



# MEDI-SUM SCHOOL 2024

for SUMMER ELECTIVES

University's Summer Program for Medical,  
Educational, Professional, Research, Leadership,  
and Community-Oriented Electives



## Molecular Biology Techniques

### COURSE STRUCTURE

- Objectives of Training Course: Theoretical Knowledge and Hands-on Training
- Participants: 20-25 MBBS/BDS Students from Affiliated Colleges
- Duration: 2 weeks
- Registration Fee: PKR 15000
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Human Genetics & Molecular Biology, Jinnah Campus UHS

### COURSE CONTENT

- Introduction to Molecular Biology and Laboratory SOPs
- Extraction of nucleic acids (DNA & RNA)
- Quantification of nucleic acids
- Primer designing
- Conventional PCR and troubleshooting
- Gel electrophoresis
- Restriction fragment length polymorphism
- Cell culturing & cell counting

### CONTACT INFO

Department of Human Genetics & Molecular Biology,  
University of Health Sciences,  
Jinnah Campus, Kala Shah Kaku

[www.uhs.edu.pk](http://www.uhs.edu.pk)



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## Autopsy Room to Court Room

### COURSE STRUCTURE

- Objectives of Training Course: Theoretical Knowledge and Hands-on Training
- Participants: 20-25 MBBS/BDS Students from Affiliated Colleges
- Duration: 2 weeks
- Registration Fee: PKR 20,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Forensic Medicine, Jinnah Campus UHS

### COURSE CONTENT

- Fundamental of Forensic Medicine, Science and Related Legal System
- Grasping the Skill of Forensic Investigation
- Understanding the basics of Impression Prints
- Forensic DNA Typing as Gold Standard of Identification
- Five Field Visits
- Forensic Summer School Finale

### CONTACT INFO

Department of Forensic Medicine/Medical Jurisprudence,  
University of Health Sciences,  
Jinnah Campus, Kala Shah Kaku

