



Institute of Dentistry,
CMH Lahore Medical College
Curriculum and study Guide
Department of Oral Pathology
Third Year BDS
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Introduction to study guide

This study guide book is designed for Dental undergraduates by consolidated effort of all subjects across the year to provide Dental students of IOD CMH Lahore Medical College a resource material which would highlight important aspects of curriculum. The study guide aims to promote self-regulated lifelong learning among students by giving them the control over their learning.

The pervasive curriculum aspects of undergraduates' competencies, assessment policies and curriculum coordinators are mapped in his guide book. Horizontal integration across the year better conceptual understanding while vertical integration promotes clinically relevant understanding. IOD CMH aims to improve the health of society by improving students and doctors in preventive health service provision and health education provision to society through community programs.

The study guide gives an overview of intended course outcomes and objectives in relation to the course content. The assessment methodology tailored to intuitional strategy is provided.

This study guide has been carefully designed keeping in view PMC and NUMS curriculum and guide lining dedicated effort by faculty to make this guide tailored to student's needs. Students feedback has been seeded and incorporated at all stages during study guide development. Curriculum is a living dynamic entity. Our aim is to improve it by every passing day. This humble effort of all faculty acts as a guiding light for our dear students.

Mission Statement

To provide an excellent learning and teaching environment, inculcating ethical values and social responsibilities in undergraduate and postgraduate medical & dental students and nursing and allied health sciences students to enhance the level of comprehension healthcare in the Army/Country

Vision Statement

To ensure the development & sustenance of internationally acclaimed quality standards and practices for NUMS Higher Education that benefits and lives up to the stakeholder's needs and expectations.

Rationale of Curriculum

The curriculum is designed to address both local and international needs. The curriculum is focused to prepare students for the international licensing exams and training abroad as well as empowering them to treat local patients with safety and efficiency. Dentists work as a healer in the community. A dentist should have evidence based and update knowledge about the epidemiology of the practicing area. The curriculum of IOD CMH LMC is planned with a collaboration of clinical and basic sciences faculty in addition to students and family medicine department to ensure that the prevailing health conditions of the society are treated and dealt with effectively. The emergence of new techniques in preservation of existing dentition and restoration of the lost dentition and oral structures has led to changes in the curriculum with more emphasis on new and advanced techniques, procedures and evolution of new and advanced technology (e.g. CAD/CAM & Implants).

Introduction to Curricular Framework

This study guide is developed as resource assistance to the students and faculty. The study guide development process included representation from teaching faculty, management, leadership of college and students. The study guide is made to achieve an alignment between societies' needs, institutional needs, patient needs & student's needs.

The curriculum implemented is a hybrid type of curriculum which has both horizontal and vertical integration. Spiral integration is introduced as an adjunct to horizontal and vertical integration. The curriculum spans over 3 phases

PHASE 1 (Year 1&2): Includes basic sciences Anatomy, physiology, biochemistry, Oral biology, Science of dental Material, Pharmacology and Community Dentistry, it also includes preclinical Prosthodontics, general pathology.

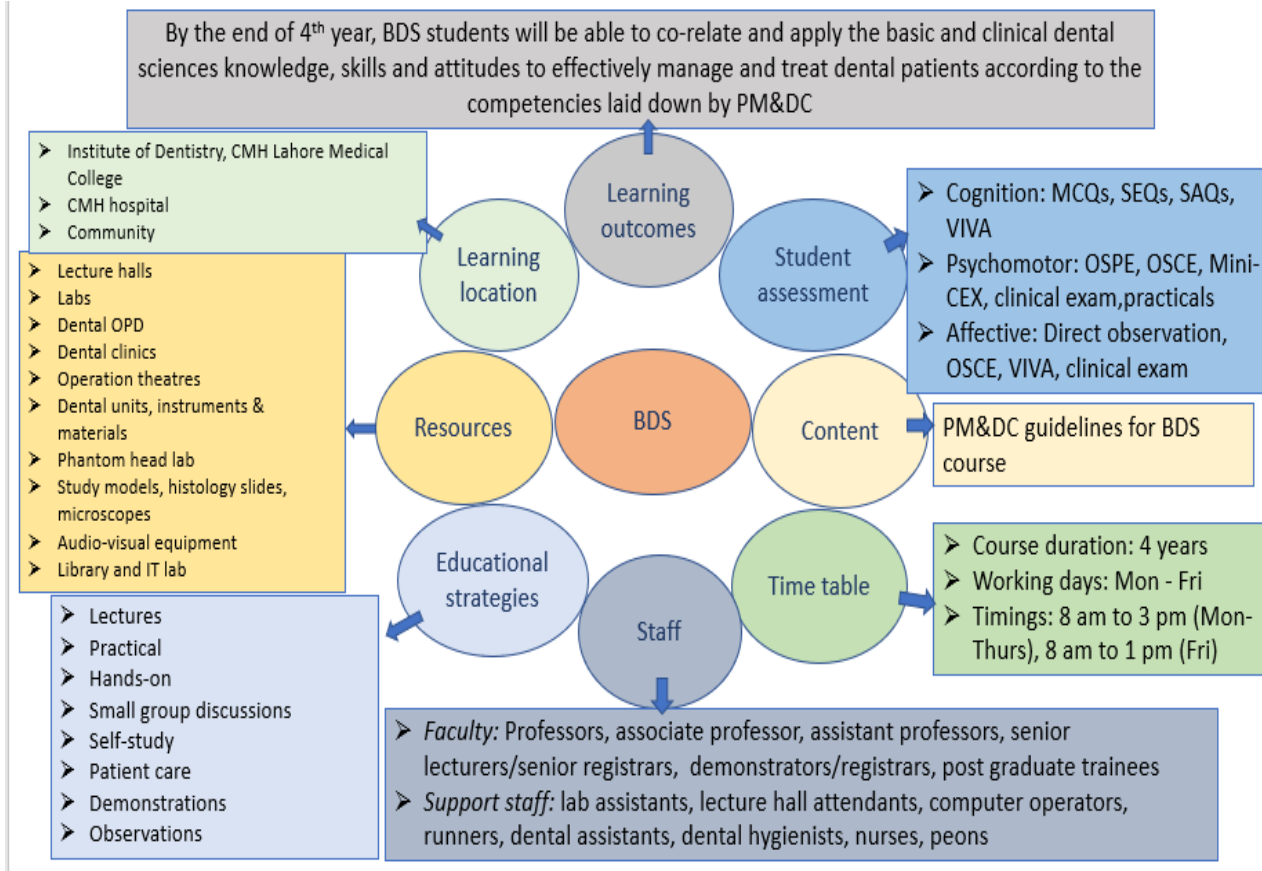
PHASE 2 (Year 3rd & Final Year): includes Periodontology, Oral Pathology, Oral Medicine, General Medicine, General Surgery, Oral Surgery, Prosthodontics, Orthodontics, Operative Dentistry.

