

STUDY GUIDE

2024-2025



Program: Bachelor of Dental Surgery

Year: 3rd Professional Year

Subject: Oral Pathology

Batch No: D21

Session: 2024-2025

Content

<u> 1. Ir</u>	itroduction to Study Guide
•	Objectives of the Study Guide Department of Medical Education
2. A	vicenna Medical & Dental College Overview
•	Institutional Organogram. Vision and Mission. Messages:
3. D	epartment & Subject Overview
•	Note from the Head of Department. Departmental Organogram. Faculty Members. Goal of the Department Course Objectives. Attendance Requirement & Internal Assessment Criteria.
4. L	earning Resources & Pedagogy
•	Book Recommendations Teaching Methodologies Infrastructure Resources. Digital Library & Learning Management System
5. A	ssessment Guideline
•	Internal Assessment External Assessment Sample Questions
6. C	urriculum Details
•	Curriculum Framework & Allocation of hours. Curricular Map & Rationale. Learning Outcomes. Assessment TOS/Blueprint. Refer to Curriculum Booklet for Syllabus, Statute, Timetable and Annual Calendar and Weekly Schedule

Introduction to Study Guide

Welcome to the Avicenna Dental College Study Guide!

This guide serves as your essential resource for navigating the complexities of your dental education at Avicenna Medical & Dental College. It integrates comprehensive details on institutional framework, curriculum, assessment methods, policies, and resources, all meticulously aligned with UHS, PMDC and HEC guidelines.

Each subject-specific study guide is crafted through a collaborative effort between the Department of Dental Education and the respective subject departments, ensuring a harmonized and in-depth learning experience tailored to your academic and professional growth.

OBJECTIVES OF THE STUDY GUIDE

1. Institutional Understanding:

o Gain insight into the college's organizational structure, vision, mission, and graduation competencies as defined by PMDC, setting the foundation for your educational journey.

2. Effective Utilization:

Master the use of this guide to enhance your learning, understanding the collaborative role of the Department of Dental Education and your subject departments, in line with PMDC standards.

3. Subject Insight:

Obtain a comprehensive overview of your courses, including detailed subject outlines, objectives, and departmental structures, to streamline your academic planning.

4. Curriculum Framework:

o Explore the curriculum framework, academic calendar, and schedules for clinical and community rotations, adhering to the structured guidelines of UHS & PMDC.

5. Assessment Preparation:

o Familiarize yourself with the various assessment tools and methods, including internal exam and external exam criteria, and review sample papers to effectively prepare for professional exams.

6. Policies and Compliance:

o Understand the institutional code of conduct, attendance and assessment policies, and other regulations to ensure adherence to college standards and accrediting body requirements.

7. Learning Resources:

o Utilize the learning methodologies, infrastructure resources, and Learning Management System to maximize your educational experience and academic success.

This guide, meticulously developed in collaboration with your subject departments, is designed to support your academic journey and help you achieve excellence in accordance with the highest standards set by PMDC and HEC.



BDS Program Outcome Statements

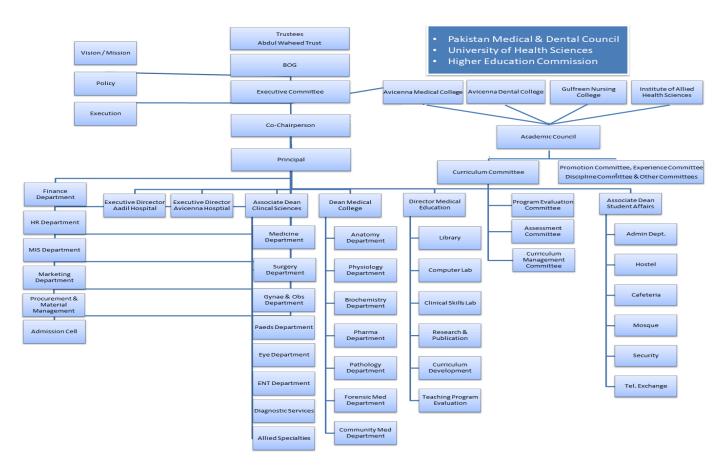
The outcome statements of Avicenna Dental College specify the core competencies and performance standards expected of graduates upon completion of the BDS program.

