

JINNAH MEDICAL AND DENTAL COLLEGE

ORAL PATHOLOGY DEPARTMENTAL GUIDE BOOK FOR THIRD YEAR STUDENTS

Prepared by

**Dr. Shumaila Younus
B.D.S, M.Phil.
Assistant Professor
Department of Oral Pathology**



ACKNOWLEDGEMENTS

I would like to express my special thanks to my Head of the Department of Oral Pathology as well as our Principal of the the Dental College, JMDC Professor Dr. Muhammad Junaid Lakhani who was always willing to help and give his valuable suggestions in making this study guide. I would also like to express my deepest thanks to the Vice Principal, JMDC, Head of Department of Operative Dentistry and Endodontics, and Chairperson of the Dental Curriculum Committee, Professor Dr. Marium Iqbal who guided me and answered my queries regarding this study guide. My thanks also goes to Dr. Anum Arshad, demonstrator in Oral Pathology Department, for her support.

TABLE OF CONTENTS

INTRODUCTION	4
Vision.....	4
Mission Statement.....	4
Program Objectives.....	4
Program Learning Outcomes*	4
Values For Our Dental Graduates.....	5
INTRODUCTION TO DEPARTMENT OF ORAL PATHOLOGY:.....	5
DEPARTMENT HIERARCHY:	6
DEPARTMENT TO STUDENT COMMUNICATION:	6
LEARNING OUTCOMES FOR A THIRD YEAR STUDENT:	7
STRATEGIES FOR LEARNING AND TEACHING:	8
ASSESSMENT TOOLS TO EVALUATE STUDENT LEARNING:	9
COURSE CONTENT TAUGHT IN THIRD YEAR:	10
ORAL PATHOLOGY TUTORIALS SESSIONS.....	31
ORAL PATHOLOGY TUTORIALS WEEK SCHEDULE.....	32
DEPARTMENTAL RESOURCE BOOKS	34

INTRODUCTION

Vision

To set local and global standards for quality patient outcomes – creating a culture of excellence to promote a transformative experience for the 21st century clinicians, educators and researchers to benefit all humanity.

Mission Statement

We are committed to develop well rounded academics, thinkers, clinicians and researchers by strengthening a global view, broadening intellectual foundation and teaching effective communication. It is our aspiration to cultivate creative and critical thinking skills for problem solving, sensitive to cultural and ethical values and responsibilities. Our graduates will be role models and leaders for society.

Program Objectives

JMDC's program curriculum conforms to the regulations and recommendations of the Pakistan Medical & Dental Council and is designed to integrate academic knowledge and clinical experience which emphasize the following goals:

- Help students acquire relevant knowledge
- Develop student communication skills, both oral and written
- Promote team work
- Instill compassion and empathy
- Uphold Professionalism

Program Learning Outcomes*

(7 Star Doctor – PMDC)

Our Medical & Dental Graduate shall be able to:

- Develop insight, imagination and curiosity, define one's unique self, one's values and one's place in the world, while incorporating the qualities of a good physician
- Answer complex questions facing physicians, including the role they should play in society, politics, and promotion of social justice.
- Display enlightenment and moral virtues to prepare themselves for life and work in a problematic, changing and diverse world.
- Be responsible leaders for their own good and for the good of their family, community and country.
- Be humane and socially equipped individuals, in tune with rights of patients and vulnerable groups
- Develop moral reasoning for ethical dilemmas
- Be experts of critical situational analysis
- Believe in diversity in practice
- Display effective communication
- Be able to address population health and health system issues on the basis of demography, by statistics, epidemiology and cultural nuances.

Values For Our Dental Graduates

- Equity
- Quality
- Compassionate Behavior
- Social Accountability
- Social Justice
- Humanistic Approach
- Leadership
- Innovation
- Integrity
- Collaboration

INTRODUCTION TO DEPARTMENT OF ORAL PATHOLOGY:

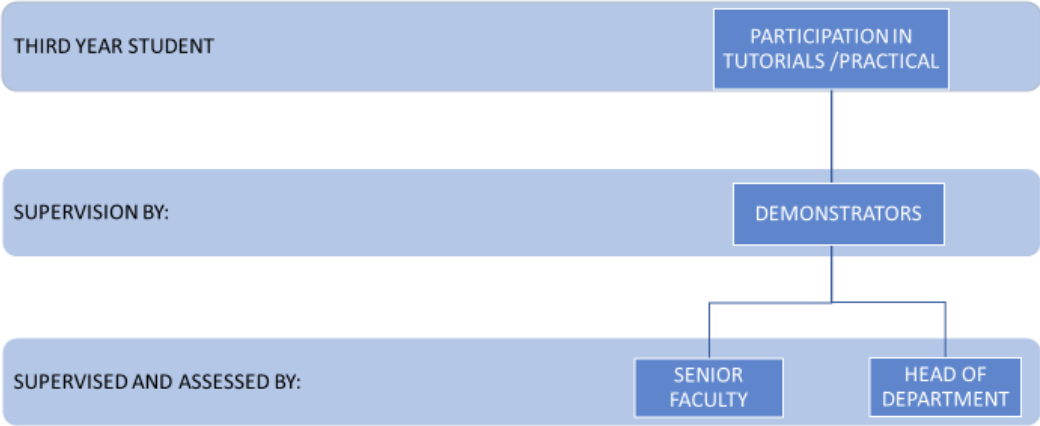
Oral Pathology is one of the basic science subject in dentistry concerned with the scientific study of etiology, pathogenesis, histopathological changes and effects of oral disease, an understanding of which is essential for diagnosis and for the development of rational treatment and preventive programmes. Oral Pathology is defined by the American Dental Association (ADA) is the specialty of dentistry and discipline of pathology that deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions. It is a science that investigates the causes, processes, and effects of these diseases. The practice of oral pathology includes research and diagnosis of diseases using clinical, radiographic, microscopic, biochemical, or other examinations.

