

SCHEME OF STUDIES FOR BS MEDICAL LABORATORY TECHNOLOGY

SESSION 2024-2028

SEMESTER 1			TYPE OF COURSE
AHP-305	Introduction to Allied Health Sciences	2 (2-0)	Interdisciplinary
AHP-301	Human Anatomy	4 (3-1)	Major
AHP-303	Medical Physiology	4 (3-1)	Major
PSY-303	Behavioral Science	3(3-0)	General Education
ENG-321	Functional English	3 (3-0)	General Education
ISL-321	Islamic Studies*	2 (2-0)	General Education
ETH-302	Ethics for Non-Muslim Students*		
MTH-321	Algebra & Trigonometry	3(3-0)	General Education
THQ-311	Translation of The Holy Quran-I (Audit Course)	1(1-0)	Audit Course
* Student will opt any one from these elective subject			
TOTAL		21	
SEMESTER 2			TYPE OF COURSE
AHP-304	Introductory Pharmacology	2(2-0)	Interdisciplinary
AHP-306	Introductory Biochemistry	3 (2-1)	Major
QTR-421	Quantitative Reasoning-I	3 (3-0)	General Education
PST-321	Pakistan Studies	2 (2-0)	General Education
CSI-321	Introduction to Computing Applications	3(2-1)	General Education
ICP-321	Ideology and Constitution of Pakistan	2 (2-0)	General Education
MLT-304	Clinical Lab Practice-I	2 (0-2)	Major
TOTAL		17	
SEMESTER 3			TYPE OF COURSE
MLT-507	Biosafety and Hazards	2 (2-0)	Interdisciplinary
AHP-403	Introductory Microbiology	3 (2-1)	Major
MLT-401	General Hematology	4 (3-1)	Major
AHP-405	Pathology	3 (2-1)	Major
ENG-322	English Comprehensive and Composition	3(3-0)	General Education

QTR-422	Quantitative Reasoning-II	3 (3-0)	General Education
THQ-411	Translation of The Holy Quran–II (Audit Course)	1(1-0)	Audit Course
TOTAL		18	
SEMESTER 4			TYPE OF COURSE
ENG-422	Technical Writing	3(3-0)	General Education
BAM-422	Entrepreneurship	2(2-0)	General Education
MLT-404	Clinical Biochemistry	4 (3-1)	Major
MLT-408	Histopathology and Histotechnology	4 (3-1)	Major
MLT-403	Chemical Pathology	3 (2-1)	Major
MLT-410	Clinical Lab Practice-II	2 (0-2)	Major
TOTAL		18	
SEMESTER 5			TYPE OF COURSE
MLT-501	Clinical Parasitology	3 (2-1)	Major
MLT-503	Immunohematology and Transfusion Medicine	3 (2-1)	Major
MLT-505	Clinical Bacteriology	4 (3-1)	Major
MLT-509	Medical Instrumentations and Software Applications	3 (3-0)	Major
MLT-406	Immunology and Serology	4 (3-1)	Major
THQ-511	Translation of The Holy Quran–III (Audit Course)	1(1-0)	Audit Course
TOTAL		17	
SEMESTER 6			TYPE OF COURSE
MLT-502	Cytology and Cytotechnology	3 (2-1)	Major
BNB-321	Molecular Biology	3 (2-1)	Interdisciplinary
MLT-504	Clinical Virology and Mycology	3 (2-1)	Major
MLT-506	Advanced Hematology	3 (2-1)	Major
MLT-508	Advanced Immunology	3 (2-1)	Major
MLT-510	Clinical Enzymology	3 (2-1)	Major
TOTAL		18	
SEMESTER 7			TYPE OF COURSE
AHP-601	Forensic Medicine	3 (3-0)	Interdisciplinary
STA-421	Biostatistics	3 (3-0)	Interdisciplinary

AHP-603	Community Medicine and Public Health	3 (2-1)	Interdisciplinary
MLT-603	Advanced Clinical Biochemistry*	4 (3-1)	Major
MLT-613	Clinical Genetics*		
MLT-605	Advanced Clinical Microbiology*		
MLT-607	Advanced Molecular Biology*		
MLT-609	Advanced Diagnostic and Biomedical Techniques	3 (2-1)	Major
MLT-611	Quality Assurance Management	2 (2-0)	Major
THQ-611	Translation of The Holy Quran–IV (Audit Course)	1(1-0)	Audit Course
TOTAL		18	
* Student will opt any one from these elective subject			
SEMESTER 8			TYPE OF COURSE
AHP-602	Epidemiology	3 (3-0)	Interdisciplinary
BNB-402	Bioinformatics-I	3 (2-1)	Interdisciplinary
MLT-604	Clinical Laboratory Management	3 (3-0)	Major
INT-631	Internship	3 (0-3)	Field Experience
CAP-630	Capstone Project	3 (0-3)	Capstone Project
TOTAL		15	

Theory

Introduction to Medical & Health Professions – Overview & Importance. History and Evolution of Health Professions. Introduction to the Healthcare System: Components and Functions. Role of Allied Health Professionals in Healthcare. Medical vs. Allied Health Professions: Key Differences. Overview of Medical Education and Training (MBBS). Overview of Dental Education and Training (BDS). Nursing and Midwifery: Scope and Career Pathways. Surgical Technology: Roles, Responsibilities, and Career Outlook. Radiologic Technology and Imaging Professions. Medical Laboratory Technology: Roles and Functions. Emergency Medical Services (EMS) & Paramedics. Speech Therapy: Role, Responsibilities, and Career Outlook. Renal Dialysis Technology: Scope, Functions, and Training. Radiotherapy: Overview of Technology and Treatment. Psychological Sciences: Role in Mental Health & Well-being. Orthotics and Prosthetics: Career Pathways and Technologies. Operation Theater Technology: Roles and Key Responsibilities. Medical Imaging Technology: Radiology, Ultrasound, and MRI. Hearing Sciences: Audiology and Speech-Language Pathology. Dental Technology: Scope and Functions in Dental Care. Cardiac Perfusion: Overview of Cardiovascular Support Systems. Anesthesia Technology: Role in Surgical Support and Safety. Medical Ethics in Health Professions. Legal and Ethical Issues in Healthcare. Interprofessional Collaboration in Healthcare. Healthcare Team Dynamics: Roles and Relationships. Communication Skills for Health Professionals. Patient-Centered Care: Concepts and Application. Leadership in Health Professions: Traits and Development. Healthcare Policies, Global Health Systems, and Regulations. Course Review and Final Assessment.

Recommended Books:

1. Introduction to Health Care" by Joyce Mitchell and Lee Haroun
2. Introduction to the Health Professions" by Peggy S. Stanfield, Yiu H. Hui, and Nanna Cross
3. Medical Ethics: A Very Short Introduction" by Michael Dunn and Tony Hope
4. Leadership for Health Professionals: Theory, Skills, and Applications" by Gerald R.

Theory

Introduction to human anatomy: Branches, levels of body organization & systems, anatomical position, region names, planes, sections & body cavities, Cells and its structural components. Structure and types of different body tissues & membranes. Integumentary system: structures blood supply & development. Musculoskeletal System: structure, type and function of muscles, bones & joints. Components of the axial & appendicular skeletal system. The Nervous System: Central Nervous System. Peripheral Nervous System (Autonomic & somatic). Special Senses. Reflex arc and reflex action. Cerebrospinal fluid and its circulation. Cranial and spinal nerves. The Cardiovascular System; blood, Heart, and blood vessels, Pulmonary and systemic circulation, Lymphatic system & immunity. Respiratory System; The anatomy of the respiratory passages, lungs and pleural cavity. The Digestive System; organs of digestive tract (mouth, pharynx, esophagus, stomach, pancreas, liver and gall bladder, small & large intestine) Blood supply & lymphatic drainage. Genito-Urinary System; The structure of nephron and organs of the urinary system and its relations with other organs, Structures of Male & female reproductive system. Embryonic development.

Practical:

1. Labelling of various planes, sections & regions of human body
2. Identification of bones; compact, spongy, long, short, sesamoid bones
3. Identification of various types of muscles.
4. Identification of various organs of gastrointestinal system
5. Labelling of anatomical and functional regions of nervous system
6. Drawing and labelling of structures of genito- urinary tract system
7. Differentiation between arteries, veins and capillaries

Recommended Books:

5. Waugh A, Grant A. Ross & Wilson anatomy and physiology in health and illness. Elsevier Health Sciences; 2014.
6. Principles of Human Anatomy 12th Edition by Garad J. Tortora. John Wiley & Sons, Inc.
7. General Anatomy by Laiq Hussain Siddiqui.
8. Atlas of Human Anatomy 5th edition by Frank H. Netter
9. Simbryo: An Animated tour of Human development by Phillip M. Ecker, Grant M. Ecker, Lawrence H. Mathers

Theory

Introduction to the human physiology; functional organization, relationship between structure and function of the human body. Homeostasis, importance negative and positive feedback mechanism. Integumentary system; Layers of skin and types of glands, Functions of the skin, hair and glands, diseases related to skin, Body temperature, its types and its regulation. The musculoskeletal system: Physiological anatomy of muscles and their types., Functional characteristics of skeletal muscle, smooth muscle and cardiac muscle, Properties of muscles. The events of muscle contraction and relaxation in response to an action potential in a motor neuron, Neuromuscular junction, Distinguish between aerobic and anaerobic muscle contraction, Muscle hypertrophy and atrophy. The nervous system; functional anatomy of nervous system, Functions of all the parts of central nervous system. Functions of various cranial nerves, Division of peripheral nervous system (somatic and autonomic NS), The classification and function of neurons, neuroglial cells and their components.

Resting membrane potential and an action potential, Difference between sympathetic and para sympathetic NS, Difference between somatic and autonomic nervous system. The types and function of a synapse and reflex arc, Diseases related to nervous system. The functions of the specialized sense organs; Eye: physiology of site, accommodation, optic nerve and optic chiasma, Ear: functions of the internal, middle and external ear, Physiology of the hearing and balance, Smell: physiology of olfactory nerve, Taste: physiology of taste, Location of the taste buds, Physiology of speech. The endocrine system; Functions of the endocrine system, Chemical signals, receptors and hormones, the endocrine glands and their hormones, Other hormones. Blood; Composition of blood and plasma, Functions of blood, formed elements, Stages of cell development, Blood grouping, Coagulation mechanism. The cardiovascular system; Functional anatomy cardiac system, Functions of the heart, Electrical activity of the heart origin and propagation of cardiac impulse, Phases of the cardiac cycle, Heart sounds, Regulation of heart functions: intrinsic and extrinsic, Functions of the peripheral circulation, The physiology of circulation, Pulmonary circulation, Cardiac circulation, Systemic circulation: arteries, Veins, Local control of blood vessels, Nervous control of blood vessels, Regulation of arterial blood pressure, The function of lymphatic system, tonsils, lymph nodes, the spleen and the thymus. Respiratory system; Functional anatomy of respiratory system, Functions of the respiratory system beginning at the nose and ending with the alveoli, Ventilation and lung volumes, Pulmonary function tests, Gas exchange and gas transport in the blood, Diseases related to respiratory system. The digestive system; Functions of each organ of the digestive system including major

salivary glands, Movements and secretions in each organ of the digestive system and their regulation, Physiology of digestion, absorption, and transport, Diseases related to digestive system. Excretory system; Functional anatomy of urinary system, Tubular system of kidney, Urine production, urine movement, Regulation of urine concentration and volume, Body fluid compartments, Regulation of extracellular fluid composition, Regulation of acid-base balance. Immunity; Define immunity, innate immunity, adaptive immunity, Antigens and antibodies, Primary and secondary responses to an antigen, Antibody-mediated immunity and cell-mediated immunity, Role of lymphocyte in immunity regulation.

Practical

1. Determination of human pulse rate
2. Determination of blood pressure (by auscultatory and palpatory method)
3. The effect of exercise and posture of B.P
4. Determination of visual acuity for distant vision
5. Determination of visual acuity test for near vision
6. Determination of ABO blood group system.
7. Determination of rh blood group system
8. To study hemocytometer
9. Count the total number of RBCs/mm³ of your own blood
10. Examination of cranial nerves

Recommended Books

1. Essentials of anatomy and physiology by seelay, stephens and tate. 4th edition
2. Ross & wilson anatomy and physiology.
3. Human physiology. Stuart ira fox. 7th edition
4. Text book of medical physiology guyton
5. Essential of medical physiology vol.i & ii by mushtaq ahmad.
6. Lecture notes on human physiology by bray jj, cragg, pa mackni

Theory

Introduction to Behavioral Science: Definition, scope, role in healthcare, relevance for allied health professionals. Relationship Between Behavior and Health: Concepts of health and illness, biopsychosocial model, behavioral risk factors for diseases. The Role of Psychology in Patient Care: Importance of psychological understanding, patient-centered care, and its impact on recovery. Principles of Human Behavior: Motivation theories (Maslow's hierarchy), basic human needs, role of emotion in decision-making. Theories of Personality: Overview of personality theories (Freud, Jung, Big Five), implications for patient-provider interaction. Psychological Development Across Lifespan: Stages of development (Erikson's theory), psychological changes in childhood, adulthood, and old age. Cognitive Functions: Processes of memory, types of learning, perception in interpreting health information. Stress and Coping Mechanisms: Definition of stress, physiological and psychological responses, stress management strategies for healthcare providers. Communication Skills in Healthcare: Verbal and non-verbal communication, active listening, and the importance of empathy. Barriers to Effective Communication: Cultural, linguistic, and psychological barriers; techniques to overcome these barriers. Cultural Sensitivity in Healthcare: Understanding cultural diversity, respecting beliefs, and practices in patient care. Social Determinants of Health: Influence of socioeconomic status, education, and environment on patient behavior and outcomes. Introduction to Mental Health and Well-being: Definition of mental health, common mental health disorders, stigma in healthcare. Common Psychiatric Disorders: Overview of depression, anxiety, and psychosis; impact on patient care. Patient-Doctor Relationship: Building trust, demonstrating empathy, and maintaining professionalism. Ethical Issues in Healthcare Behavior: Privacy, consent, and confidentiality in patient interactions. Teamwork and Collaboration: Role of behavioral science in enhancing teamwork, importance of shared goals in healthcare teams. Leadership Styles in Healthcare: Overview of leadership styles (authoritative, participative), and their impact on team dynamics. Conflict Management in Healthcare: Identifying sources of conflict, conflict resolution strategies, and maintaining professionalism. Stress Management Techniques: Self-care for healthcare professionals, relaxation methods, and time management. Psychological Aspects of Chronic Illness: Coping with chronic disease, patient and family perspectives, role of counseling. Patient Education and Behavior Change: Models for behavior change (Health Belief Model, Transtheoretical Model), patient engagement techniques. Behavioral Science and Pain Management: Psychological impact of pain, role of distraction and cognitive-behavioral therapy (CBT). Health Belief Model: Components of the model, application in patient compliance, and preventive care. Communication with Pediatric Patients: Strategies to engage children, building trust with families, and managing fear or anxiety. Communication with Geriatric Patients: Understanding aging-related challenges, maintaining dignity, and addressing memory or hearing impairments. Psychological Reactions to Illness: Anxiety, depression, and denial; providing emotional

support to patients. Behavioral Science in Palliative Care: Providing psychological support for terminally ill patients and their families. Substance Abuse and Addiction: Psychological understanding of addiction, approaches to counseling and rehabilitation. Impact of Technology on Behavior: Role of telemedicine, impact of digital health tools, and ethical considerations. Behavioral Science in Rehabilitation: Supporting patients during physical or psychological recovery; motivation techniques. Behavioral Change Strategies: Techniques to encourage lifestyle changes for preventive healthcare (diet, exercise). Psychosomatic Disorders: Understanding conditions influenced by psychological factors (e.g., IBS, tension headaches). Social Support Systems in Patient Recovery: Importance of family, friends, and community in healing and rehabilitation. Dealing with Grief and Loss: Stages of grief, providing emotional support, and managing healthcare provider emotions. Psychological Assessment Tools: Overview of commonly used tools (e.g., MMPI, Beck Depression Inventory) and their application. Behavioral Science Research: Key research methods in behavioral science; importance in healthcare innovations. Emergency and Critical Care Settings: Psychological challenges in emergency settings, providing emotional support to patients and families. Enhancing Interpersonal Skills: Role of self-awareness and feedback in improving patient-provider relationships. Emotional Intelligence in Healthcare: Understanding emotions in self and others, role in conflict resolution and patient care. Patient Safety and Quality Improvement: Behavioral strategies to minimize errors, promoting safety culture. Cultural Competence: Approaches to providing culturally appropriate care for diverse populations. Psychological Impact of Medical Errors: Effects on healthcare providers, patients, and strategies for managing aftermath. Health Promotion and Disease Prevention: Role of behavioral science in promoting healthy lifestyles and preventive care. Professionalism in Healthcare: Ethical behavior, accountability, and maintaining patient trust. Revision and Course Wrap-Up: Recap of major topics, addressing student queries, and discussing practical applications.

Recommended Books:

1. "Behavioral Science in Medicine" by Barbara Fadem
2. "Essentials of Behavioral Science" by Frank J. Landy and Jeffrey M. Conte
3. "Health Psychology: A Textbook" by Jane Ogden

Theory**Part 1: Grammar in context**

Basics of Grammar, Parts of speech and use of articles, Sentence structure, active and passive voice, Practice in unified sentence(synthesis), Analysis of phrase, clause and sentence structure, Transformation, Inversion of sentences, Analysis of Complex sentences, Subject, Predicate, Complements, direct & indirect objects, Direct and Indirect speech.

Part 2: Functional English in use

Making introductions; Making effective self and peer introductions, Taking useful introductory notes, **Expressing requests and enquiries;** Forming appropriate requests and enquiries, Responding to enquiries, Requests versus commands, **Greetings;** Greeting friends and family on different occasions and for different reasons, Responding to a positive event, Using formal greeting expressions appropriately, **Gratitude;** Using formal and informal expressions of gratitude appropriately, **Invitations;** Demonstrating the use of formal and informal expressions of invitation, Developing verbal and written skills for invitations, Responding to invitation requests by accepting or declining, **Regrets;** Expressing regrets orally and in writing appropriately, Saying sorry and accepting apologies, **Following and giving directions;** Following directions from a map, Giving directions to a location in oral and narrative and imaginative texts by composing stories and sharing them in written and oral form, **Sharing narratives;** Reading short stories, Reading excerpts, comic strips, interviews, and other common texts, **Sharing unique experiences;** Summarizing and narrating true stories, Solving word puzzles to develop language awareness, Reading short stories and completing exercises to test comprehension, Converting an event into a short story, using pictures as stimuli for narrative creation.

Recommended Books:

1. Eastwood, J. (2005). Oxford Practice Grammar. UK: Oxford.
2. Wren & Martin. (2007). High School, English Grammar & Composition. New Delhi: S Chand & Company Limited.
3. Thomson & Martinent. (1992). A practical English Grammar. UK: Oxford.
4. Swan, M. (2005). Practical English Usage. UK: Oxford University Press.
5. Shah, S. (2006). Exploring *the world of English*. Lahore: Ilmi Kitab Khana

Theory

Introduction to Quranic Studies: Basic Concepts of Quran, History of Quran, Uloom-ul - Quran

Study of Selected Text of Holly Quran

- Verses of Surah Al-Baqra Related to Faith (Verse No-284-286)
- Verses of Surah Al-Hujrat Related to Adab Al-Nabi (Verse No-1-18)
- Verses of Surah Al-Mumanoon Related to Characteristics of faithful (Verse No-1-11)
- Verses of Surah al-Furqan Related to Social Ethics (Verse No.63-77)
- Verses of Surah Al-Inam Related to Ihkam(Verse No-152-154)
- Verses of Surah Al-Ihzab Related to Adab al-Nabi (Verse No.6, 21, 40, 56, 57, 58.)
- Verses of Surah Al-Hashar (18,19,20) Related to thinking, Day of Judgment
- Verses of Surah As-Saf Related to Tafakar, Tadabar (Verse No-1,14)

Seerat of Holy Prophet (S.A.W) I: Life of Muhammad Bin Abdullah (Before Prophet Hood), Life of Holy Prophet (S.A.W) in Makkah, Important Lessons Derived from the life of Holy Prophet in Makkah **Seerat of Holy Prophet (S.A.W) II:** Life of Holy Prophet (S.A.W) in Madina, Important Events of Life Holy Prophet in Madina, Important Lessons Derived from the life of Holy Prophet in Madina **Introduction to Sunnah;** Basic Concepts of Hadith, History of Hadith, Kinds of Hadith, Uloom –ul- Hadith, Sunnah & Hadith, Legal Position of Sunnah, Selected Study from Text of Hadith **Introduction to Islamic Law & Jurisprudence:** Basic Concepts of Islamic Law & Jurisprudence, History & Importance of Islamic Law & Jurisprudence, Sources of Islamic Law & Jurisprudence, Nature of Differences in Islamic Law, Islam and Sectarianism, **Islamic Culture & Civilization:** Basic Concepts of Islamic Culture & Civilization, Historical Development of Islamic Culture & Civilization, Characteristics of Islamic Culture & Civilization, Islamic Culture & Civilization and Contemporary Issues, **Islam & Science:** Basic Concepts of Islam & Science, Contributions of Muslims in the Development of Science, Quranic & Science, **Islamic Economic System:** Basic Concepts of Islamic Economic System, Means of Distribution of wealth in Islamic Economics, Islamic Concept of Riba, Islamic Ways of Trade & Commerce, **Political System of Islam:** Basic Concepts of Islamic Political System, Islamic Concept of Sovereignty, Basic Institutions of Govt. in Islam, **Islamic History:** Period of Khlaft-E-Rashida, Period of Ummayyads, Period of Abbasids, **Social System of Islam:** Basic Concepts of Social System of Islam, Elements of Family, Ethical Values of Islam

Recommended Books

1. Hameed ullah Muhammad, "Emergence of Islam", IRI, Islamabad
2. Hussain Hamid Hassan, "An Introduction to the Study of Islamic Law" leaf Publication, Islamabad, Pakistan.
3. Dr. Muhammad Zia-ul-Haq, "Introduction to Al Sharia Al Islamia" Allama Iqbal Open University, Islamabad (2001)

Theory

I Relation of ethics to psychology, metaphysics and religion. A brief review of major theories of the moral standard, The standard as law, The standard as Happiness, The standard as Perfection. Promotion of moral values in society through family & various educational and cultural institutions, concept of good and evil, freedom and responsibility, Various theories of punishment. Ethical teachings of world religions with special reference to Hinduism, Christianity, Buddhism, Judaism and Ethical teachings of Islam. Ethical precepts from Quranic sayings of the Holy Prophet (Peace be upon him). Islam's attitude towards minorities.

Recommended Books

1. J.S Mackenzie! A Manual of Ethics.
2. Herol H.Titus! Ethics for To-day.
3. B.A Dar! Quranic Ethics.
4. Proceeding of the Islamic Colloquium, Lahore 1957.
5. Islamic state: Abu-ul-Ala Madudi.

Theory

Preliminaries: Real-number system, complex numbers, introduction to sets, set operations, functions, types of functions. Matrices: Introduction to matrices, types, matrix inverse, determinants, system of linear equations, Cramer's rule. Quadratic Equations: Solution of quadratic equations, qualitative analysis of roots of a quadratic equation, equations reducible to quadratic equations, cube roots of unity, relation between roots and coefficients of quadratic equations. Sequences and series: Arithmetic progression, geometric progression, harmonic progression. Binomial Theorem: Introduction to mathematical induction, binomial theorem with rational and irrational indices. Trigonometry: Fundamentals of trigonometry, trigonometric identities.

Recommended Books

1. N. Khalid, Mathematics-I Algebra and Trigonometry, Discover Mathematics Series, 3rd Edition, 2021.
2. Boston (suggested text) Kaufmann JE, College Algebra and Trigonometry, PWSKent Company, Boston, 1987.
3. E.W. Swokowski, Fundamentals of Algebra and Trigonometry (6th edition), 1986.
4. M.P. Dolciani, W. Wooton, E.F. Beckenback, & S. Sharron, Algebra 2 and Trigonometry, Houghton & Mifflin, 1978

Course Contents:

تیسواں پارہ - ناظرہ مع تجوید

بنیادی عربی گرامر

اسم اور اسکے متعلقات : اسم فاعل، مفعول، تفضیل، مبالغہ

فعل اور اسکی اقسام: ماضی، مضارع، امر، نہی

حرف اور اسکی اقسام : حروف علت، حروف جارہ، مشبہ بالفعل

Memorization:

تیسویں پارے کی آخری بیس سورتیں (حفظ مع ترجمہ)

Recommended Books:

مجوزہ اردو تراجم قرآن	
نام ترجمہ	مترجم
موضح القرآن	شاہ عبدالقادر دہلوی
فتح القرآن	فتح محمد جالندہری
ترجمہ بیان القرآن	اشرف علی تھانوی
ترجمہ قرآن مجید	سید ابو الاعلیٰ مودودی
ترجمہ ضیاء القرآن	محمد کرم شاہ الازہری
Suggested English Translations of the Holy Quran	
Name	Translator
The Meaning of the Glorious Koran	Muhammad Marmaduke Pickthall
The Holy Quran	Abdullah Yousuf Ali
The Noble Qur'an	Dr - Muhammad Taqiuddin Al Hilali & Dr- M Muhsin Khan
The Noble Quran	Mufti Muhammad Taqi Usmani
Towards Understanding the Ever Glorious Quran	Dr. Muhammad Mahmud Ghali
The Study Quran Seyyed Hossein Nasr	The Study Quran Seyyed Hossein Nasr

Theory:

Introduction to Pharmacology, Pharmacokinetics: (Absorption, distribution, metabolism, excretion) Variable affecting the pharmacokinetics, Pharmacodynamics. Legal Policies and Responsibilities for Drug handling, Math Skills and Drug Calculations; (Addition, subtraction, multiplication and division), decimals, percentages, ratio, proportions. System of Measurements; metric system, international units, unit conversion, Calculations; ration system vs. formulas for drug calculations, calculation of solution strength (weight / volume and volume / volume, calculation of dosage by weight, Drug Label information; Drug identification, Rights of Medication Administration, Medicine Devices: syringes, needles, drug containers, Routes of medicine / drug administration; General Classification of drugs; Analeptics, analgesics, anesthetics, antibiotics, anticoagulants, anticonvulsants, antidiuretics, antiemetics, cardiac medications, CNS stimulants, coagulants, contrast media, diuretics, dyes, Emetics, gastric medications, Hemostatic agents, Hormones, irrigation solutions, narcotics antagonists, narcotics, neuromuscular blocking agents, obstetrical agents, ophthalmic medications, sedative / hypnotics agents and tranquilizers. Diagnostic Imaging agents.