Upon graduation, students will be able to:

- Prioritize patient care above all, applying their knowledge and skills in a competent, ethical, and professional manner, and taking responsibility for their actions in complex and uncertain situations.
- 2. Conduct thorough consultations and assessments of patients.
- 3. Independently diagnose and manage common, non-critical dental and oral health conditions.
- 4. Assist in the management of critically ill patients as relevant to dental practice.
- 5. Demonstrate clear and efficient written and verbal communication skills.
- 6. Exhibit professional, ethical, and culturally appropriate behavior in all clinical and patient interactions.
- 7. Promote oral health and advocate for preventive measures against dental diseases.
- 8. Work effectively as a team member within Pakistan's healthcare system.
- 9. Apply critical thinking, reflection, research skills, and teamwork capabilities in clinical practice.
- 10. Pursue personal and professional development with a commitment to lifelong learning.

Avicenna Medical & Dental College Overview

Institutional Organogram



Vision & Mission



Avicenna Medical & Dental College



Vision

The vision of **Avicenna Medical & Dental College** is to become a college that thrives to achieve improvement in healthcare of masses through creative delivery of educational programs, innovative research, commitment to public service and community engagement in a environment that supports diversity, inclusion, creative thinking, social accountability, lifelong learning and respect for all.

Mission

The mission of **Avicenna Medical and Dental College** is to educate and produce competent, research oriented healthcare professionals with professional commitment and passion for life-long learning from a group of motivated students through quality education, research and service delivery for the improvement of health status of the general population.

Message from the Chairman

The Avicenna Medical & Dental College is a project of Abdul Waheed Trust which is a Non-profitable, Non-governmental, Non-political & Social organization, working for the welfare of Humanity and based on Community empowerment. Avicenna Medical College has its own 530 bedded Avicenna teaching Hospital (Not for Profit hospital) within the College Campus & 120 bedded Aadil Hospital, at 15 minutes distance. Separate comfortable hostels for boys & girls are provided on the campus.

Our students benefit from the state of the art College Library with facilities of Internet & online Journals that remain open 15 hours a day, for our students & faculty members. I am particularly pleased with the hard work by the Faculty and Students in the achievement of historic 100% results for all the classes. It is a rare achievement and speaks of dedication of the Faculty and Staff. Our motto is Goodness prevails and we aim at producing Doctors' who are knowledgeable, competent in clinical skills and ethical values.

Avicenna Medical College & Hospital was founded to provide quality health care services to the deserving patients belonging to the rural areas near Avicenna Hospital as well as to provide quality medical education of international standard to our students. The Hospital provides all medical services and Lab diagnostics to the local population at minimal cost. So far by the grace of Allah Almighty the number of patients being treated and operated upon at our Hospital is increasing every day as there is no other public or charity hospital in the circumference of 20km. We have already established two Satellite Clinics in the periphery which are providing outdoor care while admission cases are brought to the Hospital in Hospital transport.

Following the success of our reputable Medical College and Hospital, we were able to successfully establish Avicenna Dental College which is recognized by the Pakistan medical & Dental Council & University of Health Sciences. To date, we have enrolled five batches in our dental college and we aim to achieve the same level of success for our dental students as our medical students.

Chairman **Abdul Waheed Sheikh**Avicenna Medical & Dental College



Message from the Principal

Prof. Dr. Sohail Abbas Khan Principal Dental College MDS, Dip Op (Hons) BDS



It is a matter of immense honor and privilege as the first Principal of Avicenna Dental College to welcome you to one of the finest dental institutes in the private sector of Pakistan. Avicenna Dental College is a private dental college, which aims to provide the finest dental education to dental undergraduate students in accordance with the latest trends in Dental Education, and to develop them to practice dentistry in the 21st century.

While educating dental students to become licensed, empathetic and competent professionals, Avicenna Dental College endeavors to educate students in a supportive environment in which they provide dental care for a diverse populace. In the times to come, we wish to transform our graduates into unfeigned teachers, researchers and consultants by starting post-graduation programs as well.

Avicenna Dental College aims to achieve an enterprising curriculum integrating the basic sciences with clinical experience while utilizing modern technological modalities.

In addition to the production of outstanding oral health professionals, we at Avicenna Dental College recognize our responsibility as a private dental institution to the citizens of the country in making the provision of oral health care available to those who are deprived of ready access.

I feel proud to lead this dental establishment such an inspiring time and hope all of you at Avicenna Dental College will share this pride and play your respective roles in materializing the dream of making this institution the premier dental educator in Pakistan



Message from the Vice Principal

Prof. Dr. Usman Muneer
Vice Principal Dental College
BDS, FCPS

It is a matter of great privilege to be associated with Avicenna Dental College. Our institution boasts of renowned, well-qualified and devoted faculty members in each and every specialty of dentistry. We are looking forward to diligently equipping our undergraduates with comprehensive artistic and ethical oral health care.