In a 4-year Bachelors of Dental Surgery (BDS) programme, oral pathology subject is taught in year 3. Oral Pathology is taught theoretical as well as practical. The discipline of Oral Pathology links the training in basic sciences with its applications in clinical dentistry.

DEPARTMENT HIERARCHY:



DEPARTMENT TO STUDENT COMMUNICATION:



LEARNING OUTCOMES FOR A THIRD YEAR STUDENT:

By the end of lectures and tutorials in oral pathology, the student should be able to:

1. Brief the pathologies of oral cavity
2. Categorize various lesions of oral cavity and head and neck region
3. Describe the etiology, pathogenesis and histological features of various diseases of the oral cavity and head & neck region
4. Identify the characteristics of pathologies on clinical basis and microscope as well
5. Differentiate features of neoplastic and non-neoplastic lesions of head and neck region
6. Create the critical connection between various oral pathologies and multiple systemic diseases and therefore efficiently address both diagnosis and treatment of oral lesions
7. Demonstrate treatment guidelines and make out proper frame of reference/consult

STRATEGIES FOR LEARNING AND TEACHING:

1. Interactive Lectures (teaching large group):

The interactive lectures strategy is adapted, it comprises of lecture having duration of 50 minutes twice a week for third year. To keep a check of assessment of student learning through lectures following techniques are utilized;

- a. Quizzes.
- b. Interactive sessions.
- c. Student engagement to stimulate critical thinking.
- d. Activities for better understanding of topics.

2. Tutorials learning:

In tutorial sessions the tutor teaches a topic through lecture and pictures. Student's recognize the pattern of multiple oral pathologies on multimedia for better understanding of the subject. They are required to maintain log book and also answer the questions given in their log book

3. Self-Preparatory Material:

To complement the lectures, students are provided with videos, relatable book chapters and materials for better understanding. Along with these assignments, presentations and group activities are conducted.

4. E-Learning:

In the current times of pandemic COVID-19, distance learning has been incorporated in the strategies of learning and teaching.

In these challenging times an easy access has been provided to the students through E-portal. Each student has the access to the portal through their individual Ids, on which they can go through the recorded lectures and material whenever they want.

ASSESSMENT TOOLS TO EVALUATE STUDENT LEARNING:

1. In-Class Assessment:

- a. Attendance.
- b. Quizzes.
- c. Presentations.
- d. Assignments.

2. Practical Assessment:

A test is conducted in mid and end of academic session to assess the learning of students. It is to ensure that the students develop the required proficiencies under a supervised environment.

3. Summative Examination Assessment:

a. Mid Term examinations:

These are conducted in the mid of the academic year. It comprises of two components;

Component	Marks
BCQs	100
OSPE	50
VIVA	50
TOTAL	200

b. Pre-Professional examinations:

These are conducted in the end of the academic year before the final professional examination. It comprises of two components;

Component	Marks
BCQs	100
OSPE	50
VIVA	50
TOTAL	200

c. Professional Examinations:

At the end of the academic year, JSMU conducts this examination that will promote the students to the final year

d. Internal Evaluation:

Component	Marks distribution (%)
Assignment/Class Test/Assignment Test	25
Mid-Term	35
Pre-Prof	35
Extra Efforts/ Practical Log book	5
Total	100%

COURSE CONTENT TAUGHT IN THIRD YEAR:

Following course content is covered over a period

COURSE CODE: 3.3

ALLOCATION OF CREDIT HOURS: 50 lecture hours; 100 tutorials hours

ABNORMALITIES OF TEETH			
TOPICS	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Disturbance in number (Hypodontia, Hyperdontia, Anodontia) and size (Macrodonia, Microdonia) of teeth	<ol style="list-style-type: none"> 1. Describe the etiology, clinical and radiographic features (if any) associated with the developmental disturbance in number and size of teeth 2. Discuss the syndromes associated with disturbance in number and size of teeth 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorials/ practical 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE
Disturbance in form (Gemination, Fusion, Concrescence, Dilaceration Taurodontism) of teeth	<ol style="list-style-type: none"> 1. Describe the etiology, clinical and radiographic features and syndromes (if any) associated with the disturbance in form of teeth 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorial 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE
Disturbance in structure of teeth	<ol style="list-style-type: none"> 1. Enlist the etiology of developmental abnormalities of enamel and dentine 2. Describe the causes and clinical features of enamel hypoplasia and hypomineralized enamel 3. Describe enamel opacities, dental fluorosis, chronological hypoplasia, congenital syphilis related to developmental abnormalities of enamel 4. Discuss the following: <ul style="list-style-type: none"> • Causes, types and clinical features of amelogenesis imperfecta • Causes, types, clinical presentation, radiographic presentation and 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorial 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE

	<p>histopathological features of dentinogenesis imperfecta</p> <ul style="list-style-type: none"> • Causes, types and clinical features of dentinal dysplasia • Causes, types and clinical features of hypercementosis and hypocementosis • Causes, types and clinical features of regional odontodysplasia 		
--	--	--	--

DENTAL CARIES			
TOPICS	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Etiology of dental caries	<ol style="list-style-type: none"> 1. Discuss the following: <ul style="list-style-type: none"> • Role of dental plaque in dental caries • Role of microorganisms in dental caries • Role of carbohydrates in dental caries • Other etiological variables in development of caries 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorials 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE
Classification of dental Caries	<ol style="list-style-type: none"> 1. Classify dental caries according to: <ul style="list-style-type: none"> • Site of attack • Rate of attack 		
Enamel and dentine caries	<ol style="list-style-type: none"> 1. Define enamel and dentine caries 2. Explain various zones of enamel and dentine caries 3. Explain clinical features of enamel and dentine caries 4. Discuss immunological aspects of dental caries 		

Root caries	<ol style="list-style-type: none"> Discuss the following: <ul style="list-style-type: none"> Etiology Microorganisms involved in root caries Clinical and radiographic features 		1. BCQS
-------------	--	--	---------

DISORDERS OF TEETH			
TOPICS	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Disorders of eruption and shedding of teeth	<ol style="list-style-type: none"> Enlist and describe the features associated with disorders of eruption and shedding of teeth 	1. Lectures	1. BCQS
Attrition	<ol style="list-style-type: none"> Definition Describe etiology and clinical manifestation of attrition 	<ol style="list-style-type: none"> Lectures Tutorials 	<ol style="list-style-type: none"> BCQS OSPE
Abrasion	<ol style="list-style-type: none"> Definition Describe etiology and clinical manifestations of abrasion 		
Erosion	<ol style="list-style-type: none"> Definition Describe etiology and clinical manifestations of erosion 		
Resorption	<ol style="list-style-type: none"> Describe the etiology and clinical features of resorption Explain types of resorption 		
Discoloration of teeth	<ol style="list-style-type: none"> Discuss in detail the internal and external factors responsible for discoloration of teeth 		
Transplantation and Reimplantation	<ol style="list-style-type: none"> Describe transplantation and reimplantation of teeth 	1. Lectures	1. BCQS
Root fracture	<ol style="list-style-type: none"> Discuss factors occurring in root fracture Discuss the healing pattern 		
Age changes in teeth	<ol style="list-style-type: none"> Describe about the age changes occurring in enamel, dentine and cementum 		

PULPAL AND PERIAPICAL DISEASES			
TOPICS	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Pulpitis	<ol style="list-style-type: none"> 1. Describe etiology, types, clinical and radiological features of pulpitis 2. Explain histopathology of pulpitis 3. Explain healing of pulp, pulp calcification, pulp necrosis and age changes occur in pulp 	1. Lectures	1. BCQS
Chronic Hyperplastic Pulpitis	<ol style="list-style-type: none"> 1. Describe clinical and histopathological features of chronic hyperplastic pulpitis 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorials 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE
Periapical Periodontitis	<ol style="list-style-type: none"> 1. Describe the aetiological factors leading to acute and chronic periapical lesions 2. Differentiate and explain clinical features, radiological and histological features of acute and chronic periapical periodontitis 3. Explain the sequelae of pulp infection 		
Spread of infection	<ol style="list-style-type: none"> 1. Describe the spread of infection of following oral infections: <ul style="list-style-type: none"> • Periapical abscess • Periapical granuloma and cyst • Cellulitis and Ludwig's angina • Acute and chronic periapical periodontitis 2. Discuss various routes of spread of infections associated with each other in oral cavity 		
Cellulitis and Ludwig's angina	<ol style="list-style-type: none"> 1. Discuss pathogenesis, clinical and diagnostic features 2. Differentiate between cellulitis and Ludwig's angina 3. Discuss complications of cellulitis 		

CYST OF THE JAWS AND SOFT TISSUES			
TOPICS	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Cysts	<ol style="list-style-type: none"> 1. Define cyst 2. Classify cyst of the jaws 3. Discuss incidence of cyst of jaws 4. Define and discuss the origin of odontogenic and non-odontogenic cysts of jaws 	1. Lectures	1. BCQS
Epithelial Odontogenic cysts			
Radicular cysts	<ol style="list-style-type: none"> 1. Describe clinical, radiographic and histopathological features of radicular cysts 2. Explain the pathogenesis of cyst formation 3. Create differential diagnosis 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorial 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE
Dentigerous and Eruption cyst	<ol style="list-style-type: none"> 1. Describe clinical, radiographic and histopathological features of dentigerous and eruption cyst 2. Explain the pathogenesis of cyst formation 3. Create differential diagnosis 		
Odontogenic Keratocyst	<ol style="list-style-type: none"> 1. Describe clinical, radiographic and histopathological features of odontogenic keratocyst 2. Explain the pathogenesis of cyst formation 3. Know the syndromes associated with odontogenic keratocyst 4. Create differential diagnosis 		
Gingival cyst	<ol style="list-style-type: none"> 1. Describe the clinical, radiographic and histopathological features of gingival cysts 2. Discuss the origin of cyst 3. Create differential diagnosis 		
Developmental Lateral Periodontal cyst	<ol style="list-style-type: none"> 1. Describe clinical, radiographic and histopathological features of 		