Recommended Books:

1. Lippincott's Illustrated Reviews Pharmacology 5th Edition. Lippincott's Williams & Wilkins
2. Chemical Calculations at a Glance by Paul Yates Blackwell Publishing
3. Medical Pharmacology at a Glance by Michael J. Neal. 4th Edition. Blackwell publishing

Theory:

Foundation of Biochemistry; cellular foundation, isolation of eukaryotic cell, chemical foundation, Structure and function of cell membrane, movement of materials across cell membrane Carbohydrates; classification of carbohydrates. Regulation of blood glucose level, Glycolysis, Citric acid cycle, Glycogenolysis, Glycogenesis, Gluconeogenesis. Proteins and Amino Acids; Introduction, importance, classification and properties of proteins, Entry of amino acids into cells and peptide linkage, Special sources of proteins. Lipids; Introduction, Classification and Function of lipids, Biosynthesis of fatty acids, natural fats or triglycerides, Fatty acid oxidation. Vitamins and Minerals; Introduction, classification, Deficiency effects. Enzymes; Introduction, Classification, properties, the mechanism of enzyme reactions, Factors affecting the enzyme activity, Important coenzymes and their actions, Enzyme inhibitors and Regulatory enzymes. Nutrition and Dietetics; Balanced diet, Role of carbohydrates, fats and proteins, their dietary sources and uses in the body, Quantitative and qualitative daily requirements of carbohydrates, fats, proteins, vitamins and minerals. Physicochemical Principles; Acidity & Alkalinity, Osmosis & Osmotic pressure, Hydrogen ion conc. and pH notation, Indicators & Buffer solutions, pH.

Practical:

1. Measurement of pH of various biological fluids
2. Estimation of serum albumin
3. Estimation of blood glucose
4. Measurement of serum total protein level and A / G ratio
5. Measurement of blood cholesterol
6. Measurement of Triglycerides
7. Measurement of Urea
8. Measurement of serum Creatinine

Recommended Books:

1. Harper's Illustrated Biochemistry, 30th Edition MC Graw Hill.
2. Boyer RF. Modern experimental biochemistry. Benjamin/Cummings Pub. Co. 3rd Edition
3. Harvey RA, Ferrier DR. Lippincott's illustrated reviews: Biochemistry. 6th Edition by Kluwer, New York. 2011.
4. Nelson DL, Lehninger AL, Cox MM. Lehninger principles of biochemistry. 6th Edition Macmillan;

Theory:

Numerical Literacy: Number system and basic arithmetic operations, Units and their conversions, dimensions, area, perimeter and volume, Rates, ratios, proportions and percentages, Types and sources of data, Measurement scales, Tabular and graphical presentation of data, Quantitative reasoning exercises using number knowledge. 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 inequalities, 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.

Recommended Books:

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 in Numbers" by Eric Zaslow.
5. "Thinking Clearly with Data: A Guide to Quantitative Reasoning and Analysis" by Ethan Bueno de Mesquita and Anthony Fowler.
6. "Using and Understanding Mathematics: A Quantitative Reasoning Approach" by Bennett, J. O., Briggs, W. L., & Badalamenti, A.
7. "Discrete Mathematics and its Applications" by Kenneth H. Rosen.
8. "Statistics for Technology: A Course in Applied Statistics" by Chatfield, C.
9. "Statistics: Unlocking the Power of Data" by Robin H. Lock, Patti Frazer Lock, Kari Lock Morgan, and Eric F. Lock

Theory:

Historical Perspective: Ideological rationale with special reference to Sir Syed Ahmed Khan, Allama Muhammad Iqbal and Quaid-e-Azam Muhammad Ali Jinnah. Factors leading to Muslim separatism. People and Land; Indus Civilization, Muslim advent, Location and geo-physical features

Government and Politics in Pakistan: Political and constitutional phases; 1947-58, 1958-71, 1971-77, 1977-88, 1988-99.

Contemporary Pakistan: Society and social structure, Ethnicity, Foreign policy of Pakistan and challenges, Futuristic outlook of Pakistan

Books Recommended

1. Akbar, S. Zaidi. Issue in Pakistan's Economy. Karachi: Oxford University Press, 2000.
2. S.M. Burke and Lawrence Ziring. Pakistan's Foreign policy: An Historical analysis. Karachi: Oxford University Press, 1993.
3. Mehmood, Safdar. Pakistan Political Roots & Development. Lahore, 1994.

Theory:

Number Systems, Binary numbers, Boolean logic, History computer system, basic machine organization, Von Neumann Architecture, Algorithm definition, design, and implementation, Programming paradigms and languages, Graphical programming, Overview of Software Engineering and Information Communication Technology, Operating system, Compiler, DBMS, Computer networks and internet, WWW, web mail applications, Computer graphics, AI, Viruses and Anti-Viruses, Use of office productivity tools, such as word processors, spreadsheets, presentation applications, etc., Social, Ethical, Professional and Legal Issues, and overview of the complete program of studies in computing and its structure.

Practical:

1. Microsoft Office
2. MS Word
3. MS Excel
4. MS Power Point

Recommended Books:

1. Introduction to Computers by Peter Norton, 6th Edition, McGraw-Hill SiE, ISBN 0-07-059374-4.
2. Computers: Information Technology in Perspective, 9/e by Larry Long and Nancy Long, Prentice Hall, 2002/ISBN: 0130929891.
3. An Invitation to Computer Science, Schneider and Gersting, Brooks/Cole Thomson Learning, 2000.

Theory:

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 dynamics of British India between 1857 till 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, Simla deputation 1906, Allama Iqbal's Presidential Address 1930, Congress Ministries 1937, Lahore 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 development 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 of the Pakistani citizens (Article 5). **Constitutional Amendments:** Procedures for amending the constitution. Notable constitutional amendments and their implications.

Recommended 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 Sayeed.
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 Ian Talbot.
11. "Pakistan in the Twentieth Century: A Political History" by Lawrence Ziring.
12. "The Constitution of Pakistan 1973" Original.
13. "Constitutional and Political Development of Pakistan" by Hamid Khan.
14. "The Parliament of Pakistan" by Mehmoob Hussain.
15. "Constitutional Development in Pakistan" by G. W. Choudhury
16. "Constitution Making in Pakistan: The Dynamics of Political Order" by G. W. Choudhury.

Practical:

Preparation of solutions and drug calculations (weight/volume, volume/volume). Measurement of pH in biological fluids. Estimation of serum albumin. Estimation of blood glucose. Measurement of serum total protein level and A/G ratio. Measurement of blood cholesterol. Measurement of triglycerides. Measurement of urea. Measurement of serum creatinine. Handling and usage of syringes, needles, and medication devices. Drug administration techniques for different routes.

Recommended Books:

1. Lippincott's Illustrated Reviews: Pharmacology (5th Edition) – Lippincott Williams & Wilkins
2. Harper's Illustrated Biochemistry (30th Edition) – McGraw Hill
3. Nelson DL, Lehninger AL, Cox MM. Lehninger Principles of Biochemistry (6th Edition) – Macmillan
4. Chemical Calculations at a Glance by Paul Yates – Blackwell Publishing
5. Boyer RF. Modern Experimental Biochemistry (3rd Edition) – Benjamin/Cummings Pub. Co.

Theory:

Introduction to biosafety and biohazards. Hazard Criteria and Categorization of Microbes. Classification Systems, general and specific containment principles, Biosafety level I-II laboratories, designs and specialized features. Personal Protective equipment (PPE); Routes of microbial entry and types and use of PPE, Disinfection and Decontamination; including physical (Heat, radiation) and chemical disinfection/decontamination, factors affecting disinfection/decontamination. Fumigation of spaces; process and practices validation, post fumigation steps. Risk Assessment Procedures; timings, qualitative risk assessments and systematic documentation. Biosafety and biosecurity: Biological risk management plan, physical security and access control, biological waste management. Transfer of biological material. Biohazards; history modern day biological risks, bioterrorism, biohazards accidents and incidents, biological safety programs management.

Recommended Books:

1. Fleming DO, Hunt DL. Biological safety: principles and practices. 4th edition ASM Press Washington, USA
2. Wilson DE, Chosewood LC. Biosafety in microbiological and biomedical laboratories. 6th Edition. US Government Printing Office, Washington, DC
3. Grady SM, Tabak J. Biohazards: Humanity's battle with Infectious Disease (Science and Technology in Focus) Facts on File, Inc. Infobase Publishing, New York

Theory:

Fundamentals of microbiology. Microorganisms and their respective places in the living world. Differentiation between eukaryotic and prokaryotic cells, Historical development of Microbiology and its scope. Microscopy: An outline of the principles and applications of light and electron microscope. Morphology, arrangement and detailed anatomy of bacterial cells. Bacterial taxonomy and nomenclature, basis of classification of bacteria. Growth, nutrition (physical and nutritional requirement and nutritional types; sources of energy, C, N, H, O, S, P, trace elements, growth factors) and reproduction. General methods of studying microorganisms: cultivation, isolation, purification and characterization. Control of microorganisms by physical and chemical methods. Chemotherapeutic agents and antibiotics. Modes of action of antibiotics on microorganisms. Basic properties of fungi, Sterilization and disinfection; physical methods– (sunlight, Drying, Dry heat, moist heat, filtration, Radiation, Ultrasonic and sonic vibration). Chemical- (Alcohols, Aldehydes, Dyes, Halogens, Phenols, Gases).

Practical:

Laboratory safety: Containment and decontamination. Equipment / Materials / Glassware etc. used in microbiology, Inoculation techniques. Pour plate, spread plate & streak plate methods, An introduction to microscopy, Gram stain technique, Acid fast staining, Study of motility of bacteria, Hanging drop preparation. Preparation and use of different culture media; Blood Agar, Chocolate Agar, MacConkey Agar, Mannitol Salt Agar, TCBS Agar, SDA Agar, Antibiotic Susceptibility testing by disc diffusion method, Estimation of minimum inhibitor concentration (MIC) by broth and agar dilution methods, Anaerobic culture methods.

Recommended Books:

1. Kathleen P. T., and Arthur, T. 2001. Foundations in Microbiology: Basic Principles McGraw- Hill Companies
2. Tortora, G. J., Christine, L. Case, C. L., Funke, B. R., Funke, B., Case, C., 2006. Microbiology: An Introduction, Publisher: Pearson Education.
3. Alcamo, I. E., 2001. Fundamentals of Microbiology published by Jones and Bartlett Publishers, USA.
4. Black, J. G., 2005. Microbiology: principles and explorations, by 6th Edition, J. Wiley & Sons, USA.

Theory:

Blood and its constituents, Origin, Development, maturation and fate of blood cells. Collection of blood; capillary and venous blood collection, various anticoagulants and their uses, advantages and disadvantages. Different types of hemo-cytometers, their ruling and uses. Erythrocytes: morphology of RBC in health and disease, functions of RBC, RBC counting, diluting fluids used, erythrocyte indices. Leucocytes; structure, count, absolute eosinophil count, variation in WBC count. Platelets: Structure and function counting of platelets, diluting fluids, causes of thrombocytopenia/ thrombocytosis. Principles of staining- Romanowsky stains, Preparation of blood smear; Thin smear, thick smear, wet preparation and buffy coat preparation, Leishman staining differential leukocyte count (DLL) with recognition of abnormal blood cells. Quality control methods in cell counts. Automatic blood cell counter. Bone marrow aspiration; indications, aspiration, preparation of bone marrow smears, morphologic study of bone marrow films and its differential count. Identification of parasites in blood and bone marrow films. Supra-vital staining technique- principle and uses, demonstration and counting of reticulocytes, Principles and different methods of determining ESR and PCV, advantages and disadvantages, Clinical significance of ESR and PCV normal values. Hemoglobin; Structure and function, Estimation of hemoglobin principles, techniques, advantages and disadvantages methods of identification of abnormal hemoglobin, HB electrophoresis, Alkali denaturation tests and sickling phenomenon HB-F and its demonstration.

Practical:

1. Different methods of blood collection & Preparation of anticoagulant bottles.
2. CBC (Hemoglobin, TLC, RBC count, Platelet count, PCV)
3. ESR
4. Differential leukocyte count
5. Absolute eosinophil count
6. Reticulocyte count.
7. ABO grouping-Cell and serum grouping, Rh Grouping
8. Rh grouping
9. Test for Du antigen
10. Compatibility test-Major and Minor cross matching & Coombs cross matching

Recommended Books:

1. Ciesla B. Hematology in practice. FA Davis; 2011.
2. Mehta A, Hoffbrand V. Haematology at a Glance. John Wiley & Sons; 2009.
3. Mazza JJ, Manual of clinical hematology. Lippincott Williams & Wilkins; 2002.
4. Hoffbrand V, Moss P. Essential haematology. John Wiley & Sons; 2011.

Theory:

Cell Injury and adaptation; Cell Injury, Reversible and Irreversible Injury, Fatty change, Pigmentation, Pathologic calcification, Necrosis and Gangrene. Cellular adaptation; Atrophy, Hypertrophy, Hyperplasia, Metaplasia, Aplasia. Inflammation; Acute inflammation, vascular changes, Chemotaxis, Opsonization and Phagocytosis, cellular components and chemical mediators of acute inflammation, exudates and transudate, Chronic inflammation, Etiological factors, Granuloma. Cell repair and wound healing; Regeneration and Repair, Healing- steps of wound healing by first and second intention, Factors affecting healing, complications of wound healing. Hemodynamic disorders; Edema, Hemorrhage, Thrombosis, Embolism, Infarction & Hyperemia, Shock and its causes, compensatory mechanisms involved in shock, possible consequences of thrombosis, difference between arterial and venous emboli. Neoplasia; Dysplasia and Neoplasia, differences between benign and malignant neoplasms, common etiological factors for neoplasia, different modes of metastasis.

Practical:

Types of Microscopes. Necrosis and its types, Histopathological techniques, Study of inflammation, acute and chronic inflammation, coagulative necrosis, diagnostic laboratory tests, Liver function tests, Renal function tests, Complete Blood counts.

Recommended Books:

1. Kumar V, Abbas AK, Aster JC. Robbins basic pathology. Elsevier Health Sciences; 2012.
2. Strasinger SK, Di Lorenzo MS. Urinalysis and body fluids. FA Davis; 2014
3. Rosto E, editor. Pathophysiology Made Incredibly Easy! Lippincott Williams & Wilkins; 2009.
4. Goljan EF. Rapid review pathology: with student consult online access. Elsevier Health Sciences; 2013 Jun 7.

Theory:

Reading Comprehension Skills; identifying main idea/topic sentences, find specific information quickly, distinguishing between relevant and irrelevant information according to purpose for reading, recognizing and interpreting cohesive devices, distinguishing between fact and opinion. **Reading techniques;** applying Skimming, Scanning, SQ3R, SPRE. **Vocabulary Building Skills;** guessing the meanings of unfamiliar words using context clues, using word formation rules for enhancing vocabulary, using the dictionary for finding out meanings and use of unfamiliar words. **Pre-writing Techniques;** Brainstorming, making a list, Mind mapping. **Writing Techniques;** Plan writing: identify audience, purpose and message, Collect information in various forms such as mind maps, tables, charts, lists. Order information such as: Chronology for a narrative, Stages of a process, from general to specific and vice versa, From most important to least important, Advantages and disadvantages, Comparison and contrast, Problem solution pattern, write argumentative and descriptive forms of writing using different methods of developing ideas like listing, comparison, and contrast, cause and effect, for and against. **Paragraph Writing:** Structure & Development of Paragraph, Write and Identify good topic and supporting sentences and effective conclusions, Use appropriate cohesive devices such as reference words and signal markers. **Types of Writing;** Narrative, Descriptive: describing a place, character description, Expository, Argumentative. **Essay writing techniques;** Structure and outline of an essay, Writing Introductions and conclusions of an essay, Unity and coherence in an essay. **Paraphrasing:** What is Paraphrase? Paraphrasing Techniques and how to apply. **Précis writing;** What is Précis? Uses of précis writing, Essentials of a good précis, Method of procedure, How to find the title, Précis of a phrase or clause, Précis of a Sentence, Précis of a Paragraph, Summarizing an article, Writing an assignment summary. **Expansion;** Expansion of a sentence into paragraph, Method of Expansion.

Suggested Books:

1. Exploring the World of English by Saadat Ali Shah
2. College Writing: From paragraph to Essay: Zemach & Rumisek
3. Reading. Upper Intermediate. Brain Tomlinson and Rod Ellis.
4. Oxford Supplementary Skills. Third Impression 1992.
5. Glencoe Writer's Choice: Grammar and Composition. McGraw Hill Glencoe
6. College writing skills by John Langan. McGraw Hill Publishers, 2004
7. Reading upper intermediate. Brain Tomlinson and Rod Ellis. Oxford supplementary skills. Third impression 1992

Theory:

Logic, Logical and Critical Reasoning: Introduction and importance of logic; Inductive, deductive and abductive approaches of reasoning; Propositions, arguments (valid; invalid), logical connectives, truth tables and propositional equivalences; Logical fallacies; Venn Diagrams, Predicates and quantifiers; Quantitative reasoning exercises using logical reasoning concepts and techniques. **Mathematical Modeling and Analyses:** Introduction to deterministic models; Use of linear functions for modeling in real-world situations; 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. **Statistical Modeling and Analyses:** Introduction to probabilistic models, Bivariate analysis, scatter plots; Simple linear regression model and correlation analysis; Basics of estimation and confidence interval; Testing of hypothesis (z-test; t-test); Statistical inference in decision making; Quantitative reasoning exercises using statistical modeling.

Recommended Books:

1. "Using and Understanding Mathematics: A Quantitative Reasoning Approach" by Bennett, J O., Briggs, W. L., & Badalamenti, A.
2. "Discrete Mathematics and its Applications" by Kenneth H. Rosen.
3. "Discrete Mathematics with Applications" by Susanna S. Epp.
4. "Applied Mathematics for 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.

Theory:

Course Contents:	<p>○ ایمانیات اور عبادات</p> <p>اللہ پر ایمان، فرشتوں پر ایمان، رسولوں پر ایمان، آسمانی کتابوں پر ایمان</p> <p>یوم آخرت پر ایمان، تقدیر پر ایمان</p> <p>نماز، روزہ، زکوٰۃ، حج، جہاد</p> <p>○ خاندان کے حقوق</p> <ul style="list-style-type: none"> • خاندان کی تکوین • حق مہر • رضاعت و حمل • اولاد کو قتل کرنے کے ممانعت • شوہر کی نافرمانی • طلاق • بیوہ کی عدت کے احکام • نکاح کا پیغام بھیجنا
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	<ul style="list-style-type: none"> • عورت کی وراثت (اس کے شوہر کی طرف سے) • والدین کے حقوق • بیویوں اور اولاد کے بیچ عداوت ○ معاشرے کے حقوق • مہمان کی عزت • اجازت طلب کرنے کے اصول • مجلس کے آداب • تعاون اور بھائی چارہ • گروہ بندی • محبت • لوگوں کے درمیان صلح • عفو و درگزر، غصہ پر قابو اور معاف کرنا • شعوب و قبائل • لوگوں کے بیچ اختلافات • حمایت و نگہبانی
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Grammar: قرآنی عربی گرامر کے اصول اور اسکے اطلاقات (متن قرآنی پر اطلاق سے توضیحات)

Selected Text:

- لَيْسَ الْبِرُّ أَنْ تُولُوا وُجُوهَكُمْ قِبَلَ الْمَشْرِقِ وَالْمَغْرِبِ وَلَكِنَّ الْبِرَّ مَنْ آمَنَ بِاللَّهِ وَالْيَوْمِ الْآخِرِ وَالْمَلَائِكَةِ وَالْكِتَابِ وَالنَّبِيِّينَ وَآتَى الْمَالَ عَلَىٰ حُبِّهِ ذَوِي الْقُرْبَىٰ وَالْيَتَامَىٰ وَالْمَسَاكِينَ وَابْنَ السَّبِيلِ وَالسَّائِلِينَ وَفِي الرِّقَابِ وَأَقَامَ الصَّلَاةَ وَآتَى الزَّكَاةَ وَالْمُوفُونَ بِعَهْدِهِمْ إِذَا عَاهَدُوا وَالصَّابِرِينَ فِي الْبَأْسَاءِ وَالضَّرَّاءِ وَحِينَ الْبَأْسِ أُولَئِكَ الَّذِينَ صَدَقُوا وَأُولَئِكَ هُمُ الْمُتَّقُونَ /البقرة: 177
- قُولُوا آمَنَّا بِاللَّهِ وَمَا أُنزِلَ إِلَيْنَا وَمَا أُنزِلَ إِلَىٰ إِبْرَاهِيمَ وَإِسْمَاعِيلَ وَإِسْحَاقَ وَيَعْقُوبَ وَالْأَسْبَاطِ وَمَا أُوتِيَ مُوسَىٰ وَعِيسَىٰ وَمَا أُوتِيَ النَّبِيُّونَ مِنْ رَبِّهِمْ لَا نُفَرِّقُ بَيْنَ أَحَدٍ مِنْهُمْ وَنَحْنُ لَهُ مُسْلِمُونَ /البقرة: 613
- لَا إِكْرَاهَ فِي الدِّينِ ۚ قَدْ تَبَيَّنَ الرُّشْدُ مِنَ الْغَيِّ ۚ فَمَنْ يَكْفُرْ بِالطَّاغُوتِ وَيُؤْمِن بِاللَّهِ فَقَدِ اسْتَمْسَكَ بِالْعُرْوَةِ الْوُثْقَىٰ لَا انْفِصَامَ لَهَا ۗ وَاللَّهُ سَمِيعٌ عَلِيمٌ /البقرة: 625
- آمَنَ الرَّسُولُ بِمَا أُنزِلَ إِلَيْهِ مِنْ رَبِّهِ وَالْمُؤْمِنُونَ ۚ كُلٌّ آمَنَ بِاللَّهِ وَمَلَائِكَتِهِ وَكُتُبِهِ وَرُسُلِهِ لَا نُفَرِّقُ بَيْنَ أَحَدٍ مِنْ رُسُلِهِ ۗ وَقَالُوا سَمِعْنَا وَأَطَعْنَا ۚ غُفْرَانَكَ رَبَّنَا وَإِلَيْكَ الْمَصِيرُ /البقرة: 285
- مَنْ كَانَ عَدُوًّا لِلَّهِ وَمَلَائِكَتِهِ وَرُسُلِهِ وَجِبْرِيلَ وَمِيكَالَ فَإِنَّ اللَّهَ عَدُوٌّ لِلْكَافِرِينَ /البقرة: 98
- قُلْ آمَنَّا بِاللَّهِ وَمَا أُنزِلَ عَلَيْنَا وَمَا أُنزِلَ عَلَىٰ إِبْرَاهِيمَ وَإِسْمَاعِيلَ وَإِسْحَاقَ وَيَعْقُوبَ وَالْأَسْبَاطِ وَمَا أُوتِيَ مُوسَىٰ وَعِيسَىٰ وَالنَّبِيُّونَ مِنْ رَبِّهِمْ لَا نُفَرِّقُ بَيْنَ أَحَدٍ مِنْهُمْ وَنَحْنُ لَهُ مُسْلِمُونَ /آل عمران: 84

- يَا أَيُّهَا الَّذِينَ آمَنُوا آمِنُوا بِاللَّهِ وَرَسُولِهِ وَالْكِتَابِ الَّذِي نَزَّلَ عَلَى رَسُولِهِ وَالْكِتَابِ الَّذِي أَنْزَلَ مِنْ قَبْلُ: وَمَنْ يَكْفُرْ بِاللَّهِ وَمَلَائِكَتِهِ وَكُتُبِهِ وَرُسُلِهِ وَالْيَوْمِ الْآخِرِ فَقَدْ ضَلَّ ضَلَالًا بَعِيدًا /النساء: 136
- آمَنَ الرَّسُولُ بِمَا أُنزِلَ إِلَيْهِ مِنْ رَبِّهِ وَالْمُؤْمِنُونَ كُلٌّ آمَنَ بِاللَّهِ وَمَلَائِكَتِهِ وَكُتُبِهِ وَرُسُلِهِ لَا نُفَرِّقُ بَيْنَ أَحَدٍ مِنْ رُسُلِهِ: وَقَالُوا سَمِعْنَا وَأَطَعْنَا غُفْرَانَكَ رَبَّنَا وَإِلَيْكَ الْمَصِيرُ/البقرة: 285
- وَإِذْ قُلْنَا لِلْمَلَائِكَةِ اسْجُدُوا لِآدَمَ فَسَجَدُوا إِلَّا إِبْلِيسَ أَبَى وَاسْتَكْبَرَ وَكَانَ مِنَ الْكَافِرِينَ/البقرة: 34
- وَمَنْ يَبْتَغِ غَيْرَ الْإِسْلَامِ دِينًا فَلَنْ يُقْبَلَ مِنْهُ وَهُوَ فِي الْآخِرَةِ مِنَ الْخَاسِرِينَ /آل عمران: 85
- إِلَهُكُمْ إِلَهٌ وَاحِدٌ: فَالَّذِينَ لَا يُؤْمِنُونَ بِالْآخِرَةِ قُلُوبُهُمْ مُنْكَرَةٌ وَهُمْ مُسْتَكْبِرُونَ/النحل: 22
- الَّذِينَ يُقِيمُونَ الصَّلَاةَ وَيُؤْتُونَ الزَّكَاةَ وَهُمْ بِالْآخِرَةِ هُمْ يُوقِنُونَ /لقمان: 4
- وَخَلَقَ كُلَّ شَيْءٍ فَقَدَرَهُ تَقْدِيرًا /الفرقان: 2
- مَا كَانَ عَلَى النَّبِيِّ مِنْ حَرَجٍ فِيمَا فَرَضَ اللَّهُ لَهُ سُنَّةَ اللَّهِ فِي الَّذِينَ خَلَوْا مِنْ قَبْلُ: وَكَانَ أَمْرُ اللَّهِ قَدَرًا مَقْدُورًا/الأحزاب: 38
- وَ أَقِيمُوا الصَّلَاةَ وَآتُوا الزَّكَاةَ: وَمَا تُقَدِّمُوا لِأَنْفُسِكُمْ مِنْ خَيْرٍ تَجِدُوهُ عِنْدَ اللَّهِ: إِنَّ اللَّهَ بِمَا تَعْمَلُونَ بَصِيرٌ/البقرة: 110
- يَا أَيُّهَا الَّذِينَ آمَنُوا اسْتَعِينُوا بِالصَّبْرِ وَالصَّلَاةِ: إِنَّ اللَّهَ مَعَ الصَّابِرِينَ/البقرة: 315
- إِنَّ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ وَ أَقَامُوا الصَّلَاةَ وَآتُوا الزَّكَاةَ لَهُمْ أَجْرُهُمْ عِنْدَ رَبِّهِمْ وَلَا خَوْفٌ عَلَيْهِمْ وَلَا هُمْ يَحْزَنُونَ/البقرة: 277
- حَافِظُوا عَلَى الصَّلَوَاتِ وَالصَّلَاةِ الْوُسْطَى وَقُومُوا لِلَّهِ قَانِتِينَ/البقرة: 238
- إِنَّمَا الصَّدَقَاتُ لِلْفُقَرَاءِ وَالْمَسْكِينِ وَالْعَمِلِينَ عَلَيْنَا وَالْمَوْلَى قُلُوبُهُمْ وَفِي الرِّقَابِ وَالْغُرْمِينَ وَفِي سَبِيلِ اللَّهِ وَآبِنِ السَّبِيلِ: فَرِيضَةً مِّنَ اللَّهِ: وَاللَّهُ عَلِيمٌ حَكِيمٌ/التوبة: 60
- يَا أَيُّهَا الَّذِينَ آمَنُوا كُتِبَ عَلَيْكُمُ الصِّيَامُ كَمَا كُتِبَ عَلَى الَّذِينَ مِنْ قَبْلِكُمْ لَعَلَّكُمْ تَتَّقُونَ/البقرة: 318
- أَيَّامًا مَعْدُودَاتٍ: فَمَنْ كَانَ مِنْكُمْ مَرِيضًا أَوْ عَلَى سَفَرٍ فَعِدَّةٌ مِنْ أَيَّامٍ أُخَرَ: وَعَلَى الَّذِينَ يُطِيقُونَهُ فِدْيَةٌ طَعَامًا فَمَنْ تَطَوَّعَ خَيْرًا فَهُوَ خَيْرٌ لَهُ: وَأَنْ تَصُومُوا خَيْرٌ لَكُمْ: إِنْ كُنْتُمْ تَعْلَمُونَ/البقرة: 184
- إِنَّ الْمُسْلِمِينَ وَالْمُسْلِمَاتِ وَالْمُؤْمِنِينَ وَالْمُؤْمِنَاتِ وَالْقَانِتِينَ وَالْقَانِتَاتِ وَالصَّادِقِينَ وَالصَّادِقَاتِ وَالصَّابِرِينَ وَالصَّابِرَاتِ وَالْخَاشِعِينَ وَالْخَاشِعَاتِ وَالْمُتَصَدِّقِينَ وَالْمُتَصَدِّقَاتِ وَالصَّائِمِينَ وَالصَّائِمَاتِ وَالْحَافِظِينَ فُرُوجَهُمْ وَالْحَافِظَاتِ وَالذَّاكِرِينَ اللَّهَ كَثِيرًا وَالذَّاكِرَاتِ أَعَدَّ اللَّهُ لَهُمْ مَغْفِرَةً وَأَجْرًا عَظِيمًا/الأحزاب: 35
- وَلِلَّهِ عَلَى النَّاسِ حِجُّ الْبَيْتِ مَنِ اسْتَطَاعَ إِلَيْهِ سَبِيلًا: وَمَنْ كَفَرَ فَإِنَّ اللَّهَ غَنِيٌّ عَنِ الْعَالَمِينَ /آل عمران: 97
- وَآتُوا الْحَجَّ وَالْعُمْرَةَ لِلَّهِ: فَإِنْ أُخْصِرْتُمْ فَمَا اسْتَيْسَرَ مِنَ الْهَدْيِ: وَلَا تَحْلِقُوا رُءُوسَكُمْ حَتَّى يَبْلُغَ الْهَدْيُ مَحَلَّهُ: فَمَنْ كَانَ مِنْكُمْ مَرِيضًا أَوْ بِهِ أَذًى مِنْ رَأْسِهِ فَفِدْيَةٌ مِنْ صِيَامٍ أَوْ صَدَقَةٍ أَوْ نُسُكٍ: فَإِذَا أَمُنْتُمْ فَمَنْ تَمَتَّعَ بِالْعُمْرَةِ إِلَى الْحَجِّ فَمَا اسْتَيْسَرَ مِنَ الْهَدْيِ: فَمَنْ لَمْ يَجِدْ فَصِيَامٌ ثَلَاثَةَ أَيَّامٍ فِي الْحَجِّ وَسَبْعَةً إِذَا رَجَعْتُمْ: تِلْكَ عَشْرَةٌ كَامِلَةٌ: ذَلِكَ لِمَنْ لَمْ

