years
3.	MGT- 650	Islamic Banking and Finance	3(3-0)	
4.	MGT- 638	International Finance	3(3-0)	Already Approved for BBA 4years
5.	MGT - 652	Contemporary issues in Accounting and Finance	3(3-0)	Approved
6.	MGT - 653	Financial Risk Management	3(3-0)	Approved
7.	MGT-639	Money & Capital Markets	3(3-0)	Already Approved for BS Commerce

(Two Elective Courses from each specialization)

Course Outlines

GER 304   **FUNCTIONAL ENGLISH**   **3(3-0)**

Course Description

This course is designed to equip students with essential language skills for effective communication in diverse real-world scenarios. It focuses on developing proficiency in English language usage: word choices, grammar and sentence structure. In addition, the course will enable students to grasp nuanced messages and tailor their communication effectively through application of comprehension and analytical skills in listening and reading. Moreover, the course encompasses a range of practical communication aspects including professional writing, public speaking, and everyday conversation, ensuring that students are equipped for both academic and professional spheres. An integral part of the course is fostering a deeper understanding of the impact of language on diverse audiences. Students will learn to communicate inclusively and display a strong commitment to cultural awareness in their language use, additionally, the course will enable them to navigate the globalized world with ease and efficacy, making a positive impact in their functional interactions. As part of the overall learning requirements, students will also be exposed to relevant simulations, role-plays and real-life scenarios and will be required to apply skills acquired throughout the course in the form of a final project.

Main topics of the course include: Foundations of Functional English, Comprehension and Analysis, Principles of communication, Inclusivity in communication, Presentation skills, Informal communication

Course Learning Outcomes

By the end of this course, students will be able to

1.   Apply enhanced English communication skills through effective use of word choices, grammar and sentence structure.
2.   Comprehend a variety of literary / non-literary written and spoken texts in English.
3.   Effectively express information, ideas and opinions in written and spoken English.
4.   Recognize inter-cultural variations in the use of English language and to effectively adapt their communication style and content based on diverse cultural and social contexts.

Reference Texts

1.   "Understanding and Using English Grammar" by Betty Schrampfer Azar.
2.   "English Grammar in Use" by Raymond Murphy.
3.   "The Blue Book of Grammar and Punctuation" by Jane Straus.
4.   "English for Specific Purposes: A Learning-Centered Approach" by Tom Hutchinson and AlanWaters.
5.   "Cambridge English for Job-hunting" by Colin Downes
6.   "Practical English Usage" by Michael Swan.
7.   "Reading Literature and Writing Argument" by Missy James and Alan P. Merickel.
8.   "Improving Reading: Strategies, Resources, and Common Core Connections" by Jerry Johns &Susan Lenski.
9.   "Comprehension: A Paradigm for Cognition" by Walter Kintsciv
10. "Communication Skills for Business Professionals" by J.2, Verraa and Meenakshi Raman.

GER-305/ IS-302   **ISLAMIC STUDIES/ETHICS**   **2(2-0)**

Course Description
This course is designed to provide students with a comprehensive overview of the fundamental aspects of Islam, its beliefs. Practices, history and influence on society. It will further familiarize the students with a solid foundation in understanding Islam from an academic and cultural perspective. Through this course, students will have an enhanced understanding of Islam's multifaceted dimensions which will enable them to navigate complex discussions about Islam's historical and contemporary role fostering empathy, respect, and informed dialogue.

Course Learning Outcomes
By the end of this course, students will be able to:
1. Demonstrate enhanced knowledge of Islamic foundational beliefs, practices, historical development, spiritual values and ethical principles.
2. Describe basic sources of Islamic law and their application in daily life.
3. Identify and discuss contemporary issues being faced by the Muslim world including social challenges, gender roles and interfaith interactions.