	<p>developmental lateral periodontal cysts</p> <ol style="list-style-type: none"> 2. Explain the etiopathogenesis of cyst formation 3. Discuss about botryoid odontogenic cyst 4. Create differential diagnosis 		
Glandular cysts	<ol style="list-style-type: none"> 1. Describe the clinical, radiographic and histopathological features of glandular cysts 2. Explain the pathogenesis of cyst formation 3. Create differential diagnosis 		
Paradental cysts	<ol style="list-style-type: none"> 1. Describe the clinical, radiographic and histopathological features of paradental cysts 2. Explain the pathogenesis of cyst formation 3. Create differential diagnosis 		
Epithelial Non- Odontogenic cysts			
Nasopalatine cyst	<ol style="list-style-type: none"> 1. Describe the origin, clinical, radiographic and histopathological features of nasopalatine cyst 2. Create differential diagnosis 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorial 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE
Nasolabial cyst	<ol style="list-style-type: none"> 1. Describe aetiology, clinical, radiographic and histopathological features of nasolabial cyst 2. Create differential diagnosis 		
Median cyst	<ol style="list-style-type: none"> 1. Describe clinical features of median cyst 2. Create differential diagnosis 	1. Lectures	1. BCQS
Globulomaxillary cyst	<ol style="list-style-type: none"> 1. Describe the origin, clinical, radiographic and histopathological features of Globulomaxillary cyst 2. Create differential diagnosis 		
Non-epithelialized primary bone cysts			
Aneurysmal Bone cyst	<ol style="list-style-type: none"> 1. Describe clinical features, radiological and histopathological features of aneurysmal bone cyst 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorials 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE

	<ol style="list-style-type: none"> 2. Explain the pathogenesis of cyst formation 3. Create differential diagnosis 		
Solitary Bone Cyst	<ol style="list-style-type: none"> 1. Describe clinical, radiographic and histopathological features of solitary bone cyst 2. Explain the pathogenesis of cyst formation 3. Create differential diagnosis 		
Stafne's idiopathic bony cavity	<ol style="list-style-type: none"> 1. Describe clinical, radiographic features of Stafne's bony cavity 2. Create differential diagnosis 		
Cyst of soft tissues			
Salivary mucoceles	<ol style="list-style-type: none"> 1. Define mucocele 2. To describe the clinical and histological differences between retention and extravasation Mucocele 3. Describe etiology, clinical and histological features of ranula 4. Create differential diagnosis 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorials 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE
Dermoid and epidermoid cysts	<ol style="list-style-type: none"> 1. Describe etiology, pathogenesis and clinical features 2. Explain histopathology of dermoid and epidermoid cysts 3. Create differential diagnosis 	<ol style="list-style-type: none"> 1. Lectures 	<ol style="list-style-type: none"> 1. BCQS
Lymphoepithelial cyst	<ol style="list-style-type: none"> 1. Describe origin, pathogenesis, clinical and histological features of lymphoepithelial cyst 2. Create differential diagnosis 		
Thyroglossal cyst	<ol style="list-style-type: none"> 1. Describe etiology, pathogenesis and clinical features of thyroglossal cysts 		

DISEASES OF PERIODONTIUM			
TOPIC	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS

Chronic gingivitis and chronic periodontitis	<ol style="list-style-type: none"> 1. Discuss epidemiology, etiology and risk factors of periodontal disease 2. Explain the pathogenesis of periodontal disease 3. Describe the degradation of the extracellular matrix in periodontal disease 4. Explain the pathogenic mechanisms in chronic periodontal disease 5. Describe the clinical forms of periodontitis 	1. Lectures	1. BCQS
Gingival enlargement	<ol style="list-style-type: none"> 1. Discuss the causes of gingival enlargement 2. Describe the clinical features of gingival fibromatosis, chronic hyperplastic gingivitis and drug associated hyperplasia 		
Desquamative gingivitis	<ol style="list-style-type: none"> 1. Describe etiology, clinical and histologic features 		
Lateral periodontal abscess, Pericoronitis	<ol style="list-style-type: none"> 1. Describe etiology, clinical and radiographic features of lateral periodontal abscess 2. Discuss clinical features, pathogenesis and histopathology of Pericoronitis 3. Discuss about the age changes occur in periodontium 		