يَكُنْ أَهْلُهُ حَاصِرِي الْمَسْجِدِ الْحَرَامِ، وَاتَّقُوا اللَّهَ وَاعْلَمُوا أَنَّ اللَّهَ شَدِيدُ الْعِقَابِ (196) الْحَجُّ أَشْهُرٌ مَعْلُومَاتٌ، فَمَنْ فَرَضَ فِيهِنَّ الْحَجَّ فَلَا رَفَثَ وَلَا فُسُوقَ وَلَا جِدَالَ فِي الْحَجِّ، وَمَا تَعَلَّمُوا مِنْ خَيْرٍ يَعْلَمُهُ اللَّهُ، وَتَزُودُوا فَإِنَّ خَيْرَ الزَّادِ التَّقْوَى، وَاتَّقُونِ يَا أُولِي الْأَلْبَابِ/البقرة: 196-197

• إِنَّ الصِّفَا وَالْمُرْوَةَ مِنْ شَعَائِرِ اللَّهِ، فَمَنْ حَجَّ الْبَيْتَ أَوْ اعْتَمَرَ فَلَا جُنَاحَ عَلَيْهِ أَنْ يَطَّوَّفَ بِهِمَا، وَمَنْ تَطَوَّعَ خَيْرًا فَإِنَّ اللَّهَ شَاكِرٌ عَلِيمٌ /البقرة: 158

• إِنَّ الَّذِينَ آمَنُوا وَالَّذِينَ هَاجَرُوا وَجَاهَدُوا فِي سَبِيلِ اللَّهِ أُولَئِكَ يَرْجُونَ رَحْمَتَ اللَّهِ، وَاللَّهُ غَفُورٌ رَحِيمٌ /البقرة: 821

• لَا يَسْتَوِي الْقَاعِدُونَ مِنَ الْمُؤْمِنِينَ غَيْرُ أُولِي الضَّرَرِ وَالْمُجَاهِدُونَ فِي سَبِيلِ اللَّهِ بِأَمْوَالِهِمْ وَأَنْفُسِهِمْ، فَضَّلَ اللَّهُ الْمُجَاهِدِينَ بِأَمْوَالِهِمْ وَأَنْفُسِهِمْ عَلَى الْقَاعِدِينَ دَرَجَةً، وَكُلًّا وَعَدَ اللَّهُ الْحُسْنَى، وَفَضَّلَ اللَّهُ الْمُجَاهِدِينَ عَلَى الْقَاعِدِينَ أَجْرًا عَظِيمًا/النساء: 95

• إِنَّ الَّذِينَ آمَنُوا وَالَّذِينَ هَاجَرُوا وَجَاهَدُوا فِي سَبِيلِ اللَّهِ أُولَئِكَ يَرْجُونَ رَحْمَتَ اللَّهِ، وَاللَّهُ غَفُورٌ رَحِيمٌ /البقرة: 218

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• هُوَ الَّذِي خَلَقَكُمْ مِنْ نَفْسٍ وَاحِدَةٍ وَجَعَلَ مِنْهَا زَوْجَهَا لِيَسْكُنَ إِلَيْهَا، فَلَمَّا تَغَشَّاهَا حَمَلَتْ حَمْلًا خَفِيًّا فَمَرَّتْ بِهِ، فَلَمَّا أَثْقَلَتْ دَعَا اللَّهُ رَبَّهُمَا لَئِنْ آتَيْتَنَا صَالِحًا لَنُكَوِّنَنَّ مِنَ الشَّاكِرِينَ /الأعراف: 918

• يَا أَيُّهَا النَّاسُ اتَّقُوا الَّذِي خَلَقَكُمْ مِنْ نَفْسٍ وَاحِدَةٍ وَخَلَقَ مِنْهَا زَوْجَهَا وَبَثَّ مِنْهُمَا رِجَالًا كَثِيرًا وَنِسَاءً، وَاتَّقُوا اللَّهَ الَّذِي تَسَاءَلُونَ بِهِ وَالْأَرْحَامَ، إِنَّ اللَّهَ كَانَ عَلَيْكُمْ رَقِيبًا /النساء: 1

• خَلَقَكُمْ مِنْ نَفْسٍ وَاحِدَةٍ ثُمَّ جَعَلَ مِنْهَا زَوْجَهَا وَانزَلَ لَكُمْ مِنَ الْأَنْعَامِ ثَمَانِيَةَ أَزْوَاجٍ، يَخْلُقْكُمْ فِي بُطُونِ أُمَّهَاتِكُمْ خَلْقًا مِنْ بَعْدِ خَلْقٍ فِي ظُلُمَاتٍ ثَلَاثٍ، ذَلِكَ اللَّهُ رَبُّكُمْ لَهُ الْمُلْكُ، لَا إِلَهَ إِلَّا هُوَ، فَآتَى تَصْرُفُونَ/الزمر: 6

• وَإِنْ خِفْتُمْ أَلَّا تُقْسِطُوا فِي الْيَتَامَى فَانكِحُوا مَا طَابَ لَكُمْ مِنَ النِّسَاءِ مَتًى وَثَلُثْ وَرُبْعٌ، فَإِنْ خِفْتُمْ أَلَّا تَعْدِلُوا فَوَاحِدَةٌ أَوْ مَا مَلَكَتْ أَيْمَانُكُمْ، ذَلِكَ أَذْنُ أَلَّا تَعُولُوا /النساء: 3

• وَإِنْ طَلَّقْتُمُوهُنَّ مِنْ قَبْلِ أَنْ تَمْسُوهُنَّ وَقَدْ فَرَضْتُمْ لَهُنَّ فَرِيضَةً فَنِصْفُ مَا فَرَضْتُمْ إِلَّا أَنْ يَعْفُونَ أَوْ يَعْفُوَ الَّذِي بِيَدِهِ عُقْدَةُ النِّكَاحِ، وَأَنْ تَعْفُوا أَقْرَبٌ لِلتَّقْوَى، وَلَا تَنْسُوا الْفَضْلَ بَيْنَكُمْ، إِنَّ اللَّهَ بِمَا تَعْمَلُونَ بَصِيرٌ/البقرة: 723

• الْيَوْمَ أُحِلَّ لَكُمْ الطَّيِّبَاتُ، وَطَعَامُ الَّذِينَ أُوتُوا الْكِتَابَ حِلٌّ لَكُمْ وَطَعَامُكُمْ حِلٌّ لَهُمْ، وَالْمُحْصَنَاتُ مِنَ الْمُؤْمِنَاتِ وَالْمُحْصَنَاتُ مِنَ الَّذِينَ أُوتُوا الْكِتَابَ مِنْ قَبْلِكُمْ إِذَا آتَيْتُمُوهُنَّ أُجُورَهُنَّ مُحْصِنِينَ غَيْرَ مُسَافِحِينَ وَلَا مُتَّخِذِي أَخْدَانٍ، وَمَنْ يَكْفُرْ بِالْإِيمَانِ فَقَدْ حَبِطَ عَمَلُهُ وَهُوَ فِي الْآخِرَةِ مِنَ الْخَاسِرِينَ/المائدة: 5

• يَا أَيُّهَا النَّبِيُّ إِنَّا أَخْلَلْنَا لَكَ أَزْوَاجَكَ اللَّاتِي آتَيْتَ أُجُورَهُنَّ وَمَا مَلَكَتْ يَمِينُكَ مِمَّا أَفَاءَ اللَّهُ عَلَيْكَ وَبَنَاتٍ عَمَّكَ وَبَنَاتٍ عَمَّاتِكَ وَبَنَاتٍ خَالَكَ وَبَنَاتٍ خَالَاتِكَ اللَّاتِي هَاجَرْنَ مَعَكَ وَامْرَأَةً مُؤْمِنَةً إِنْ وَهَبَتْ نَفْسَهَا لِلنَّبِيِّ إِنْ أَرَادَ النَّبِيُّ أَنْ يَسْتَنْكِحَهَا خَالِصَةً لَكَ مِنْ دُونِ الْمُؤْمِنِينَ، قَدْ عَلِمْنَا مَا فَرَضْنَا عَلَيْهِمْ فِي أَزْوَاجِهِمْ وَمَا مَلَكَتْ أَيْمَانُهُمْ لِكَيْلَا يَكُونَ عَلَيْكَ حَرَجٌ، وَكَانَ اللَّهُ غَفُورًا رَحِيمًا/الأحزاب: 50

• هُوَ الَّذِي خَلَقَكُمْ مِنْ نَفْسٍ وَاحِدَةٍ وَجَعَلَ مِنْهَا زَوْجَهَا لِيَسْكُنَ إِلَيْهَا، فَلَمَّا تَغَشَّاهَا حَمَلَتْ حَمْلًا خَفِيًّا فَمَرَّتْ بِهِ، فَلَمَّا أَثْقَلَتْ دَعَا اللَّهُ رَبَّهُمَا لَئِنْ آتَيْتَنَا صَالِحًا لَنُكَوِّنَنَّ مِنَ الشَّاكِرِينَ /الأعراف: 918

- وَالْوَالِدَاتُ يُرْضَعْنَ أَوْلَادَهُنَّ حَوْلَيْنِ كَامِلَيْنِ إِنْ أَرَادَ أَنْ يُنَمِّمَ الرِّضَاعَةَ وَعَلَى الْمَوْلُودِ لَهُ رِزْقُهُنَّ وَكِسْوَتُهُنَّ بِالْمَعْرُوفِ لَا تَكْلَفُ نَفْسٌ إِلَّا وُسْعَهَا لَا تَضْرِبَ وَالِدَةٌ بَوْلِدَهَا وَلَا مَوْلُودٌ لَهُ بِوَالِدِهِ وَعَلَى الْوَارِثِ مِثْلُ ذَلِكَ فَإِنْ أَرَادَا فِصَالًا عَنْ تَرَاضٍ مِنْهُمَا وَتَشَاوُرٍ فَلَا جُنَاحَ عَلَيْهِمَا وَإِنْ أَرَدْتُمْ أَنْ تَسْتَزِجِعُوا أَوْلَادَكُمْ فَلَا جُنَاحَ عَلَيْكُمْ إِذَا سَلَّمْتُمْ مَا آتَيْتُمْ بِالْمَعْرُوفِ وَاتَّقُوا اللَّهَ وَاعْلَمُوا أَنَّ اللَّهَ بِمَا تَعْمَلُونَ بَصِيرٌ /البقرة:233
- قَدْ خَسِرَ الَّذِينَ قَتَلُوا أَوْلَادَهُمْ سَفَهًا بِغَيْرِ عِلْمٍ وَحَرَّمُوا مَا رَزَقَهُمُ اللَّهُ افْتِرَاءً عَلَى اللَّهِ قَدْ ضَلُّوا وَمَا كَانُوا مُهْتَدِينَ /الأنعام:014
- قُلْ تَعَالَوْا أَنَا فِي حَرَمٍ عَلَيْكُمْ إِلَّا تُشْرِكُوا بِهِ شَيْئًا وَالْوَالِدِينَ إِحْسَانًا وَلَا تَقْتُلُوا أَوْلَادَكُمْ مِنْ إِمْلَاقٍ نَحْنُ نَرْزُقُكُمْ وَإِيَّاهُمْ وَلَا تَقْرَبُوا الْفَوَاحِشَ مَا ظَهَرَ مِنْهَا وَمَا بَطَنَ وَلَا تَقْتُلُوا النَّفْسَ الَّتِي حَرَّمَ اللَّهُ إِلَّا بِالْحَقِّ ذَلِكَُمْ وَصَّاهُمْ بِهِ لَعَلَّكُمْ تَعْقِلُونَ /الأنعام:115
- الرِّجَالُ قَوَّامُونَ عَلَى النِّسَاءِ بِمَا فَضَّلَ اللَّهُ بَعْضَهُمْ عَلَى بَعْضٍ وَبِمَا أَنْفَقُوا مِنْ أَمْوَالِهِمْ فَالصَّالِحَاتُ قَانِتَاتٌ حَافِظَاتٌ لِغَيْبِ بِمَا حَفِظَ اللَّهُ وَاللَّاتِي تَخَافُونَ نُشُوزَهُنَّ فِعْظُوهُنَّ وَاهْجُرُوهُنَّ فِي الْمَضَاجِعِ وَاصْبِرِيهِنَّ فَإِنْ أَطَعْنَكُمْ فَلَا تَبْغُوا عَلَيْهِنَّ سَبِيلًا إِنَّ اللَّهَ كَانَ عَلِيمًا كَبِيرًا /النساء:43
- وَإِنْ امْرَأَةٌ خَافَتْ مِنْ بَعْلِهَا نُشُوزًا أَوْ إِعْرَاضًا فَلَا جُنَاحَ عَلَيْهِمَا أَنْ يُصْلِحَا بَيْنَهُمَا صُلْحًا وَالصُّلْحُ خَيْرٌ وَأُحْضِرَتِ الْأَنْفُسُ الشُّحَّ وَإِنْ تُحْسِنُوا وَتَتَّقُوا فَإِنَّ اللَّهَ كَانَ بِمَا تَعْمَلُونَ خَبِيرًا /النساء:128
- الْمُطَّلَقَاتُ يَتَرَبَّصْنَ بِأَنْفُسِهِنَّ ثَلَاثَةَ قُرُوءٍ وَلَا يَجِلُّ لَهُنَّ أَنْ يَكْتُمْنَ مَا خَلَقَ اللَّهُ فِي أَرْحَامِهِنَّ إِنْ كُنَّ يُؤْمِنَنَّ بِاللَّهِ وَالْيَوْمِ الْآخِرِ وَيُبْعِلْنَ لَهُنَّ أَحَقُّ بِرِزْقِهِنَّ فِي ذَلِكَ إِنْ أَرَادُوا إِصْلَاحًا وَلَهُنَّ مِثْلُ الَّذِي عَلَيْهِنَّ بِالْمَعْرُوفِ وَلِلرِّجَالِ عَلَيْهِنَّ دَرَجَةٌ وَاللَّهُ عَزِيزٌ حَكِيمٌ /البقرة:822
- الطَّلَاقُ مَرَّتَانٍ فَإِمْسَاكَ بِمَعْرُوفٍ أَوْ تَسْرِيحٍ بِإِحْسَانٍ وَلَا يَجِلُّ لَكُمْ أَنْ تَأْخُذُوا مِمَّا آتَيْتُمُوهُنَّ شَيْئًا إِلَّا أَنْ يَخَافَا أَلَّا يُقِيمَا حُدُودَ اللَّهِ فَإِنْ خِفْتُمْ أَلَّا يُقِيمَا حُدُودَ اللَّهِ فَلَا جُنَاحَ عَلَيْهِمَا فِيمَا افْتَدَتْ بِهِ تِلْكَ حُدُودُ اللَّهِ فَلَا تَعْتَدُوهَا وَمَنْ يَتَعَدَّ حُدُودَ اللَّهِ فَأُولَئِكَ هُمُ الظَّالِمُونَ /البقرة:229
- يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا تَكَحُّمُ الْمُؤْمِنَاتِ ثُمَّ طَلَقْتُمُوهُنَّ مِنْ قَبْلِ أَنْ تَمْسُوهُنَّ فَمَا لَكُمْ عَلَيْهِنَّ مِنْ عِدَّةٍ تَعْتَدُونَهَا فَمَتَّعُوهُنَّ وَسَرَخُوهُنَّ سَرَاحًا جَمِيلًا /الأحزاب:49
- وَابْتَلُوا الْيَتَامَى حَتَّى إِذَا بَلَغُوا النِّكَاحَ فَإِنْ آنَسْتُمْ مِنْهُمْ رُشْدًا فَادْفَعُوا إِلَيْهِمْ أَمْوَالَهُمْ وَلَا تَأْكُلُوهَا إِسْرَافًا وَبِدَارًا أَنْ يَكْبَرُوا وَمَنْ كَانَ غَنِيًّا فَلْيَسْتَغْفِرْ وَمَنْ كَانَ فَقِيرًا فَلْيَأْكُلْ بِالْمَعْرُوفِ فَإِذَا دَفَعْتُمْ إِلَيْهِمْ أَمْوَالَهُمْ فَأَشْهَدُوا عَلَيْهِمْ وَكَفَى بِاللَّهِ حَسِيبًا /النساء:6
- يُوصِيكُمُ اللَّهُ فِي أَوْلَادِكُمْ لِلذَّكَرِ مِثْلُ حَظِّ الْأُنثَيَيْنِ فَإِنْ كُنَّ نِسَاءً فَوْقَ اثْنَتَيْنِ فَلَهُنَّ ثُلُثَا مَا تَرَكَ وَإِنْ كَانَتْ وَاحِدَةً فَلَهَا النِّصْفُ وَلِأَبَوَيْهِ لِكُلِّ وَاحِدٍ مِنْهُمَا السُّدُسُ مِمَّا تَرَكَ إِنْ كَانَ لَهُ وَلَدٌ فَإِنْ لَمْ يَكُنْ لَهُ وَلَدٌ وَوَرِثَهُ أَبَوَاهُ فَلِأُمِّهِ الثُّلُثُ فَإِنْ كَانَ لَهُ إِخْوَةٌ فَلِأُمِّهِ السُّدُسُ مِنْ بَعْدِ وَصِيَّةٍ يُوصِي بِهَا أَوْ دَيْنٍ وَأَبَاؤُكُمْ وَأَبْنَاؤُكُمْ لَا تَدْرُونَ أَيُّهُمْ أَقْرَبُ لَكُمْ نَفْعًا فَرِيضَةٌ مِنَ اللَّهِ إِنَّ اللَّهَ كَانَ عَلِيمًا حَكِيمًا /النساء:11
- وَلَكُمْ نِصْفُ مَا تَرَكَ أَزْوَاجُكُمْ إِنْ لَمْ يَكُنْ لَهُنَّ وَلَدٌ فَإِنْ كَانَ لَهُنَّ وَلَدٌ فَلِكُمْ الرُّبُعُ مِمَّا تَرَكَنَّ مِنْ بَعْدِ وَصِيَّةٍ يُوصِيَنَّ بِهَا أَوْ دَيْنٍ وَلِلَّهِنَّ الرُّبُعُ مِمَّا تَرَكَنَّ إِنْ لَمْ يَكُنْ لَكُمْ وَلَدٌ فَإِنْ كَانَ لَكُمْ وَلَدٌ فَلِلَّهِنَّ الثُّمُنُ مِمَّا تَرَكَنَّ مِنْ بَعْدِ وَصِيَّةٍ يُوصِيَنَّ بِهَا أَوْ دَيْنٍ وَإِنْ كَانَ رَجُلٌ يُورِثُ كَاللَّاهِ أَوْ امْرَأَةٌ وَهِيَ أَحُّ أَوْ أُخْتُ فَلِكُلِّ وَاحِدٍ مِنْهُمَا السُّدُسُ فَإِنْ كَانُوا أَكْثَرَ مِنْ ذَلِكَ فَهُمْ شُرَكَاءُ فِي الثُّلُثِ مِنْ بَعْدِ وَصِيَّةٍ يُوصِيَنَّ بِهَا أَوْ دَيْنٍ غَيْرِ مُضَارٍّ وَصِيَّةً مِنَ اللَّهِ وَاللَّهُ عَلِيمٌ حَلِيمٌ /النساء:21
- يَسْتَفْتُونَكَ قُلِ اللَّهُ يُفْتِيكُمْ فِي الْكَلَالَةِ إِنْ امْرُؤٌ هَلَكَ لَيْسَ لَهُ وَلَدٌ وَهِيَ أَخْتُ فَلَهَا نِصْفُ مَا تَرَكَ وَهِيَ بَرِيئَةٌ إِنْ لَمْ يَكُنْ

لَهَا وَلَدٌ فَإِنْ كَانَتَا اثْنَتَيْنِ فَلَهُمَا الثُّلُثَانِ مِمَّا تَرَكَ وَإِنْ كَانُوا إِخْوَةً رِجَالًا وَنِسَاءً فَلِلَّذَكَرِ مِثْلُ حِظِّ الْأُنثَيَيْنِ يُبَيِّنُ اللَّهُ لَكُمْ أَنْ تَضِلُّوا وَاللَّهُ بِكُلِّ شَيْءٍ عَلِيمٌ /النساء:617

- وَإِذْ أَخَذْنَا مِيثَاقَ بَنِي إِسْرَائِيلَ لَا تَعْبُدُونَ إِلَّا اللَّهَ وَبِالْوَالِدَيْنِ إِحْسَانًا وَذِي الْقُرْبَىٰ وَالْيَتَامَىٰ وَالْمَسَاكِينِ وَقُولُوا لِلنَّاسِ حُسْنًا وَأَقِيمُوا الصَّلَاةَ وَآتُوا الزَّكَاةَ ثُمَّ تَوَلَّيْتُمْ إِلَّا قَلِيلًا مِّنْكُمْ وَأَنْتُمْ مُعْرِضُونَ /البقرة:83
- وَاعْبُدُوا اللَّهَ وَلَا تُشْرِكُوا بِهِ شَيْئًا وَبِالْوَالِدَيْنِ إِحْسَانًا وَبِذِي الْقُرْبَىٰ وَالْيَتَامَىٰ وَالْمَسَاكِينِ وَالْجَارِ ذِي الْقُرْبَىٰ وَالْجَارِ الْجُنُبِ وَالصَّاحِبِ بِالْجَنبِ وَابْنِ السَّبِيلِ وَمَا مَلَكَتْ أَيْمَانُكُمْ إِنَّ اللَّهَ لَا يُحِبُّ مَنْ كَانَ مُخْتَلًا فَخُورًا /النساء:36
- وَقَضَىٰ رَبُّكَ أَلَّا تَعْبُدُوا إِلَّا إِيَّاهُ وَبِالْوَالِدَيْنِ إِحْسَانًا إِمَّا يَبُلُغَنَّ عِنْدَكَ الْكِبَرَ أَحَدُهُمَا أَوْ كِلَاهُمَا فَلَا تَقُلْ لَهُمَا أُفٍّ وَلَا تَنْهَرْهُمَا وَقُلْ لَهُمَا قَوْلًا كَرِيمًا /الإسراء:23
- وَوَصَّيْنَا الْإِنْسَانَ بِوَالِدَيْهِ حَمَلَتْهُ أُمُّهُ وَهْنًا عَلَىٰ وَهْنٍ وَفِصَالَهُ فِي سَامِيٍّ أَنْ اشْكُرْ لِي وَلِوَالِدَيْكَ إِلَيَّ الْمَصِيرُ /لقمان:14

