



UNIVERSITY OF HEALTH SCIENCES

KHAYABAN-E-JAMIA PUNJAB, LAHORE.

OFFICE: 042-99231304-09, EXT: 392 FAX 042-99231857

Zero Semester Curriculum for MPhil Oral Pathology

University of Health Sciences, Lahore

1. Name of Program

MPhil Oral Pathology

2. Title of Course

Zero Semester (Pre-MPhil Orientation and Training)

3. Course Type

Mandatory (Non-Credit / Qualifying)

4. Duration

12 Weeks

5. Teaching / Training Institutions

- University of Health Sciences (UHS), Lahore.
- Jinnah Hospital Lahore.
- Postgraduate Medical Institute (PGMI), Lahore.
- FMH College of Dentistry, Lahore.

6. Rationale of the Zero Semester

The Zero Semester is designed to orient incoming MPhil Oral Pathology students to the academic, clinical, laboratory, and research requirements of the program. It aims to strengthen foundational knowledge, provide supervised clinical exposure, and familiarize students with histopathology grossing and reporting prior to commencement of formal coursework.

7. Course Objectives

- Understand academic regulations and structure of the MPhil program
- Apply foundational concepts of oral pathology
- Observe and correlate clinical findings with histopathological diagnosis
- Demonstrate basic understanding of histopathology grossing and reporting
- Understand principles of research methodology and scientific writing



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8. Course Contents, Teaching Strategy & Assessment

Sr #	Theoretical Topics / Didactic Sessions	Details and Learning Outcomes	Setting
1	Orientation & Introduction: - Overview of MPhil Oral Pathology program - Goals, expectations, and assessment methods - Introduction to oral pathology workflow: Clinical → Biopsy → Grossing → Histopathology → Reporting	- Orientation and Introduction to equipment and resources - Understand program structure and objectives - Learn laboratory and clinical safety - Familiarity with departmental workflow	Department of Oral Pathology University of Health Sciences (UHS), Lahore.
2	Oral Histology & Normal Oral Tissues - Tooth, pulp, periodontium, oral mucosa - Bone, salivary glands - Basic microscopy techniques	- Observation of normal tissue slides in histopathology - Introduction to light microscope - Identify normal histological features of oral tissues - Develop basic slide examination skills	
3	Inflammatory and Reactive Lesions - Acute & chronic inflammation - Fibrous hyperplasia, pyogenic granuloma, irritational lesions	Grossing & Reporting of Oral & Maxillofacial Surgical Specimens - Understand the significance of gross examination in the diagnosis of oral and maxillofacial lesions. - Correctly receive, identify, accession, label, and fix routine biopsy and resection specimens. - Perform supervised grossing of common oral specimens (incisional and excisional biopsies, cystic lesions, soft tissue masses, salivary gland specimens, resection margins) following standardized grossing protocols (orientation, inking of margins, tumor sampling). - Systematically describe oral specimens in terms of size, shape, surface characteristics, color, consistency, and surgical margins. - Select appropriate and representative tissue sections for processing and microscopic evaluation. - Understand the structure and components of a standard oral histopathology report. - Prepare clear and concise gross and microscopic descriptions using appropriate oral pathology terminology.	Department of Pathology, Allama Iqbal Medical College, Lahore. (01 month)
4	Odontogenic Cysts and Tumors - Odontogenic cysts - Benign Odontogenic tumors - Malignant Odontogenic tumors		
5	Oral Potentially Malignant Disorders (OPMDs) - Leukoplakia, Erythroplakia, Lichen planus - Risk factors, malignant transformation		
6	Oral Cancers - Squamous cell carcinoma & variants - Early vs late lesions - TNM staging overview		Department of Pathology/Oral Pathology, Fatima Memorial College of Medicine & Dentistry, Lahore. (01 month)
7	Salivary Gland Pathology - Tumors, cysts, inflammatory lesions - Histopathological patterns		