HYPERPLASTIC, NEOPLASTIC, AND RELATED DISORDERS OF ORAL MUCOSA			
TOPIC	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Hyperplasia of oral mucosa	<ol style="list-style-type: none"> 1. To enumerate localized hyperplastic lesions of oral mucosa 2. Describe etiology, types (if any) clinical features, histological and 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorials 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE

	radiographic features (if any) of hyperplastic lesions of oral mucosa		
Tumors of fibrous tissue	<ol style="list-style-type: none"> 1. Describe clinical, radiographic and histopathological features 2. Create differential diagnosis of benign and malignant tumor of fibrous tissue 	1. Lectures	1. BCQS
Tumors of adipose tissue	<ol style="list-style-type: none"> 1. Describe clinical and histopathological features 2. Create differential diagnosis of benign as well as malignant tumors of adipose tissue 		
Tumors of vascular tissue	<ol style="list-style-type: none"> 1. Describe clinical and histopathological features 2. Create differential diagnosis 3. Explain the associated syndromes of tumors of vascular tissue 		
Tumors of peripheral nerves	<ol style="list-style-type: none"> 1. Describe clinical and histopathological features 2. Create differential diagnosis 3. Explain mutated genes and diagnostic criteria of syndrome (multiple endocrine neoplasia) associated with neural hyperplasia (palisaded encapsulated neuroma) 		
Granular cell tumor	<ol style="list-style-type: none"> 1. Explain clinical and histopathological features 2. Create differential diagnosis 		
Tumors of muscle	<ol style="list-style-type: none"> 1. Explain clinical and histopathological features 2. Create differential diagnosis of benign and malignant muscle tumors 		
Malignant lymphomas	<ol style="list-style-type: none"> 1. Describe etiology, pathogenesis, clinical and histopathological features of Hodgkin's lymphoma and non-Hodgkin's lymphomas 2. Describe etiology, clinical and histopathological features of Burkitt's lymphoma 		

	3. Create differential diagnosis Describe pathogenesis and clinical features of Nasal NK/T cell		
--	--	--	--

KERATOSIS AND REALTED DISORDERS OF ORAL MUCOSA			
TOPICS	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Keratosi	1. Define the followings terms: <ul style="list-style-type: none"> • Keratosis • Orthokeratosis • Parakeratosis • Hyperkeratosis • Hyperparakeratosis • Acanthosis • Epithelial atrophy • Cellular atypia • Epithelial dysplasia 2. Classify white lesions of oral mucosa on the basis of etiology	1.Lectures 2.Tutorial	1. BCQS 2. OSPE
Reactive white lesions	1. Describe the following reactive white lesions: <ul style="list-style-type: none"> • Frictional keratosis • Nicotinic stomatitis • Hairy leukoplakia • Hairy tongue 		
Reactive lesions	1. Discuss etiology, pathogenesis, clinical features and histopathology of the following reactive lesions: <ul style="list-style-type: none"> • Pyogenic granuloma • Peripheral giant cell granuloma • Peripheral fibroma • Generalized hyperplasia • Denture induced fibrous hyperplasia 		
Traumatic keratosis	1. Discuss etiology, clinical and histological features of traumatic keratosis		

Hereditary conditions	<ol style="list-style-type: none"> 1. Explain the etiology, clinical and histopathological features of leukodema, white sponge nevus, hereditary benign intraepithelial dyskeratosis, follicular keratosis, tylosis, pachyonychia congenital, dyskeratosis congenita 		
Leukoplakia	<ol style="list-style-type: none"> 1. Discuss etiological factors, incidence, clinical features, histopathological features and prognosis of leukoplakia 2. Discuss dysplasia in detail (mild, moderate, severe epithelial dysplasia) 3. Differentiate epithelial dysplasia from Carcinoma-in-situ 4. Define epithelial dysplasia and discuss the architectural and cytological alterations observed in epithelial dysplasia 5. Overview of speckled leukoplakia, proliferative verrucous leukoplakia, erythroplakia (red lesion) 6. Create differential diagnosis 7. Distinguish among premalignant lesion and premalignant conditions 		
Erythroplakia	<ol style="list-style-type: none"> 1. Define erythroplakia 2. Explain the pathogenesis involved in and progression of lesion 3. Discuss the histopathological features of the lesions 4. Create differential diagnosis 		
Lichen planus	<ol style="list-style-type: none"> 1. Discuss etiology, pathology, clinical and histological features 2. Discuss prognosis of lichen planus 3. Create differential diagnosis 		

Lupus erythematosus	1. Discuss etiology, clinical and histological features		
	2. Discuss prognosis of lupus erythematosus		
	3. Create differential diagnosis		

ORAL EPITHELIAL TUMOURS, MELANOCYTIC NAEVI AND MALIGNANT MELANOMA			
TOPIC	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Benign lesions associated with Human papilloma virus (HPV)	1. Describe etiology, pathogenesis and diagnostic features of the following: <ul style="list-style-type: none"> • Squamous cell papilloma • Papillary hyperplasia • Condyloma latum • Condyloma accuminatum • Focal epithelial hyperplasia 	1. Lectures 2. Tutorials	1. BCQS 2. OSPE
Squamous cell carcinoma	1. Discuss the following: <ul style="list-style-type: none"> • Epidemiology • Clinical and histological features • Pathogenesis • Routes of spread • Diagnostic features • Prognosis • Differential diagnosis 2. Describe staging and grading of squamous cell carcinoma		
Verrucous carcinoma	1. Describe pathogenesis clinical and histological features 2. Create differential diagnosis		
Basal cell carcinoma	1. Describe the etiology, clinical features, histopathology and pathogenesis	1. Lectures 2. Tutorial	1. BCQS