○ معاشرے کے حقوق

- وَإِذَا حُبَيْتُمْ بِتَحِيَّةٍ فَحَيُّوا بِأَحْسَنَ مِنْهَا أَوْ رُدُّوهَا إِنَّ اللَّهَ كَانَ عَلَىٰ كُلِّ شَيْءٍ حَسِيبًا /النساء:68
- وَإِذَا جَاءَكَ الَّذِينَ يُؤْمِنُونَ بِآيَاتِنَا فَقُلْ سَلَامٌ عَلَيْكُمْ كَتَبَ رَبُّكُمْ عَلَىٰ نَفْسِهِ الرَّحْمَةَ أَنَّهُ مَنْ عَمِلَ مِنْكُمْ سُوءًا بِجَهَالَةٍ ثُمَّ تَابَ مِنْ بَعْدِهِ وَأَصْلَحَ فَأَنَّهُ غَفُورٌ رَّحِيمٌ /الأنعام:45
- هَلْ أَتَاكَ حَدِيثُ ضَيْفِ بْنِ إِبْرَاهِيمَ الْمُكْرَمِيِّ / إِذْ دَخَلُوا عَلَيْهِ فَقَالُوا سَلَامًا قَالَ سَلَامٌ قَوْمٌ مُنْكَرُونَ فَرَأَىٰ إِلَىٰ أَهْلِهِ فَجَاءَ بِعَجَلٍ سَمِينٍ / فَفَرَّجْنَا لَهُ يَوْمَ الْيُسْرَىٰ وَقَالَ تَأْكُلُونَ /الذاريات:24-27
- يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَدْخُلُوا بُيُوتًا غَيْرَ بُيُوتِكُمْ حَتَّىٰ تَسْتَأْذِنُوا وَتُسَلِّمُوا عَلَىٰ أَهْلِهَا ذَلِكَ خَيْرٌ لَّكُمْ لَعَلَّكُمْ تَذَكَّرُونَ /النور:72
- فَإِنْ لَمْ تَجِدُوا فِيهَا أَحَدًا فَلَا تَدْخُلُوهَا حَتَّىٰ يُؤْذَنَ لَكُمْ وَإِنْ قِيلَ لَكُمْ ازْجِعُوا فَازْجِعُوا هُوَ أَزْكَىٰ لَكُمْ وَاللَّهُ بِمَا تَعْمَلُونَ عَلِيمٌ /النور:82
- يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا قِيلَ لَكُمْ تَفَسَّحُوا فِي الْمَجَالِسِ فَافْسَحُوا يَفْسَحِ اللَّهُ لَكُمْ وَإِذَا قِيلَ انشُرُوا فَانشُرُوا يَرْفَعِ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ /المجادلة:11
- يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا نَاجَيْتُمْ فَقَدِّمُوا بَيْنَ يَدَيْ نَجْوَاكُمْ صَدَقَةٌ ذَلِكَ خَيْرٌ لَّكُمْ وَأَطْهَرٌ فَإِنْ لَمْ تَجِدُوا فَإِنَّ اللَّهَ غَفُورٌ رَّحِيمٌ /المجادلة:12
- يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَجْلُوا شَعَائِرَ اللَّهِ وَلَا الشُّهُرَ الْحَرَامَ وَلَا الْهَدْيَ وَلَا الْقَلَائِدَ وَلَا آمِينَ الْبَيْتِ الْحَرَامِ يَبْتَغُونَ فَضْلًا مِنْ رَبِّهِمْ وَرِضْوَانًا وَإِذَا حَلَلْتُمْ فَاصْطَادُوا وَلَا يَجْرِمَنَّكُمْ شَنَا نَقُومَ أَنْ صَدُّوكُمْ عَنِ الْمَسْجِدِ الْحَرَامِ أَنْ تَعْتَدُوا وَتَعَاوَنُوا عَلَى الْبِرِّ وَالتَّقْوَىٰ وَلَا تَعَاوَنُوا عَلَى الْإِثْمِ وَالْعُدْوَانِ وَاتَّقُوا اللَّهَ إِنَّ اللَّهَ شَدِيدُ الْعِقَابِ /المائدة:2
- وَالْمُؤْمِنُونَ وَالْمُؤْمِنَاتُ بَعْضُهُمْ أَوْلِيَاءُ بَعْضٍ يَأْمُرُونَ بِالْمَعْرُوفِ وَيَنْهَوْنَ عَنِ الْمُنْكَرِ وَيُقِيمُونَ الصَّلَاةَ وَيُؤْتُونَ الزَّكَاةَ وَيُطِيعُونَ اللَّهَ وَرَسُولَهُ أُولَئِكَ سَيَرْحَمُهُمُ اللَّهُ إِنَّ اللَّهَ عَزِيزٌ حَكِيمٌ /التوبة:71
- وَمِنْ آيَاتِهِ أَنْ خَلَقَ لَكُمْ مِنْ أَنْفُسِكُمْ أَزْوَاجًا لِتَسْكُنُوا إِلَيْهَا وَجَعَلَ بَيْنَكُمْ مَوَدَّةً وَرَحْمَةً إِنَّ فِي ذَلِكَ لَآيَاتٍ لِّقَوْمٍ يَتَفَكَّرُونَ /الروم:21
- وَقَالَ إِنَّمَا اتَّخَذْتُمْ مِنْ دُونِ اللَّهِ أَوْثَانًا مَوَدَّةَ بَيْنِكُمْ فِي الْحَيَاةِ الدُّنْيَا ثُمَّ يَوْمَ الْقِيَامَةِ يَكْفُرُ بَعْضُكُمْ بِبَعْضٍ وَيَلْعَنُ بَعْضُكُمْ بَعْضًا وَمَأْوَأُكُمْ النَّارُ وَمَا لَكُمْ مِنْ نَاصِرِينَ /العنكبوت:25
- إِلَّا الَّذِينَ تَابُوا وَأَصْلَحُوا وَاعْتَصَمُوا بِاللَّهِ وَأَخْلَصُوا دِينَهُمْ لِلَّهِ فَأُولَئِكَ مَعَ الْمُؤْمِنِينَ وَسَوْفَ يُؤْتِي اللَّهُ الْمُؤْمِنِينَ أَجْرًا عَظِيمًا /النساء:614

• وَمَا نُرْسِلُ الْمُرْسَلِينَ إِلَّا مُبَشِّرِينَ وَمُنذِرِينَ ۚ فَمَنْ آمَنَ وَأَصْلَحَ فَلَا خَوْفٌ عَلَيْهِمْ وَلَا هُمْ يَحْزَنُونَ
/الأنعام:48

• وَإِنْ طَائِفَتَانِ مِنَ الْمُؤْمِنِينَ اقْتَتَلُوا فَأَصْلِحُوا بَيْنَهُمَا ۚ فَإِنْ بَغَتْ إِحْدَاهُمَا عَلَى الْأُخْرَى فَقْتُلُوا الَّتِي تَبْغِي حَتَّى تَفِيءَ إِلَى

أَمْرِ اللَّهِ ۚ فَإِنْ فَاءَتْ فَأَصْلِحُوا بَيْنَهُمَا بِالْعَدْلِ وَأَقْسِطُوا ۚ إِنَّ اللَّهَ يُحِبُّ الْمُقْسِطِينَ /الحجرات:9

• إِنَّمَا الْمُؤْمِنُونَ إِخْوَةٌ فَأَصْلِحُوا بَيْنَ أَخَوَيْكُمْ ۚ وَاتَّقُوا اللَّهَ لَعَلَّكُمْ تُرْحَمُونَ /الحجرات:10

• خُذِ الْعَفْوَ وَأْمُرْ بِالْعُرْفِ وَأَعْرِضْ عَنِ الْجَاهِلِينَ /الاعراف:199

• يَا أَيُّهَا النَّاسُ إِنَّا خَلَقْنَاكُمْ مِنْ ذَكَرٍ وَأُنْثَىٰ وَجَعَلْنَاكُمْ شُعُوبًا وَقَبَائِلَ لِتَعَارَفُوا ۚ إِنَّ أَكْرَمَكُمْ عِنْدَ اللَّهِ أَتْقَىٰ ۚ إِنَّ اللَّهَ

عَلِيمٌ خَبِيرٌ /الحجرات:13

List of Translations of the Holy Quran

مجوزہ اردو تراجم قرآن

نام ترجمہ	مترجم
موضح القرآن	شاہ عبد القادر دہلوی
فتح القرآن	فتح محمد جالندہری
ترجمہ بیان القرآن	اشرف علی تھانوی
ترجمہ قرآن مجید	سید ابوالاعلیٰ مودودی
ترجمہ ضیاء القرآن	محمد کرم شاہ الازہری
ترجمہ قرآن	حافظ نذراجم
آسان ترجمہ القرآن	سید شبیر احمد
احسن البیان	مولانا محمد جونا گڑھی
ترجمہ تبیان القرآن	غلام رسول سعیدی
آسان ترجمہ قرآن	محمد تقی عثمانی
کشف الرحمن	مولانا احمد سعید دہلوی
مصباح القرآن	ڈاکٹر عبد الرحمان طاہر
معانی القرآن	دارالسلام
عرفان القرآن	ڈاکٹر طاہر القادری
احکام القرآن	مولانا محمد بشیر فاروق قادری
مطالعہ قرآن کریم برائے طلبہ و طالبات	دی علم فاؤنڈیشن کراچی

Suggested English Translations of the Holy Quran

Name	Translator
<i>The Meaning of the Glorious Koran</i>	Muhammad Marmaduke Pickthall
<i>The Holy Quran</i>	Abdullah Yousuf Ali
<i>The Noble Qur'an</i>	Dr. Muhammad Taqiuddin Al Hilali & Dr. M Muhsin Khan
<i>The Noble Quran</i>	Mufti Muhammad Taqi Usmani
<i>Towards Understanding the Ever Glorious Quran</i>	Dr. Muhammad Mahmud Ghali
<i>The Study Quran</i>	Seyyed Hossein Nasr

Theory

1. Model effective scientific and technical communication in the workplace by actively participating in writing activities, both individually and collaboratively.
2. Apply technical information and knowledge in practical documents for a variety of a.) professional audiences (including peers and colleagues or management) and b.) public audiences.
3. Write documents that demonstrate professional style: concise, clear, accurate, honest, economical, and unambiguous.
4. Use professional writing strategies: Direct order organization, objective voice, unbiased analysis and summary, and use of transitional devices to create coherence.
5. Recognize, explain, and use the rhetorical strategies and the formal elements of specific genres of technical communication, such as technical abstracts, database research reports, instructional manuals, technical descriptions, web pages, wikis, and correspondence.
6. Collect, analyze, document, and report research clearly, concisely, logically, and ethically; understand the standards for legitimate interpretations of research data within scientific and technical communities.
7. Recognize and develop professional format features in print, html, and multimedia modes, as well as use appropriate nonverbal cues and visual aids.
8. Revise and edit effectively in all assignments, including informal media (such as email to the instructor).
9. Demonstrate professional work habits, including those necessary for effective collaboration and cooperation with other students, instructors, and, if applicable, Service-Learning contact representatives.

Focus Areas

The core of this course consists of the following four skill areas.

- Research Skills (using primary and library research to discover information)
- Correspondence Skills (learning the generic conventions of each)
 - Explanatory or Demonstrative Writing Skills (to disseminate technical information to either nontechnical or technical readers, such as descriptions, instructions, informational handouts, FAQs, etc.
 - Visual Communication Skills (may appear as separate assignments or as components of other assignments).

It further focuses on more advanced skills like:

1. At least one analytical report, white paper or proposal written for specific audience(s) and that is based on significant and in-depth primary and/or secondary research, which aims to analyze a problem, make recommendations, promote a new technology, or propose a solution.
2. An abstract which effectively condenses technical research into a condensed format. Note: The abstract assignment can be used as either a stand-alone assignment or related to the report assignment.
3. A set of written instructions about a technical process that readers might perform in a technical, medical, or scientific setting.
4. A precise description of an object, mechanism, or process included in a set of instructions, short report, webpage, wiki, data sheet, or other informational document.
5. Several brief assignments to demonstrate genre knowledge of correspondence protocols, including at minimum professional letters, memoranda, email messages, and/or discussion forum posts and blogs.

Grading Student evaluations will be based on a series of written reports, class participation, and an end of term report.

Course Schedule

Week 1: Introduction to Technical Writing Review of Technical Writing. What is research/How do you structure a research paper

Week 2: Basic Principles in Technical Writing: Audience, Purpose, Organization, Flow, Style, Presentation

Week 3: Introduction to text analysis tools (1): analyzing research paper biographies-part 1

Week 4: Introduction to text analysis tools (2): analyzing research paper biographies-part 2

Week 5: First steps in text analysis (1): building a corpus of research papers

Week 6: First steps in text analysis (2): creating vocabulary lists, searching for words, phrases, and grammar patterns

Week 7: Writing a research paper proposal: brainstorming topics, narrowing the scope, finalizing the decision

Week 8: Writing a research paper title: keywords, noun phrases, and prepositions

Week 9: Writing a research paper introduction (1): characteristic features and structure of introductions

Week 10: Writing a research paper introduction (2): explaining the situation, describing problems/limitations, describing the response

Week 11: Writing a research paper methods section: explaining methods and processes

Week 12: Writing a research paper results section: deciding the type of visual aid, explaining figures and tables

Week 13: Writing a research paper discussion/conclusion section: summarizing results, adjusting the strength of interpretations using hedging

Week 14: Writing a research paper abstract: choosing between indicative and informative abstracts

Week 15: Wrap-up: Summary of course Final report submission details

Recommended Books:

L. Anthony (2011). "Writing Up Research in Science and Engineering : Developments," DTP Publishing

Theory:

What is Business? Role of business in Economic Progress of the country. Initial ethical and legal issues facing a new firm. Obtaining business licenses and permits. Forms of business Organizations. Formation of partnership firm, Formation of Company. 2 Introduction to Entrepreneurship. Explain entrepreneurship and discuss its importance. Describe corporate entrepreneurship and its use in established firms. Discuss three main reasons people decide to become entrepreneurs. Identify four main characteristics of successful entrepreneurs. Explain the five common myths regarding entrepreneurship. Explain how entrepreneurial firms differ from salary-, substitute and lifestyle firms. Discuss the changing demographics of entrepreneurs. Discuss the impact of entrepreneurial firms on economies and societies. Identify ways in which large firms benefit from their presence of smaller entrepreneurial firms. Explain the entrepreneurial process. Behavior and Personality Traits of Entrepreneurs: Conduct an interview of a local businessman. Reading assignment. 3. Introduction to Entrepreneurship. Islamic perspective of Entrepreneurship, Entrepreneurship in Pakistan. SMEs and Entrepreneurship, Entrepreneurship Vs. Intrapreneurship, Creativity and the Business Idea, Innovation, Invention & Creativity. Discuss external enablers of entrepreneurship, Explain the entrepreneurship during times of crisis. 4. Recognizing Opportunities and Generating Ideas. Explain why it's important to start a new firm when its "window of opportunity" is open. Explain the difference between an opportunity and an idea. Describe the three general approaches entrepreneurs use to identify opportunities. Identify the four environmental trends that are most instrumental in creating business opportunities. List the personal characteristics that make some people better at recognizing business opportunities than others. Identify the five steps in the creative process. Describe the purpose of brainstorming and its use as an idea generator. • Describe how to use library and Internet research to generate new business ideas. Explain the purpose of maintaining an idea bank. Describe three steps for protecting ideas from being lost or stolen. Class Activity. 5 & 6. Feasibility Analysis. Explain what a feasibility analysis is and why it's important. Discuss the proper time to complete a feasibility analysis when developing an entrepreneurial venture. Describe the purpose of a product/service feasibility analysis and the two primary issues that a proposed business should be considered in this area. Explain a concept statement and its contents. Describe the purpose of industry/market feasibility analysis and the two primary issues to consider in this area. Discuss the characteristics of an attractive industry. Describe the purpose of organizational feasibility analysis and list the two primary issues to consider in this area. Explain the importance of financial feasibility analysis and list the most critical issues to consider in this area.

Quiz-I. Writing a Business Plan. Business Model Canvas. Reasons for Writing a Business Plan. Who Reads the Business Plan. Guidelines for Writing a Business Plan. Exploring Each Section of the Plan. Presenting the Business Plan. How to pitch your idea?

Class activity of pitching your idea. Mid-Term Examination.

Case Study FAVARR.COM: Launching an online platform. Industry and. Competitor. Analysis. Explain the purpose of an industry analysis. Identify the five competitive forces that determine. industry profitability. Explain the role of “barriers to entry” in creating. disincentives for firms to enter an industry. Identify the nontraditional barriers to entry that are. especially associated with entrepreneurial firms. List the four industry-related questions to ask before. pursuing the idea for a firm. Identify the five primary industry types and the. opportunities they offer. Explain the purpose of a competitor analysis. Identify the three groups of competitors a new firm will face. Describe ways a firm can ethically obtain information. about its competitors. Describe the reasons for completing a competitive analysis grid.

Class Activity. Intellectual. Property Rights. Discuss the four major forms of intellectual property: patents, trademarks, copyrights, and trade secrets. Describe the six-step process for obtaining a patent. Identify the four types of trademarks. Identify the types of material that are eligible for. copyright protection. Discuss the legal environment that facilitates trade secret. protection. Guest Lecture by an Entrepreneur. 13. Getting Financing. or Funding. Explain why most entrepreneurial ventures need to raise. money during their early life. Identify the three sources of personal financing available. to entrepreneurs. Provide examples of how entrepreneurs bootstrap to raise. money or cut costs. Identify the three steps involved in properly preparing to. raise debt or equity financing. Discuss the difference between equity funding and debt. financing. Explain the role of an elevator speech in attracting. financing for an entrepreneurial venture. Describe the difference between a business angel and a. venture capitalist. Explain why an initial public offering (IPO) is an. important milestone in an entrepreneurial venture. Describe the concept of ICO (Initial Coin Offerings). Explain the advantages of leasing for an entrepreneurial venture.

Class Activity: Why Successful Crowdfunding Requires a. Social-Media Mind-Set. Harvard Business Review, December 03, 2012. HBSP. 14 Going Global. How Entrepreneurial Ventures Go Global? Import. Export. Licensing. Franchising. Strategic Alliance. Joint Venture. Foreign Subsidiary. Understanding the Global Environment. 15& 16 Class Discussion. Entrepreneurship in Pakistan as tool of Economic. Development. Women entrepreneurship development in Pakistan. Importance of SMEs for the economic development of a. country. Final Project Submission & Presentations.

Recommended Books:

1. Robert D. Hisrich, Michael P. Peters, And Dean A. Shepherd, Entrepreneurship 10th edition
2. William Bygrave and Andrew Zacharakis, Entrepreneurship, second edition
3. Entrepreneurship and Innovation: Global Insights from 24 Leaders, Rothman Institute of Entrepreneurship

Journals/Periodicals: (Title, Publisher)

1. Davidsson, P., Recker, J., & von Briel, F. (2021). COVID-19 as External Enabler of entrepreneurship practice and research. BRQ Business Research Quarterly, 24(3), 214-223.
2. Feng ZhuMarco Iansiti: Why Some Platforms Thrive and Others Don't. Harvard Business Review, January– February 2019 Issue.

3. HBSP Roger L. Martin and Sally R. Osberg: How Social Entrepreneurs Make Change Happen. Harvard Business Review, October 14, 2015. HBSP
4. Guy Clapperton: Why Successful Crowdfunding Requires a Social-Media Mind-Set. Harvard Business Review, December 03, 2012. HBSP.
5. Diane Mulcahy. Universities should be preparing students for the gig economy. Harvard Business Review, October 03, 2019. HBSP

Theory:

Carbohydrates; Blood sugar and its types, diabetes mellitus, complications of diabetes mellitus, test for blood sugar carbohydrates digestion and absorption. Lipids: Digestion and absorption, Metabolism-synthesis of fatty acids, oxidation of fatty acids, cholesterol biosynthesis and regulation, biologically important compounds synthesized from cholesterol, lipotropic factor and laboratory tests for cholesterol. Proteins; Digestion and absorption metabolism, synthesis and degradation of amino acids. Liver function tests; Bile pigment metabolism, jaundice and its type, tests for liver function. Renal function tests; Functions of Kidney, disease of kidney, Renal Function Tests. Gastric function tests; Functions of stomach, tests for gastric function. Hormones; Introduction, classification, chemistry and function. Hemoglobin; Chemistry, properties and synthesis, metabolism of pigments Hb- derivatives – abnormal hemoglobin, Hb electrophoresis Porphyrins and disorders of porphyrins metabolism, chemistry of porphyrins metabolism, chemistry of porphyrins, primary disorders of haem synthesis, secondary disorders, Analytical procedures. Water and mineral metabolism; General consideration, Regulation of water. Phenomenon of thirst, mineral Metabolism (Ca, Na, Cl, K, P). Cardiac profile tests; Introduction, Heart diseases, Laboratory tests for heart diseases. Troponin TM, qualitative and quantitative. Urinalysis; 24-hour urine sample collection and assays for proteins, Sodium, Ca, P, urea, creatinine, uric acid.

Practical:

1. Estimation of bilirubin, SGPT, SGOT, ALP, GGT, Uric acid, Serum sodium & potassium, calcium, acid phosphatases, Amylase.

Recommended Books:

1. Harper's illustrated biochemistry. New York: McGraw-Hill Medical, 2012.
2. Harvey RA, Ferrier DR. Lippincott's illustrated reviews: Biochemistry. Edition by Kluwer, New York. 2011.
3. Ahmad N, Clinical Biochemistry, Oxford University Press, UK, 2011.

Theory:

Introduction to Basic Histology, Classification of Tissue, Epithelium, Connective tissue, Muscular tissue, Nervous tissue. Introduction to surgical specimens and biopsy, Merits and demerits of different types of biopsies, Fixation methods with salient gross and microscopic morphological changes in common diseases of Gastrointestinal Tract, Genitourinary System (Male and Female), Respiratory tract, Brain and spinal cord, Skin and subcutaneous tissues, Heart and blood vessels, Lymphatic system including tonsils, lymph nodes, the spleen and thymus. Histological Techniques: General organization and basic requirements of histopathological lab. Supravital staining. Fixation, Tissue Processing Basic steps, fixation, dehydration, clearing (Aim of cleaning, different cleaning agents), impregnation, embedding, and techniques of casting Blocking, microtomy, staining, and mounting of histological preparations. Mounting- Different mounting media and mounting techniques. Fixation and fixatives- Aim of fixation, classification of fixation, classification of fixatives, Different fixatives used for the histological techniques, their advantages and disadvantages. Advantages and disadvantages of the paraffin method. Infiltration with paraffin. Paraffin block making. Section cutting with a rotary microtome. Microtome and Microtome Knives: Principles, operation, parts and use of automatic tissue processors. Types of microtomes. Frozen sections- Principles, methods used, staining of frozen sections and application of frozen sections advantages and disadvantages and common techniques. Decalcification- techniques, aim, agents used. Museum techniques- organization of museum, Mounting of museum specimens in preservative fluids like Kaiserling Solution I, II &

III. Stains: Principles, Classification, Acids and basic dyes, Basophilic and acidophilic tissue components. Routine Hematoxylin-Eosin staining of paraffin Sections. Special Staining Techniques, GMS, Mucicarmine and Alcian Blue, Mallory's connective tissue stain, Toluidine blue staining of mast cells, Von- Gieson, Masson's Trichome, Nissel Stain for Nervous Tissues. Staining for frozen section, The PAS Technique and staining. Immunohistochemistry: Introduction, significance, Methods - Direct and Indirect, PAP / Avidin Biotin method, Steps involved, Antigen retrieval methods, Types of fixatives, buffering media, enzyme labels and chromogens used in Immunohistochemistry. List of commonly used tumor markers in different diseases and their clinical utility.

Practical:

1. Basic steps of tissue processing.

2. Preparation of fixatives and fixation.
3. Embedding.
4. Microtomy
5. Staining. (H & E)
6. Mounting.
7. Various methods of preparation of tissue sections (Grossing).
8. Paraffin section, celloidin embedding, frozen section.
9. Decalcification
10. Demonstration of an Automated Tissue processing.

Recommended Books:

1. Culling, Charles Frederick Albert. Handbook of histopathological and histochemical techniques: including museum techniques. Butterworth-Heinemann, 2013.
2. Suvarna, S. Kim, Christopher Layton, and John D. Bancroft. Bancroft's Theory and Practice of Histological Techniques, Expert Consult: Online and Print
3. Bancroft's Theory and Practice of Histological Techniques. Elsevier Health Sciences, 2013.

Theory:

Urinalysis; Collection of urine and its preservation, 24-hour urine collection for protein. Physical examination of urine – examination of urine for colors, cloudiness, specific gravity, reaction and pH. Chemical examination of urine. Microscopic examination of urine- Urine sediment preparation, types of sediments and its examination. Feces; Collection and preservation, examination of stool for color, mucus, consistency, ova, ameba, cysts, parasites, pus cells, RBC and crystals. Detection of occult blood in stool, concentration techniques. Sputum; Method of collection for various purposes including AFB fugal, malignant cells and others. Microscopic examination of sputum, sputum for AFB. Semen: method of collection examination of semen for time for liquefaction, volume, color, reaction pH, motility of sperm, sperm count and other findings staining and morphological study of spermatozoa, semen fructose determination, anti-sperm antibodies CSF; General introduction method of CSF collection, Transport of CSF, examination of CSF, color, turbidity and fibrin clot (Cobweb), total and differential leukocyte count. CSF examination by gram's staining and acid-fast staining, biochemical tests, clinical significance of CSF analysis in various meningitis and encephalitis and interpretations. Other body fluids; Methods of collection, transport and macroscopic and microscopic examination of ascitic fluid, pleural fluid, pericardial fluid and synovial fluid. Pregnancy tests; Different methods of testing and chronic gonadotropin assay with urine

Practical:

1. Urine-collection, processing, physical, chemical and microscopic examination.
2. Collection, preservation and examination of stool
3. Sputum collection and microscopic examination of sputum for AFB.
4. Physical, chemistry and microscopic examination of semen
5. Analysis of CSF, microscopic and chemical examination of CSF.
6. Macroscopic and microscopic examination of ascitic fluid, Pleural fluid, pericardial fluid and synovial fluid

Recommended Books:

1. McPherson RA, Pincus MR. Henry's clinical diagnosis and management by laboratory methods. Elsevier Health Sciences; 2011.
2. Drew, P. and Andrew, K., Oxford handbook of clinical and laboratory investigation; 2010.
3. Cheesbrough M. District laboratory practice in tropical countries. Cambridge university press; 2006.
4. Ravel, R., Clinical laboratory medicine: clinical applications of laboratory data. Mosby Elsevier 6th Edition 1995.

Practical

Estimation of bilirubin, SGPT, SGOT, ALP, GGT, uric acid, serum sodium, potassium, calcium, acid phosphatases, and amylase. Basic steps of tissue processing (fixation, dehydration, clearing, embedding). Preparation of fixatives and tissue fixation techniques. Microtomy: Section cutting of paraffin blocks and frozen sections. Routine and special staining techniques, including H&E and PAS techniques. Mounting of histological sections. Urinalysis: Collection, preservation, physical, chemical, and microscopic examination of urine. Stool examination: Physical and microscopic examination for ova, cysts, parasites, and occult blood. Sputum collection and microscopic examination for AFB. Physical, chemical, and microscopic examination of semen, including sperm morphology. Analysis of cerebrospinal fluid (CSF), including microscopic and biochemical examination. Macroscopic and microscopic examination of ascitic fluid, pleural fluid, pericardial fluid, and synovial fluid.

Recommended Books:

1. Harper's Illustrated Biochemistry – McGraw Hill Medical, 2012.
2. Henry's Clinical Diagnosis and Management by Laboratory Methods – McPherson RA, Pincus MR, Elsevier Health Sciences, 2011.
3. Culling, Charles Frederick Albert: Handbook of Histopathological and Histochemical Techniques – Butterworth-Heinemann, 2013.
4. Cheesbrough M.: District Laboratory Practice in Tropical Countries – Cambridge University Press, 2006.
5. Ravel R.: Clinical Laboratory Medicine: Clinical Applications of Laboratory Data – Mosby Elsevier, 6th Edition, 1995.
6. Lippincott's Illustrated Reviews: Biochemistry – Kluwer, New York, 2011.
7. Bancroft's Theory and Practice of Histological Techniques – Elsevier Health Sciences, 2013.