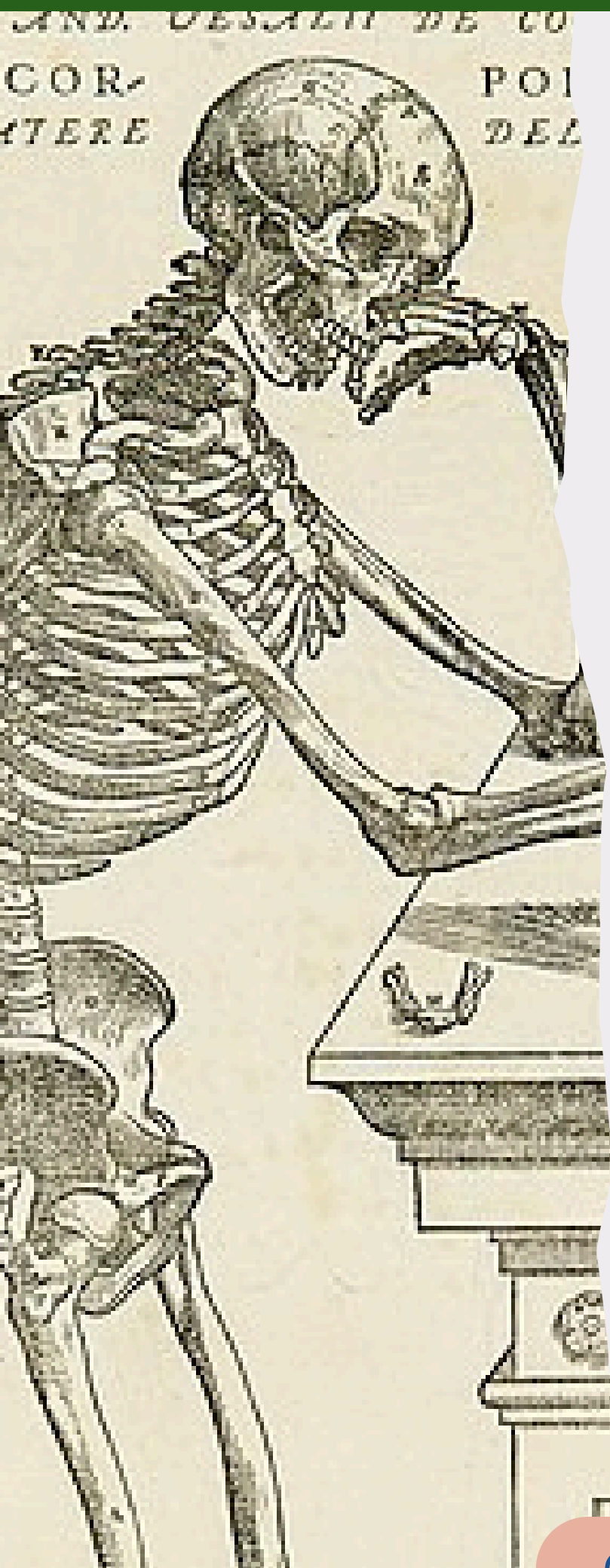


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## Histology & Gross Anatomy: Let the Dead Teach the Living

### COURSE STRUCTURE

- Objectives of Training Course: Theoretical Knowledge and Hands-on Training
- Participants: 20-25, First and Second Year MBBS and First Year BDS Students
- Duration: 4 weeks
- Registration Fee: PKR 15,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Anatomy, City Campus UHS

### COURSE CONTENT

- Microscope handling practical training.
- Guided lab sessions for histological slide analysis.
- Gross Anatomy learning through specimens, models and imaging modalities.
- Virtual Anatomy and its integration in learning.