Melanocytic naevi and Malignant Melanoma	<ol style="list-style-type: none"> 1. Define and classify melanoma 2. Origin of melanocytes 3. Describe clinical features, histopathology, investigations and prognosis 	1. Lectures	1. BCQS
--	--	-------------	---------

INFECTIONS OF ORAL MUCOSA			
TOPIC	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOL
Viral Infections	1. To enlist and discuss etiology, pathogenesis, histopathology of viral infections	1. Lectures 2. Tutorials	1. BCQS 2. OSPE
Bacterial Infections	1. To enlist and discuss clinical features, pathogenesis and histopathology of bacterial infections		
Fungal Infections	1. To enlist and discuss etiology, types, histopathology and diagnostic features of fungal infections		
HIV (Human immunodeficiency virus)	<ol style="list-style-type: none"> 1. Classify of oral lesions associated with HIV infections 2. Explain transmission, clinical features, and pathogenesis of HIV 3. Describe the oral manifestations 		

ORAL ULCERATION AND VESICULOBULLOUS DISEASES			
TOPIC	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Oral Ulceration	<ol style="list-style-type: none"> 1. Define ulcer 2. To enlist the causes of oral ulceration 3. Describe etiology, clinical and histological features of traumatic ulcer 4. Explain the etiology of recurrent aphthous stomatitis 	1. Lectures 2. Tutorials	1. BCQS 2. OSPE

	<ol style="list-style-type: none"> 5. To compare the clinical features of different types of recurrent aphthous stomatitis 6. Discuss immunological and histopathological features of recurrent aphthous stomatitis 7. Describe clinical features and types of Behcet syndrome 8. Discuss association with histocompatibility antigens of Behcet syndrome 		
Vesiculobullous Diseases	<ol style="list-style-type: none"> 1. Define vesicle and bulla 2. Classify: <ul style="list-style-type: none"> • Intraepithelial Vesiculobullous diseases • Sub-epithelial Vesiculobullous diseases 3. Describe the clinical and histopathological features of the following: <ul style="list-style-type: none"> • Pemphigus vulgaris • Mucous membrane pemphigoid • Bullous pemphigoid • Epidermolysis Bullosa • Erythema Multiforme 		

MISCELLANEOUS DISORDERS OF ORAL MUCOSA			
TOPIC	OBJECTIVES	MODE OF TEACHING	ASSESMENT TOOLS
Disorders of oral mucosa	<ol style="list-style-type: none"> 1. Describe etiology, clinical features, oral manifestation, histologic features, and know the syndromes (if any) associated with the following: <ul style="list-style-type: none"> • Fordyce's granules • Sublingual varices • Lingual tonsil, foliate papillitis • Median rhomboid glossitis 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorials 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE

	<ul style="list-style-type: none"> • Geographic tongue • Orofacial granulomatosis • Crohn's disease • Sarcoidosis • Pyostomatitis vegetans • Wegener's granulomatosis • Progressive systemic sclerosis • Verruciform xanthoma • Oral submucous fibrosis • Amyloidosis <p>2. Describe etiology, clinical features, oral manifestation, histologic features, and know the syndromes (if any) associated with oral mucosal pigmentation diseases</p>		
Age changes in the oral mucosa	1. Discuss age changes occurring in the oral mucosa	1. Lectures	1. BCQS

SALIVARY GLAND DISEASES			
TOPICS	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Reactive lesions of salivary gland	<p>1. Describe clinical and histological features of the following:</p> <ul style="list-style-type: none"> • Mucocele • Mucous retention cyst • Sialolithiasis • Necrotizing Sialometaplasia <p>2. Create differential diagnosis</p>	1. Lectures	1. BCQS
Salivary gland infections	<p>1. Describe the etiopathogenesis, clinical and histological features of acute and chronic bacterial sialadenitis, and recurrent parotitis</p> <p>2. Describe pathogenesis, clinical and diagnostic features of sarcoidosis</p> <p>3. Explain the clinical, histological and diagnostic features of mumps and cytomegalic inclusion disease</p>	1. Lectures	1. BCQS

Sjogren's syndrome	<ol style="list-style-type: none"> 1. Describe primary and secondary types, clinical features and histopathology of Sjogren's syndrome 2. Discuss American-European Consensus Group revised International criteria for Sjogren's syndrome 3. Discuss oral problems associated with Sjogren's syndrome 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorials 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE
Salivary gland benign tumors	<ol style="list-style-type: none"> 1. Classify salivary gland tumors 2. Describe the clinical and histopathological features of the following benign tumors: <ul style="list-style-type: none"> • Pleomorphic adenoma • Warthin tumor • Canalicular adenoma • Basal cell adenoma • Oncocytoma 3. Create differential diagnosis of benign tumors 	<ol style="list-style-type: none"> 1. Lectures 	<ol style="list-style-type: none"> 1. BCQS
Malignant salivary gland tumors	<ol style="list-style-type: none"> 1. Discuss clinical staging of carcinomas of the salivary glands 2. Describe clinical and histopathological features and grading of mucoepidermoid carcinoma 3. Explain the clinical and histopathological features of the following: <ul style="list-style-type: none"> • Acinar cell carcinoma • Adenoid cystic carcinoma • Polymorphous adenocarcinoma • Epithelial - myoepithelial carcinoma • Salivary duct carcinoma • Basal cell adenocarcinoma • Carcinoma arising in pleomorphic adenoma 		