Theory:

Introduction to parasitology, Taxonomy and classification of parasites, Quality control of Stool examination, Entamoeba histolytica, Other Entamoeba species (comparative study), Giardia lamblia, (Naegleria fowleri and Acanthamoeba), Trichomonas vaginalis, Cryptosporidium, Blood Flagellates; Trypanosomiasis; African Trypanosomiasis, American Trypanosomiasis, Leishmania: Introduction and classification, Cutaneous, mucocutaneous and Visceral leishmaniasis, Blood Sporozoa: Plasmodium Species, Pathology and Pathogenesis, Epidemiology, Tissue Sporozoa: Toxoplasma gondii, Intestinal helminthic infections; Enterobius vermicularis, Trichuris trichiura, Ascaris lumbricoides, Ancylostoma duodenale, Strongyloides stercoralis, Taenia saginata, Taenia solium, Blood and tissue helminthic infections; Schistosoma species, Taenia solium, Echinococcus Granulosus.

Practical:

1. Identification of Equipment used in parasitology laboratory - Principles, Uses, maintenance
2. Demonstration & visual presentation of protozoan
3. Stool examination
4. Detection and identification of Entamoeba histolytica
5. Detection and identification of other Entamoeba species (Microscopy and visual presentation)
6. Detection and identification of Giardia lamblia
7. Detection and identification of malarial parasites

Recommended Books:

1. Jawetz, Melnick, & Adelberg. Medical Microbiology. 26th edition. Mc Graw Hill Medical, New York.
2. Levinson, W. Review of Medical Microbiology and Immunology, 12th Edition, Mc Graw Hill Medical, New York.

Theory:

General Introduction to Immunohematology & blood banking, Antigen-Antibody Concept, precipitation, flocculation, General management and essential components of blood bank. ABO blood group system, Inheritance, distribution antibodies in ABO system, Subgroups, ABO grouping methods and factors influencing RH Blood group system, Inheritance and distribution, antibodies, Hemolytic disease of newborn, RH typing methods. Other blood group systems NS blood group, P Blood Group Lutheran Blood group, Kell blood group, Lewis's blood group, Duffy blood group, Kid blood group, Bombay blood group, Blood transfusion, Donor screening, collection of blood. Screening of blood, Anticoagulants used in blood bank, storage of blood. Transfusion reaction, Principles and methods of investigating Transfusion reactions, diseases transmitted by blood transfusion, Component therapy – preparation and transfusion of leucocytes poor blood, RBC concentrate platelet rich plasma, platelet concentrate factor VIII, Transfusion of plasma, components and preparation of cryoprecipitate, its use and advantages.

Practical:

1. ABO grouping-Cell and serum grouping
2. Rh grouping
3. Test for D^u antigen
4. Compatibility test-Major and Minor cross matching & Coombs cross matching
5. Coombs test-Direct and Indirect.
6. Screening of blood for infectious agents-HIV test, HBV, HCV, V.D.R.L, malaria etc

Recommended Books:

1. Quinley. Immunohematology: principles and practice. Philadelphia: Lippincott; 1998 Jan.
2. Klein HG, Anstee DJ. Mollison's blood transfusion in clinical medicine. John Wiley & Sons; 2008.
3. Harmening DM. Modern blood banking and transfusion practices. FA Davis; 2012.
4. Hillyer C, Hillyer KL, Strobl F, Jefferies L, Silberstein L, editors. Handbook of transfusion medicine. Academic Press; 2001.

Theory:

Pathogenicity, Clinical features and Laboratory diagnosis of Medically Important Bacteria including *Staphylococcus aureus*, Coagulase-negative Staphylococci, Beta-hemolytic Streptococci, Alphahemolytic Streptococcus and *Streptococcus pneumoniae*, Enterococci, *Bacillus* Species (*B. anthracis*, *B. cereus*), *Clostridium* species (*C. tetani*, *C. botulinum*, *C. perfringens*, *C. difficile*) *Corynebacterium diphtheriae*, *Listeria monocytogenes*, *Neisseria* species (*N. meningitidis*, *N. gonorrhoeae*), *Escherichia coli*, *Klebsiella* species, *Enterobacter* species, *Citrobacter* species, *Salmonella*, *Shigella*, *Proteus*, *Campylobacter*, *Helicobacter*, *Vibrio*, *Hemophilus*, *Bordetella*, *Legionella*, *Brucella*, *Francisella*, *Pasteurella*, *Pseudomonas*, *Rickettsia*, *Chlamydia trachomatis*, *Bacteroides*, *Mycobacteria*, *Treponema pallidum*, *Leptospira*, *Borrelia* and *Mycoplasma*. Molecular and Immunological Methods to study bacteria and bacterial infections. Antibacterial drugs; mode of action. Antimicrobial resistance.

Practical:

1. A identification of unknown microorganisms, Identification of Staphylococci, Streptococci, Enterobacteriaceae, *Pseudomonas*, *Vibrio*.
2. Biochemical tests include Catalase, Coagulate, DNase, Citrate Utilization, Glucose fermentation, Lactose and Sucrose fermentation, methyl red, urease, Voges Proskauer.
3. Multiple Test Systems including 20E.

Recommended Books:

1. Cheesbrough M. District laboratory practice in tropical countries. Cambridge university press; 2006
2. Crocker J, Burnett D, The Science of laboratory diagnosis. John Wiley & Sons; 2005.
3. Ridley J. Essentials of Clinical Laboratory Science. Delmar Cengage Learning; 2010.
4. Gillespie S, Hawkey PM, editors. Principles and practice of clinical bacteriology. John Wiley & Sons; 2006.
5. & Sons; 2006.
6. Leboffe MJ, Pierce BE. Microbiology: laboratory theory and application. Morton Publishing Company; 2012.

Theory:

Fundamentals of medical instrumentation systems, sensors, biomedical signal processing and electrical safety requirements. Example instruments for hematology, clinical chemistry and immunochemistry. Clinical laboratory measurements, POCT devices, chemical biosensors. Demonstration of common analytical instruments; the theory and applications of various analytical instruments including various types of Microscopes, incubators, electrophoresis, spectrophotometry, chromatography, and centrifugation; and lab safety practice. Manual and automated methods for the biochemical analysis of blood and body fluids; principles of operation, maintenance, and troubleshooting of laboratory instruments. Various aspects of the medical laboratory including disciplines, automation, use of computers and software and Lab information system. Safe work practices, quality assurance features and the analytical principles of common clinical laboratory methods. Fundamentals of Software interface applications, user defined functions, user input from keyboard and mouse, text inputs, use of bar codes. Statistics and quality control/assessment in clinical chemistry, Routine operation and daily maintenance of automated equipment and supervised evaluation and reporting of results.

Recommended Books:

1. Tietz, Norbert W., ed. Textbook of clinical chemistry. Vol. 486. Philadelphia et al.: Saunders, 1986.
2. Webster, John. Medical instrumentation: application and design. John Wiley & Sons, 2009.

Theory:

Immunity-definition, innate immunity, acquired immunity (humoral and Cell mediated immunity). Active and passive immunity and vaccination. Antigens and immunogens; types, characteristics, adjuvants. Cellular basis of immune response; T-cells and subtypes, B cells, antigen presenting cells, Activation of T-cells and B-cells, memory cells. Immunoglobulin; Structure, types, classes, isotypes, allotypes, idiotypes, monoclonal antibodies and Hybridoma technology. Humoral immune response, primary and secondary immune response, Major Histocompatibility Complex and its types and role in transplantation and allograft rejection. Complement; pathways and activation, biological effects and clinical manifestations. Antigen-antibody reactions; precipitations, agglutination, Radioimmunoassay, ELISA, Complement Fixation assays, hem agglutination, neutralization assays, antiglobulin (Coombs) test. ABO, Rh antigen and antibodies. Hypersensitivity (Allergy), Types of hypersensitivity reactions, tolerance; B-cell and T-cell tolerance. Autoimmune disorders and its associated factors. Immunodeficiency; congenital and acquired immunodeficiencies.

Practical:

1. Serological diagnosis of microbial diseases
2. Widal test
3. ASO titer
4. CRP titer
5. RA factor
6. VDRL
7. RPR
8. ELISA for HBV and HCV

Recommended Books:

1. Owen, Judith A., Jenni Punt, and Sharon A. Stranford. *Kuby immunology*. New York: WH Freeman, 2013.
2. Review of Medical Microbiology and Immunology, 12th Edition, Mc Graw Hill Medical, New York

Theory:

<p>Course Contents:</p>	<p>اسلامی اخلاق و آداب</p> <ul style="list-style-type: none"> ○ اخلاق (تعارف، ضرورت و اہمیت، اقسام، معنویت) ○ اخلاق حسنہ : ● برائی کو نیکی سے مٹانا ● نیکی کے کاموں میں مسابقت ● لوگوں کے درمیان صلح ● عدل و انصاف ● سچائی ● ایثار ● سلیم قلب ● مہمان نوازی ● لغویات سے اعراض ● عاجزی و انکساری ● نگاہ اور آواز کو پست رکھنا ● چال میں میانہ روی ● شر مگاہوں کی حفاظت ● صبر ● شکر
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	<ul style="list-style-type: none"> • امور میں مہارت رومی • سخاوت اخلاقِ سنّیہ: • ظلم اور زیادتی • غرور و تکبر • نفسانی خواہشات کی پیروی • بدگمانی • جھوٹ • چغلی اور تہمت • تمسخر اور شیخی خوری • لہو و لعب • برے ناموں سے پکارنا • احسان جتانا اور تکلیف دینا • فضول خرچی اور حد سے بڑھنا • حسد اور تنگ دل • ناپ تول میں کمی اور خیانت • شراب خوری • سود خوری • چوری و ڈاکہ • وعدہ خلافی
Grammar:	<ul style="list-style-type: none"> • قرآنی عربی گرامر کے اصول اور اسکے اطلاقات (متن قرآنی پر اطلاق سے توضیحات)
Selected Text:	<p style="text-align: center;">اخلاقِ حسنہ</p> <ul style="list-style-type: none"> • وَيَسْتَعْجِلُونَكَ بِالسَّيِّئَةِ قَبْلَ الْحَسَنَةِ وَقَدْ خَلَتْ مِنْ قَبْلِهِمُ الْمَثَلَاتُ وَإِنَّ رَبَّكَ لَذُو مَغْفِرَةٍ لِلنَّاسِ عَلَى ظُلْمِهِمْ وَإِنَّ رَبَّكَ لَشَدِيدُ الْعِقَابِ /الرعد:6 • ثُمَّ بَدَلْنَا مَكَانَ السَّيِّئَةِ الْحَسَنَةَ حَتَّى عَفَوْا وَقَالُوا قَدْ مَسَّ آبَاءَنَا الضَّرَّاءُ وَالسَّرَّاءُ فَأَخَذْنَاهُمْ بَغْتَةً وَهُمْ لَا يَشْعُرُونَ /الاعراف:95 • وَلَا تَسْتَوِي الْحَسَنَةُ وَلَا السَّيِّئَةُ ادْفَعْ بِالَّتِي هِيَ أَحْسَنُ فَإِذَا الَّذِي بَيْنَكَ وَبَيْنَهُ عَدَاوَةٌ كَأَنَّهُ وَلِيٌّ حَمِيمٌ / فصلت:43 • وَتَلْتَكُنْ مِنْكُمْ أُمَّةٌ يَدْعُونَ إِلَى الْخَيْرِ وَيَأْمُرُونَ بِالْمَعْرُوفِ وَيَنْهَوْنَ عَنِ الْمُنْكَرِ وَأُولَئِكَ هُمُ الْمُفْلِحُونَ <u>آل عمران:410</u> • يَا أَيُّهَا الَّذِينَ آمَنُوا ارْكَعُوا وَاسْجُدُوا وَاعْبُدُوا رَبَّكُمْ وَافْعَلُوا الْخَيْرَ لَعَلَّكُمْ تُفْلِحُونَ /الحج:77

- وَلِكُلِّ وَجْهَةٌ مَوْمِلِيهَا فَاسْتَبِقُوا الْخَيْرَاتِ ۚ أَيْنَ مَا تَكُونُوا يَأْتِ بِكُمْ اللَّهُ جَمِيعًا ۚ إِنَّ اللَّهَ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ/البقرة: 814
- يُؤْمِنُونَ بِاللَّهِ وَالْيَوْمِ الْآخِرِ وَيَأْمُرُونَ بِالْمَعْرُوفِ وَيَنْهَوْنَ عَنِ الْمُنْكَرِ وَيُسَارِعُونَ فِي الْخَيْرَاتِ وَأُولَٰئِكَ مِنَ الصَّالِحِينَ/آل عمران: 411
- وَإِنْ طَائِفَتَانِ مِنَ الْمُؤْمِنِينَ اقْتَتَلُوا فَأَصْلِحُوا بَيْنَهُمَا ۚ فَإِنْ بَغَتْ إِحْدَاهُمَا عَلَى الْأُخْرَىٰ فَقَاتِلُوا الَّتِي تَبْغِي ۚ حَتَّىٰ تَفِيءَ إِلَىٰ أَمْرِ اللَّهِ ۚ فَإِنْ فَاءَتْ فَأَصْلِحُوا بَيْنَهُمَا بِالْعَدْلِ وَأَقْسِطُوا ۚ إِنَّ اللَّهَ يُحِبُّ الْمُقْسِطِينَ/الحجرات: 9
- فَمَنْ خَافَ مِنْ مَوْصٍ جَنَفًا أَوْ إِثْمًا فَأَصْلَحَ بَيْنَهُمْ فَلَا إِثْمَ عَلَيْهِ ۚ إِنَّ اللَّهَ غَفُورٌ رَحِيمٌ/البقرة: 218
- وَإِنْ جَنَحُوا لِلسَّلْمِ فَاجْنَحْ لَهَا وَتَوَكَّلْ عَلَى اللَّهِ ۚ إِنَّهُ هُوَ السَّمِيعُ الْعَلِيمُ/الأنفال: 16
- يَا أَيُّهَا الَّذِينَ آمَنُوا كُونُوا قَوَّامِينَ بِالْقِسْطِ شُهَدَاءَ لِلَّهِ وَلَوْ عَلَىٰ أَنْفُسِكُمْ أَوِ الْوَالِدِينَ وَالْأَقْرَبِينَ ۚ إِنْ يَكُنْ غَنِيًّا أَوْ فَقِيرًا فَاللَّهُ أَوْلَىٰ بِهِمَا ۚ فَلَا تَتَّبِعُوا الْهَوَىٰ أَنْ تَعْدِلُوا ۚ وَإِنْ تَلَوُّوا أَوْ نَعِرْتُمْ فَإِنَّ اللَّهَ كَانَ بِمَا تَعْمَلُونَ خَبِيرًا/النساء: 513
- إِنَّ اللَّهَ يَأْمُرُ بِالْعَدْلِ وَالْإِحْسَانِ وَإِيتَاءِ ذِي الْقُرْبَىٰ وَيَنْهَىٰ عَنِ الْفَحْشَاءِ وَالْمُنْكَرِ وَالْبَغْيِ يَعِظُكُمْ لَعَلَّكُمْ تَذَكَّرُونَ/النحل: 90
- يَا أَيُّهَا الَّذِينَ آمَنُوا كُونُوا قَوَّامِينَ لِلَّهِ شُهَدَاءَ بِالْقِسْطِ ۚ وَلَا يَجْرِمَنَّكُمْ شَنَاٰنُ قَوْمٍ عَلَىٰ أَلَّا تَعْدِلُوا ۚ اعْدِلُوا هُوَ أَقْرَبُ لِلتَّقْوَىٰ ۚ وَاتَّقُوا اللَّهَ ۚ إِنَّ اللَّهَ خَبِيرٌ بِمَا تَعْمَلُونَ /المائدة: 8
- إِنَّ الْأَسْلِمِينَ وَالْمُسْلِمَاتِ وَالْمُؤْمِنِينَ وَالْمُؤْمِنَاتِ وَالْقَنَاتِينَ وَالْقَنَاتِ وَالصَّادِقِينَ وَالصَّادِقَاتِ وَالصَّابِرِينَ وَالصَّابِرَاتِ وَالْخَشِيعِينَ وَالْخَشِيعَاتِ وَالْمُتَصَدِّقِينَ وَالْمُتَصَدِّقَاتِ وَالصَّامِتِينَ وَالصَّامِتَاتِ وَالْحَفِظِينَ وَالْحَفِظَاتِ وَالذَّاكِرِينَ اللَّهَ كَثِيرًا وَالذَّاكِرَاتِ أَعَدَّ اللَّهُ لَهُمْ مَغْفِرَةً وَأَجْرًا عَظِيمًا/الأحزاب: 53
- وَلَا يَأْتَلِ أُولُو الْفَضْلِ مِنْكُمْ وَالسَّعَةِ أَنْ يُؤْتُوا أُولِي الْقُرْبَىٰ وَالْمَسَاكِينَ وَالْمُهَاجِرِينَ فِي سَبِيلِ اللَّهِ وَلِيَصْفَحُوا ۚ أُولَٰئِكَ أَصْحَابُ الْأَنْحَابِ ۚ وَإِنَّ لَهُمْ فِي اللَّهِ عِزًّا ۚ إِنَّ اللَّهَ بَرٌّ ذَكِيٌّ/النور: 22
- وَالَّذِينَ هُمْ عَنِ اللَّغْوِ مُعْرِضُونَ /المؤمنون: 3
- وَلَا تَصْعَقْ خَدَّكَ لِلنَّاسِ وَلَا تَمَسْ فِي الْأَرْضِ مَرَحًا ۚ إِنَّ اللَّهَ لَا يُحِبُّ كُلَّ مُخْتَالٍ فَخُورٍ/لقمان: 81
- وَلَا تَمَسْ فِي الْأَرْضِ مَرَحًا ۚ إِنَّكَ لَنْ تَخْرِقَ الْأَرْضَ وَلَنْ تَبْلُغَ الْجِبَالَ طُولًا/الإسراء: 73
- وَعِبَادُ الرَّحْمَنِ الَّذِينَ يَمْشُونَ عَلَى الْأَرْضِ هَوْنًا وَإِذَا خَاطَبَهُمُ الْجَاهِلُونَ قَالُوا سَلَامًا/الفرقان: 36
- وَاقْصِدْ فِي مَشْيِكَ وَاعْضُضْ مِنْ صَوْتِكَ ۚ إِنَّ أَنْكَرَ الْأَصْوَاتِ لَصَوْتُ الْحَمِيرِ/لقمان: 91
- وَقُلْ لِلْمُؤْمِنَاتِ يَغْضُضْنَ مِنْ أَبْصَارِهِنَّ وَيَحْفَظْنَ فُرُوجَهُنَّ وَلَا يُبْدِينَ زِينَتَهُنَّ إِلَّا مَا ظَهَرَ مِنْهَا ۚ وَلْيَضْرِبْنَ بِخُمُرِهِنَّ عَلَىٰ جُيُوبِهِنَّ ۚ وَلَا يُبْدِينَ زِينَتَهُنَّ إِلَّا لِبُعُولَتِهِنَّ أَوْ آبَائِهِنَّ أَوْ أَبْنَائِهِنَّ أَوْ بُعُولَتِهِنَّ أَوْ أَبْنَائِهِنَّ أَوْ إِخْوَانِهِنَّ أَوْ بَنِي إِخْوَانِهِنَّ أَوْ بَنِي أَخَوَاتِهِنَّ أَوْ نِسَائِهِنَّ أَوْ مَا مَلَكَتْ أَيْمَانُهُنَّ أَوْ التَّابِعِينَ غَيْرَ أُولِي الْإِرْبَةِ مِنَ الرِّجَالِ أَوِ الطِّفْلِ الَّذِينَ لَمْ يَظْهَرُوا عَلَىٰ عَوْرَاتِ النِّسَاءِ ۚ وَلَا يَضْرِبْنَ بِأَرْجُلِهِنَّ لِيُعْلَمَ مَا يُخْفِينَ ۚ وَزِينَتُهُنَّ وَتُؤَبُّوا إِلَى اللَّهِ جَمِيعًا أَيُّهُ الْمُؤْمِنُونَ لَعَلَّكُمْ تُفْلِحُونَ/النور: 13
- قُلْ لِلْمُؤْمِنِينَ يَغْضُوا مِنْ أَبْصَارِهِمْ وَيَحْفَظُوا فُرُوجَهُمْ ۚ ذَلِكَ أَزْكَىٰ لَهُمْ ۚ إِنَّ اللَّهَ خَبِيرٌ بِمَا يَصْنَعُونَ

النور:03

- إِنَّ الَّذِينَ يَغُضُّونَ أَصْوَاتَهُمْ عِنْدَ رَسُولِ اللَّهِ أُولَئِكَ الَّذِينَ امْتَحَنَ اللَّهُ قُلُوبَهُمْ لِلتَّقْوَى لَهُمْ مَغْفِرَةٌ وَأَجْرٌ عَظِيمٌ/الحجرات:3
- خُذِ الْعَفْوَ وَأْمُرْ بِالْعُرْفِ وَأَعْرِضْ عَنِ الْجَاهِلِينَ/الاعراف:199
- قُلْ نَعَالُوا أُنَافٍ مَا حَرَّمَ رَبِّي عَلَيْكُمْ أَلَّا تُشْرِكُوا بِهِ شَيْئًا وَبِالْوَالِدَيْنِ إِحْسَانًا وَلَا تَقْتُلُوا أَوْلَادَكُمْ مِنْ إِمْلَاقٍ نَحْنُ نَرْزُقُكُمْ وَإِيَّاهُمْ وَلَا تَقْرَبُوا الْفَوَاحِشَ مَا ظَهَرَ مِنْهَا وَمَا بَطَنَ وَلَا تَقْتُلُوا النَّفْسَ الَّتِي حَرَّمَ اللَّهُ إِلَّا بِالْحَقِّ ذَلِكُمْ وَصَاكُمْ بِهِ لَعَلَّكُمْ تَعْقِلُونَ /الأنعام:151
- وَلَيْسَتَعَفِيفِ الَّذِينَ لَا يَجِدُونَ نِكَاحًا حَتَّى يُغْنِيَهُمُ اللَّهُ مِنْ فَضْلِهِ وَالَّذِينَ يَبْتِغُونَ الْكِتَابَ مِمَّا مَلَكَتْ أَيْمَانُكُمْ فَكَاتِبُوهُمْ إِنْ عَلِمْتُمْ فِيهِمْ خَيْرًا وَآتُوهُمْ مِنْ مَالِ اللَّهِ الَّذِي آتَاكُمْ وَلَا تُكْرِهُوا فَتِياتِكُمْ عَلَى الْبِغَاءِ إِنْ أَرَدْنَ تَحَصُّنًا لِيَبْتِغُوا عَرَضَ الْحَيَاةِ الدُّنْيَا وَمَنْ يُكْرِهِنَّ فَإِنَّ اللَّهَ مِنْ بَعْدِ إِكْرَاهِهِنَّ غَفُورٌ رَحِيمٌ/النور:33

• يَا أَيُّهَا الَّذِينَ آمَنُوا اصْبِرُوا وَصَابِرُوا وَرَابِطُوا وَاتَّقُوا اللَّهَ لَعَلَّكُمْ تُفْلِحُونَ/ آل عمران:200

• بَلَى إِنْ تَصْبِرُوا وَتَتَّقُوا وَيَأْتُوكُمْ مِنْ فُورِهِمْ هَذَا يُمْدِدْكُمْ رَبُّكُمْ بِخَمْسَةِ آلَافٍ مِنَ الْمَلَائِكَةِ مُسَوِّمِينَ

آل عمران:512

- وَأَطِيعُوا اللَّهَ وَرَسُولَهُ وَلَا تَنَازَعُوا فَتَفْشَلُوا وَتَذْهَبَ رِيحُكُمْ وَاصْبِرُوا إِنَّ اللَّهَ مَعَ الصَّابِرِينَ/الأنفال:64
- وَمَا بَرَزُوا لِجَالُوتَ وَجُنُودِهِ قَالُوا رَبَّنَا أفرغ علينا صبرًا وثبت أقدامنا وانصرتنا على القوم الكافرين

البقرة:025

- يَا أَيُّهَا الَّذِينَ آمَنُوا كُلُوا مِنْ طَيِّبَاتِ مَا رَزَقْنَاكُمْ وَاشْكُرُوا لِلَّهِ إِنْ كُنْتُمْ إِيَّاهُ تَعْبُدُونَ/البقرة:172
- فَادْكُرُونِي أذكُرْكُمْ واشْكُرُوا لي وَلَا تَكْفُرُونِ/البقرة:215
- يَا أَيُّهَا الَّذِينَ آمَنُوا كُلُوا مِنْ طَيِّبَاتِ مَا رَزَقْنَاكُمْ وَاشْكُرُوا لِلَّهِ إِنْ كُنْتُمْ إِيَّاهُ تَعْبُدُونَ/البقرة:217
- قَالَ يَا مُوسَى إِنِّي اصْطَفَيْتُكَ عَلَى النَّاسِ بِرِسَالَاتِي وَبِكَلَامِي فَخُذْ مَا آتَيْتُكَ وَكُنْ مِنَ الشَّاكِرِينَ

الأعراف:414

- مَا يَفْعَلُ اللَّهُ بِعَدَابِكُمْ إِنْ شَكَرْتُمْ وَأَمُنْتُمْ وَكَانَ اللَّهُ شَاكِرًا عَلِيمًا /النساء:714
- وَثِيَابَكَ فَطَهِّرْ/المدثر:4
- يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا قُمْتُمْ إِلَى الصَّلَاةِ فَاغْسِلُوا وُجُوهَكُمْ وَأَيْدِيَكُمْ إِلَى الْمَرَافِقِ وَامْسَحُوا بِرُءُوسِكُمْ وَأَرْجُلَكُمْ إِلَى الْكَعْبَيْنِ وَإِنْ كُنْتُمْ جُنُبًا فَاطَّهَّرُوا وَإِنْ كُنْتُمْ مَرْضَى أَوْ عَلَى سَفَرٍ أَوْ جَاءَ أَحَدٌ مِنْكُمْ مِنَ الْغَائِطِ أَوْ لَامَسْتُمُ النِّسَاءَ فَلَمْ تَجِدُوا مَاءً فَتَيَمَّمُوا صَعِيدًا طَيِّبًا فَامْسَحُوا بِوُجُوهِكُمْ وَأَيْدِيكُمْ مِنْهُ مَا يُرِيدُ اللَّهُ لِيَجْعَلَ عَلَيْكُمْ مِنْ حَرَجٍ وَلَكِنْ يُرِيدُ لِيُطَهِّرَكُمْ وَلِيُتِمَّ نِعْمَتَهُ عَلَيْكُمْ لَعَلَّكُمْ تَشْكُرُونَ/المائدة:6

• وَأَنْفِقُوا فِي سَبِيلِ اللَّهِ وَلَا تُلْقُوا بِأَيْدِيكُمْ إِلَى التَّهْلُكَةِ وَأَحْسِنُوا إِنَّ اللَّهَ يُحِبُّ الْمُحْسِنِينَ / البقرة: 519