SYLLABUS
Introduction to Islam,   Definition of Islam and its core beliefs. The Holy Quran (introduction, revelation and compilation). Hadith and Sunna (compilation, classification, and significance).Key theological concepts and themes (Tawhid, Prophethood, Akhirah etc.). Sirah of the Holy Prophet (Peace Be Upon Him) as Uswa-i-Hasana : Life and legacy of the Holy Prophet PBUH. Diverse roles of the Holy Prophet PBUH (as an individual, educator, peace maker, leader etc.). Islamic History and Civilization: World before Islam. The Rashidun Caliphate and expansion of Islamic rule. Contribution of Muslim scientists and philosophers in shaping world civilization .Islamic Jurisprudence (Fiqh): Fundamental sources of Islamic jurisprudence." Pillars of Islam and their significance. Major schools of Islamic jurisprudence. Significance and principles of ljtihad .Family and Society in Islam: Status and rights of women in Islamic teachings. Marriage, family, and gender roles in Muslim society .Family structure and values in Muslim society .Islam and the Modern World: Relevance of Islam in the modern world (globalization, challenges and prospects).Islam phobia, interfaith dialogue, and multiculturalism .Islamic viewpoint towards socio-cultural and technological changes.

TEXT BOOKS
1. "The Five Pillars of Islam: A Journey Through the Divine Acts of Worship" by Muhammad Mustafa Al-Azami."
2. The Five Pillars of Islam: A Framework for Islamic Values and Character Building" by Musharraf Hussain.
3. "Towards Understanding Islam" by Abul A ' la Mawdudi.
4. "'Islami Nazria e Hayat' by Khurshid Ahmad.
5. "An Introduction to Islamic Theology" by John Renard.
6. "Islamic Civilization Foundations Belief & Principles" by Abul A ' la Mawdudi.
7. "Women and Social Justice: An Islamic Paradigm" by Dr. Anis Ahmad.
8. "Islam: Its Meaning and Message" by Khurshid Ahmad.

Note: This course is compulsory for Muslim and optional for non-Muslim undergraduate students. Non-Muslim students can opt for any course of at least the same or more credits in subjects such as religious studies, ethics, theology, comparative religion, Christian ethics, etc.

GER-306   **QUANTITATIVE REASONING-I**   **3(3-0)**

Course Description

Quantitative Reasoning (I) is an introductory-level undergraduate course that focus on the fundamentals related to the quantitative concepts and analysis. The course is designed to familiarize students with the basic concepts of mathematics and statistics any to develop students' abilities to analyze and interpret quantitive information through a combination of theoretical concepts and practical exercises. This course will also enable students cultivate their quantitative literacy and problem-solving skills while effectively expanding their academic horizon and breadth of knowledge of their specific major field of studs

Course Learning Outcomes

By the end of this course, students shall have

1. Fundamental numerical literacy to enable them works with numbers. Understand their meaning and present data accurately;
2. Understanding or fundamental mathematical and statistic
3. Basic ability to interpret data presented in various formats including but not limited to tables graphs. charts and equations etc.

Syllabus

Numerical Literacy, Number system and basic arithmetic operations; Units and their conversions, dimensions, area, perimeter and volume: Kates, ratios, proportions and percentages Types and sources of data; Measurement scales; Tabular and graphical presentation of data; Quantitative reasoning exercises using number, Fundamental Mathematical Concepts, Basics of geometry (lines, angles, circles, polygons etc.); Sets and their operations :Relations, functions. and their graphs :Exponents, Factoring and simplifying algebraic expressions. Algebraic and graphical solutions of linear and quadratic equations and Quantitative reasoning exercises using fundamental mathematical concepts, Fundamental Statistical Concepts, Population and sample: Measures of central tendency, dispersion and data interpretation: Rules of counting (multiplicative, permutation and combination);Basic probability theory; introduction to random variables and their probability distributions: Quantitative reasoning exercises using fundamental statistical concepts ,simple linear regression model and correlation analysis .Basics of estimation and confidence interval, Testing of hypothesis (2-test; t-test);statistical inference in decision making;

Quantitative reasoning exercises using statistical modeling

Text Book

1. "Using ard Understending Nathematios: A Quaatitative Reasoning Approach" by Bennett, J.O., Briggs, W. L., & Badaiamenti, A.
2. "Discrete Mathematics and its Applications" by Kenneth H. Rosen.
3. "Discrete Mathematics with Applications" by Susanna S. Spp.
4. "Applied Mathematics fer Business. Economics and Social Sciences" by Frank S Budnick.