### CONTACT INFO

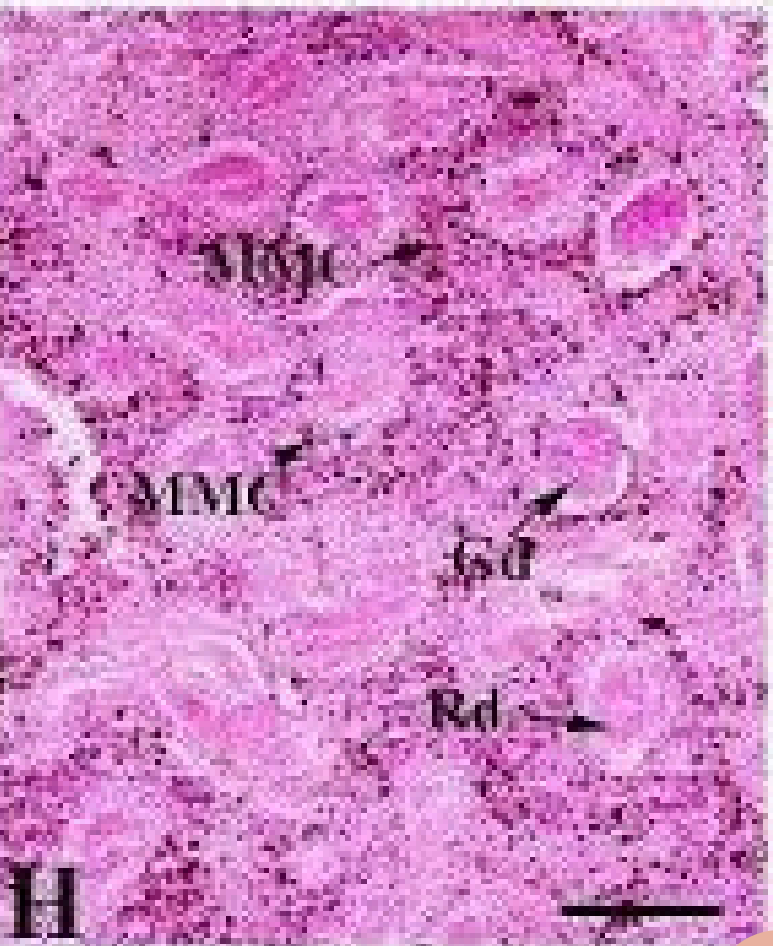
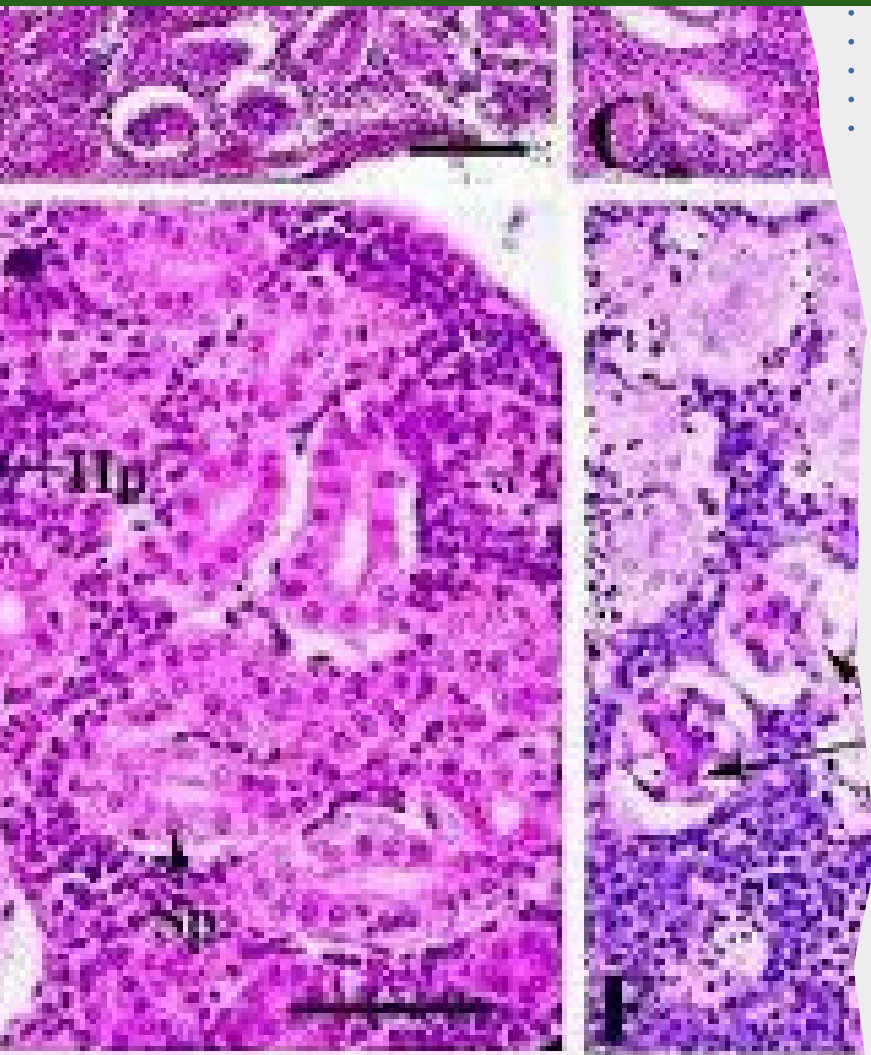
Department of Anatomy ,  
University of Health Sciences,  
City Campus, Lahore



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## Histopathological Techniques

### COURSE STRUCTURE

- Objectives of Training Course: Theoretical Knowledge and Hands-on Training
- Participants: 20-25 MBBS/BDS Students from Affiliated Colleges
- Duration: 2 weeks
- Registration Fee: PKR 15,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Histopathology, City Campus UHS

### COURSE CONTENT

- Orientation of Histopathology Laboratory
- Microscopic examination
- Basic Laboratory Session
- Advanced laboratory Techniques of Immunohistochemistry and Immunofluorescence
- Identification of Histology Slides
- Assessment and Feedback