	<ul style="list-style-type: none"> • Adenocarcinoma (not otherwise specified) <p>4. Create differential diagnosis of malignant tumors</p>		
--	--	--	--

ODONTOMES AND ODONTOGENIC TUMOUR			
Classification of Odontomes and Odontogenic tumors	1. Classify Odontomes and Odontogenic tumors	1. Lectures	1.BCQS
Odontomes			
Invaginated odontome	1. Describe clinical and radiological features of invaginated odontome 2. Explain the pathogenesis, and histopathology of invaginated odontome	1. Lectures 2. Tutorials	1. BCQS 2. OSPE
Evaginated Odontome	1. Understand features of evaginated odontome		
Enamel pearl	1. Understand features of enamel pearl		
Compound and Complex odontome	2. Explain clinical and radiographic features of compound and complex odontome 3. Discuss histopathology of compound and Complex odontome		
Odontogenic tumor			
Ameloblastoma	1. Define Ameloblastoma 2. Describe prevalence, etiology. clinical, radiographic and histopathological features of Ameloblastoma 3. Explain the pathogenesis and behaviour of Ameloblastoma 4. Create differential diagnosis	1. Lectures 2. Tutorials	1. BCQS 2. OSPE
Squamous Odontogenic tumour	1. Describe radiographic, histopathological features and origin of Squamous Odontogenic tumor		

Calcifying epithelial odontogenic tumor	1. Describe clinical, radiographic and histological features of calcifying epithelial odontogenic tumor		
Adenomatoid odontogenic tumor	1. Describe clinical, radiographic and histological features of adenomatoid odontogenic tumors 2. Create differential diagnosis		
Ameloblastic fibroma, Ameloblastic fibrodentinoma, Ameloblastic fibro-odontoma	1. Describe clinical, radiographic and histological features 2. Create differential diagnosis		
Calcifying cystic odontogenic tumor and dentigerous ghost cell tumor	1. Describe clinical, radiographic and histological features 2. Create differential diagnosis		
Odontogenic fibroma/ Odontogenic myxoma	1. Differentiate between Peripheral Odontogenic Fibroma and Central Odontogenic Fibroma 2. Discuss the clinical, radiographic and histopathological features		
Cementoblastoma	1. Describe clinical, radiographic and histological features 2. Create differential diagnosis		
Malignant Odontogenic tumours	1. Discuss features of malignant Odontogenic tumors		

DISORDERS OF BONE			
TOPIC	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Inherited and developmental disorders of bone			
Osteogenesis imperfecta	1. Discuss the following: <ul style="list-style-type: none"> • Etiopathogenesis • Clinical features • Types of Osteogenesis imperfecta • Oral manifestations 	1. Lectures 2. Tutorials	1. BCQS 2. OSPE

	<ul style="list-style-type: none"> • Radiographic features 		
Osteopetrosis	<ol style="list-style-type: none"> 1. Discuss the following: <ul style="list-style-type: none"> • Etiopathogenesis • Facial and dental abnormalities • Types of Osteogenesis imperfecta • Histologic features • Radiographic features • Laboratory findings 		
Cleidocranial dysplasia	<ol style="list-style-type: none"> 1. Discuss the following: <ul style="list-style-type: none"> • Etiology • Facial and dental abnormalities • Radiographic features 		
Achondroplasia	<ol style="list-style-type: none"> 1. Discuss the following: <ul style="list-style-type: none"> • Etiology • Clinical features • Oral manifestation 		
Fibrous dysplasia of bone	<ol style="list-style-type: none"> 1. Discuss the following: <ul style="list-style-type: none"> • Etiology and behavior • Clinical features (types of fibrous dysplasia) • Oral manifestation • Radiographic features • Histologic features • Syndromes associated with this disease 		
Periapical cemental dysplasia	<ol style="list-style-type: none"> 1. Discuss diagnostic features of periapical cemental dysplasia 		
Florid cemento-osseous dysplasia	<ol style="list-style-type: none"> 1. Discuss the following: <ul style="list-style-type: none"> • Etiology • Radiographic features • Histologic features • Differential diagnosis of florid cemento-osseous dysplasia 		
Cherubism	<ol style="list-style-type: none"> 1. Discuss the following: <ul style="list-style-type: none"> • Etiology • Facial and dental abnormalities • Oral manifestation 		

	<ul style="list-style-type: none"> • Radiographic features • Histologic features • Pathology and behavior • Laboratory findings 		
Healing of bone	1. Discuss healing of an extraction socket and osseointegrated implants	1. Lectures	1. BCQS 2. OSPE
Inflammatory diseases of bone	<ol style="list-style-type: none"> 1. Enlist inflammatory diseases of bone 2. Make a diagnosis on the basis of the history and clinical features of alveolar osteitis 3. Explain histopathogenesis of alveolar osteitis 4. Enlist the types of osteomyelitis 5. Discuss predisposing factors, types, clinical presentation, radiographic and histological features of osteomyelitis 6. Discuss diagnostic features of chronic periostitis associated with hyaline bodies 7. Discuss diagnostic features of osteoradionecrosis 		
Metabolic and endocrine disorders of bone	<ol style="list-style-type: none"> 1. Discuss the pathogenesis and diagnostic features of following metabolic conditions: <ul style="list-style-type: none"> • Paget's disease • Osteoporosis • Rickets and osteomalacia • Acromegaly • Hyperparathyroidism • Hypothyroidism • Hypophosphatasia 	<ol style="list-style-type: none"> 1. Lectures 2. Tutorials 	<ol style="list-style-type: none"> 1. BCQS 2. OSPE
Central giant cell granuloma	1. Describe clinical features, radiographic and histological features		
Swellings of bone	1. Describe the diagnostic features of torus palatinus, torus mandibularis and other exostoses		