Our goal is to inspire a lifelong passion for learning and innovation in our students, ensuring they are well-prepared to meet the evolving challenges of the dental profession. I look forward to collaborating with our students on this transformative journey, guiding them toward achieving excellence in oral health care.

7-Star Doctor Competencies (PMDC)

According to national regulatory authority PMDC, a Pakistani medical/dental graduate who has attained the status of a 'seven-star doctor' is expected to demonstrate a variety of attributes within each competency. These qualities/ generic competencies are considered essential and must be exhibited by the individual professionally and personally.

- 1. Skillful / Care Provider.
- 2. Knowledgeable / Decision Maker.
- 3. Community Health Promoter / Community Leader.
- 4. Critical Thinker / Communicator
- 5. Professional / Lifelong learner.
- 6. Scholar / Researcher
- 7. Leader/ Role Model / Manager



About Avicenna Dental College

Avicenna Dental College is a purpose-built, fully equipped Dental institution with experienced and excellence-driven faculty to train high-quality dental professionals in Pakistan.

Avicenna Dental College runs under the umbrella of Abdul Waheed Trust. Abdul Waheed Trust is a non-profit social welfare organization and registered under the Societies Act with the Registrar of Societies. The Trust is legalized through a Trust Deed that bears necessary rectifications. The Trust Deed is further supported by its Memorandum and Article of Association that authorizes the establishment and operation of the Medical College, the Dental College, the Nursing College, the Allied Health Sciences College, and other activities in the healthcare sector.

In 2018, Avicenna Dental College was recognized by the Pakistan Medical & Dental Council. With the advent of advanced tools and technology in every field of health science, dentistry today has shot up to the greater end of the gamut with superior choice and promises in dental therapy in the very vicinity of the common man. ADC promises to be one such neighborhood.



Department & Subject Overview

Note from the Head of Department

Oral and Maxillofacial Pathology refers to the diseases of the mouth, jaws and related structures such as salivary glands and perioral skin etc. It is concerned with the diagnosis and study of the causes and effects of diseases affecting the oral and maxillofacial region both as local as well as systemic manifestations. The subject of Oral pathology bridges the gap between basic and clinical dentistry.

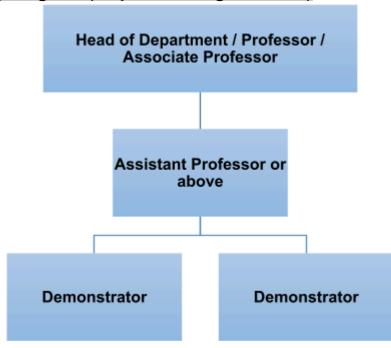
The Department of Oral Pathology at Avicenna Dental College is equipped with all the requirements laid down by the PM&DC to fulfill quality undergraduate education of dental students.

The department endeavors to impart quality education regarding the soft and hard tissue pathologies in the head and neck region while stressing on the various etiological, clinical, radiological and histopathological features.

Assoc. Prof. Dr. M. Behzad Salahuddin Head of Department Department of Oral Pathology



Departmental Organogram (as per PMDC guidelines)



Faculty Members

Name	Designation	Qualification
<u>Dr Muhammad Behzad</u> <u>Salahuddin</u>	Head of Department / Associate Professor	MS.c, FICD, BDS
<u>Dr Asifa Iqbal</u>	Associate Professor	Mphil, FICD, BDS
Dr Abdul Razzaq	Senior Demonstrator	BDS, RDS
Dr Ummer Amin Bhatti	Demonstrator	BDS, RDS

Goal of the Department



The department of oral Pathology has educational goals for the 3rd year BDS students and provide quality education including the pathogenesis, clinical, radiographic, histopathology, presentation of oral diseases and training by creating, preservation, integration and utilization of knowledge in the diagnosis of oral pathological diseases. The study of microscopes, tissue processing, diagnostic tests and advanced techniques are also included in the goals of Oral Pathology.

The mission of the specialty of oral pathology deals with the nature, causative factors, clinical and radiographic features, histopathological features of the diseases, identification, effects of diseases affecting the oral and maxillofacial region.

One of the most important purposes of oral pathology is to give the student the ability to correctly diagnose oral lesions and develop differential diagnosis. There are more than 200 different types of diseases that affect the oral cavity, & many of these can only be diagnosed through microscopic examination.