### CONTACT INFO

Department of Histopathology,  
University of Health Sciences,  
City Campus, Lahore



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## Fundamental and Clinical Concepts of Immunology

### COURSE STRUCTURE

- Objectives of Training Course: Theoretical Knowledge and Hands-on Training
- Participants: 20-25, MBBS (3rd, 4th, and final year) and BDS (2nd year)
- Duration: 2 weeks
- Registration Fee: PKR 15,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Immunology, Jinnah Campus UHS

### COURSE CONTENT

- Basic immunological concepts and their relation to clinical diseases.
- Laboratory methods in the Immunology lab and skills to interpret lab test results to diagnose immunopathologies.
- Infection diagnosis by ELISA.
- Flow cytometry and immunophenotyping in Tumour immunology and Immunodeficiency.
- HLA Typing by PCR.

### CONTACT INFO

Department of Immunology,  
University of Health Sciences,  
Jinnah Campus, KSK



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## Medical Microbiology

### COURSE STRUCTURE

- Objectives of Training Course: Theoretical Knowledge and Hands-on Training
- Participants: 15-20 MBBS and BDS Students
- Duration: 2 weeks
- Registration Fee: PKR 15,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Microbiology, City Campus UHS

### COURSE CONTENT

- Usage of Microscope for stained/ unstained slides.
- Training on the Gram Staining and Ziehl Neelsen Staining.
- Culture Bacteria on different Media.
- Biochemical tests (Catalase, Coagulase, Oxidase test).
- Antimicrobial Susceptibility Testing by Disc Diffusion Method.
- Microbiology Reports reading/understanding

### CONTACT INFO

Department of Microbiology,  
University of Health Sciences,  
City Campus, Lahore



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## Pharmacological Research Methodologies

### COURSE STRUCTURE

- Objectives of Training Course: Theoretical Knowledge and Hands-on Training
- Participants: 10-15, Third Year Undergraduate Medical Students
- Duration: 2 weeks
- Registration Fee: PKR 15,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Pharmacology, Jinnah Campus UHS

### COURSE CONTENT

- Orientation and introduction to the laboratory and research facilities.
- Observing ongoing research projects.
- Attending lectures and seminars by faculty members.
- Hands-on training in basic research techniques and methodologies (MTT assay highlighting effects of drugs on cells, dose response curve using kymograph and organ bath).