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8	Bone and Soft Tissue Lesions • Benign vs malignant bone tumors • Fibro-osseous lesions	• Correlate clinical presentation, radiographic findings, gross features, and microscopic observations.	• Department of Pathology, Ameer-ud-Din Medical College/ Lahore General Hospital, Lahore./ Shk. Zayed Hospital Lahore. (01 month)
9	Basic introduction to Oral Cytology & Special Techniques • Smears, and brush biopsies,	• Recognize common benign, inflammatory, cystic, and odontogenic lesions, and identify cases requiring senior review or multidisciplinary input. Grossing & Reporting of Oral Cytology Specimens (FNAC & Exfoliative Cytology) • Understand the principles, indications, and limitations of oral cytological investigations. • Assist in and perform basic FNAC procedures for oral and salivary gland lesions under supervision. • Properly handle cytology specimens, including labeling, fixation, smear preparation, and staining. • Assess specimen adequacy and cellular yield. • Identify basic cytomorphological patterns including inflammatory, reactive, benign, and malignant changes. • Report cytology cases using standardized and simplified diagnostic categories. • Correlate cytological findings with clinical and radiographic information. • Recognize limitations of cytology and determine when histopathological confirmation is required. Oral Pathology–Based Grossing and Diagnostic Reporting • Apply standardized grossing and reporting principles to system-based oral and maxillofacial specimens, including mucosal, odontogenic, salivary gland, and bone lesions. • Integrate clinicopathological correlation into structured diagnostic reporting.	
<u>MANDATORY SKILL BASED WORKSHOPS</u> • Basic Microscopy Techniques • Smear Preparation Techniques • Basic Diagnostic Procedures: Fine Needle Aspiration Cytology (FNAC) • Fundamentals of Polymerase Chain Reaction (PCR)			University of Health Sciences



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* The sessions on grossing and reporting, as well as Scientific Writing & Academic Skills, will be held weekly at UHS, following clinical rotations at designated training sites.

Completion Requirement

Successful completion of the Zero Semester is mandatory prior to commencement of the MPhil Oral Pathology program.



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DAILY PERFORMANCE REPORT(DPR)

1. TRAINEE INFORMATION

Name of Postgraduate Student: _____ Department/Program: _____

Rotation/Section: _____

Host Institution: _____

Focal Person/ Supervisor: _____

Date: _____

2. DAILY ATTENDANCE & TIMINGS

Arrival Time: _____

Departure Time: _____

3. ACTIVITIES PERFORMED TODAY

A. Laboratory / Diagnostic Work (Histopathology/Cytopathology/Advanced techniques in Pathology/Molecular Pathology):

☐ Grossing and sample processing of Surgical Specimens
Specimens

☐ FNAC and sample processing of Cytology

☐ Microscopy

☐ Equipment use

Domain	Activity	Observed / Performed	Supervisor Remarks
Gross Examination/FNAC			
Tissue Processing/FNAC Processing			
Microscopic Assessment			
Synoptic Reporting			
Correlation & Final Interpretation.			



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4. Daily Reflection (Trainee)

5. Supervisor's Comments

6. Signatures

Postgraduate Student: _____

Focal Person / Supervisor: _____

UHS Coordinator (If applicable): _____



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END OF ROTATION EVALUATION PROFORMA
Zero Module – MPhil Postgraduate Students

1. Trainee Information

Field	Details	Field	Details
Name of Postgraduate Student		Program	
Discipline		Rotation Title	
Host Institution / Department		Rotation Duration	
Supervisor (Focal Person)		Evaluation Date	

2. Evaluation Criteria

Criteria	Excellent (5)	Good (4)	Satisfactory (3)	Needs Improvement (1-2)
1. Punctuality & Attendance	☐	☐	☐	☐
2. Professional Behavior & Ethics	☐	☐	☐	☐
3. Laboratory / Diagnostic Competency (Where applicable)	☐	☐	☐	☐
4. Clinical Reasoning & Case Understanding	☐	☐	☐	☐
5. Execution of Required Skills / Procedures	☐	☐	☐	☐
6. Documentation, Reporting & Record Keeping	☐	☐	☐	☐
7. Communication with Faculty / Staff	☐	☐	☐	☐
8. Teamwork & Cooperation	☐	☐	☐	☐
9. Critical Thinking & Problem Solving	☐	☐	☐	☐
10. Overall Professional Attitude	☐	☐	☐	☐