4 Years Curricular Framework

BDS SCHEME OF STUDIES

<u>BASIC DENTAL SCIENCES / PRE-CLINICAL YEAR</u>		<u>CLINICAL YEARS</u>	
1 st YEAR	2 nd Year	3 rd Year	Final Year
Anatomy	Science of Dental Material	Periodontology	Prosthodontics
Physiology	Gen. Pathology	Oral pathology	Operative Dentistry
Biochemistry	Pharmacology	Oral Medicine	Oral Surgery
Pak studies & Islamic Studies	Behavioral Sciences	Gen. Medicine	Orthodontics
Oral Biology	Community Dentistry	Gen. Surgery	
	Pre-Prosthodontics	Oral Surgery	
	Pre-Operative Dentistry	Prosthodontics	
Self-Directed Learning Sessions			

BDS curricular map



Undergraduate Competencies

IOD CMH Lahore medical College envisions to produce graduates who are proficient in following competencies at the end of 4th year

- ◆ Dental Expertise
- ◆ Communication
- ◆ Critical thinking
- ◆ Management
- ◆ Scholar
- ◆ Professionalism
- ◆ Evidence based practice providing holistic care
- ◆ Empathetic
- ◆ Providing Community service

Co-ordinators Third Year BDS 2022

Coordinator Name	Department	Extension
Prof. Dr. Faiqua Yasser	Oral Pathology	346
Dr . Bisma Ammad	Oral Pathology	same
Dr. Yousma Javed	Oral Pathology	same
Dr. Komal Naveed	Oral Pathology	same
Dr. Alveena Nawaz	Oral Pathology	same

Class representatives

Name	Designation
-	CR 1 st Year BDS
-	GR 1 st Year BDS
Aman	CR 2 nd Year BDS
Momina	GR 2 nd Year BDS
Ali Nadeem	CR 3 rd Year BDS
Maryam Iqbal	GR 3 rd Year BDS
Saad Khakwaani	CR Final Year BDS
Eman Fatima	GR Final Year BDS

Clerkship Subjects

Following are the core subjects for Third year BDS for which professional examination will be held at the end of the academic year:

1. Oral Pathology
2. Oral Medicine
3. General Medicine
4. General Surgery
5. Periodontology
6. Oral Surgery
7. Prosthodontics