### CONTACT INFO

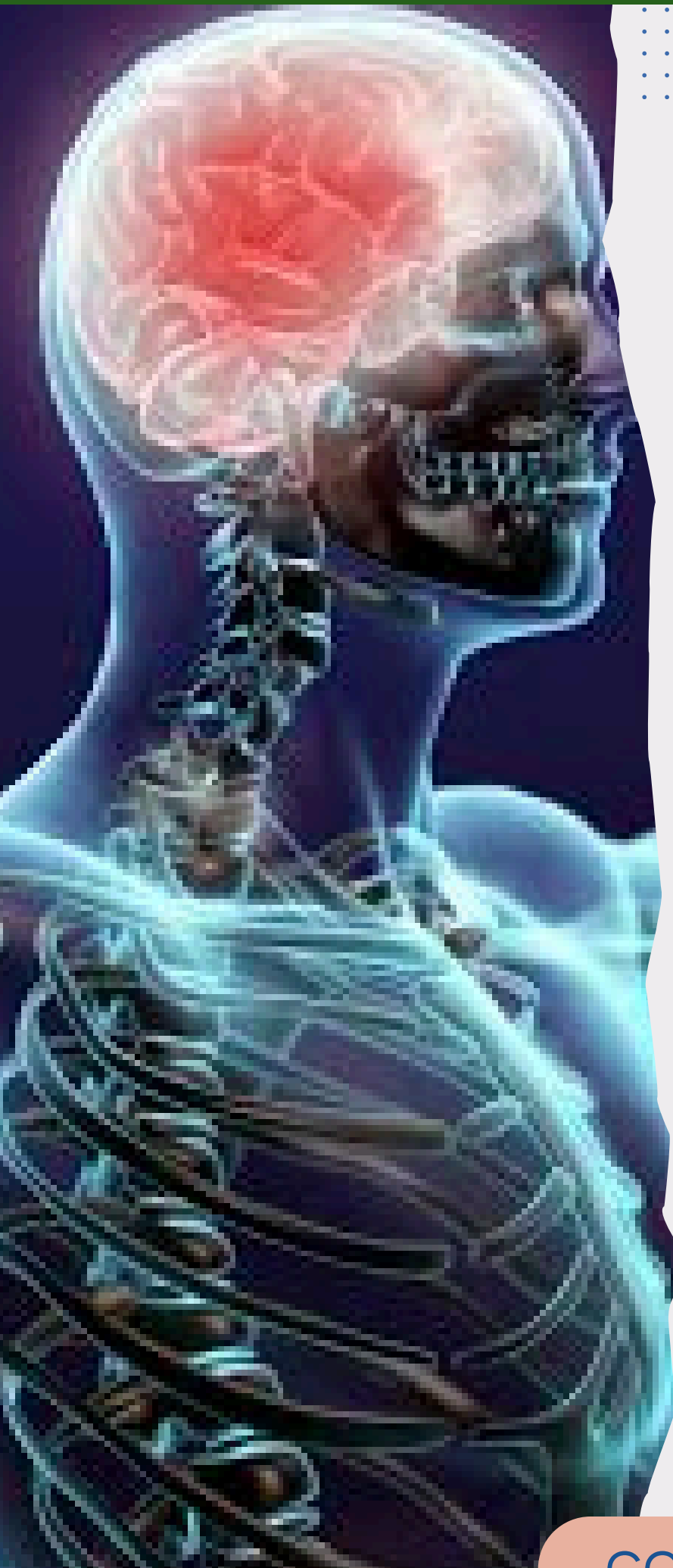
Department of Pharmacology,  
University of Health Sciences,  
Jinnah Campus, KSK



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## Physiology Practicals

### COURSE STRUCTURE

- Objectives: Hands-on expertise on the practicals included in the curriculum 2k23
- Participants: 20-25, First Year Undergraduate Medical Students
- Duration: 2 weeks
- Registration Fee: PKR 10,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Physiology, City Campus UHS

### COURSE CONTENT

- Basics of practical Physiology (Blood Physiology).
- Basics of practical Physiology (cardiovascular physiology).
- Basics of practical Physiology (respiratory physiology).
- Designing and attempting MCQs.
- Designing and attempting SEQs.
- Focused preparation of OSVE.
- Mock Examination.

### CONTACT INFO

Department of Physiology,  
University of Health Sciences,  
City Campus, Lahore





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## Common Haematological Diseases: Diagnosis & Prognosis

### COURSE STRUCTURE

- Objectives: Enhance Theoretical Knowledge and Develop Practical Skills.
- Participants: 20-25, 3rd, 4th, and final year MBBS students.
- Duration: 2 weeks
- Registration Fee: PKR 10,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Haematology, City Campus UHS

### COURSE CONTENT

- Perform (Hands on) CBC Test, Phlebotomy.
- Interpretation of PT, APTT, Fibrinogen, D-dimers.
- Quality Assurance in Haematology Lab  
Interpretation of CBC reports, Preparation, Indications, Administration and Adverse reaction of blood components.
- Interpretation of Iron Studies, Interpretation of Vit B12 and Folic Acid tests
- Latest research in Haematology.