Course Objectives

To produce graduates who have demonstrated that they have:

- Provide knowledge in oral pathology to undergraduate students.
- The skills and knowledge for a productive, competent, and compassionate practice of oral pathology.
- To familiarize the students with the foundational knowledge necessary for critical thinking, problem solving and diagnosis of oral diseases.
- The skills to clearly communicate their knowledge as needed.
- To familiarize students with multiple diagnostic techniques applicable in every condition.
- Recognize the limitations of routine light microscopy and recognize the indications for additional studies, such as biopsy and special stains and be able to perform appropriate tests and able to interpret their results.
- Read, interpret and critically evaluate the oral pathology literature.
- Demonstrate basic teaching skills

Attendance Requirement & Internal Assessment Criteria

The institution follows the regulations for examinations of the UHS in letter and spirit. The students require **85% attendance** in all academic sessions and **50% marks** in internal assessments and send-up examinations to be eligible for the UHS Professional Examinations.



Learning Resources & Pedagogy

Book Recommendations



Sr.	Book Name	Author	Edition
1.	Contemporary Oral and Maxillofacial Pathology	J. Phillip Sapp, Lewis Roy Eversole and George W. Wysocki	2024-2 025
2.	Oral and Maxillofacial Pathology	Neville, Allan, Damn and Bouquot	5th Edition
3.	Textbook: Oral Pathology: Clinical -Pathologic Correlations	Joseph A. Regezi, James J. Sciubba and Richard C. K. Jordan	7th Edition
4.	Cawson's Essentials of Oral Pathology and Oral Medicine	R.A. COWSON and E.W. Odel	9th Edition

<u>Traditional & Innovative Teaching Methodologies</u>



Sr.	Pedagogical Methodologies	Description
1.	Lectures	Traditional method where an instructor presents information to a large group of students (large group teaching). This approach focuses on delivering theoretical knowledge and
		foundational concepts. It is very effective for introducing new topics.
2.	Tutorial	Tutorials involve small group discussion (SGD) where students receive focused instruction and guidance on specific topics.
	Demonstrations	Demonstrations are practical displays of techniques or procedures, often used to illustrate complex concepts or practices, particularly useful in dental education for showing clinical skills.
3.	Practicals	Hands-on sessions where students apply theoretical knowledge to real-world tasks. This might include lab work, clinical procedures, or simulations.
		Practicals are crucial for developing technical skills and understanding the application of concepts in practice.
4.	Student Presentations	Students prepare and deliver presentations on assigned topics. This method enhances communication skills, encourages students to explore topic in-depth. It also provides opportunities for peer feedback and discussion.
5.	Assignment	Tasks given to students to complete outside of class. Assignments can include research papers, case studies, or practical reports. They are

		designed to reinforce learning, assess understanding, and develop critical thinking and problem-solving skills.
7.	Self-directed Learning	Students take initiative and responsibility for their own learning process. Students are encouraged to seek resources, set goals, and evaluate their progress. This is a learner-centered approach where students take the initiative to plan, execute, and assess their own learning activities. This method promotes independence, critical thinking, and lifelong learning skills.
8.	Flipped Classroom	In this model, students first engage with learning materials at home (e.g., through videos, readings) and then use class time for interactive activities, discussions, or problem-solving exercises. This approach aims to maximize in-class engagement and application of knowledge.
9.	Peer-Assisted Learning (PAL)	A collaborative learning approach where students help each other understand course material. PAL involves structured peer tutoring, study groups, or collaborative tasks. It enhances comprehension through teaching, reinforces learning, and builds teamwork skills.
10.	Team-based Learning (TBL)	A structured form of small group learning where students work in teams on application-based tasks and problems. Teams are responsible for achieving learning objectives through collaborative efforts, promoting accountability, and deeper understanding of the material.
11.	Problem-based Learning (PBL)	Students work on complex, real-world problems without predefined solutions. They research, discuss, and apply knowledge to develop solutions. PBL fosters critical thinking, problem-solving skills, and the ability to integrate knowledge from various disciplines.
12.	Academic Portfolios	A collection of student's work that showcases learning achievements, reflections, and progress over time. Portfolios include assignments, projects, and self-assessments. They provide a comprehensive view of student development, highlight strengths and areas for improvement, and support reflective learning (experiential learning)