• يَا أَيُّهَا الَّذِينَ آمَنُوا أَنْفِقُوا مِمَّا رَزَقْنَاكُمْ مِمَّن قَبِلَ أَنْ يَأْتِيَ يَوْمٌ لَا بَيْعَ فِيهِ وَلَا خُلَّةٌ وَلَا شَفْعَةٌ وَالْكَافِرُونَ هُمُ الظَّالِمُونَ / البقرة:

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• الَّذِينَ يُنْفِقُونَ أَمْوَالَهُمْ فِي سَبِيلِ اللَّهِ ثُمَّ لَا يُتْبِعُونَ مَا أَنْفَقُوا مَنًّا وَلَا أَدَىٰ ﴿لَهُمْ أَجْرُهُمْ عِنْدَ رَبِّهِمْ وَلَا خَوْفٌ عَلَيْهِمْ وَلَا هُمْ يَحْزَنُونَ / البقرة: 262

اخلاق سئيه

• الَّذِينَ يَنْقُضُونَ عَهْدَ اللَّهِ مِنْ بَعْدِ مِيثَاقِهِ وَيَقْطَعُونَ مَا أَمَرَ اللَّهُ بِهِ أَنْ يُوصَلَ وَيُفْسِدُونَ فِي الْأَرْضِ أُولَئِكَ هُمُ الْخَاسِرُونَ / البقرة: 72

• إِنْ يَمْسَسْكُمْ قَرْحٌ فَقَدْ مَسَّ الْقَوْمَ قَرْحٌ مِثْلُهُ وَتِلْكَ الْأَيَّامُ نُدَاوِلُهَا بَيْنَ النَّاسِ وَلِيَعْلَمَ اللَّهُ الَّذِينَ آمَنُوا وَيَتَّخِذَ مِنْكُمْ شُهَدَاءَ ۗ وَاللَّهُ لَا يُحِبُّ الظَّالِمِينَ / آل عمران: 199

• وَاعْبُدُوا اللَّهَ وَلَا تُشْرِكُوا بِهِ شَيْئًا ۗ وَاللَّهُ بِالْإِحْسَانِ عَلِيمٌ وَالَّذِينَ آمَنُوا وَالَّذِينَ هُمْ يُؤْتُونَ مِنْهُم مَّا مَلَكَتْ أَيْمَانُهُمْ ۗ إِنَّ اللَّهَ لَا يُحِبُّ مَنْ كَانَ مُخْتَالًا فَخُورًا / النساء: 63

• فَأَمَّا الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ فَيُوَفِّيهِمْ أُجُورَهُمْ وَيَزِيدُهُمْ مِنْ فَضْلِهِ ۗ وَأَمَّا الَّذِينَ اسْتَنكَفُوا وَاسْتَكْبَرُوا فَيُعَذِّبُهُمْ عَذَابًا أَلِيمًا وَلَا يَجِدُونَ لَهُمْ مِنْ دُونِ اللَّهِ وَلِيًّا وَلَا نَصِيرًا / النساء: 317

• فَخَلَفَ مِنْ بَعدِهِمْ خَلْفٌ أَضَاعُوا الصَّلَاةَ وَاتَّبَعُوا الشَّهَوَاتِ فَسُوفَ يَلْقَوْنَ غِيًّا / مريم: 95

• وَأَمَّا مَنْ خَافَ مَقَامَ رَبِّهِ وَتَتَى النَّفْسَ عَنِ الْهَوَىٰ / فَإِنَّ الْجَنَّةَ هِيَ الْمَأْوَىٰ / النازعات: 40-14

• ثُمَّ أَنْزَلَ عَلَيْكُمْ مِنْ بَعْدِ الْغَمِّ أَمْنَةً نَاعَسًا يَغْشَى طَائِفَةً مِنْكُمْ ۖ وَطَائِفَةٌ قَدْ أَهَمَّتْهُمْ أَنْفُسُهُمْ يَظُنُّونَ بِاللَّهِ غَيْرَ الْحَقِّ ظَنَّ الْجَاهِلِيَّةِ يَقُولُونَ هَلْ لَنَا مِنَ الْأَمْرِ مِنْ شَيْءٍ ۗ قُلْ إِنَّ الْأَمْرَ كُلَّهُ لِلَّهِ يُخْفُونَ فِي أَنْفُسِهِمْ مَا لَا يُبْدُونَ لَكَ يَقُولُونَ لَوْ كَانَ لَنَا مِنَ الْأَمْرِ شَيْءٌ مَا قُتِلْنَا هَاهُنَا ۗ قُلْ لَوْ كُنْتُمْ فِي بُيُوتِكُمْ لَبَرَزَ الَّذِينَ كُتِبَ عَلَيْهِمُ الْقَتْلُ إِلَىٰ مَضَاجِعِهِمْ وَلِيَبْتَلِيَ اللَّهُ مَا فِي صُدُورِكُمْ وَلِيُمَحِّصَ مَا فِي قُلُوبِكُمْ ۗ وَاللَّهُ عَلِيمٌ بِذَاتِ الصُّدُورِ / آل عمران: 415

• فَمَنْ حَاجَّكَ فِيهِ مِنْ بَعْدِ مَا جَاءَكَ مِنَ الْعِلْمِ فَقُلْ تَعَالَوْا نَدْعُ أَبْنَاءَنَا وَابْنَاءَكُمْ وَنِسَاءَنَا وَنِسَاءَكُمْ وَأَنْفُسَنَا وَأَنْفُسَكُمْ ثُمَّ نَبْتَهِلْ فَنَجْعَلْ لَعْنَتَ اللَّهِ عَلَى الْكَاذِبِينَ / آل عمران: 61

• إِنَّمَا يَفْتَرِي الْكُذِبَ الَّذِينَ لَا يُؤْمِنُونَ بِآيَاتِ اللَّهِ وَأُولَئِكَ هُمُ الْكَاذِبُونَ / النحل: 510

• وَالَّذِينَ يَرْمُونَ الْمُحْصَنَاتِ ثُمَّ لَمْ يَأْتُوا بِأَرْبَعَةِ شُهَدَاءَ فَاجْلِدُوهُمْ ثَمَانِينَ جَلْدَةً وَلَا تَقْبَلُوا لَهُمْ شَهَادَةً أَبَدًا ۗ وَأُولَئِكَ هُمُ الْفَاسِقُونَ / النور: 4

• إِنَّ الَّذِينَ يَرْمُونَ الْمُحْصَنَاتِ الْغَافِلَاتِ الْمُؤْمِنَاتِ لَعُنُوا فِي الدُّنْيَا وَالْآخِرَةِ وَلَهُمْ عَذَابٌ عَظِيمٌ / النور: 32

• وَإِذَا نَادَيْتُمْ إِلَى الصَّلَاةِ اتَّخَذُوهَا هُزُوعًا وَلَعِبًا ۗ ذَٰلِكَ بِأَنَّهُمْ قَوْمٌ لَا يَعْقِلُونَ / المائدة: 58

• وَمِنَ النَّاسِ مَنْ يَشْتَرِي لَهْوَ الْحَدِيثِ لِيُضِلَّ عَنْ سَبِيلِ اللَّهِ بِغَيْرِ عِلْمٍ وَيَتَّخِذَهَا هُزُوعًا ۗ أُولَئِكَ لَهُمْ عَذَابٌ مُهِينٌ / لقمان: 6

• يَا أَيُّهَا الَّذِينَ آمَنُوا لَا يَسْخَر قَوْمٌ مِنْ قَوْمٍ عَسَىٰ أَنْ يَكُونُوا خَيْرًا مِنْهُمْ وَلَا نِسَاءٌ مِنْ نِسَاءٍ عَسَىٰ أَنْ يَكُنَّ خَيْرًا مِنْهُنَّ سَوَّلَ تَلْمِزُوا أَنْفُسَكُمْ وَلَا تَنَابَزُوا بِالْأَلْقَابِ بِئْسَ الْأِسْمُ الْفُسُوقُ بَعْدَ الْإِيمَانِ وَمَنْ لَمْ يَتُبْ فَأُولَٰئِكَ هُمُ الظَّالِمُونَ/الحجرات:11

• وَمَا الْحَيَاةُ الدُّنْيَا إِلَّا لَعِبٌ وَلَهْوٌ وَلَدَارُ الْآخِرَةِ خَيْرٌ لِلَّذِينَ يَتَّقُونَ أَفَلَا تَعْقِلُونَ/ الأنعام:32

• اَعْلَمُوا أَنَّهَا الْحَيَاةُ الدُّنْيَا لَعِبٌ وَلَهْوٌ وَزِينَةٌ وَتَفَاخُرٌ بَيْنَكُمْ وَتَكَاثُرٌ فِي الْأَمْوَالِ وَالْأَوْلَادِ كَمَثَلِ غَيْثٍ أَعْجَبَ الْكُفَّارَ نَبَاتُهُ ثُمَّ يَهِيحُ فَتَرَاهُ مِصْفَرًا ثُمَّ يَكُونُ حُطَامًا وَفِي الْآخِرَةِ عَذَابٌ شَدِيدٌ وَمَغْفِرَةٌ مِنَ اللَّهِ وَرِضْوَانٌ وَمَا الْحَيَاةُ الدُّنْيَا إِلَّا مَتَاعٌ الْغُرُورِ/الحديد:02

• يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَبْطُلُوا صَدَقَاتِكُمْ بِالْمَنِّ وَالْأَذَىٰ كَالَّذِي يُنْفِقُ مَالَهُ رِئَاءَ النَّاسِ وَلَا يُؤْمِنُ بِاللَّهِ وَالْيَوْمِ الْآخِرِ فَمَثَلُهُ كَمَثَلِ صَفْوَانٍ عَلَيْهِ تُرَابٌ فَأَصَابَهُ وَابٌ فَتَرَكَهُ صَلْدًا لَا يَقْدِرُونَ عَلَىٰ شَيْءٍ مِمَّا كَسَبُوا وَاللَّهُ لَا يَهْدِي الْقَوْمَ الْكَافِرِينَ/البقرة:426

• وَلَا تَمُنُّنَ تَسْتَكْبِرُ /المدثر:6

• قَوْلٌ مَعْرُوفٌ وَمَغْفِرَةٌ خَيْرٌ مِنْ صَدَقَةٍ يَتْبَعُهَا أَذَىٰ وَاللَّهُ عَنِّي حَلِيمٌ/ البقرة:326

• يَا بَنِي آدَمَ خُذُوا زِينَتَكُمْ عِنْدَ كُلِّ مَسْجِدٍ وَكُلُوا وَاشْرَبُوا وَلَا تُسْرِفُوا إِنَّهُ لَا يُحِبُّ الْمُسْرِفِينَ

الأعراف:13

• وَآتِ ذَا الْقُرْبَىٰ حَقَّهُ وَالْمِسْكِينَ وَابْنَ السَّبِيلِ وَلَا تُبَذِّرْ تَبْذِيرًا ﴿26﴾ إِنَّ الْمُبَذِّرِينَ كَانُوا إِخْوَانَ الشَّيَاطِينِ وَكَانَ الشَّيْطَانُ لِرَبِّهِ كَفُورًا/الاسراء:26-27

• أَمْ يَخْسَدُونَ النَّاسَ عَلَىٰ مَا آتَاهُمُ اللَّهُ مِنْ فَضْلِهِ فَقَدْ آتَيْنَا آلَ إِبْرَاهِيمَ الْكِتَابَ وَالْحِكْمَةَ وَآتَيْنَاهُمْ مُلْكًا عَظِيمًا/النساء:45

• وَذَكَرْنَا مِنْ أَهْلِ الْكِتَابِ لَوْ يَرُّدُونَكُمْ مِنْ بَعْدِ إِيمَانِكُمْ كَقَارًا حَسَدًا مِنْ عِنْدِ أَنْفُسِهِمْ مِنْ بَعْدِ مَا تَبَيَّنَ لَهُمُ الْحَقُّ فَاعْتَصُوا وَاصْفَحُوا حَتَّىٰ يَأْتِيَ اللَّهُ بِأَمْرِهِ إِنَّ اللَّهَ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ/ البقرة:910

• وَأَوْفُوا الْكَيْلَ إِذَا كِلْتُمْ وَزَنُوا بِالْقِسْطَاسِ الْمُسْتَقِيمِ ذَلِكَ خَيْرٌ وَأَحْسَنُ تَأْوِيلًا/ بنى اسر انيل:35

• يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَخُونُوا اللَّهَ وَالرَّسُولَ وَتَخُونُوا أَنْفُسَكُمْ وَأَنْتُمْ تَعْلَمُونَ/ الانفال:27

• يَا أَيُّهَا الَّذِينَ آمَنُوا إِنَّمَا الْخَمْرُ وَالْمَيْسِرُ وَالْأَنْصَابُ وَالْأَزْلَامُ رِجْسٌ مِنْ عَمَلِ الشَّيْطَانِ فَاجْتَنِبُوهُ لَعَلَّكُمْ تُفْلِحُونَ /المائدة:90

• الَّذِينَ يَأْكُلُونَ الرِّبَا لَا يَقُومُونَ إِلَّا كَمَا يَقُومُ الَّذِي يَتَخَبَّطُهُ الشَّيْطَانُ مِنَ الْمَسِّ ذَلِكَ بِأَنَّهُمْ قَالُوا إِنَّمَا الْبَيْعُ مِثْلُ الرِّبَا وَأَحَلَّ اللَّهُ الْبَيْعَ وَحَرَّمَ الرِّبَا فَمَنْ جَاءَهُ مَوْعِظَةٌ مِنْ رَبِّهِ فَانْتَهَىٰ فَلَهُ مَا سَلَفَ وَأَمْرُهُ إِلَى اللَّهِ وَمَنْ عَادَ فَأُولَٰئِكَ أَصْحَابُ النَّارِ هُمْ فِيهَا خَالِدُونَ/البقرة:275

• فَإِنْ لَمْ تَفْعَلُوا فَأْذَنُوا بِحَرْبٍ مِنَ اللَّهِ وَرَسُولِهِ وَإِنْ تُبْتُمْ فَلَكُمْ زُؤُوسٌ أَمْوَالِكُمْ لَا تَظْلِمُونَ وَلَا تُظْلَمُونَ البقرة:279

• وَالسَّارِقُ وَالسَّارِقَةُ فَاقْطَعُوا أَيْدِيَهُمَا جِزَاءً بِمَا كَسَبَا نَكَالًا مِنَ اللَّهِ وَاللَّهُ عَزِيزٌ حَكِيمٌ/ المائدة:38

• إِنَّمَا جِزَاءُ الَّذِينَ يُحَارِبُونَ اللَّهَ وَرَسُولَهُ وَيَسْعَوْنَ فِي الْأَرْضِ فَسَادًا أَنْ يُقَتَّلُوا أَوْ يُصَلَّبُوا أَوْ تُقَطَّعَ أَيْدِيهِمْ وَأَرْجُلُهُمْ مِنْ خِلاَفٍ أَوْ يُنْفَوْا مِنَ الْأَرْضِ ذَلِكَ لَهُمْ جِزْيٌ فِي الدُّنْيَا وَلَهُمْ فِي الْآخِرَةِ عَذَابٌ عَظِيمٌ./المائدة:33

• وَلَا تَقْرَبُوا مَالَ الْيَتِيمِ إِلَّا بِالَّتِي هِيَ أَحْسَنُ حَتَّىٰ يَبْلُغَ أَشُدَّهُ وَأَوْفُوا بِالْعَهْدِ إِنَّ الْعَهْدَ كَانَ مَسْئُولًا

- فَأَعْقَبَهُمْ نِفَاقًا فِي قُلُوبِهِمْ إِلَى يَوْمِ يَلْقَوْنَهُ بِمَا أَخْلَفُوا اللَّهَ مَا وَعَدُوهُ وَبِمَا كَانُوا يَكْذِبُونَ/ التوبة: 77
- وَالَّذِينَ هُمْ لَا مُنْتَهِيَهُمْ وَعَهْدِهِمْ رَاعُونَ/ المومنون: 8

List of Translations of the Holy Quran

اردو تراجم قرآن

نام ترجمہ	مترجم
موضح القرآن	شاہ عبدالقادر دہلوی
فتح القرآن	فتح محمد جالندہری
ترجمہ بیان القرآن	اشرف علی تھانوی
ترجمہ قرآن مجید	سید ابوالاعلیٰ مودودی
ترجمہ ضیاء القرآن	محمد کرم شاہ الازہری
ترجمہ قرآن	حافظ نذراحمہ
آسان ترجمہ القرآن	سید شبیر احمد
احسن البیان	مولانا محمد جوٹا گڑھی
ترجمہ تیان القرآن	غلام رسول سعیدی
آسان ترجمہ قرآن	محمد تقی عثمانی
کشف الرحمن	مولانا احمد سعید دہلوی
مصباح القرآن	ڈاکٹر عبد الرحمان طاہر
معانی القرآن	دارالسلام
عرفان القرآن	ڈاکٹر طاہر القادری
احکام القرآن	مولانا محمد بشیر فاروق قادری
مطالعہ قرآن کریم برائے طلبہ و طالبات	دی علم فاؤنڈیشن کراچی

English Translations of the Holy Quran

Name	Translator
<i>The Meaning of the Glorious Koran</i>	Muhammad Marmaduke Pickthall
<i>The Holy Quran</i>	Abdullah Yousuf Ali
<i>The Noble Qur'an</i>	Dr- Muhammad Taqiuddin Al Hilali & Dr- M Muhsin Khan
<i>The Noble Quran</i>	Mufti Muhammad Taqi Usmani
<i>Towards Understanding the Ever Glorious Quran</i>	Dr. Muhammad Mahmud Ghali
<i>The Study Quran</i>	Seyyed Hossein Nasr

Theory:

Cell morphology and physiology, Cell structure and functions –lining membrane epithelia, stratified squamous epithelia, columnar epithelia, epithelia serving reproductive function and miscellaneous epithelia. Various cells are seen in cytological preparations. Body fluids: method of collection transport and macroscopic and microscopic of Ascitic fluid, pleural fluid, and synovial fluid with special reference to cytology. Genitourinary cytology (including normal and abnormal) Histology and cytology of epithelia of female genital tract during the childbearing age. Cells originating from the normal squamous epithelium of cervix vagina. Squamocolumnar junction/Transformation zone. Endocervical epithelium ciliary tuft. Cells originating from normal Endometrial, cells other than epithelia in normal smears, normal vaginal floras. Cyclic changes in vaginal smears. Various devices and techniques for Vaginal smear. Excretory system: Cytology in the absence of cancer, cytology of normal urine voided urine and catheterized urine. Inflammatory process with in the lower urinary tract. Bacterial fungal (Monilia) and viral infections and associated changes. Cytology of urinary tract in inflammation and malignancy. Respiratory Tract: Cytology in the absence of cancer. The squamous epithelium and Respiratory epithelium and their cytology, non – epithelial cells of respiratory tract. Foreign materials in sputum. Benign abnormalities of respiratory epithelium, squamous epithelium and squamous metaplasia cytology in malignant condition. Cancer cells: Morphologic characteristics of cancer cells. Morphological difference between normal cells and cancer cells. Fine Needle Aspiration Cytology (FNAC). Clinical procedures: Preparation and fixation of smears and fluid specimens. Collection, fixation and transport of cervical smears and vaginal smears for hormonal studies. Standards of adequacy of cytology examination of female genital tract. Collection of urine, bladder irrigation, urine collection after prostatic massage, screening of urinary sediment, GIT Brushing and lavage, Cytological sampling from esophagus, stomach and duodenum. Occult blood in stool. Collection of body fluids and anticoagulants used.

Practical:

1. Collection of samples and processing.
2. Cytological fixatives and fixation.
3. Collection and preparation of fluid sediment for cytological examination.
4. Preparation and fixation of sputum smears for cytology and preparation.
5. Preparation and fixation of vaginal and cervical smears for cytology.
6. Hormonal evaluation of vaginal smears.
7. Papanicolaou staining principles and staining procedures.
8. Maygrunwarld staining-principles and staining procedures.
9. Identification of cells.
10. Differentiation between malignant and benign cells

Recommended Books:

1. Diagnostic cytology and its Histopathological Basis-Vol-1-E.G. Koss.
2. Suvarna SK, Layton C, Bancroft JD. Bancroft's Theory and Practice of Histological Techniques, Expert Consult: Online and Print, 7: Bancroft's Theory and Practice of Histological Techniques. Elsevier Health Sciences; 2013

Theory:

Overview of molecular biology, Advances in molecular biology, Central dogma of molecular biology, important definitions related to central dogma, Chemical structures of the major classes of macromolecules. DNA replication, Transcription, RNA processing, Genetic code, Translation, post-translational modifications. Gene regulation in prokaryotes, Gene regulation in eukaryotes. Phages. Transposable elements and its mechanism, DNA damage (Mutations) and DNA repair mechanisms (Nucleotide and base excision repair, mismatch repair, double strand break repair, Translation DNA synthesis). Genetic engineering.

Practical:

1. Isolation and purification of DNA, Detection and quantitative determination of chromosomal DNA and RNA.
2. Simple cloning experiments using *Escherichia coli* as a host, Isolation and qualitative and quantitative detection of plasmid DNA (mini prep).
3. Digestion of DNA with restriction enzymes and separation of different sized fragments on agarose gel.
4. Study of transformed bacteria based on antibiotic resistance

Recommended Books:

1. Molecular Biology of the Cell by Alberts, 2002. Garland Science, New York.
2. Molecular Biology by David Clark, 2005. ELSEVIER Academic Press.
3. Lehninger Principles of Biochemistry by Nelson and Cox, Freeman Publishers.
4. Molecular Biology of Gene by Watson, Cold Spring Harbor Lab Press.
5. Gene Cloning and DNA Analysis: An Introduction by T.A. Brown, Blackwell Science Publishers.
6. Molecular Cloning: A laboratory manual, Cold Spring Harbor Lab Press.
7. Current Protocols in Molecular Biology, Wiley Publishers.
8. Cell and Molecular Biology: Concepts and Experiments by Gerald Karp, 2010. 6th Edition, John Wiley and Sons.
9. Lodish H, Berk A, Zipursky SL. Molecular cell biology. 5th edition. WH Freeman and company, New York.

Theory:

Virus; structure, classification, Replication of viruses (RNA & DNA), Principles of viral diagnostic procedures. Bacterial viruses, Prion and viroid. DNA Enveloped Viruses; Herpes simplex virus, Varicella Zoster virus, cytomegalovirus, Epstein-Barr virus (EBV), small pox virus, DNA nonenveloped Viruses; Adeno virus, Human papillomavirus; RNA Enveloped Viruses: Influenza virus, Measles virus, Rubella virus, Rabies virus, RNA non-enveloped Viruses; polio virus, Rota virus, Hepatitis Viruses; Hepatitis A virus, Hepatitis B virus, Hepatitis C viruses, Hepatitis D virus, Hepatitis E virus, Tumor Viruses, Slow Viruses & Prions, Human Immunodeficiency Virus, Introduction to mycology, structure, growth. Pathogenesis, fungal toxins and allergies, laboratory diagnosis, pathogenesis, clinical finding, diagnosis, treatment and prevention of cutaneous, subcutaneous, systemic, and opportunistic mycosis. Antifungal therapy.

Practical:

1. Hemagglutination assays for viral diseases.
2. ELISA for HBsAg and Anti-HCV
3. Molecular methods for detection of viral infections
4. Sample collection for fungal diseases.
5. Fungal culture media.
6. Determination of antifungal activity of (nystatin, amphotericin B etc.)

Recommended Books:

1. Levinson, W. Review of Medical Microbiology and Immunology, 12th Edition, Mc Graw Hill Medical, New York.
2. Cann, A. J., 2001. Principles of Molecular Virology Academic Press
3. Griffin, R., Martin, M. A, Straus, H., Griffin, D. E., Robert, G., LMCRO, A., Howley, P. M., Roizman, B., Straus, S. E., David, M., 2001. Fundamental Virology Lippincott Williams and Wilkins.
4. Flint, S. J., Racaniello, V. R., Enquist, L. W. and Skalka, A. M. 2003. Principles of Virology: Molecular Biology, Pathogenesis, and Control of Animal Viruses. CMCROridge University Press.
5. Zuckerman, A. J., Banatvala, J. E., Pattison, J. R., Griffiths, P., Schoub, B., 2004. Principles and Practice of Clinical Virology, 5th Edition. John Wiley and Sons Limited.

Theory:

Mechanism of blood coagulation, laboratory tests used in investigation of coagulation disorders Assay of coagulation factors, Hemophilia and its laboratory parameters, Measurement of life span of platelets. Cytochemistry – Peroxidase, Sudan block, and Esterases, Perl's staining and estimation of Iron content in bone marrow smears and its significance. Thalassemia and hemoglobinopathies (in brief) Definition, Classification, Laboratory diagnosis of various types of anemia, polycythemia Vera, leukocytosis, leucopenia, lymphopenia, monocytosis, neutropenia and Agranulocytosis, infectious mononucleosis. Definition and FAB/ WHO-2008 classification of leukemia, Acute and Chronic leukemia blood and bone marrow findings in acute myeloid Leukemia (AML), acute lymphoid leukemia (ALL) chronic myeloid leukemia (CML), chronic lymphatic leukemia (CLL), Erythroleukemia, Eosinophilic Leukemia, megakaryocytic leukemia, Leukemoid blood reactions, FAB classification, Multiple Myeloma (in brief) Systemic methods of examination of blood film (blood Picture) and reporting, LE cell phenomenon and demonstration of LE cells, principle, method and significance of osmotic fragility test, Acid hemolysis (ham's test), G6PD estimation and its significance. Automation and recent advances in hematological techniques.

Practical:

1. PT, APTT
2. D Dimer
3. Hb Electrophoresis / Determination of fetal hemoglobin
4. Osmotic fragility test
5. Malarial Parasite Identification and reporting
6. LE cell phenomenon
7. Heinz body preparation
8. Determination of G-6-PD
9. Demonstration of slides of various disorders of anemia and leukemia

Recommended Books:

1. Blann A, Ahmed N. Blood Science: Principles and Pathology. John Wiley & Sons; 2014 Jan 2.
2. Hoffbrand AV, Catovsky D, Tuddenham EG, editors. Postgraduate hematology. John Wiley & Sons; 2008 Apr 15.
3. Ciesla B. Hematology in practice. FA Davis; 2011 Aug 11.

Theory:

Introduction to the immune response, Specific immune response, Recognition by antibody – antigens and epitopes, Antibody structure, various classes of antibodies. T lymphocyte subsets, structure of T- cell receptor, major histocompatibility complex (MHC), class 1 and 2 MHC molecules. Antigen recognition, processing and presentation by MHC molecules, Gene and protein structure of immunoglobulin and T cell receptors, Rearrangement of receptor genes in B and T cells, Additional mechanisms for the generation of immune diversity, somatic mutations antibodies class switching. Autoimmune disease, Classification of autoimmune diseases, genetic and environmental features of immunological disorders. Immunological memory, Vaccines, Properties of an ideal vaccine, current available vaccines, Recombinant vector vaccines, DNA vaccines, Peptide vaccines. Transplantation, Transplantation antigens, the immune response against transplants, Immunosuppressive drugs. Tumor immunology, Immunological approaches for cancer therapy, tumor vaccines.