### CONTACT INFO

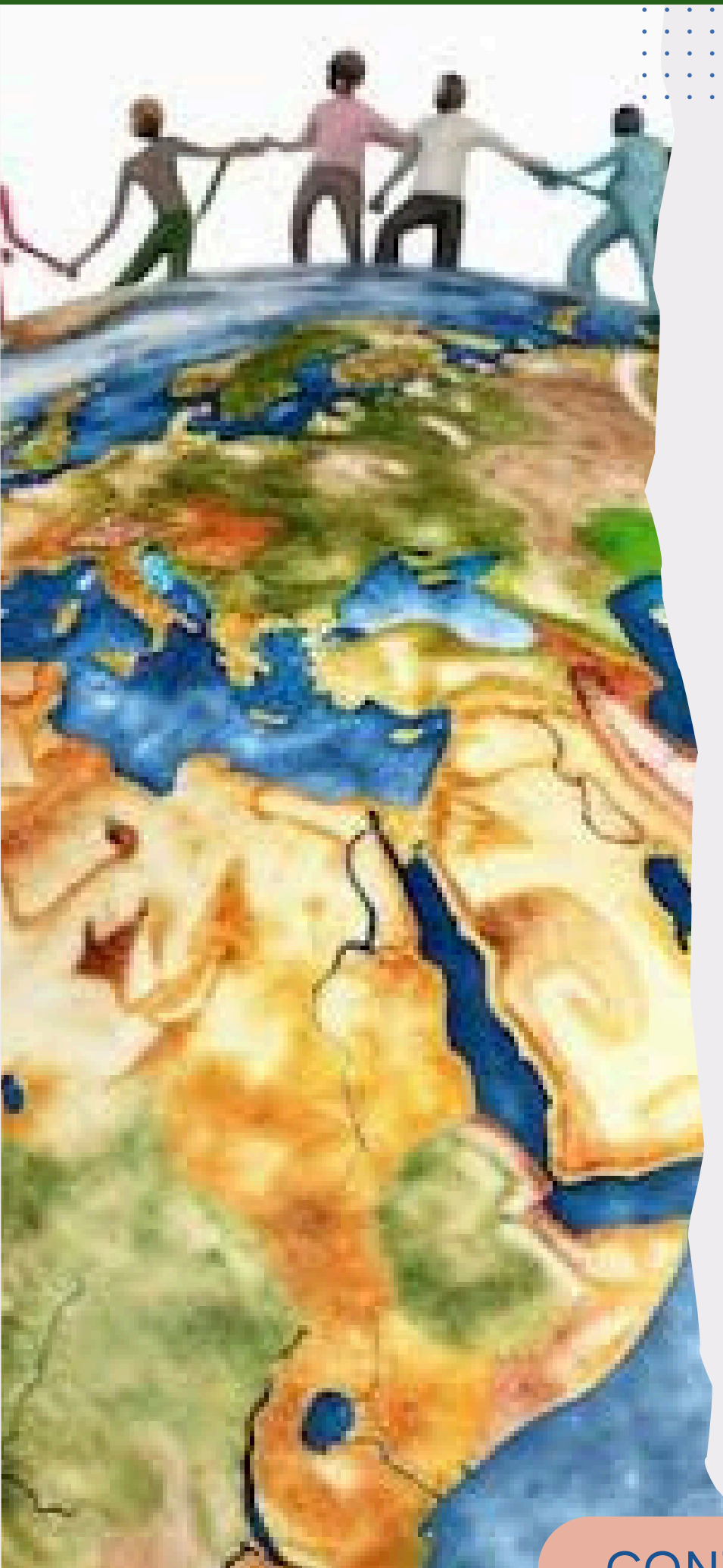
Department of Haematology,  
University of Health Sciences,  
City Campus, Lahore



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## Community Medicine through Field Visits

### COURSE STRUCTURE

- Objectives: Practical exposure to community medicine concepts and practices through immersive field visits.
- Participants: 20-25, MBBS students.
- Duration: 2 weeks
- Registration Fee: PKR 20,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Public Health, Jinnah Campus UHS