Tumors of bone	<ol style="list-style-type: none"> 1. Classify bone tumors 2. Describe clinical features, radiographic and histological features of osteoma, osteoblastoma, ossifying fibromaosteosarcoma 3. Create differential diagnosis of bone tumors 		
----------------	--	--	--

DISEASES OF TEMPOROMANDIBULAR JOINT			
TOPIC	OBJECTIVES	MODE OF TEACHING	ASSESSMENT TOOLS
Developmental disorders	<ol style="list-style-type: none"> 1. Discuss the followings: <ul style="list-style-type: none"> • Apalsia • Hyperplasia • Hypoplasia of condyle 	<ol style="list-style-type: none"> 1.Lecture 2.Tutorials 	<ol style="list-style-type: none"> 1. BCQS
Inflammatory disorders	<ol style="list-style-type: none"> 1. Describe the clinical, histological and diagnostic features of the following: <ul style="list-style-type: none"> • Traumatic • Infective Rheumatoid arthritis 		
Osteoarthritis	<ol style="list-style-type: none"> 1. Describe the causes, clinical and histological features of osteoarthritis 		
Functional disorders	<ol style="list-style-type: none"> 1. Discuss the etiology and clinical features of: <ul style="list-style-type: none"> • Myofascial pain-dysfunction syndrome • Disc displacement 2. Discuss age related changes in temporomandibular Joint 		

ORAL PATHOLOGY TUTORIALS SESSIONS

S. NO.	TUTORIALS TOPICS	TEACHING METHODOLOGY	ASSESSMENT TOOLS
	<p>By the end of third year BDS student should be able to identify the following:</p>		<p>The students will be assessed mid-rotation and end-of rotation tests; mid-term and final examination through:</p>
1.	Fundamentals of microscope	1. Lectures/ discussion	1. OSPEs 2. Viva Will be assessed during: 3. Twice a week supervision 4. Mid term 5. End of term (Pre-Prof)
2.	Tissue processing		
3.	Enzyme-linked immunosorbent assay		
4.	Polymerase chain reaction		
5.	Immunofluorescence		
6.	Abnormalities of teeth		
7.	Dental caries		
8.	Diseases of pulp		
9.	Specific and non-specific infection		
10.	Cysts of jaws and neck		
11.	Odontomes and odontogenic tumors		
12.	Verrucal-papillary lesions		
13.	White and colored lesions		
14.	Salivary gland disorders		
15.	Salivary gland tumors		
16.	Metabolic and genetic diseases		
17.	Disorders of temporomandibular joints		

ORAL PATHOLOGY TUTORIALS WEEK SCHEDULE

ORIENTATION SESSION:

- Introduction to department
- Introduction to faculty members
- Effective communication
- Code of conduct:
 - o Lectures/practical/tutorials timings (Punctuality)
 - o Dress code
 - Lab coat
 - Tied-up hair
 - Covered shoes etc.
- Hand wash technique
- Briefing about;
 - o Microscopes and laboratory techniques
 - o log book maintenance

Third Year Tutorial Rotation

One Weeks

WEEK No. 1

DAY 1:

0.2:00 AM to 2:30 AM (Orientation)

2:30 AM to 3:00 PM (Fundamentals of microscope)

3:00 PM to 3:15 PM (Illustration In Log Book)

TABLE-1

	0.2:00 to 2:30 pm	2:30 to 3:00 pm	3:00 to 3:15 pm
FACULTY MEMBER	Orientation	Fundamentals of microscope	Illustration In Log Book

DEPARTMENTAL RESOURCE BOOKS

S.NO	NAME	AUTHOR	EDITION
1.	Oral Pathology	J.V.Soames J.C. Southam	4 th & 5 th Edition
2.	Cawson's Essentials of Oral Pathology and Oral Medicine	R.A Cawson E.W.Odell	8 th Edition
3.	Shafer's Textbook of Oral Pathology	Sivapathasundharam	9th Edition
4.	Oral Pathology Clinical Pathologic Correlations	Regezi	6 th Edition
5.	Oral and Maxillofacial Pathology	Brad W. Neville, Douglas D. Damm, , Carl M. Allen, Angela C. Chi	4 th Edition
6.	Oral and Maxillofacial Pathology	Marx Stern	2 nd Edition
7.	Oral Pathology Color Guides	Vimal K. Sikri, Arpit Sikri	2 nd Edition
8.	Oral Disease (Color guide)	Crispian Scully Roderick A. Cawson	2 nd Edition
9.	Ten Cate's Oral Histology	Antonio Nanci	7 th Edition