Practical:

1. Immunofluorescence Assays
2. ELISA technique for the estimation of viral antigens and antiviral antibodies
3. ELISpot
4. Immuno-blotting
5. Nephelometry for the estimation of serum complements (C3, C4) and immunoglobulins (IgG, IgM, IgA, IgE)
6. Flow cytometry; technique and applications in immunology
7. Enumeration of lymphocytes subsets using Flow cytometry
8. HLA Typing (Serological and Molecular)

Recommended Books:

1. Owen, Judith A., Jenni Punt, and Sharon A. Stranford. Kuby immunology. New York: WH Freeman, 2013.
2. Wood, Peter. Understanding Immunology 2nd edition. Benjamin Cummings, 2006.
3. Rabson, Arthur, Ivan Maurice Roitt, and Peter J. Delves. Really essential medical immunology. Blackwell Pub., 2005.
4. Abbas AK, Lichtman AHH, Pillai S. Cellular and Molecular Immunology Elsevier Health Sciences, 2014

Theory:

Introduction: Endocrine Glands, Functional anatomy of different endocrine glands, General account of chemical nature and biosynthesis of hormones, Transport of hormones to the site of action. Mechanism of Hormone Action: Hormonal signaling and its role in coordination of molecular, cellular and tissue functions; conceptual account of different types of signaling and transductions, Hormone Functions: physiological actions of the hormones of hypothalamus, pituitary, thyroid, parathyroid, endocrine pancreas, adrenal cortex, adrenal medulla, gonads, corpus luteum, pineal, thymus. Endocrine secretions of heart, kidney and adipose tissue. Invertebrate hormones. Hormones involved in molting and metamorphosis. Control of Hormonal Secretion: Negative and positive feedback regulation.

Practical:

1. To demonstrate the position of various endocrine glands
2. Experiments to reveal the roles of endocrine glands and their hormones in physiological functions
3. The effect of insulin on glycemic level.
4. To determine the random and fasting blood glucose level.
5. To perform oral glucose tolerance test in human/animals.
6. To determine the effect of cortisol on biochemical parameters (glucose/protein)
7. To determine the effect of MSH on skin pigmentation.

Recommended Books:

1. Greenspan, F. S. and Strewler, G. J. Basic and Clinical Endocrinology. Prentice-Hall, New York, 2004.
2. Guyton, A. C. and Hall, J. E. Textbook of Medical Physiology. 12th ed. W. B. Saunders, 2005.
3. Molina, P. E. Endocrine Physiology. McGraw-Hill, Boston, 2003.
4. Kacsoh, B. Endocrine Physiology. McGraw-Hill, Boston. 2000.
5. Wilson, J. D., Foster, D. W., Larsen, P. R and Kronenberg, H. Williams Textbook of Endocrinology. W. B. Saunders, Philadelphia. 2002.
6. B. Saunders, Philadelphia. 2002.
7. Ganong, W. F. Review of Medical Physiology. 24th ed. McGraw-Hill. 2005.
8. Gerald D. Tharp, David A. Woodman Experiments in physiology. 10th Edition.

Theory:

Introduction to forensic toxicology; Medical Jurisprudence, Legal prudence, Inquest, Courts, Procedure in court, Role of Consent in medical practice. Death: definition, phases of death, Signs of death; cadaveric lividity, Rigor Mortis, Putrefaction, Saponification, Mummification, Cadaveric spasm, Manners of death; Natural (causes of sudden natural death), accidental, suicidal, Intraoperative, homicidal & undetermined. Factors used in estimating time of death. Evidence; Evidence and type of evidence, dying declaration and dying deposition, Physical evidence & types, recovery and preservation of physical evidence, procedure for collection of biological and non-biological evidence. Asphyxia: suffocation, strangulation, chemical asphyxiant & neck holds Injuries & Wounds; blunt force, sharps, gunshot, burns, Autopsy; External and Internal examination; microscopic examination, findings, opinion & reporting Forensic Toxicology: Poison & their Classification, Routes of Administration and Elimination of Poison, Factors modifying the effects/action of poison, Diagnosis, tissue & specimen collection, routine testing, drug screening; methods of analysis.

Recommended Books:

1. DiMaio VJ, Dana SE. Handbook of forensic pathology. CRC Press; 2006.
2. Adelman HC. Forensic Medicine. Infobase Publishing; 2007.
3. Sharma RK. Concise textbook of forensic medicine and toxicology. Global Education Consultants. 2005
4. McLay WD. Clinical forensic medicine. Cambridge University Press; 2009 Mar 12.

Theory:

Introduction to Biostatistics and its scope in Microbiology. Collection of Primary and Secondary data. Editing of data. Presentation of data: Tabulation, Classification, Visual Presentation (Diagrams and Graphs). Measures of Central Tendency: Arithmetic Mean by direct and short-cut method, Geometric Mean, Harmonic Mean, Mode, Median, ED₅₀ (LD₅₀ in detail), Quantile. Measures of Dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation by direct and short-cut method, Variance, and their Coefficient Correlation: Simple Correlation Table, Rank Correlation, Partial and Multiple Correlations. Regression and method of least square. Probability: Concept of Probability, Laws of Probability. Permutation and Combination. Probability distributions: Binomial distribution, Poisson distribution and their fitting to observed data, Normal distribution. Sampling and Basic Design. Hypothesis Testing. Chi-square test, Student's t-test, Analysis of variance. Laboratory Experiments pertaining to the course.

Recommended Books:

1. Stanton, A.G., 2001. Primer of Biostatistics. McGraw Hill.
2. Jekel, J., Elmore, J.G., Katz, D.L., 2001. Epidemiology, biostatistics and preventive medicine. W. B. Saunders.
3. Quinn, G., 2002. Experimental Design and Data Analysis for Biologists. CMICROridge University Press.
4. Fernholz, L.T, Morgenhaler, S., Stahel, W., 2000. Statistics in Genetics and in Environmental Sciences, Birkhauser Verlag.
5. Kuzma, J. W. and Bohnenblust, S. E. 2001, Basis Statistics for the Health Sciences, McGraw-Hill International Education

Theory:

General concepts of health and diseases with reference to natural history of disease with pre- pathogenic and pathogenic phase. The role of socio-economic and cultural environment in health and diseases-Epidemiology and scope. Public health administration-An overall view of the health administration set up at center and state level. The National Health Programs- National Health programs including tuberculosis, malaria, MCH and HIV/AIDS. Health problems in vulnerable groups-Pregnant and lactating women and infants and school going children-occupational groups, geriatrics. Occupational Health- Definition, scope-Occupational diseases, prevention of occupational diseases and hazards. Social security and other measures for the protection of occupational hazards, accidents and disease. Details of compensation acts. Family planning objectives of National family planning methods. A general idea of advantages and disadvantages of the method. Mental Health- community aspects of mental health; role of physiotherapists, therapists in mental health problems such as mental retardation etc. Communicable disease; An overall view of communicable disease. Classification according to the principal mode of transmission. Role of insects and their vectors. International health agencies.

Practical:

Contraceptive methods; intra-uterine devices, hormonal contraceptives, demographic studies and data collection, communication for health education, Human nutrition, Hospital and biomedical waste management, Arthropods of medical importance. Air pollution and fumigation. Extended Program for Immunization (EPI).

Recommended Books:

1. Park K. Park's textbook of preventive and social medicine. 2007.
2. Maxcy-Rosenau. Public health and preventive medicine. Appleton-century-crofts, 1986. Ansari, IS, Public health and community medicine

Theory:

Biochemical investigations and quality control, Modern clinical biochemistry laboratories, Evaluation of a clinical method, Quality control and audit, General automated chemistry systems, automated immunochemistry analyzers. Clinical enzymology and biomarkers; Biomarkers, Cardiac biomarkers in clinical practice. Abnormalities of lipid metabolism; Hypercholesterolemia, Hypocholesterolemia, Hypertriglyceridemia, Measurement of lipids in clinical samples, Assessment of cardiovascular risk. Endocrine system and hormone analysis, Disorders of pituitary function, Disorders of thyroid function, Insulin, glucagon, and the counter-regulatory hormones; diabetes mellitus, Specific protein markers; Plasma proteins, albumin, Alpha 1-antitrypsin, haptoglobin, Caeruloplasmin, transferrin, C-reactive protein, Cancer biochemistry and tumor markers, The present and future of clinical biochemistry in cancer diagnostics. Drug administration, distribution, and elimination: Types of poisons and poisoning, Biochemical features of poisoning, Laboratory investigation of poisoning, Toxicology of specific compounds.

Practical:

1. Measurement of plasma proteins.
2. Methods for the measurement of tumor markers.
3. Measurement of Thyroid function (T3, T4, and TSH)
4. Measurement of FSH, LH and Prolactin.
5. Measurement of immunosuppressive drugs in the body.
6. Measurement of cardiac biomarkers

Recommended Books:

1. Ahmad N, Clinical Biochemistry, Oxford University Press, UK, 2011.
2. Burtis CA, Ashwood ER, Bruns DE. Tietz textbook of clinical chemistry and molecular diagnostics. Elsevier Health Sciences; 2012
3. Tietz NW, editor. Textbook of clinical chemistry. Philadelphia et al.: Saunders; 1986.

Theory:

Genetics and genomics in medicines, The human genome and chromosomal basis of Heredity, Medical relevance of mitosis and meiosis, Karyotype and chromosome analysis, common chromosomal disorders, Molecular basis of mutations and methods of mutation detection, Mendelian inheritance in man, Mitochondrial disorders, Inherited disorders running in families, Pedigree analysis, risk assessment in Mendelian disorders, Polymorphism, LOH assay, Tools of clinical genetics: analysis of individual DNA and RNA sequences, Methods of nucleic acid analysis, The polymerase Chain Reaction, Western Blot Analysis of Proteins, cytogenetic analysis in cancer, prenatal diagnosis, personalized genetic medicines, genetic screening in population, Screening of genetic susceptibility to disease, Ethical issues in Medical Genetics.

Practical:

1. DNA extraction from blood and Saliva and Quantification
2. RNA extraction from human blood
3. Pedigree drawing and Haplotype analysis for carrier status
4. Internet and Human Genetics
5. Primer Designing and PCR
6. Agarose Gel Electrophoresis
7. Polyacrylamide Gel Electrophoresis
8. Gene expression analysis

Recommended Books:

1. Nussbaum R, McInnes RR, Willard HF. Thompson & Thompson genetics in medicine. Elsevier Health Sciences; 8th Edition
2. Read AP, Donnai D. New clinical genetics. Bloxham/Oxfordshire: Scion; 2007. 3rd Edition
3. Strachan T, Read A, Human Molecular Genetics 4th Edition

Theory:

Classification and pathogenicity of microbes, factors affecting the virulence and spread of microbes. Use of microbiological laboratory-principles, collection of clinically relevant specimens, provision of essential clinical information. Collection of good quality specimens, transport and processing of specimens, Applications of molecular biology to clinical microbiology and infectious diseases. Antimicrobial chemotherapy; spectrum of activity, factors affecting antimicrobial chemotherapy, antibiotic prophylaxis, resistance to antimicrobial drugs, antibiotic policies. Septicemia; clinical features, microbiological investigations and treatment. Infections of Central Nervous System; meningitis, encephalitis, Rabies, cerebral abscesses. ENT and eye infections, Infections of the lower respiratory tract; acute and chronic bronchitis, pneumonia, influenza, parainfluenza, cystic fibrosis, lungs abscess, empyema. Infections of the gastrointestinal tract; enteric fever, gastroenteritis and food poisoning, diarrhea and dysentery, Cholera. Infections of the urinary tract; significant bacteriuria, pathogenesis and predisposing features. Sexually transmitted diseases; bacterial, viral, fungal and protozoa infections. Nosocomial infections.

Practical:

1. Species level identification of staphylococci
2. Species level identification of streptococci
3. Identification of Enterobacteriaceae
4. API 20E, API 20NE, API AUX
5. Media and reagent for the isolation and identification of bacterial pathogen from clinical specimens.
6. Instrumented Blood Culture Systems (BACTEC)
7. Automated Microbiology Systems

Recommended Books:

1. Ryan KJ, Ray CG. Sherris medical microbiology: McGraw-Hill Medical Publishing. 6th Edition. 2014
2. Shanson DC. Microbiology in clinical practice. Butterworth-Heinemann; 3rd Edition 1999
3. Lee G, Bishop P. Microbiology and infection control for health professionals. Pearson Higher Education. 5th Edition. 2013
4. Engelkirk PG, Duben-Engelkirk JL, Burton GR. Burton's microbiology for the health sciences. Lippincott Williams & Wilkins; 2011.

Theory:

Introduction; central dogma of biology, Prokaryotic & eukaryotic gene organization, Review of DNA cloning techniques, plasmid biology, vectors, bacterial genetics related to DNA cloning methods, Clone verification and blotting methods, DNA sequencing and PCR, Agarose gel electrophoresis safety, principles & practice, Restriction endonucleases, other molecular biology enzymes, Nucleic acid purification, quantification methods, Polymerase Chain Reaction and other DNA amplification methods, Animal genetic engineering and cloning, Hormones, receptors and signal transduction, Detection and Identification of Microorganisms; specimen collection, sample preparation, Selection of Sequence Targets for Detection of Microorganisms, Molecular Detection of Bacteria, Molecular mechanisms of resistance to Antimicrobial Agents, Molecular Detection of Resistance, Molecular Strain Typing Methods for Epidemiological Studies. Molecular basis of cancer, analytical targets of molecular testing, Gene and Chromosomal Mutations in Solid Tumors, Microsatellite Instability, Loss of Heterozygosity, Quality Assurance and Quality Control in the Molecular Laboratory.

Practical:

1. Safety, basic techniques: pipetting, sterile technique, bacterial culture
2. Agarose gel electrophoresis
3. SDS-PAGE
4. PCR
5. PCR-RFLP
6. Purification and Characterization of Plasmid DNA

Recommended Books:

1. Lodish H. Molecular cell biology. Macmillan; 7th Edition. 2013.
2. Buckingham L. Molecular diagnostics: fundamentals, methods and clinical applications. FA Davis; 2011.
3. Clark DP, Pazdernik NJ, Molecular Biology, Elsevier, 2013 Science
4. Ream W, Field KG. Molecular biology techniques: an intensive laboratory course. Academic Press; 1998

Theory:

Methods of qualitative analysis, Principles of automated blood cell counters; Introduction, Hb measurement, red cell measurements, Reticulocyte and nucleated RBC measurement, White cell measurements. Ion-selective electrodes; Introduction, Specificity---how electrodes are made selective, Electrochemical reactions, Glucose electrodes, Electrochemical detectors, Complex electrodes, other complex enzyme-mediated electrodes. Light absorption, scatter and luminescence techniques in clinical biochemistry: Light absorption techniques, Turbidimetry and nephelometry, Luminescence. Analytical atomic spectrometry; Introduction, Principles, Instrumentation and Applications. Dry reagent chemistry techniques; Introduction and Principles of Methodology. Separation techniques in clinical laboratory; Chromatography, Thin-layer chromatography (TLC), High-performance liquid chromatography (HPLC), Gas chromatography (GC), Electrophoresis, Realtime PCR chemistries; TaqMan PCR chemistry, TaqMan primer and probe design, Amplicon detection, TaqMan real-time detection, Absolute and Relative quantitation. Background to CGH and array CGH, Overview of comparative genomic hybridization, Microarrays, Clinical applications. DNA sequencing, Chemical sequencing of DNA, The dideoxy method of DNA sequencing, Application of DNA sequencing. Fluorescence in situ hybridization, Choice of probe, Labelling of probes, Hybridization, Detection of hybridized probe, Applications in basic research, Applications in medical genetics, Applications in cancer diagnosis and research.

Practical:

1. Automated blood cell counters; principle and procedures
2. Ion selective electrodes; principle and procedures
3. Principle and procedure of SDS-PAGE
4. Western blotting for the detection of proteins
5. Southern blotting: principle and procedures

Recommended Books:

1. Ream W, Field KG. Molecular biology techniques: an intensive laboratory course. Academic Press; 1998 Nov 17.
2. Crocker J, Burnett D, The Science of laboratory diagnosis. John Wiley & Sons; 2005.
3. Bishop ML, Fody EP, Schoeff LE, editors. Clinical Chemistry: Principles, Techniques, and Correlations. Lippincott Williams & Wilkins; 2013 Feb 20.

Theory:

Introduction to Quality management, Quality Assurance in the Medical Laboratory, Personnel Qualifications and Proficiency Testing. Quality Improvement and Effective Quality Assurance Programs; internal and external quality controls. Spectrophotometry for QC, QC Terminology, Quality Control Concepts. Random Error, Standard Deviation (SD), Spread of Data on the Scale, calculation of Variance, Standard Deviation, Equation for Calculating a Standard Deviation and a Coefficient of Variation. Analyzing Quality Control Results. Out of Range results management. Sequential Steps for Out-of-Range Controls, Rejection and acceptance of tests/controls. Comparison of Precision, Reproducibility and Accuracy, Normal Reference Ranges and associated problems. Erroneous Samples, Effects of Position on Laboratory Values, Factors Affecting Laboratory Values, Types and Characteristics of Samples, Categories of Errors Pre-analytical, Analytical, Post-analytical, Interpretation of Results, Clinical versus Statistical Significance, Specificity and Sensitivity, Efficiency, Reporting of Results, Computer Processes within the Clinical Laboratory, Central Computer Memory, Software for Mechanical Functions and Calculation of Results, Administrative Functions and Related Personnel Tasks.

Recommended Books:

1. Crocker J, Burnett D, The Science of laboratory diagnosis. John Wiley & Sons; 2005.
2. Bishop ML, Fody EP, Schoeff LE, editors. Clinical Chemistry: Principles, Techniques, and Correlations.
3. Lippincott Williams & Wilkins; 2013 Feb

Theory:

Course Contents:	<p>○ تجارت اور وراثت:</p> <ul style="list-style-type: none">• مال کی تقسیم• نادان کا مال• عوام الناس کا مال• عورتوں کا مال• یتیموں کا مال• کفار کا مال• جائز مال• معاہدے• رہن• قرض <p>○ سائنسی حقائق:</p> <ul style="list-style-type: none">• تخلیق کائنات• تخلیق انسان• اجرام فلکی• شجر و حجر• زمین و آسمان کے اسرار
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- ہوائیں اور طوفان
- بہاؤ اور مویشی
- حشرات الارض
- پہاڑ اور سمندر
- دھاتیں

Grammar:

- قرآنی عربی گرامر کے اصول اور اسکے اطلاقات (متن قرآنی پر اطلاق سے توضیحات)

Selected Text:

○ تجارت اور وراثت:

- يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا تَدَايَنْتُمْ بِدِينٍ إِلَىٰ أَجَلٍ مُّسَمًّى فَاكْتُبُوهُۚ وَلْيَكْتُب بَيْنَكُمْ كَاتِبٌ بِالْعَدْلِ وَلَا يَأْب كَاتِبٌ أَنْ يَكْتُبَ كَمَا عَلَّمَهُ اللَّهُۥ فَلْيَكْتُبْ وَلْيُمْلِلِ الَّذِي عَلَيْهِ الْحَقُّ وَلْيَتَّقِ اللَّهَ رَبَّهُ وَلَا بِيْخَسَ مِنْهُ شَيْئًاۚ فَإِنْ كَانَ الَّذِي عَلَيْهِ الْحَقُّ سَفِيهًا أَوْ ضَعِيفًا أَوْ لَا يَسْتَطِيعُ أَنْ يُمِلَّ هُوَ فَلْيُمْلِلْ وَلِيُّهُ بِالْعَدْلِۚ وَاسْتَشْهِدُوا شَهِيدَيْنِ مِنْ رِجَالِكُمْۚ فَإِنْ لَمْ يَكُونَا رَجُلَيْنِ فَرَجُلٌ وَامْرَأَتَانِ مِمَّنْ تَرْضَوْنَ مِنَ الشُّهَدَاءِ أَنْ تَضِلَّ إِحْدَاهُمَا فَتُذَكِّرَ إِحْدَاهُمَا الْأُخْرَىٰۚ وَلَا يَأْبُ الشُّهَدَاءُ إِذَا مَا دُعُواۚ وَلَا تَسْأَمُوا أَنْ تَكْتُبُوهُ صَغِيرًا أَوْ كَبِيرًا إِلَىٰ أَجَلِهِۦۚ ذَلِكُمْ أَفْسَسُ عِنْدَ اللَّهِ وَ أَقْوَمٌ لِلشُّهَادَةِ وَأَدْنَىٰ أَلَّا تَرْتَابُواۚ إِلَّا أَنْ تَكُونَ تِجَارَةً حَاضِرَةً تُدِيرُونَهَا بَيْنَكُمْ فَلَيْسَ عَلَيْكُمْ جُنَاحٌ أَلَّا تَكْتُبُوهَاۚ وَأَشْهِدُوا إِذَا تَبَايَعْتُمْۚ وَلَا يُضَارَّ كَاتِبٌ وَلَا شَهِيدٌۚ وَإِنْ تَفَعَّلُوا فَإِنَّهُ فَسُوقٌ بِكُمْۚ وَ اتَّقُوا اللَّهَۥ وَاعْلَمُوا أَنَّ اللَّهَ بِكُلِّ شَيْءٍ عَلِيمٌۚ /البقرة: 282
- الَّذِينَ يَأْكُلُونَ الرِّبَا لَا يَقْوَمُونَ إِلَّا كَمَا يَقُومُ الَّذِي يَتَخَبَّطُهُ الشَّيْطَانُ مِنَ الْمَسِّۚ ذَلِكُمْ بِأَنَّهُمْ قَالُوا إِنَّمَا الْبَيْعُ مِثْلُ الرِّبَاۚ وَأَحَلَّ اللَّهُ الْبَيْعَ وَحَرَّمَ الرِّبَاۚ فَمَنْ جَاءَهُ مَوْعِظَةٌ مِنْ رَبِّهِ فَانْتَهَىٰ فَلَهُ مَا سَلَفَ وَأَمْرُهُ إِلَىٰ اللَّهِۚ وَمَنْ عَادَ فَأُولَٰئِكَ أَصْحَابُ النَّارِۖ هُمْ فِيهَا خَالِدُونَ /البقرة: 527
- قُلْ إِنْ كَانَ آبَاؤُكُمْ وَأَبْنَاؤُكُمْ وَإِخْوَانُكُمْ وَأَزْوَاجُكُمْ وَعَشِيرَتُكُمْ وَأَمْوَالٌ اقْتَرَفْتُمُوهَا وَتِجَارَةٌ تَخْشَوْنَ كَسَادَهَا وَمَسَاكِنُ تَرْضَوْنَهَا أَحَبَّ إِلَيْكُمْ مِنَ اللَّهِ وَرَسُولِهِ وَجِهَادٍ فِي سَبِيلِهِ فَتَرْتَبِصُوا حَتَّىٰ يَأْتِيَ اللَّهُ بِأَمْرِهِۦۚ وَاللَّهُ لَا يَهْدِي الْقَوْمَ الْفَاسِقِينَ /التوبة: 42
- فِي بُيُوتِ الَّذِينَ أَنْزَلْنَا الْقُرْآنَ فِيهَا اسْمُهُ يُسَبَّحُ لَهُ فِيهَا بِالْغُدُوِّ وَالْآصَالِ 36 رَجَالٌ لَا تُلْهِيمُهُمْ تِجَارَةً وَلَا بَيْعًا عَنْ ذِكْرِ اللَّهِ وَاقَامِ الصَّلَاةِ وَإِيتَاءِ الزَّكَاةِۚ يَخَافُونَ يَوْمًا تَتَقَلَّبُ فِيهِ الْقُلُوبُ وَالْأَبْصَارُ /النور: 36-37
- يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَأْكُلُوا أَمْوَالِكُمْ بَيْنَكُمْ بِالْبَاطِلِ إِلَّا أَنْ تَكُونَ تِجَارَةً عَنْ تَرَاضٍ مِنْكُمْۚ وَلَا تَقْتُلُوا أَنْفُسَكُمْۚ إِنَّ اللَّهَ كَانَ بِكُمْ رَحِيمًا /النساء: 92
- وَإِذَا رَأَوْا تِجَارَةً أَوْ لَهْوًا انْفَضُّوا إِلَيْهَا وَتَرَكُوكَ قَائِمًاۚ قُلْ مَا عِنْدَ اللَّهِ خَيْرٌ مِنَ اللَّهِوِ وَمِنَ التِّجَارَةِۚ وَاللَّهُ خَيْرُ الرَّازِقِينَ /الجمعة: 11
- إِنَّ الَّذِينَ يَتْلُونَ كِتَابَ اللَّهِ وَأَقَامُوا الصَّلَاةَ وَأَنْفَقُوا مِمَّا رَزَقْنَاهُمْ سِرًّا وَعَلَانِيَةً يَرْجُونَ تِجَارَةً لَنْ تَبُورَ /فاطر: 92
- أُولَٰئِكَ الَّذِينَ اشْتَرُوا الصَّلَاةَ بِالْهَدْيِۚ فَمَا رِبِحَتِ تِجَارَتُهُمْ وَمَا كَانُوا مُهْتَدِينَ /البقرة: 16
- قُلْ إِنْ كَانَ آبَاؤُكُمْ وَأَبْنَاؤُكُمْ وَإِخْوَانُكُمْ وَأَزْوَاجُكُمْ وَعَشِيرَتُكُمْ وَأَمْوَالٌ اقْتَرَفْتُمُوهَا وَتِجَارَةٌ تَخْشَوْنَ كَسَادَهَا وَمَسَاكِنُ تَرْضَوْنَهَا أَحَبَّ إِلَيْكُمْ مِنَ اللَّهِ وَرَسُولِهِ وَجِهَادٍ فِي سَبِيلِهِ فَتَرْتَبِصُوا حَتَّىٰ يَأْتِيَ اللَّهُ بِأَمْرِهِۦۚ وَاللَّهُ لَا يَهْدِي الْقَوْمَ الْفَاسِقِينَ /التوبة: 42
- لَيْسَ الذِّبْرَانُ تُولُّوا وَجُوهَكُمْ قِبَلَ الْمَشْرِقِ وَالْمَغْرِبِ وَلَكِنَّ الْبِرَّ مَنْ آمَنَ بِاللَّهِ وَالْيَوْمِ الْآخِرِ وَالْمَلَائِكَةِ وَالْكِتَابِ وَالنَّبِيِّينَ وَآتَى الْمَالَ عَلَىٰ حُبِّهِ ذَوِي الْقُرْبَىٰ وَالْيَتَامَىٰ وَالْمَسَاكِينَ وَابْنَ السَّبِيلِ وَالسَّائِلِينَ وَفِي الرِّقَابِ وَأَقَامَ الصَّلَاةَ وَآتَى الزَّكَاةَ وَالْمُؤْفُونَ بَعْدَهُمْ إِذَا عَاهَدُوا وَالصَّابِرِينَ فِي الْبَأْسَاءِ وَالضَّرَّاءِ وَحِينَ الْبَأْسِۚ أُولَٰئِكَ الَّذِينَ صَدَقُوا وَأُولَٰئِكَ هُمُ الْمُتَّقُونَ /البقرة: 177