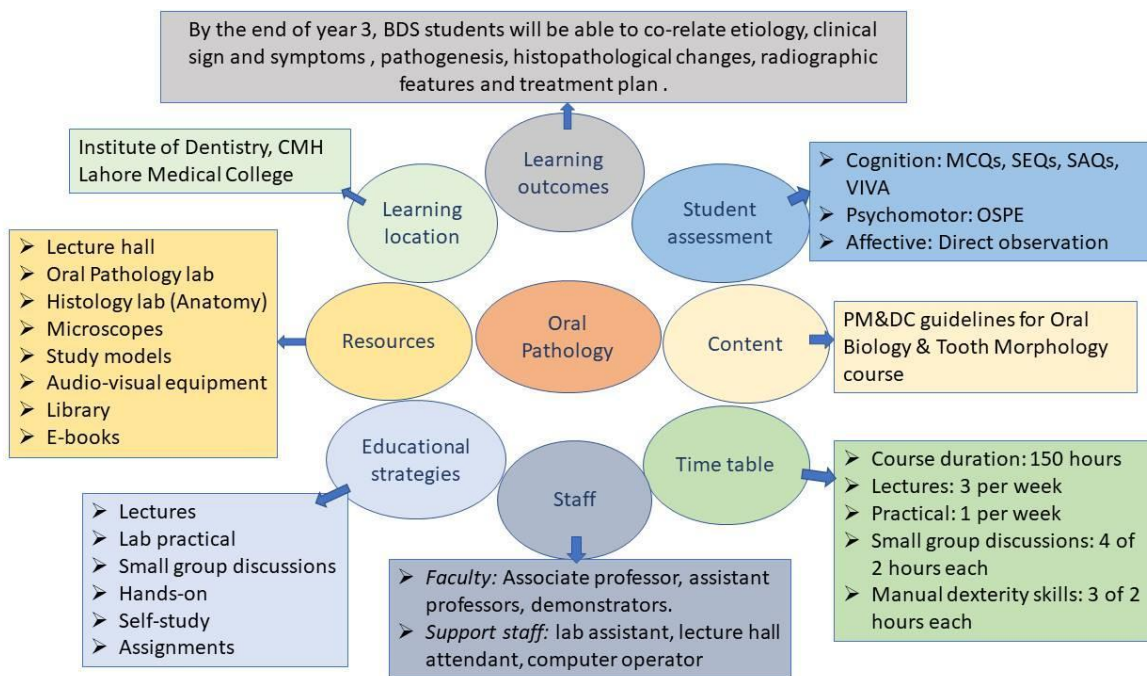
Hours of teaching

Subject	Total Teaching Hours CMH
Oral Pathology	150
Oral Medicine	
General Medicine	
General Surgery	
Periodontology	
Oral Surgery	
Prosthodontics	

INTRODUCTION TO ORAL PATHOLOGY

Oral Pathology is the specialty of dentistry and pathology which deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions. It deals with diagnosis and study of the causes, processes and effects of diseases affecting the oral and maxillofacial region. The main method of examination of specimens is by light microscopy.

CURRICULAR MAP OF ORAL PATHOLOGY



Resources

1. Teaching resources
2. Infrastructure resources

1. Teaching resources

Sr. #.	Faculty Name	Department as per PM & DC certificate	Qualification
1	Prof. Dr. Faiqua Yasser	Professor & HOD	BDS, MPhil
2	Dr. Bismah Ahmad	Senior Registrar	BDS, MPhil
3	Dr. Yousma Javed	Demonstrator	BDS
4	Dr. Komal Naveed	Demonstrator	BDS
5	Dr. Alveena Nawaz	Demonstrator	BDS

2. Supporting staff

Lab assistant

Computer operator/lecture hall attendant

3. Infrastructure resources

Sr. #.	Infrastructure Resources	Quantity
1	Lecture hall <ul style="list-style-type: none">● Seating Capacity● Multimedia● Microphone● Computer system	1
2	Oral Pathology lab <ul style="list-style-type: none">● Gross Specimens● Microscope● Slides	
3	Mini library	1

TEACHING AND LEARNING STRATEGIES

Multiple educational methods will be used consisting of self-study, interactive lectures, group discussions, and practical, and manual dexterity skill sessions.

(i) Methods for achieving cognitive objectives

- Interactive lectures using audio visual aids on power point presentation
- Group discussions in form of large group and small group
- Collaborative learning
- Self-study and reading from learning resources

(ii) Methods for achieving psychomotor objectives

- Focusing the histological slides on microscope
- Identification of normal histological structures on slides under different magnification
- Drawing and labeling the histological slides on practical note books

(iii) Methods for achieving affective objectives

- Interaction with peers, group members, teachers, support staff etc.
- Group discussions (small and large)
- Oral presentations by students

LEARNING METHODOLOGIES

The following teaching /learning methods are used to promote better understanding:

- Interactive lectures
- Small group discussions
- Practical
- Skill sessions
- Self-directed learning
- Assignments
- Oral presentations by students

Interactive lectures

In a large group, the lecturer introduces a topic which explains the underlying phenomena through questions, pictures, exercise, etc. Students are actively involved in the learning process.

Small group discussions

This format helps students to clarify concepts and acquire skills and attitudes. Students exchange opinions and apply knowledge gained from lectures and self-study. The facilitator role is to ask probing questions, summarize, or rephrase to help clarify concepts.

Practical

In practical sessions students observe histological slides under microscope or on multimedia for better understanding of the subject. They are also required to maintain practical manuals in which they draw and label histological diagrams and different aspects/views of teeth for better understanding.

Skill session

Students are taught to accurately carve out tooth models from soap for better understanding of tooth morphology.

Self- directed learning

Students' take responsibility for their own learning through individual study, sharing and discussing with peers, seeking information from the Learning Resource Center, teachers and resource persons within and outside the college. Students can utilize the time within the college scheduled hours or afterwards for self-study.

Assignments

Students are given written formative assignments on designated topics.

Oral presentations by students

Students are assigned topics during revision sessions to enhance their communication skills and group learning.

CURRICULUM IMPLEMENTATION

Curriculum implementation refers to putting into practice the official document including course content, objectives, learning and teaching strategies. Implementation process helps the learner to achieve knowledge, skills and attitudes required of the learning tasks. Learners are a pertinent component of the implementation process. Implementation occurs when the learner achieves the intended learning experiences, knowledge, ideas, skills and attitudes which are aimed to make the learner an effective part of the society. Curriculum implementation also refers to the stage at which curriculum is put into effect. There has to be an implementing agent as well. Teacher is an important part of this process and implementation of the curriculum is the way the teacher selects and utilizes various components of the curriculum. Implementation occurs when the teacher's formulated course content, teacher's personality and teaching and learning environment interact with the learners. Therefore, curriculum implementation is how the officially planned course of study is translated and reflected by the teacher into schemes of work, lesson plans, syllabus and resources are effectively transferred to the learners. Curriculum implementation can be affected by certain factors such as teachers, learners, learning environment, resource materials and facilities, culture and ideology, instructional supervision and assessments.