5. "Elementary Statistics: A Step by Step Approach" by Allan Bluman.
6. "Introductory Statistics" by Prem S. Mann.
7. "Applied Statistical Modeling" by Salvatore Babones.
8. "Barrons SAT" by Sharvon Weiner Green, M.A and Ira K.Wolf.

GER-307   **QUANTITATIVE REASONING-II**   **3(3-0)**

Course Description
Quantitative Reasoning (I) is a sequential undergraduate course that focuses on logical reasoning supported with mathematical and statistical concepts and modeling / analysis techniques to equip students with analytical skills and critical thinking abilities necessary to navigate the complexities of the modern world. The course is designed to familiarize students with the quantitative concepts and techniques required to interpret and analyze numerical data and to inculcate an ability in students the logical reasoning to construct and evaluate arguments, identify fallacies, and think systematically.keeping the pre-requisite course of Quantitative Reasoning () as its base, this course will enable students further their quantitative, logical and critical reasoning abilities to complement their specific

Course Learning Outcomes
By the end of this course, students shall have:
1. Understanding of logic and logical reasoning;
2. Understanding of basic quantitative modelling and analyses;
3. Logical reasoning skills and abilities to apply them to solve quantitative problems and evaluate arguments,
4. Ability to critically evaluate quantitative information to make evidence based decisions through appropriate computational tools.

Syllabus
Logic, Logical and Critical Reasoning Introduction and importance of logic; Inductive, deductive and abdicative approaches of reasoning; Propositions, arguments (valid; invalid), logical connectives. truth, tables and proposition, Logical fallacies;
Venn Diagrams ;Predicates and quantifiers; Quantitative reasoning exercises using logical reasoning concepts and techniques reasoning concepts and techniques, Mathematical Modeling and Analyses, Modeling with the system of linear equations and their solutions; Elementary introduction to derivatives in mathematical modeling; Linear and exponential growth and decay models ;Quantitative reasoning exercises using mathematical modeling. Linear and exponential growth and decay models; Quantitative reasoning exercises using mathematical modeling. Statistical Modeling and Analyses Bivariate analysis, scatter plots; Simple linear regression model and correlation analysis; Basics of estimation and confidence interval; Testing of hypothesis 2-test: 1-te.0:Statistical inference in decision making; Quantitative reasoning exercises using statistical modeling

Text Book

1. "Quantitative Reasoning: Tools for Today's Informed Citizen" by Bernard .L Madison. Lynn and Arthur Steen.

2. "Quantitative Reasoning for the Information Age" by Bernard L. Madison and David M. Bressoud.
3. "Fundamentals of Mathematics" by Wade Ellis.
4. "Quantitative Reasoning: Thinking ni Numbers" by Eric Zaslow.
5. "Thinking Clearly with Data: A Guide to Quantitative Reasoning and Analysis" by Ethan Bueno de Mesquita and Antiony Fowler.
6. "Using and Understanding Maliernatics: A Quantitative Reasoning Approach" by Bennett, J O., Briggs, W. L., & Badalamenti, A
7. "Statistics for Technclogy: ACourse ni Applied Statistics" by Chatfield, C
8. "Statistics: Unlocking the Pore: or Data" by Robin F. Lock, Patti Frazer Lock, Kari Lock Morgan, and Eric F. Lock.