- وَآتُوا الْيَتَامَىٰ أَمْوَالَهُمْ وَلَا تَتَبَدَّلُوا الْخَبِيثَ بِالطَّيِّبِ وَلَا تَأْكُلُوا أَمْوَالَهُمْ إِلَىٰ أَمْوَالِكُمْ إِنَّهُ كَانَ حُوبًا كَبِيرًا / النساء:2
- يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَأْكُلُوا أَمْوَالَكُمْ بَيْنَكُمْ بِالْبَاطِلِ إِلَّا أَنْ تَكُونَ تِجَارَةً عَنْ تَرَاضٍ مِنْكُمْ وَلَا تَقْتُلُوا أَنْفُسَكُمْ إِنَّ اللَّهَ كَانَ بِكُمْ رَحِيمًا / النساء:92
- وَإِذَا رَأَوْا تِجَارَةً أَوْ لَهْوًا انفَضُّوا إِلَيْهَا وَتَرَكُوكَ قَائِمًا قُلْ مَا عِنْدَ اللَّهِ خَيْرٌ مِنَ اللَّهْوِ وَمِنَ التِّجَارَةِ وَاللَّهُ خَيْرُ الرَّازِقِينَ / الجمعة:11
- إِنَّمَا الصَّدَقَاتُ لِلْفُقَرَاءِ وَالْمَسْكِينِ وَالْعَامِلِينَ عَلَيْهَا وَالْمُؤَلَّفَةِ قُلُوبُهُمْ وَفِي الرِّقَابِ وَالْغَارِمِينَ وَفِي سَبِيلِ اللَّهِ وَابْنِ السَّبِيلِ قَرِيبَةٌ مِنَ اللَّهِ وَاللَّهُ عَلِيمٌ حَكِيمٌ / التوبة:6
- وَلَا يَأْتَلِ أُولُو الْفَضْلِ مِنْكُمْ وَالسَّعَةِ أَنْ يُؤْتُوا أُولَى الْقُرْبَىٰ وَالْمَسْكِينِ وَالْمُهَاجِرِينَ فِي سَبِيلِ اللَّهِ وَلْيُغْنُوا وَلْيُصْنَعُوا لِلَّهِ آيَاتٍ أَنْ يُغْفَرَ اللَّهُ لَكُمْ وَاللَّهُ غَفُورٌ رَحِيمٌ / النور:22
- وَإِذَا حَضَرَ الْقِسْمَةَ أُولُو الْقُرْبَىٰ وَالْيَتَامَىٰ وَالْمَسْكِينُ فَارْزُقُوهُمْ مِنْهُ وَقُولُوا لَهُمْ قَوْلًا مَعْرُوفًا / النساء:8
- وَآتُوا الْيَتَامَىٰ أَمْوَالَهُمْ وَلَا تَتَبَدَّلُوا الْخَبِيثَ بِالطَّيِّبِ وَلَا تَأْكُلُوا أَمْوَالَهُمْ إِلَىٰ أَمْوَالِكُمْ إِنَّهُ كَانَ حُوبًا كَبِيرًا / النساء:2
- وَابْتُلُوا الْيَتَامَىٰ حَتَّىٰ إِذَا بَلَغُوا النِّكَاحَ فَإِنْ آنَسْتُمْ مِنْهُمْ رُشْدًا فَادْفَعُوا إِلَيْهِمْ أَمْوَالَهُمْ وَلَا تَأْكُلُوهَا إِسْرَافًا وَبِدَارًا أَنْ يَكْبَرُوا وَمَنْ كَانَ غَنِيًّا فَلْيَسْتَعْفِفْ وَمَنْ كَانَ فَقِيرًا فَلْيَأْكُلْ بِالْمَعْرُوفِ فَإِذَا دَفَعْتُمْ إِلَيْهِمْ أَمْوَالَهُمْ فَأَشْهَدُوا عَلَيْهِمْ وَكَفَىٰ بِاللَّهِ حَسِيبًا / النساء:6
- وَلَا تَتَمَنَّوْا مَا فَضَّلَ اللَّهُ بِهِ بَعْضَكُمْ عَلَىٰ بَعْضٍ لِلرِّجَالِ نَصِيبٌ مِمَّا كَتَبْنَا لِلنِّسَاءِ وَلِلنِّسَاءِ نَصِيبٌ مِمَّا كَتَبْنَا لَكُمْ وَأَسْأَلُوا اللَّهَ مِنْ فَضْلِهِ إِنَّ اللَّهَ كَانَ بِكُلِّ شَيْءٍ عَلِيمًا / النساء:32
- يَا أَيُّهَا الَّذِينَ آمَنُوا إِنَّ كَثِيرًا مِنَ الْأَخْبَارِ وَالرُّهْبَانِ لَيَأْكُلُونَ أَمْوَالَ النَّاسِ بِالْبَاطِلِ وَيَصُدُّونَ عَنْ سَبِيلِ اللَّهِ وَالَّذِينَ يَكْتُمُونَ الذَّهَبَ وَالْفِضَّةَ وَلَا يَنْفِقُونَهَا فِي سَبِيلِ اللَّهِ فَبَشِّرْهُمْ بِعَذَابٍ أَلِيمٍ / التوبة:43
- فَلَا تُعْجِبْكَ أَمْوَالُهُمْ وَلَا أَوْلَادُهُمْ إِنَّمَا يُرِيدُ اللَّهُ لِيُعَذِّبَهُمْ بِهَا فِي الْحَيَاةِ الدُّنْيَا وَتَزْهَقَ أَنْفُسُهُمْ وَهُمْ كَافِرُونَ / التوبة:55
- إِنَّ الَّذِينَ كَفَرُوا لَنْ نُغْنِيَ عَنْهُمْ أَمْوَالَهُمْ وَلَا أَوْلَادَهُمْ مِنَ اللَّهِ شَيْئًا وَ أُولَئِكَ أَصْحَابُ النَّارِ هُمْ فِيهَا خَالِدُونَ / آل عمران:116
- قُلْ انظُرُوا مَاذَا فِي السَّمَاوَاتِ وَالْأَرْضِ وَمَا نُغْنِي بِهَا أَلْيَاتٍ وَالنُّذُرَ عَنْ قَوْمٍ لَا يُؤْمِنُونَ / يونس:101
- وَلَقَدْ خَلَقْنَا الْإِنْسَانَ مِنْ سَلَالَةٍ مِّن طِينٍ ﴿١﴾ ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَّكِينٍ ﴿٢﴾ ثُمَّ خَلَقْنَا النَّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ أَنْشَأْنَاهُ خَلْقًا آخَرَ ط فَتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ ﴿٤﴾ / المؤمنون:12-14
- خَلَقَكُمْ مِنْ نَفْسٍ وَاحِدَةٍ ثُمَّ جَعَلَ مِنْهَا زَوْجَهَا وَأَنزَلَ لَكُمْ مِنَ الْأَنْعَامِ ثَمَنِيَّةَ أَزْوَاجٍ ط يَخْلُقْكُمْ فِي بُطُونِ أُمَّهَاتِكُمْ خَلْقًا مِّن مَّ بَعْدِ خَلْقٍ فِي ظُلُمَاتٍ ثَلَاثٍ ط ذَلِكَ اللَّهُ رَبُّكُمْ لَهُ الْمُلْكُ ط لَا إِلَهَ إِلَّا هُوَ فَاتَىٰ تُصْرَفُونَ / الزمر:6
- أَيَحْسَبُ الْإِنْسَانُ أَنْ نَجْمَعُ عِظَامَهُ - بلى قَدِيرِينَ عَلَىٰ أَنْ نُسَوِّيَ بَنَانَهُ / القيامة:3-4
- هُوَ الَّذِي خَلَقَ لَكُمْ مَا فِي الْأَرْضِ جَمِيعًا ثُمَّ اسْتَوَىٰ إِلَى السَّمَاءِ فَسَوَّاهُنَّ سَبْعَ سَمَاوَاتٍ وَهُوَ بِكُلِّ شَيْءٍ عَلِيمٌ / البقرة:29
- أُولَئِكَ يَرِ الَّذِينَ كَفَرُوا أَنَّ السَّمَاوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا / الانبيا:30
- وَالسَّمَاءَ بَنَيْنَاهَا بِأَيْدٍ وَإِنَّا لَمُوسِعُونَ / الذاريات:47
- إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لآيَاتٍ لِأُولَى الْأَلْبَابِ الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا وَقَعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَذَا بَاطِلًا سُبْحَانَكَ قَبِلْنَا عَذَابَ النَّارِ / آل عمران:191

- تَرَى الشَّمْسَ إِذَا طَلَعَتْ تَزَاوَرُ عَنْ كَهْفِهِمْ ذَاتَ الْيَمِينِ وَإِذَا غَرَبَتْ تَقْرِضُهُمْ ذَاتَ الشِّمَالِ وَهُمْ فِي فَجْوَةٍ مِنْهُ ذَلِكَ مِنْ آيَاتِ اللَّهِ مَنْ يَهْدِ اللَّهُ فَهُوَ الْمُهْتَدِ وَمَنْ يُضِلِلْ فَلَنْ تَجِدَ لَهُ وَلِيًّا مُرْشِدًا

الكهف:17/

- لَا الشَّمْسُ يَنْبَغِي لَهَا أَنْ تُدْرِكَ الْقَمَرَ وَلَا اللَّيْلُ سَابِقُ النَّهَارِ وَكُلٌّ فِي فَلَكٍ يَسْبَحُونَ /يس:40
- إِنَّا زَيْنًا السَّمَاءِ الدُّنْيَا بِزِينَةِ الْكَوَاكِبِ /الصفات:06
- الَّذِي خَلَقَ سَبْعَ سَمَاوَاتٍ طِبَاقًا مَا تَرَى فِي خَلْقِ الرَّحْمَنِ مِنْ تَفَافُوتٍ فَارْجِعِ الْبَصَرَ هَلْ تَرَى مِنْ فُطُورٍ ثُمَّ ارْجِعِ الْبَصَرَ كَرَّتَيْنِ يَنْقَلِبْ إِلَيْكَ الْبَصَرُ حَاسِبًا وَهُوَ حَسِيرٌ /الملك:3-4
- لَمْ تَرَ أَنَّ اللَّهَ أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجْنَا بِهِ ثَمَرَاتٍ مُخْتَلِفًا أَلْوَانُهَا وَمِنَ الْجِبَالِ جُدَدٌ بِيضٌ وَحُمْرٌ مُخْتَلِفٌ أَلْوَانُهَا وَغَرَابِيبُ سُودٌ/فاطر:27
- إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ وَالْفُلُكِ الَّتِي تَجْرِي فِي الْبَحْرِ بِمَا يَنْفَعُ النَّاسَ وَمَا أَنْزَلَ اللَّهُ مِنَ السَّمَاءِ مِنْ مَاءٍ فَأَحْيَا بِهِ الْأَرْضَ بَعْدَ مَوْتِهَا وَبَثَّ فِيهَا مِنْ كُلِّ دَابَّةٍ وَتَصْرِيفِ الرِّيَّاحِ وَالسَّحَابِ الْمُسَخَّرِ بَيْنَ السَّمَاءِ وَالْأَرْضِ لآيَاتٍ لِقَوْمٍ يَعْقِلُونَ /البقرة: 164
- أَوْ كظُلُمَاتٍ فِي بَحْرِ لَيْلٍ يَغْشَاهُ مَوْجٌ مِنْ فَوْقِهِ مَوْجٌ مِنْ فَوْقِهِ سَحَابٌ ظُلُمَاتٌ بَعْضُهَا فَوْقَ بَعْضٍ إِذَا أَخْرَجَ يَدَهُ لَمْ يَكَدْ يَرَاهَا وَمَنْ لَمْ يَجْعَلِ اللَّهُ لَهُ نُورًا فَمَا لَهُ مِنْ نُورٍ /النور:40
- وَهُوَ الَّذِي مَرَجَ الْبَحْرَيْنِ هَذَا عَذْبٌ فُرَاتٌ وَهَذَا مِلْحٌ أُجَاجٌ وَجَعَلَ بَيْنَهُمَا بَرْزَخًا وَحِجْرًا مَحْجُورًا/الفرقان: 53
- وَجَعَلْنَا فِي الْأَرْضِ رَوَاسِيًا أَنْ تَمِيدَ بِهِمْ وَجَعَلْنَا فِيهَا فِجَاجًا سُبُلًا لَعَلَّهُمْ يَهْتَدُونَ / الأنبياء: 31
- وَهُوَ الَّذِي أَنْشَأَ جَنَّاتٍ مَعْرُوشَاتٍ وَغَيْرِ مَعْرُوشَاتٍ وَالنَّخْلَ وَالزَّرْعَ مُخْتَلِفًا أُكْلُهُ وَالزَّيْتُونَ وَالرُّمَانَ مُتَشَابِهًا وَغَيْرَ مُتَشَابِهٍ كُلُوا مِنْ ثَمَرِهِ إِذَا أَثْمَرَ وَآتُوا حَقَّهُ يَوْمَ حَصَادِهِ وَلَا تُسْرِفُوا إِنَّهُ لَا يُحِبُّ الْمُسْرِفِينَ /الأنعام:141
- إِنَّمَا مَثَلُ الْحَيَاةِ الدُّنْيَا كَمَاءٍ أَنْزَلْنَاهُ مِنَ السَّمَاءِ فَاخْتَلَطَ بِهِ نَبَاتُ الْأَرْضِ مِمَّا يَأْكُلُ النَّاسُ وَالْأَنْعَامُ حَتَّى إِذَا أَخَذَتِ الْأَرْضُ زُخْرُفَهَا وَازَّيَّنَتْ وَظَنَّ أَهْلُهَا أَنَّهُمْ قَادِرُونَ عَلَيْهَا أَتَاهَا أَمْرُنَا لَيْلًا أَوْ نَهَارًا فَجَعَلْنَاهَا حَصِيدًا كَأَنْ لَمْ تَغْن بِالْأَمْسِ كَذَلِكَ نُفَصِّلُ الْآيَاتِ لِقَوْمٍ يَتَفَكَّرُونَ /يونس:24
- وَمَنْ كُنِ الثَّمَرَاتِ جَعَلَ فِيهَا رُزُقِينَ اثْنَيْنِ يُغْشَى اللَّيْلُ النَّهَارَ ط إِنَّ فِي ذَلِكَ لآيَاتٍ لِقَوْمٍ يَتَفَكَّرُونَ /الرعد: 03
- إِنَّ اللَّهَ فَالِقَ الْحَبِّ وَالنَّوَى /الانعام: 95
- وَحَشِرَ لِسُلَيْمَانَ جُنُودَهُ مِنَ الْجِنَّ وَالْإِنْسِ وَالطَّيْرِ فَهُمْ يُوزَعُونَ - حَتَّى إِذَا اتَّوَعَلَى وَإِدَانَمَلٌ لَا قَالَتْ نَمَلَةٌ يَأْتِيهَا النَّمْلُ ادْخُلُوا مَسَكِنَكُمْ ج لَا يَخْطَمَنَّكُمْ سُلَيْمَانُ وَجُنُودُهُ لَا وَبِمُمْ لَا يَشْعُرُونَ /النمل: 17-18
- وَاللَّهُ خَلَقَ كُلَّ دَابَّةٍ مِنْ مَاءٍ فَمِنْهُمْ مَنْ يَمْشِي عَلَى بَطْنِهِ وَمِنْهُمْ مَنْ يَمْشِي عَلَى رِجْلَيْنِ وَمِنْهُمْ مَنْ يَمْشِي عَلَى أَرْبَعٍ يَخْلُقُ اللَّهُ مَا يَشَاءُ إِنَّ اللَّهَ عَلَى كُلِّ شَيْءٍ قَدِيرٌ /النور:45
- أَوْلَمْ يَرَوْا إِلَى الطَّيْرِ فَوْقَهُمْ صَفَاتٍ وَيَقْبِضْنَ مَا يَمْسِكُهُنَّ إِلَّا الرَّحْمَنُ إِنَّهُ بِكُلِّ شَيْءٍ بَصِيرٌ /الملك:19
- أَوْحَى رَبُّكَ إِلَى النَّحْلِ أَنْ اتَّخِذِي مِنَ الْجِبَالِ بُيُوتًا وَمِنَ الشَّجَرِ وَمِمَّا يَعْرِشُونَ /النحل:68
- وَالخَيْلِ وَالْبِغَالِ وَالْحَمِيرِ لِيَتَرْكَبُوهَا وَزِينَةً وَيَخْلُقُ مَا لَا تَعْلَمُونَ /النحل:8
- مَثَلُ الَّذِينَ اتَّخَذُوا مِنْ دُونِ اللَّهِ أَوْلِيَاءَ كَمَثَلِ الْعُنُكُبُوتِ اتَّخَذَتْ بَيْتًا وَإِنْ أَوْهَنَ الْبُيُوتِ لَبِيتُ الْعُنُكُبُوتِ لَوْ كَانُوا يَعْلَمُونَ /العنكبوت:41
- أَفَلَا يَنْظُرُونَ إِلَى الْإِبِلِ كَيْفَ خُلِقَتْ، وَإِلَى السَّمَاءِ كَيْفَ رُفِعَتْ، وَإِلَى الْجِبَالِ كَيْفَ نُصِبَتْ، وَإِلَى الْأَرْضِ كَيْفَ سُطِحَتْ َ /الغاشية: 17-20
- أَلَمْ تَرَ أَنَّ اللَّهَ سَخَّرَ لَكُمْ مَا فِي الْأَرْضِ وَالْفُلُكَ تَجْرِي فِي الْبَحْرِ بِأَمْرِهِ وَيُمْسِكُ السَّمَاءَ أَنْ تَقَعَ عَلَى الْأَرْضِ إِلَّا بِإِذْنِهِ إِنَّ اللَّهَ بِالنَّاسِ لَرَءُوفٌ رَحِيمٌ /الحج:65
- أَوْ كَصَيْبٍ مِنَ السَّمَاءِ فِيهِ ظُلُمَاتٌ وَرَعْدٌ وَنُقُرٌّ يُجْعَلُونَ أَصَابِعُهُمْ فِي آذَانِهِمْ مِنَ الصَّوَاعِقِ حَذَرَ الْمَوْتِ وَاللَّهُ مُحِيطٌ بِالْكَافِرِينَ /البقرة:19

- وَمِنْ آيَاتِهِ يُرِيكُمُ الْبَرْقَ خَوْفًا وَطَمَعًا وَيُنزِلُ مِنَ السَّمَاءِ مَاءً فَيُحْيِي بِهِ الْأَرْضَ بَعْدَ مَوْتِهَا إِنَّ فِي ذَلِكَ لَآيَاتٍ لِقَوْمٍ يَعْقِلُونَ
/الروم:24
- وَأَلْقَى فِي الْأَرْضِ رَوَاسِيَ أَنْ تَمِيدَ بِكُمْ وَأَنْهَارًا وَسُبُلًا لَعَلَّكُمْ تَهْتَدُونَ، وَعَلَّمَتِ وَالنَّجْمِ هُمْ يَهْتَدُونَ
/النحل:
- 15-16
- وَأَنْزَلْنَا الْحَدِيدَ فِيهِ بَأْسٌ شَدِيدٌ وَمَنَافِعُ لِلنَّاسِ
/الحديد: 25
- يَا أَيُّهَا النَّاسُ اتَّقُوا رَبَّكُمُ إِنَّ زَلْزَلَةَ السَّاعَةِ شَيْءٌ عَظِيمٌ /الحج: 01
- إِذَا زُلْزِلَتِ الْأَرْضُ زِلْزَالَهَا
/الزلزلة: 01
- وَتَرَى الْجِبَالَ تَحْسَبُهَا جَامِدَةً وَهِيَ تَمُرُّ السَّحَابِ
/النمل: 88

List of Translations of the Holy Quran

مجوزہ اردو تراجم قرآن

مترجم	نام ترجمہ
شاہ عبدالقادر دہلوی	موضح القرآن
فتح محمد جالندہری	فتح القرآن
اشرف علی تھانوی	ترجمہ بیان القرآن
سید ابوالاعلیٰ مودودی	ترجمہ قرآن مجید
محمد کرم شاہ الازہری	ترجمہ ضیاء القرآن
حافظ نذراحمہ	ترجمہ قرآن
سید شمیم احمد	آسان ترجمہ القرآن
مولانا محمد جونا گڑھی	احسن البیان
غلام رسول سعیدی	ترجمہ تبیان القرآن
محمد تقی عثمانی	آسان ترجمہ قرآن
مولانا احمد سعید دہلوی	کشف الرحمن
ڈاکٹر عبد الرحمان طاہر	مصباح القرآن
دارالسلام	معانی القرآن
ڈاکٹر طاہر القادری	عرفان القرآن
مولانا محمد بشیر فاروق قادری	احکام القرآن
دی علم فاؤنڈیشن کراچی	مطالعہ قرآن کریم برائے طلبہ و طالبات

Suggested English Translations of the Holy Quran

Name	Translator
<i><u>The Meaning of the Glorious Koran</u></i>	Muhammad Marmaduke Pickthall
<i>The Holy Quran</i>	Abdullah Yousuf Ali
<i>The Noble Qur'an</i>	<u>Dr. Muhammad Taqiuddin Al Hilali & Dr. M Muhsin Khan</u>
<i>The Noble Quran</i>	Mufti Muhammad Taqi Usmani
<i>Towards Understanding the Ever Glorious Quran</i>	Dr. Muhammad Mahmud Ghali
<i>The Study Quran</i>	Seyyed Hossein Nasr

Theory:

Epidemiology, the historical context, definition and scope of epidemiology, Measuring health and disease; definition of health and disease, measurement of disease frequency, prevalence and incidence rate, cumulative incidence rate, case fatality, use of available information, mortality, mortality before or after birth, life expectancy, morbidity, disability. Types of epidemiological studies; Observational studies including descriptive, ecological, cross sectional, case control, and cohort studies. Experimental epidemiology including randomized clinical trials, field trials, community trials. Potential errors and bias in epidemiological studies. Ethical issues in epidemiological studies. Epidemiology and prevention; levels of prevention including primordial, primary, secondary and tertiary. Diseases screening programs. Communicable disease epidemiology; epidemic and endemic diseases, the infection chain, investigation and control of communicable disease epidemics, clinical epidemiology, normality and abnormality, diagnostic and prognostic tests. Prevention. Environmental and occupational epidemiology, health services and health policy.

Recommended Books:

1. C Bonita R, Beaglehole R, Kjellström T. Basic epidemiology. World Health Organization; 2006.
2. Salyers, A. A. and Whitt, D. D., 2002. Microbiology: Diversity, Disease, and the Environment. JohnWiley and Son Limited.
3. Ziegler, A., and Koenig, I. R., 2006. A Statistical Approach to Genetic Epidemiology: Concepts and Applications. John-Wiley and Son Limited.
4. Haines, J. L., Pericak-Vance, M. A., 2006. Genetic Analysis of Complex disease. Wiley, John and Sons Incorporated.
5. Adami, H.O., Hunter, D., Trichopoulos D., 2002. Textbook of Cancer Epidemiology. Oxford Press.
6. Seedhouse, D., 2003. Health Promotion: Philosophy, Prejudice and Practice, 2nd Edition. John Wiley and Sons limited.

Theory:

Introduction and Importance of Bioinformatics; Internet Basics; World Wide Web and Web Browsers; Important Glossary of Bioinformatics; Biological Databases; Data Annotation and Redundancy; Entrez; Introduction to National Center for Biotechnology Information (NCBI); GENBANK Sequence Database; European Bioinformatics Institute (EBI); DNA Data Bank of Japan (DDBJ); Protein Sequence Primary Databases; Secondary Databases; Protein Pattern Databases; Structure Classification Databases; Analysis of Protein Sequences; Genome Organization and Resources; Genome Maps; Genome Projects; Human Genome Project.

Practical:

1. Internet browsers and bioinformatics, Primary databases for literature survey, Primary databases for DNA and Protein sequences
2. Searching and retrieval of DNA and Protein sequences, navigating genome browsers for assessing and interpreting the data, Databases of online tools for DNA and Protein sequence analysis
3. DNA and Protein sequence analysis using online tools, Primer designing and calculation of primer parameters.

Recommended Books:

1. Baxevanis, A. D. and Ouellette, B.F.F. (2004) Bioinformatics: A Practical Guide to the Analysis of Genes and Proteins. A John Wiley and Sons, Inc. Publication, New York.
2. Baxevanis, A. D. et al., (2013) Current Protocols in Bioinformatics. Wiley Publishers (Online Library).
3. Claverie, J.M. and Notredame, C. (2007) Bioinformatics for Dummies. Wiley Publishing Inc., Indianapolis, Indiana.
4. Ye, S.Q. (2008) Bioinformatics: A practical Approach. Chapman and Hall/CRC Publishers, Taylor and Francis Group, London, UK.
5. Xiong, J. (2006) Essential Bioinformatics. Cambridge University Press, Cambridge, UK.
6. Orengo, C.A., Jones, D.T. and Thornton, J.M. (2007) Bioinformatics: Genes, Proteins, and Computers. BIOS Scientific Publishers Ltd, Oxford, UK.
7. Ignacimuthu, S. (2005) Basic Bioinformatics. Narosa Publishing House, New Delhi, India.
8. Srinivas, V.R. (2005) Bioinformatics - A Modern Approach. Pentice Hall of India (PHI), New Delhi, India.

Theory:

Early History and Birth of a Profession, Timeline for Evolution of the Clinical Laboratory, Recognition of MLT as a Profession, Official Regulation of Medical Laboratories and Workers, Credentialing and Certification of Medical Laboratory Technical Workers. Clinical and Anatomic Pathologist/Director, Doctor of Laboratory Medicine (D.L.M.), Clinical Sciences Specialist, Laboratory Manager, Clinical Laboratory Scientist/Medical Technologist, Technician-Level Medical Laboratory Worker, Phlebotomists. Laboratory Accreditation, Facility and Departmental Licensure and Accreditation, Personnel Certification or Licensure, Specialty Designation for Categories of Clinical Laboratory Scientists. Legal, Moral, and Ethical Concerns. Patient Expectations and Rights. Medical Law and Privacy of medical information. Hospital and Laboratory Organization. Departments including Hematology, Coagulation, Immunohematology (Blood Banking), Clinical Chemistry, Serology (Immunology), Microbiology. Laboratory Design Laboratory-Specific Economics, Reference Laboratories, Elements Involved in Calculating the Costs of Performing Tests, Screening Tests, Contracts for Services, Equipment, and Supplies, Laboratory safety and hazards. Infection control. Laboratory management; business plan, technology, staff, services, threats, cost analysis. Laboratory Information system; from sample collection to reporting. Total quality management and accreditation. Laboratory management training. Management of laboratory Resources; Management of time, space, equipment and supplies.

Recommended Books:

1. C Ridley J. Essentials of Clinical Laboratory Science. Delmar Cengage Learning; 2010.
2. De Kieviet W, Frank E, Stekel H. Essentials of clinical laboratory management in developing regions. IFCC Series. 2009.
3. Mekonnen E. Health Laboratory Management and Quality Assurance.

INT-631

Internship

3 (0+3)

CAP-630

Capstone Project

3 (0+3)