### COURSE CONTENT

- Structured group discussions on community health issues and interventions.
- Social determinants of health and their impact on population health outcomes.
- Exposing students to diverse community healthcare settings and patient populations.
- Comprehensive training in research questionnaire design and data collection procedures.
- Peer review sessions, mentorship meetings

### CONTACT INFO

Department of Public Health,  
University of Health Sciences,  
Jinnah Campus, KSK



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## Science of Dental Materials

### COURSE STRUCTURE

- Objectives: To provide undergraduate Dental students with a deep understanding of dental materials.
- Participants: 20-25, BDS students.
- Duration: 2 weeks
- Registration Fee: PKR 15,000/-
- Tentative Date: 1 July 2024 to 15 July 2024
- Venue: Department of Science of Dental Materials, City Campus UHS

### COURSE CONTENT

- Identification and handling of materials used in Recording impressions.
- Digital impression equipment.
- Materials used in cast fabrication.
- Understanding Dental Cements as liners and bases.
- Understanding Direct Restorative Materials.
- Materials for indirect restoration.
- Introduction on designing research project.

### CONTACT INFO

Department of Science of Dental Materials,  
University of Health Sciences,  
City Campus, Lahore



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## Enhanced Active Listening & Verbal Communication Skills

### COURSE STRUCTURE

- Objectives: To remove hesitancy and boost confidence while Speaking in English.
- Participants: 20-25, First year MBBS and BDS students.
- Duration: 5 days
- Registration Fee: PKR 15,000/-
- Tentative Date: 1 July 2024 to 5 July 2024
- Venue: Management Block, Jinnah Campus UHS

### COURSE CONTENT

- Importance of Body Language in communication.
- Understand the power/impact of words.
- Informal and Formal English communication.
- Enhance active listening skills.
- Improve literal and comprehensive listening.
- Daily lessons, assignments, and tests to track progress.
- Immersive, interactive, and practical activities.

### CONTACT INFO

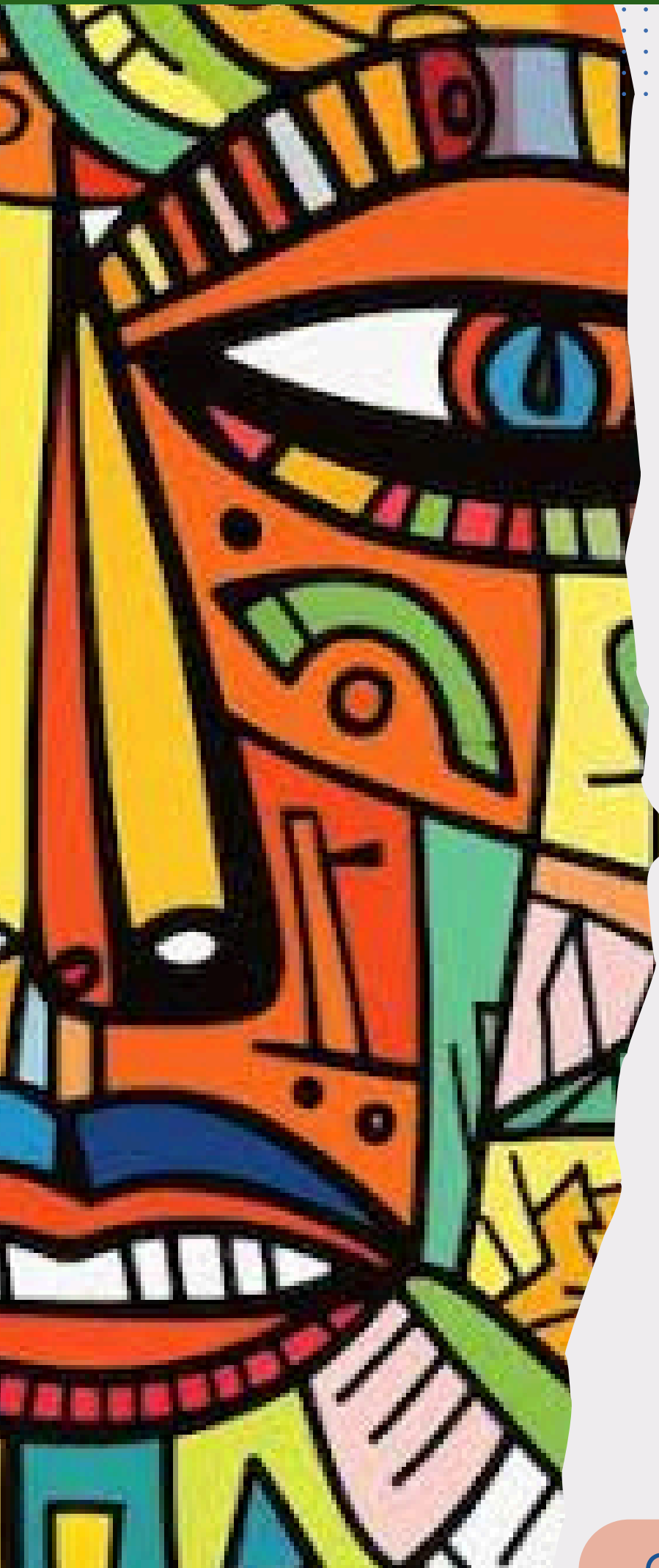
English Section (PSDC),  
University of Health Sciences,  
Jinnah Campus, KSK