GER-308 APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) 3(2-1)

Course Description

Overview of ICT and its importance, Historical development of ICT, ICT platforms tools for difference purposes, ICT n the modern world, academic and professional life, ICT trends and emerging technologies ,understand ethical and legal use of ICT ,Applications of information & communication in business. Understand the basics of computer applications in business, including word processing, spreadsheet analysis, and presentation software. Introduction to business software.

Lab: MS word introduction overview interface , tabs, buttons, Input &output devices (assignment)Elements of computer(hardware ,software)Types of software(system software, application software, shareware, freeware, business software, graphic and multimedia software, Communication software,(email, ftp, web browser, video-conferencing etc)

Utility programs: file viewers, file compressor, firewall, spyware remover, disk defragmenter, backup utility, disk cleanup etc. Databases and information management (data, information, what is database, keys, relationship (1-one, 1 to many, many to many etc

Lab: MS-EXCEL

Operating system and utility programs: Types of O.S (standalone O.S, network O.S, embedded O.S)Communication systems: Data transmissions, modes of Transmission, methods of transmission, Computer networks: LAN, WAN, MAN, network topologies.

Computer networks:Network media and hardware, NW devices (hub, bridges, switches, routers), NW technologies, protocol suites (TCP/ip,Osi model)

Lab: Microsoft power point**.** Internet: network ,client & server ,peer to peer ,host and terminals, ISP**,**Internet: www ,hypertext ,URL , web browsers ,IP address , isp

Lab: Online learning managements systems (model, canvas, Google classroom)**,**Online education courses (Coursera,edx,udemy , khan academy etc)**,**Introduction to e-commerce-definition , types , b2b , c2b,c2c,model , digital marketing information

Security- definition, principal of information security, threat, threat type, risk information security risk type. Security Cryptography, types of cryptography, ids, firewall Malwares. Virus,

worms, Trojan. Introduction to micro soft access, Creating table using Microsoft access**,** Micro soft access**,** Objects, query, form and reports**.** The software development   life cycle**,** System approach, series of steps**,** the soft ware development lifecycle (SDLC)**,** Traditional SDLC**,** Prototyping**,** Rapid application development (rad)

MIS**:** Decision support system**,** Problem solving and decision making, Problem solving phases

The future of   information technology, The firms and its environment. The general system model of the firms, Supply chain management, Need for information processing ,Challenges in developing globalization, A Politically imposed constraints, Cultural and communication barriers, Technological problems, Knowledge management, Chief information officer and chief technology officer, Strategic planning for enterprise ,The business organizations. IS support for organization,The information services The information specialists, Information as critical success factor, Transaction processing systems Organizational information systems ,Morals, ethics and laws, Computer legislation, Software patent legislation ,Codes of ethics and professional practice computer ethics education ,Reasons for computer, ethics Information auditing, Achieving ethics in IT,ACM software engineering ethics, History of AI, Areas of AI, The appeal of expert systems

Text Books
1. Introduction to computers, Peter Norton, 7^(th)Edition.2023

2. Computer Science An Overview, J. Glenn Brooks hear 11^(th)Edition.2022

GER-310   IDEOLOGY AND CONSTITUTION OF PAKISTAN   2(2-0)

Course Description

This course is designed to provide students with a fundamental exploration of the ideology and the constitution of Pakistan. The course focuses on the underlying principles, beliefs, and aspirations that have been instrumental in shaping the creation and development of Pakistan as a sovereign state.

Moreover, the course will enable students to understand the core provisions of the Constitution of the Islamic Republic of Pakistan concerning the fundamental rights and responsibilities of Pakistani citizens to enable them function in a socially responsible manner.

Course Learning Outcomes.

By the end of this course, students will be able to:
1. Demonstrate enhanced knowledge of the basis of the ideology of Pakistan with special reference to the contributions of the founding fathers of Pakistan.
2. Demonstrate fundamental knowledge about the Constitution of Pakistan 1973 and its evolution with special reference to state structure.
3. Explain about the guiding principles on rights and responsibilities of Pakistani citizens as enshrined in the Constitution of Pakistan 1973.