Personnel involved in teaching and facilitation

(i) Lectures delivery by: Prof. Dr. Faiqa Yasser (Professor & HOD)

(ii) Registrar for clinics/practical and small group discussion sessions:

- Dr. Bismah Ahmad
- Dr. Yousma Javed
- Dr. Komal Naveed
- Dr. Alveena Nawaz

(iii) Support staff: 2 as nominated by the medical education department

(iv) Computer assistant: 1 (as nominated by the college)

Time frame

Course duration: 36 weeks

Lectures:

Monday (09:00 to 10:00am)

Practical/ clinical visits:

Wednesday: (08:00 to 09:00 am)

Self-study: 5-6 hours per week

COURSE OUTLINE

SECTION I:

WHITE LESIONS

This section introduces students to diagnose the white lesions by correlating the clinical and histopathological features. By the end of this unit, students will be able to distinguish white lesions from one another on the basis of aetiology, location and keratosis. e.g Candidiasis , Leukodema

SECTION II:

EPITHELIAL PATHOLOGY

This section familiarizes students with a number of key themes and subjects regarding different types of lesions involving the squamous epithelium. It will include the concepts of the lesions based on etiology, pathogenesis, clinical features and final diagnosis on microscopic examination of the biopsy specimens. The aim of this section is to allow students to develop scientific knowledge, understanding and competence in the area of e.g. Hyperplastic Epithelial lesions, Benign epithelial lesions, Squamous cell carcinoma and variants

SECTION III:

INFECTIONS

The aim of this section is to allow students to develop understanding of infectious diseases. Students of 3rd year BDS should be able to distinguish between different types of infections and diagnose bacterial, fungal & viral infections. The students also learn the treatment modalities of these diseases. e.g. Noma, Tuberculosis, Herpes simplex virus, Varicella Zoster virus, Candidiasis, Histoplasmosis

SECTION IV:

BONE PATHOLOGY

The section helps the students to develop understanding regarding bone diseases. By the end of this section, candidates will be able to distinguish different diseases and diagnose them using clinical, radiographic & microscopic correlation. The students also learn the treatment modalities of these diseases e.g Fibrous dysplasia, Cemento osseous dysplasia etc.

SECTION V:

CONNECTIVE TISSUE LESIONS

This section helps students to understand the classification and types of the oral connective tissue lesions, clinical presentation of connective tissue lesions and diagnosis of lesions with clinical and microscopic features.

SECTION VI:

HAEMATOLOGICAL MALIGNANCIES

By the end of this section, candidates will be able to distinguish different diseases and diagnose them using clinical, radiographic & microscopic correlation. The students also learn the treatment modalities of these malignancies. e.g Hodgkins lymphoma Non Hodgkin lymphoma

SECTION VII:

ODONTOGENIC AND NON ODONTOGENIC CYSTS

By the end of this section, students will be able to distinguish different cysts from one another on the basis of their tissue of origin, nature, expansion and radiographic presentation. Using the core knowledge will enable them to diagnose cysts using clinical, radiographic & microscopic evaluation.

SECTION VIII:

ODONTOGENIC TUMORS

By the end of this section, students will be able to distinguish different tumors from one another on the basis of their tissue of origin, nature and radiographic presentation. Using the core knowledge will enable them to diagnose odontogenic tumors using clinical, radiographic & microscopic evaluation e.g. Ameloblastoma, Keratocystic odontogenic tumour.

SECTION IX:

SALIVARY GLAND PATHOLOGY

In this section students will understand basic classification of salivary gland pathology describe clinical presentation of salivary gland lesions Diagnosis of salivary gland lesions by correlating clinical and microscopic features.

SECTION X:

DENTAL CARIES AND PERIAPICAL DISORDERS

In this section students are taught about the Etiology Clinical Types, Role of Plaque, Carbohydrates , Enamel Caries , Dentine Caries , Cementum Caries

SECTION XI:

IMMUNE-MEDIATED DISORDERS:

In this section students are taught about different immune mediated disorders e.g. Pemphigus vulgaris, Mucous membrane pemphigoid, Epidermolysis bullosa etc.

SECTION XII:

DEVELOPMENTAL DISTURBANCES OF THE ORAL REGION

By the end of this section, candidates will be able to Understanding basic classifications and types of developmental anomalies Understanding the congenital defects related to disturbances in development of oral structures like lips, teeth, palate (hard and soft), tongue, Understanding the developmental defects of oral cavity present in different types of syndromes related to genetic defects in chromosomes

Table of specification for teaching, learning objectives and assessment

At the end of the year students will be able to know:

TOPICS AND OBJECTIVES	FACULTY	Learning Domain (CPA)	LEARNING STRATEGY	ASSESSMENT				
				Clinical	viva	OSPE	NUMS MCQs	NUMS SEQs
Operative Dentistry								
1. WHITE LESIONS						X	4	1
<ul style="list-style-type: none"> Enlist Candidiasis in Dentistry 	Dr. Faiqua Yasser	C	Interactive lecture/small group discussion					
<ul style="list-style-type: none"> Explain the clinical and histopathological features of Leukodema, White Sponge Nevus Tobacco Pouch Keratosis Nicotine Stomatitis, Actinic Cheilitis 		C	Interactive lecture/small group discussion					
<ul style="list-style-type: none"> Describe the clinical and histopathological features of Submucous Fibrosis, Hairy Leukoplakia, Hairy Tongue, Geographic Tongue 		C	Interactive lecture/small group discussion					
<ul style="list-style-type: none"> Discuss Dysplasia in detail (mild, moderate, severe, ca-in-situ) 		C	Interactive lecture/small group discussion					
<ul style="list-style-type: none"> Overview of Lichen Planus, Leukoplakia, Speckled Leukoplakia, 		C	Interactive lecture/small practical					

PVL, Erythroplakia (red lesion)								
<ul style="list-style-type: none"> Enlist the recommended guidelines for sterilization of dental operatories and dental instruments 		C	Interactive lecture					
2.EPITHELIAL PATH						X	4	1
<ul style="list-style-type: none"> Understand basic classification and types of oral epithelial lesions 		C	Interactive lecture/case-based discussion					
<ul style="list-style-type: none"> Describe clinical presentation of epithelial lesions 		C	Interactive lecture/small group discussion					
<ul style="list-style-type: none"> Diagnosis of epithelial lesions by correlating clinical and microscopic features of the following diseases: <ul style="list-style-type: none"> Squamous Cell Carcinoma (definition, risk factors, pathogenesis) SCC Clinical Presentation, TNM Classification SCC Histopathological Grading, treatment, prognosis Variants of SCC (Verrucous, spindle, basaloid, adenoid, adenosquamous, nasopharyngeal) Squamous papilloma Keratoacanthoma Smokers melanosis Melanoma (ABCD,clinical types only) 	Dr. Faiqua Yasser	C	Interactive lecture/case-based discussion					

2. INFECTIONS						X	8	1
<ul style="list-style-type: none"> • Discuss Different Viral Infections: • Herpes simplex virus • Varicella Zoster virus • Epstein- barr virus • Cytomegalovirus • Human Herpesvirus 8 • Human papilloma viruses • <input type="checkbox"/> Retrovirus (HIV) 	Dr. Komal Nawaz	C	Interactive lecture/practical				3	
<ul style="list-style-type: none"> • Discuss Different Bacterial infections and Granulomatous disorders • Noma • Tuberculosis • Syphilis • Actinomycosis 	Dr. Alveena Nawaz	C	Interactive lecture/case-based discussion				3	
<ul style="list-style-type: none"> • Discuss Different Fungal Infections • SUPERFACIAL FUNGAL INFECTIONS e.g Candidiasis • DEEP FUNGAL INFECTIONS e.g Histoplasmosis, Paracoccidioidomycosis, Blastomycosis, Aspergillosis 	Dr. Yousma Javed	C	Interactive lecture				2	
3. BONE PATHOLOGY						X	3	1
<ul style="list-style-type: none"> • Distinguish different diseases and diagnose them using clinical, radiographic & microscopic correlation. 1. Fibrous dysplasia 2. Cemento osseous dysplasia 3. Ossifying Fibroma 	Dr. Faiqua Yasser	C	Interactive lecture/small group discussion					

<p>4. Paget's disease</p> <p>5. Hyperparathyroidism</p> <p>6. Osteopetrosis</p> <p>7. Osteogenesis imperfecta</p> <p>8. Cherubism</p> <p>9. Cleidocranial dysplasia</p> <p>10. BENIGN TUMOURS:</p> <ul style="list-style-type: none"> • Tori • Osteblastoma and osteoid osteoma • Giant cell lesions <p>11. MALIGNANT TUMOURS:</p> <ul style="list-style-type: none"> • Osteogenic sarcoma • Chondrosarcoma • Ewing's sarcoma 								
4. CONNECTIVE TISSUE LESIONS						X	3	
<ul style="list-style-type: none"> • Understand basic classification and types of oral connective tissue lesions 	Dr. Faiqua Yasser	C	Interactive lecture/case-based discussion					
<ul style="list-style-type: none"> • Describe clinical presentation of connective tissue lesions 		C	Interactive lecture/case-based discussion					
<ul style="list-style-type: none"> • Diagnosis of these lesions by correlating clinical and microscopic features of the following diseases: • 1- Fibrous tissue lesions • 2- Neural tissue neoplasms • 3- Muscle tissue neoplasms 		C	Interactive lecture/practical					

<ul style="list-style-type: none"> Diagnose cysts using clinical, radiographic & microscopic evaluation. ODONTOGENIC CYSTS: <ol style="list-style-type: none"> Periapical cysts Dentigerous cysts Eruption cysts Paradental cysts Lateral periodontal cysts Gingival cysts of adult & newborn Glandular odontogenic cyst NON OONTOGENIC CYSTS: <ol style="list-style-type: none"> Nasopalatine duct cysts Nasolabial cysts Globulomaxillary cyst Median palatal cyst Median mandibular cyst Palatal cysts of newborn Dermoid cyst Epidermoid cyst 	Dr. Faiqua Yasser	C	Interactive lecture/case-based discussion				2	2
7. OONTOGENIC TUMOURS:					X	2	1	
<ul style="list-style-type: none"> Diagnose odontogenic tumours using clinical, radiographic & microscopic evaluation. EPITHELIAL OONTOGENIC TUMORS: <ol style="list-style-type: none"> Ameloblastoma Keratocystic odontogenic tumour 	Dr. Faiqua Yasser	C	Interactive lecture/case-based discussion					