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## The Compassionate Clinician: Balancing Care & Cure

### COURSE STRUCTURE

- Objectives: Integrate holistic approaches, non-pharmacological treatments, and ethical principles in patient care.
- Participants: 20-25, final-year medical graduates and house officers.
- Duration: Two weeks
- Registration Fee: PKR 15,000/-
- Tentative Date: 1 July 2024 to 15 July 2024
- Venue: Room no. 77, Academic Block, Jinnah Campus, KSK

### COURSE CONTENT

- Career Path selection and how to built Agility.
- Developing leadership skills in clinical practice.
- Cognitive Biases.
- Emotional Intelligence and Creative thinking.
- Dealing with Burnout, Distress and Disasters.
- Dealing with Diverse Clinical Situations including psych-trauma and Post-traumatic growth.
- Hospitalization and Illness from Patient's Perspective.

### CONTACT INFO

Department of Behavioural Sciences,  
University of Health Sciences,  
Jinnah Campus, KSK



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## Basic Life Support

### COURSE STRUCTURE

- Objectives: Demonstrate proficiency in BLS skills.
- Participants: 20-25, 4th and final year MBBS students.
- Duration: Two weeks
- Registration Fee: PKR 20,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Family Medicine , Jinnah Campus, KSK

### COURSE CONTENT

- Recognize the signs & symptoms of cardiac arrest.
- Techniques to perform high quality CPR (Adult, Child & Infant).
- Understand how to operate an AED & follow device instructions.
- Relieve Choking maneuvers.
- Hands on training on manikins.
- Presentations, Demonstrations.

### CONTACT INFO

Department of Family Medicine,  
University of Health Sciences,  
Jinnah Campus, KSK



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## Diagnostic Tools in Biochemistry

### COURSE STRUCTURE

- Objectives: Provide an insight into the importance of diagnostic tools in Biochemistry.
- Participants: 20-25, first and second year MBBS students.
- Duration: Two weeks
- Registration Fee: PKR 15,000/-
- Tentative Date: 24 June 2024 to 5 July 2024
- Venue: Department of Biochemistry, Jinnah Campus, KSK

### COURSE CONTENT

- Techniques of Centrifugation, Spectrophotometry, ELISA, pH Meter, Chromatography, Electrophoresis, PCR.
- Biochemical Analysis.
- Biomarkers for different diseases.
- Lectures, Hands-on Training, Post-Session Discussions, Post-Training Assessment.

### CONTACT INFO

Department of Biochemistry,  
University of Health Sciences,  
Jinnah Campus, KSK