Syllabus

Introduction to the Ideology of Pakistan: Definition and significance of ideology .Historical context of the creation of Pakistan (with emphasis on socio-political. religious and cultural dynamic of British India between 1857 t#|:1947). * •Contributions of founding fathers of Pakistan in the freedom movement including but not limited to Allama Muhammad Iqbal, Muhammad Ali Jinnah., etc. Contributions of women and students in the freedom movement for separate homeland for Muslims of British India. Two-Nation Theory: Evolution of the 'Two-Nation Theory (Urdu-Hindi controversy, Partition of Bengal, Shimla Deputation 1906, Allama Iqbal's Presidential Address 1930, Congress Ministries 1937Lahore Resolution 1940).Role of' communalism and religious differences. Introduction to the Constitution of Pakistan: Definition and importance of a constitution. Ideological factors that shaped the Constitution(s) of Pakistan (Objectives Resolution 1949).Overview of constitutional developments in Pakistan. Constitution and State Structure: Structure of government (executive, legislature, and judiciary).Distribution of powers between federal and provincial governments, 18th Amendment and its impact on federalism, Fundamental Rights. Principles of policy and Responsibilities: Overview of fundamental rights guaranteed to citizens by the Constitution of Pakistan 1973 (Articles 8-28).Overview of Principles of Policy (Articles 29-40).Responsibilities or the Pakistani citizens (Article 5), Constitutional Amendments: Procedures for amending the constitution Notable constitutional amendments and their implications

Text Books

1. "The Idea of Pakistan" by Stephen P. Cohen.
2. "Ideology of Pakistan" by Javed Iqbal.
3. "The Struggle for Pakistan." by I.H. Qureshi.
4. "Pakistan the Formative Phase' by "Khalid Bin SAyed.
5. "Pakistan: Political Roots and Development" by Safdar Mahmood.
6. "Ideology of Pakistan" by Sharif-ul-Mujahid.
7. *'The Struggle for Pakistan: A Muslim Homeland and Global Politics" by Ayesha Jalal.
8. "Jinnah, Pakistan and Islamic Identity: The Search for Saladin" by Akbar S. Ahmed.
9. "The Making of Pakistan: A Study in Nationalism" by K.K. Aziz.
10. "Pakistan: A New History" by lan Talbot.
11. "Pakistan in the Twentieth Century: A Poitical History" by Lawrence Ziring.
12. The Constitution of Pakistan 1973". Original."Constitutional and Political Development of Pakistan" by Hamid Khan.*The Parliament of Pakistan" by Mahboob Hussain.
13. "Constitutional Development in Pakistan" by G.W. Choudhury.
14. "Constitution-Making in Pakistan: The Dynamics of Political Order" by G.W. Choudhury.

GER 311   **EXPOSITORY WRITING**   **3(3-0)**

Course Description
Expository Writing is a sequential undergraduate course aimed at refining writing skills in various contexts. Building upon the foundation of the pre-requisite course, Functional English, this course will enhance students' abilities of producing clear, concise and coherent written texts in English. The course will also enable students to dissect intricate ideas, to amalgamate information and to express their views and opinions through well-organized essays. The students will further be able to refine their analytical skills to substantiate their viewpoints using credible sources while adhering to established ethical writing norms. Additionally, the course will highlight the significance of critical thinking enabling students to produce original and engaging written texts. As part of the overall learning requirements, students will be required to build a writing portfolio having a variety of expository texts and present the same at the end of the course showcasing proficiency in expository writing.
Core topics of the course include: Characteristics of effective expository writing, The Writing Process, Essay Organization and Structure, Different types of expository writing, writing for Specific Purposes and Audiences, Ethical Considerations, Proper citation and referencing.