<p>3. Calcifying epithelial odontogenic tumour</p> <p>4. Adenomatoid odontogenic tumor</p> <p>5. Squamous odontogenic tumour</p> <ul style="list-style-type: none"> ● CONNECTIVE TISSUE ODONTOGENIC TUMOURS <p>1. Odontogenic fibroma</p> <p>2. Odontogenic myxoma</p> <p>3. Cementoblastoma</p> <p>4. Ameloblastic fibroma fibro odontoma</p> <p>5. Odontogenic carcinoma</p> <p>6. Primary intra osseous carcinoma</p>								
8. SALIVARY GLAND PATHOLOGY					X	3	1	
<ul style="list-style-type: none"> ● Understand basic classification of salivary gland pathology 	Dr. Faiqua Yasser	C	Interactive lecture/practical					
<ul style="list-style-type: none"> ● Describe clinical presentation of salivary gland lesions <p>1. Reactive Lesions (mucocele, mucous retention cyst, sialolithiasis, necrotizing sialometaplasia)</p> <p>2. Infections (bacterial sialadenitis)</p> <p>3. Immune-mediated diseases (lymphoepithelial sialadenitis, Sjogren syndrome)</p>		C	Interactive lecture/practical					

4. Benign tumours (pleomorphic adenoma, warthin tumour, monomorphic adenoma) 5. Malignant tumours (mucoepidermoid carcinoma, adenoid cystic carcinoma, acinic cell carcinoma, polymorphous low-grade adenocarcinoma)								
9. DENTAL CARIES AND PERIAPICAL DISORDER						X	3	
<ul style="list-style-type: none"> DENTAL CARIES: <ol style="list-style-type: none"> 1 Aetiology 2 Clinical Types 3 Role of Plaque, Carbohydrates 4 Enamel Caries 5 Dentine Caries 6 Cementum Caries PERIAPICAL PATHOLOGY: <ol style="list-style-type: none"> 1. Acute and chronic periodontitis 2. Chronic apical periodontitis 3. Periapical abscess 4. Periapical granuloma 5. Acute and chronic osteomyelitis 6. Cellulitis 	Dr. Bismah Ahmad Dr. Bismah Ahmad	C	Interactive lecture/case-based discussion					
10. IMMUNE-MEDIATED DISORDERS						X	3	1
<ul style="list-style-type: none"> Describe <ol style="list-style-type: none"> 1. Pemphigus vulgaris 2 Mucous membrane pemphigoid 3 Epidermolysis bullosa 	Dr. Faiqua Yasser	C	Interactive lecture					

4 Erythema Multiforme 5 Lichenoid Reactions								
11. DEVELOPMENTAL DISTURBANCES OF ORAL LESIONS						X	1	
<ul style="list-style-type: none"> Understand basic classifications and types of developmental anomalies 	Dr. Faiqua Yasser	C	Interactive lecture/practical					
<ul style="list-style-type: none"> Understand the congenital defects related to disturbances in development of oral structures like lips, teeth, palate (hard and soft), tongue 		C	Interactive lecture/practical					
<ul style="list-style-type: none"> Understand the developmental defects of oral cavity present in different types of syndromes related to genetic defects in chromosomes 	Dr. Faiqua Yasser	C	Interactive lecture/case-based discussion					
<ul style="list-style-type: none"> Developmental disturbances of oral region are discussed under three broad categories 1- Developmental disturbances in Teeth 2- Developmental disturbances in soft tissue 3- Developmental disturbances in bone 		C	Interactive lecture/small group discussion					

LEARNING RESOURCES

Topics	Resources
Oral Pathology	
WHITE LESIONS	Contemporary oral and maxillofacial pathology.
EPITHELIAL PATHOLOGY	Contemporary oral and maxillofacial pathology
DENTAL CARIES	Contemporary oral and maxillofacial pathology
DEVELOPMENTAL DISTURBANCES OF THE ORAL REGION	Contemporary oral and maxillofacial pathology
PERIAPICAL DISORDERS	Contemporary oral and maxillofacial pathology
IMMUNE-MEDIATED DISORDERS	Cawson's essentials of oral pathology and oral medicine.
SALIVARY GLAND PATHOLOGY	Contemporary oral and maxillofacial pathology
VIRAL INFECTIONS	<ol style="list-style-type: none"> 1. Contemporary oral and maxillofacial pathology 2. Cawson's essentials of oral pathology and oral medicine 3. Neville Oral and maxillofacial pathology
FUNGAL INFECTIONS	Contemporary oral and maxillofacial pathology
BACTERIAL INFECTIONS + GRANULOMATOUS DISEASES	Oral and Maxillofacial Pathology 6th Edition Clinical Pathologic Correlations Authors: Joseph Regezi ,James Sciubba ,Richard Jordan
ODONTOGENIC TUMOURS	<ol style="list-style-type: none"> 1. Contemporary oral and maxillofacial pathology 2. Cawson's essentials of oral pathology and oral medicine
ODONTOGENIC CYSTS	<ol style="list-style-type: none"> 1. Contemporary oral and maxillofacial pathology 2. Cawson's essentials of oral pathology and oral medicine
Non-ODONTOGENIC CYSTS	Contemporary oral and maxillofacial pathology