3. Supervisor's Narrative Evaluation

Strengths:

Areas Needing Improvement:

Recommendations:



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4. **Final Evaluation:**

5. **Signatures**

Role	Name	Signature	Date
Supervisor / Focal Person			
Postgraduate Student			
UHS Coordinator (If applicable)			



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SYSTEM-BASED DIAGNOSTIC ORAL & MAXILLOFACIAL PATHOLOGY: CORE REGIONAL SYSTEMS

Oral Mucosal Pathology

Benign / Potentially Malignant: - Irritation fibroma - Pyogenic granuloma - Oral lichen planus - Leukoplakia - Oral submucous fibrosis

Malignant: - Oral squamous cell carcinoma (tongue, buccal mucosa, floor of mouth) - Verrucous carcinoma

Learning Objectives: - Recognize and gross common oral mucosal lesions - Describe histopathological features and grading of dysplasia - Correlate clinical presentation with pathology

Odontogenic Cysts & Tumors

Benign: - Radicular cyst - Dentigerous cyst - Odontogenic keratocyst - Ameloblastoma - Odontoma

Malignant: - Ameloblastic carcinoma - Primary intraosseous carcinoma

Learning Objectives: - Identify odontogenic lesions on gross examination and radiographs - Histopathological differentiation of cysts vs. tumors - Apply WHO classification of odontogenic tumors

Salivary Gland Pathology

Benign: - Mucocele - Pleomorphic adenoma - Warthin tumor

Malignant: - Mucoepidermoid carcinoma - Adenoid cystic carcinoma - Acinic cell carcinoma

Learning Objectives: - Perform grossing and sectioning of salivary gland specimens - Recognize architectural patterns and cellular features under microscope - Correlate clinical behavior with histopathology

Soft Tissue Pathology

Benign: - Lipoma - Hemangioma - Lymphangioma - Neurofibroma - Schwannoma

Malignant: - Fibrosarcoma - Rhabdomyosarcoma - Malignant peripheral nerve sheath tumor

Learning Objectives: - Examine and gross soft tissue lesions - Describe microscopic morphology and immunohistochemical markers - Understand differential diagnosis and clinical significance

Bone Pathology

Benign: - Ossifying fibroma - Fibrous dysplasia - Central giant cell granuloma - Osteoma

Malignant: - Osteosarcoma (jaw) - Chondrosarcoma



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Learning Objectives: - Apply radiologic-pathologic correlation - Recognize histological features of bone lesions - Report jaw specimens following CAP-style grossing guidelines

Hematolymphoid Lesions in Oral & Cervical Region

Reactive / Benign: - Reactive lymphoid hyperplasia - Tuberculous lymphadenitis

Malignant: - Hodgkin lymphoma (cervical nodes) - Non-Hodgkin lymphoma involving oral cavity

Learning Objectives: - Identify lymphoid architecture and abnormal cellular patterns - Apply immunohistochemistry for lymphoma subtyping - Integrate clinical and histopathological findings

Maxillary Sinus & Nasal Cavity Pathology

Benign: - Nasal polyp - Inverted papilloma

Malignant: - Sinonasal squamous cell carcinoma - Adenocarcinoma

Learning Objectives: - Gross examination of sinonasal specimens - Correlate histopathological findings with clinical imaging - Recognize precancerous vs. malignant lesions

Developmental & Genetic Disorders Affecting Oral Region

Non-neoplastic / Congenital: - Cleft lip and palate - Amelogenesis imperfecta - Dentinogenesis imperfecta

Learning Objectives: - Describe developmental anomalies grossly and histologically - Relate defects to clinical presentation and oral rehabilitation needs

Key Notes for M.Phil Oral Pathology: -

- **Grossing & Reporting:** Emphasizes specimen handling, orientation, margins, and tumor sampling according to CAP checklists.
- **Histopathology:** Detailed study of microscopic features of lesions.
- **Clinical Correlation:** Integrates clinical, radiographic, and pathological correlation.
- **Assessment:** Continuous assessment through slide review, grossing exercises, and viva on lesion identification.