Course Learning Outcomes
By the end of this course, students will be able to
1.   Understand the essentials of the writing process integrating pre-writing, drafting, editing and proof reading to produce well-structured essays.
2.   Demonstrate mastery of diverse expository types to address different purposes and audiences.
3.   Uphold ethical practices to maintain originality in expository writing.

Text Books
1. 'The St. Martin's Guide to Writing" by Rise B. Axelrod and Charles R. Cooper.
2. 'They Say / I Say: The Moves That Matter in Academic Writing" by Gerald Graff and Cathy Birkenstein.
3. "Writing Analytically" by David Rosen wasser and Jill Stephen
4. "Style: Lessons in Clarity and Grace" by Joseph M. Williams and Joseph Bizup
5. "The Elements of Style" by William Strunk Jr. and E.B. White.
6. "Good Reasons with Contemporary Arguments" by Lester Faigley and Jack Selzer.
7. "Writing to Learn: How to Write - and Think - Clearly About Any Subject at All" by William Zinsser.
8. "The Norton Field Guide to Writing" by Richard Bullock, Maureen Daly Goggin, and Francine Weinberg.
9. "The Art of Styling Sentences" by Ann Long knife and K.D. Sullivan
10. "Writing Today" by Richard Johnson-Sheehan and Charles Paine.

GER-312   **ENTREPRENEURSHIP**   **3(3-0)**

Course Description
This course is designed to promote entrepreneurial spirit and outlook among students. encouraging them to think critically, identity opportunities, and transform their ideas into successful ventures. It aims at imparting them with the requisite knowledge: skills and abilities. enabling them to see the identitied opportunities for initiating ventures and successfully navigating the challenges that come with starting a business and managing it. The course covers topics relevant to entrepreneurship including setting up and initiation of business (including requirements for registration and incorporation with regulators such as SECP and others), market rescarch, opportunity identilication. business planning. Anancial literacy for managing finances and securing funding. markeuing and sales. team building and innovation. Overall. the course is geared towards personal growth and professional development for pursuing innovative ideas, availing opportunities and initiating start-

Course Learning Outcomes
By the end of this course, students shall have:
1. Knowledge of fundamental entrepreneurial concepts, skills and process;
2. Understanding of different personal, social and financial aspects associated with entrepreneurial activities;
3. Basic understanding of regulatory requirements to set up an enterprise in Pakistan, with special emphasis on exports;
4. Ability to apply knowledge, skills and abilities acquired in the course to develop a feasible business plan for implementation.

Syllabus
Introduction to entrepreneurship, Delimitation and concept of entrepreneurship; Why to become an entrepreneur including stones of successes and failures): Areas of essential entrepreneurial skills and abilities such as creative and critical thinking innovation and risk taking. Opportunity Recognition and Idea Generation: Opportunity identification, evaluation and exploitation: Innovative ideas pencration techniques for entrepreneurial ventures, Marketing and Sales Target market identification and segmentation;
Four P's of Marketing: Developing a marketing strategy Branding .Financial Literacy: Basic concepts of income, savings and investments; Basie concepts of assets, liabilities and equity; Basic concepts of revenue and expenses; Overview of cash- How; Overview of banking, products including Islamic modes of financing: Sources of finding for startups (angel financing, debt financing, equity financing etc.)Team Building for Startups: Characteristics and features of effective teams, Team building and effective leadership for startups. Regulatory Requirements to Establish Enterprises in Pakistan: Types of enterprises (e.B., sole proprietorship; partnership; private limited companies etc): Intellectual property rights and protection; Regulatory requirements to register an enterprise in Pakistan, with special emphasis on export firms: 'Taxation and financial reporting obligation.