BONE PATHOLOGY	Neville Oral and maxillofacial pathology
CONNECTIVE TISSUE LESIONS	Neville Oral and maxillofacial pathology
HAEMATOLOGICAL	Contemporary oral and maxillofacial pathology
MALIGNANCIES (Lymphomas)	Contemporary oral and maxillofacial pathology

OTHER LEARNING RESOURCES

<u>Hands- on Activities / Practical</u>	Students will be involved in Practical sessions and hands-on activities that link with the blood module to enhance the learning
<u>Labs</u>	Utilizing the lab provides the simulated learning to the specimens and models available.
<u>Skills Lab</u>	A skills lab provides the simulated learning experience to learn the basic skills and procedures. This helps patients
<u>Computer Lab/CSs/DVDs/ Internet Resources:</u>	To increase their knowledge, students should utilize the available internet resources and CDs/ DVDs. This will be an additional advantage to increase learning.

SUMMATIVE ASSESSMENT METHODS AND POLICIES

Internal Assessment

- Weightage of internal assessment shall be 20 %, each for theory and practical, in BDS Professional Examination.
- The Internal Assessment shall comprise of monthly test / assignments / class presentation / send-ups /class tests / OSPE etc.
- The Internal Assessment record shall be kept in the respective department of the College / Institute and after approval of the Principal, a summary as per University registration number shall be furnished to the Controller of Examinations, at least two weeks before the commencement of final examination.
- The result of all the class tests / tools which contribute towards IA will be displayed to the students during an academic year.

- e. The same internal assessment shall be counted both for annual and supplementary examinations. The students who are relegated, however, can improve the internal assessment during subsequent year
- f. Internal assessment tools of any subject may be changed after the approval of respective FBS

Annual Examination

- a. The weightage of Annual Examination shall be 80%, each for theory and practical, in BDS.
- b. The examination comprises a theory paper and practical/clinical examinations as per PMC regulations and the Table of Specifications (TOS) of the University.
- c. The gap between two consecutive theory papers shall not be more than two days.
- d. The Theory Paper shall be of 3-hours duration, held under the arrangements of the university. It shall have two parts; MCQs and SEQs for the year 2022. It may be changed after the approval of the Academic Council.
- e. Allocated time for MCQ's for 2022 shall be as under:

45 MCQ's -50 minutes

- f. Each MCQ shall have three distractors and one key

- **Internal Examiner**

He/she shall be Professor and Head of Department who has been involved in teaching of the class being examined for at least six months and has delivered 50% of the total lectures. Second preference shall be Associate/Assistant Professor who is involved in teaching of the class and posted there for one year. Third preference shall be a recognized Professor of the subject.

- **External Examiner**

He/she shall be a Professor/Associate Professor of a recognized Medical/Dental College or at least an Assistant Professor with three years teaching experience in the relevant subject.

- **Conflict of Interest**

No person shall serve as an examiner whose close relative (wife, husband, son, daughter, adopted son, adopted daughter, grand-son, grand-daughter, brother, sister, niece /nephew, son and daughter- in-law brother and sister- in-law, parental and maternal uncle and aunt etc) is appearing in the examination. All examiners likely to serve as an examiner shall render a certificate in compliance to this para.

- **Paper Setting**

- a. Each College / Institute shall forward a set of two question papers as per TOS along with the key for each subject to the Controller of Examinations, at least three months in advance of the annual examination. The question paper as a whole / a question without a comprehensive key shall not be considered towards the final paper setting.
- b. The set of question papers shall be prepared by the respective Head of Department (HOD) and furnished to Controller of Examinations through Head of Institution (HOI)
- c. The Controller of Examinations shall approve the faculty for the final paper setting having fair representation of each college / institute

- **Paper Assessment**

- a. The Controller of Examinations shall approve the faculty for the theory paper marking, to be undertaken in the manner as deemed appropriate.
- b. The Examination Directorate shall coordinate directly with the faculty, earmarked for the paper marking
- c. A student who scores 85% and above marks in any subject shall qualify for distinction in that particular subject.
- d. A fraction in aggregate marks of a subject shall be rounded off to the whole number. If it is less than 0.5 then it will be rounded off to the previous whole number while 0.5 or more will be rounded off to the next whole number.

- **Practical Examinations**

- a. The Controller of Examiners shall approve the faculty to serve as the internal & external examiners.
- b. The number of external and internal examiners shall be equal.
- c. One external & internal examiner each shall be marked for a group of 100 students.
- d. Candidates may be divided into groups practical examinations and be standardized by incorporating OSPE stations.
- e. Practical examination shall be held after the theory examination of the subject but in special cases, it may be held before the theory examination with the approval of the Controller of Examinations. For the purpose of practical/clinical examination, the candidates may be divided into sub groups by the examiners.
- f. The assessment of the practical examination duly signed by internal & external examiner shall be furnished to the Controller of Examinations within one week of the conclusion of examination.

- **Pass Marks**

- a. Pass marks for all subjects shall be 50 % in theory and practical, separately.
- b. No grace marks shall be allowed to any student in any examination.

- **Declaration of Result**

Every effort shall be made to declare the result of each examination within one month of the last practical examination or earlier.

- **Promotion**

No student shall be promoted to the higher classes unless he/she passes all the subjects of the previous class

- **Re-totaling**

Any student may apply to the Controller of Examinations on a prescribed form along with the specified fee.

- **Supplementary Examination**

The interval between a supplementary examination and the previous professional examination shall not be more than two months. There shall be no special supplementary examination.

- **Academic Audit**

The Vice Chancellor may get any academic matter deliberated in the manner as deemed appropriate.

- **Issue of Academic Transcript/Detailed Marks Sheet**

A student desirous of obtaining Academic Transcript / Detailed Mark Sheet may apply to Controller of Examinations along with the prescribed fee for each original copy.

- **Withdrawal/Failure**

Any student who fails to clear the first Professional in BDS first in four chances, availed or un-availed, shall be expelled as per PMC policy and shall not be eligible for fresh admission as a fresh candidate in either BDS.

Third Professional BDS Examination (2022)

Oral Pathology

Time Allowed =03 hrs. (Including MCQs)

Marks of theory paper = 90

Internal assessment =10

Total marks =100

Pass Marks =50

45 x MCQs (45 Marks) Time = 50 min

Q. No. 1,2,3,4,5,6,7,8,9

3 x SAQs/SEQs (Recall) = 05 marks each

6 x SAQs/SEQs (Application) = 05 marks each

Total Marks = 45 Marks Time = 2 hours & 10 min

S.No	To pic	NUMBER OF MCQs (45) Recall : 18 Application : 27 1 mark each	NUMBER OF SAQs/SEQs (09) 05 marks each
1	WHITE LESIONS	04	
2	EPITHELIAL PATHOLOGY	04	01
3	DENTAL CARIES	04	
4	DEVELOPMENTAL DISTURBANCES of the ORAL REGION	04	01
5	PERIAPICAL DISORDERS	04	01
6	IMMUNE-MEDIATED DISORDERS	04	
7	SALIVARY GLAND PATHOLOGY	04	01
8	VIRAL INFECTIONS	01	01
9	FUNGAL INFECTIONS	02	
10	BACTERIAL INFECTIONS + GRANULOMATOUS DISEASES	04	
11	ODONTOGENIC TUMOURS	01	01
12	ODONTOGENIC CYSTS	01	01
13	Non-ODONTOGENIC CYSTS	01	
14	BONE PATHOLOGY	01	01
15	CONNECTIVE TISSUE LESIONS	04	
16	HAEMATOLOGICAL MALIGNANCIES (Lymphomas)	02	01
	Total	45 (45 Marks)	09 (45 Marks)

A. Internal Assessment Calculation (Theory Annual)

A	B	C	D
Roll No.	Name	All Modules/ Pre annual Exams or any other exam	Total Marks of internal Assessment out of 10
Total Marks		Sum of Marks obtained x 10 / sum of total marks in all exams	

B. Table of specifications for Annual Professional Exam: Practical

VIVA 50 marks		Practical (OSPE + Draw and label Task) 40 marks		Total
Examiner 1	Examiner 2	OSPE	Practical Notebook	
25 Marks	25 Marks	30 Marks	10 Marks	90 Marks

C. Internal Assessment Calculation (Practical)

A	B	C	D
Roll No.	Name	OSPE/ PTT/ Class tests though out the year/ Pre annual Exams or any other exam	Total Marks of internal assessment Out of 10
Total Marks		Sum of Marks obtained x 10 / sum of total marks in all exams	

Sample MCQs and SEQs

Multiple Choice Question (MCQs)

- A multiple choice question (MCQ) consists of a stem that states the question or problem followed by a set of possible answers that contain an option that is the best answer to the question.
- After reading the questions students should select the appropriate option from the given possible answers.
- The correct answer carries one mark and incorrect carries zero. There is no negative marking.

Sample MCQ

A cyst occurring under the tongue, caused by obstruction of salivary gland duct, is called as:

- a) Follicular cyst
- b) Dentigerous Cyst
- c) Ranula
- d) Epidermoid cyst

Key: c

Short essay question (SEQs)

- Short essay questions require students to present written answers that are used to assess basic knowledge of key facts and provide students with an opportunity to demonstrate reasoning and explain their understanding of the subject.

Sample SEQ

Q. A 12 years of boy presented with painless, bilateral symmetrical expansion of mandible, apparent upward tilt of eyes with cervical lymphadenopathy.

- a) What is your diagnosis? (1)
- b) Give probable histopathological and radiographic features of your diagnosis? (1)
- c) Give D/D of other Giant Cell Lesions in the oral cavity? (3)

Key:

a) Cherubism

b) Histopathological features:

The tissue contains some areas in which cellular fibrous connective tissue predominates and other areas are dominated by immature metaplastic bone with a woven pattern. There is blending of lesional tissue with surrounding normal bone and cortical plates. Multinucleated osteoclast-like giant cells in bone and within soft fibrous stroma.

Radiographic Features:

The radiologic findings of cherubism are characterized by bilateral relatively symmetric jaw involvement that is limited to the maxilla and mandible, showing expansile remodeling of the involved bones, thinning of the cortexes, and mixed radiopaque and radiolucent “ cotton ball” pattern with a coarse trabecular pattern.

c) D/D for Giant cell lesions:

- 1) Central giant cell granuloma
- 2) Peripheral Giant cell Granuloma
- 3) Cherubism
- 4) Aneurysmal bone cyst
- 5) “ Brown tumor” of hyperparathyroidism