Practical Requirements
As part of the overall learning requirements, students shall be tasked with creating and presenting a comprehensive business plan at the end of the course for a hypothetical or real business idea. This practical exercise shall allow them to apply the knowledge, skills and abilities acquired in the course to develop a feasible business plan and where possible explore the

possibility of implementing the plan with support and assistance from established business-persons and entrepreneurs

Text Books
1. "Entrepreneurship: Successfully Launching New Ventures" by Bruce R. Barringer and R
2. Duane Ireland.
3. "Entrepreneurship: 'Theory, Process, and Practice" by Donald I. Kuratko.
4. "New Venture Creation: lintrepreneurship for the 21st Century" by Jeffry A. Timmons, Stephen Spinelli Jr., and Rob Adams.
5. "Entrepreneurship: A Real-World Approach" by Rhonda Abrams.
6. "The I.can Startup: How Today's Entrepreneurs Use Continuous Innovation to Create
7. Radically Successful Businesses" by Eric Ries.
8. "Effectual Entrepreneurship" by Stuart Read, Saras Sarasvathy, Nick Dew, Robert Wiltbank, and Anne-Valeric Ohlsson.

GER-302   The Science of Global challenges   3(3-0)

Course Description

Our world has seen a massive transformation in the past 200 years. The progress that we see around ourselves is largely owed to the advancement in scientific knowledge that has enabled us to harness Nature's resources in a multitude of ways. This progress however has come at a great cost, including a threat to our own existence. Through this course, we will discuss some of the core challenges mankind is facing, the scientific reasoning behind all these challenges and the actions that must be taken to create a future free of these problems. The three main areas we will focus on include Climate Change, The Energy Crisis and the survival of humanity in the wake of deadly viruses and infectious diseases. Towards the end the students will get to see the complex relationship between Science, Technology and our Society and some future directions that promise a safer future for all of us.

Course Learning Outcomes

Through successful completion of this course, students will be able to:

1. Explain the scientific principles that help understand the key challenges we are facing today

2. Describe natural systems modulating the Earth's climate, articulate causes and consequences of anthropogenic climate change, and discuss measures to curb global greenhouse gas emissions.

3. Differentiate between renewable and nonrenewable systems.

4. Explain the working principles of various renewable systems and devices including solar photovoltaic, wind mills, hydro power, geo thermal and bio energy.

5. Explain the working principle of key biological ideas including viruses and diseases, evolution by natural and artificial selection.

6. Demonstrate an understanding of the deep connection between science, technology and society.

Syllabus
Introduction to some key advancements we have made in the last 200 years and the associated challenges that are manifesting themselves in the form of Climate Crisis, the over reliance on fossil fuels and mass extinction of various species.

Intro and Framing, What's the greenhouse effect? , Challenges and risks of climate change
 Geologic History and Planetary Process, Oceans: How do ocean currents regulate global Climate, Atmosphere: How do large scale wind patterns affect global climate, Ecosystems: Climate constrains ecosystems and ecosystems impact global climate, Projections of future climate, Measuring anthropogenic climate change, What are GCMs? Carbon emission, scenarios, Sustainability Science of Energy: Forms of Energy, Energy Conversion, Sustainability of Energy Systems, Working of renewable devices. How do solar cells operate? Photoelectric effect, intro to semiconductors and band gaps, Wind energy, Wind mills, Physics of a generator, Energy quantification - Energy needs, available resources, and renewable vs nonrenewable, challenges of current practices. ,Future of Energy.What are infectious diseases? Types of infectious diseases, History of Germs, Vaccines and Diseases, Evolution by Natural and Artificial Selection, Why are viruses crossing species barrier? Anti-biotic resistance ,Human physiological limits , Changing interactions and new diseases ,Complex web of science, politics and social systems ,Development of Science in certain areas, Role of Wars ,Scientific Funding ,Technological Progress and Ethical Constraints ,Human experiences as Data ,Nanotechnology and its future applications in Medicine, Food, Computational Systems, Energy ,Biotechnology ,Future of foods: Agricultural production, consumption and nutrition , Genetic Modification: CRISPR, Gene Therapy ,Exobiology – Life and humans outside of Earth.
Text Books
Usman, M., 2020. *Scientifce of Global Challenges*. Latest ed. ILMI