Flipped Classroom

Infrastructure Resources

Sr.	Infrastructure Resources	Description
1.	Lecture Hall	Each year has a dedicated lecture hall, totaling four lecture halls for the four professional years. These halls are equipped with modern audiovisual aids to support effective teaching and learning.
2.	Tutorial Room	The college's tutorial rooms, each with a capacity of 30, are specifically designed to support small group discussions and interactive sessions. These rooms facilitate personalized instruction, enabling more engaged and effective learning through direct interaction between students and instructors.
3.	Lab	The college is equipped with state-of-the-art laboratories for practical and clinical work. Each lab is designed to support various disciplines, to facilitate hands-on learning. Students visualize and learn different pathologies through microscopic demonstration.
4.	Library on campus	A huge library occupies a full floor and has 260 seats including study carrels and group-discussion tables. Latest reference books of Basic and Clinical Sciences along with national & international journals are available in the library.
5.	Digital Library	The digital library offers access to a vast collection of e-books, online journals, research databases, and other digital resources. It supports remote access and provides tools for academic research and learning.
6.	Learning Management System (LMS)	The LMS is a comprehensive online platform that supports course management, content delivery, student assessment, and communication. It provides tools for tracking progress, managing assignments, and facilitates ongoing academic activities.

6.	Phantom Labs	Specialized Phantom Labs are available for advanced simulation and practice in dental procedures. These labs provide high-fidelity models and simulators that help students refine their clinical skills in a controlled environment.
7.	Mess & Cafeteria	The College has its own on-campus Mess which caters to 600 students. All food items including dairy, meat, and vegetables are sourced organically and bought in at the time of cooking, in order to ensure that students get freshly cooked meals at all times
		Students form the Mess committee which decides the mess menu in consultation with other students. The Mess offers fresh food to all residents three times a day. However, day scholars are also welcome to use the Mess facility at a reasonable cost.
		Two 50- inch LCD screens provide students an opportunity to get entertained during their meal times.
8.	Gymnasium & Sports	We recognize sports as a pivotal key to shape and maintain students' personality and good health. The College has indoor and outdoor sports facilities to help enhance the cognition and capacity to learn. There is a proper sports section for various games like basketball, football, volleyball, and cricket. The gym itself is fully equipped with modern machinery both for students and faculty.
9.	IT Lab	The IT Lab is equipped with modern computers and software available for students who need access for academic purposes.
10.	Auditorium	The college has a spacious auditorium equipped with advanced audio-visual facilities. It is used for large-scale lectures, guest presentations, and academic conferences, providing a venue for students to engage with experts and participate in important educational events.
11.	Examination Halls	The college provides dedicated examination halls that are designed to accommodate a large number of students comfortably. These halls are equipped with necessary facilities to ensure a smooth and secure examination process, including proper seating arrangements, monitoring systems, and accessibility features.







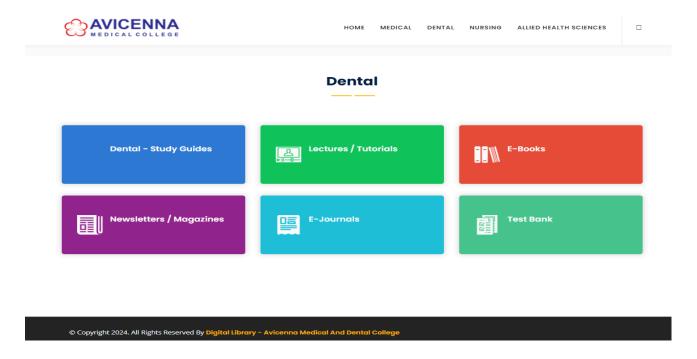




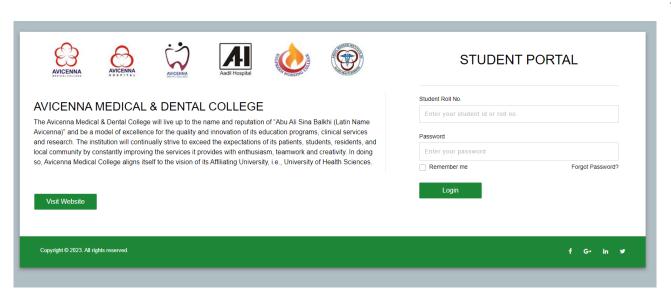


<u>Digital Library & Learning Management System (LMS)</u>

- The COVID-19 pandemic highlighted the necessity of interactive online teaching for better retention of topics by students. Strategies like online learning management system (LMS), online discussions, online quizzes, assignment design, and flipped learning enhance student engagement in online education when needed.
- 2. Avicenna Medical & Dental College lays emphasis on the provision of learning material and online video lectures, video tutorials in the e-library and learning resource center, which has a dedicated website of Avicenna Medical College to enable the students to develop concepts and clarify their doubts, if they have not been able to do so in the teaching sessions during college hours. The digital library can be approached on http://digital.avicennamch.com/.



- 3. The institution has also endeavored to link itself with the digital libraries and e-library of the University of Health Science (UHS) and Higher Education Commission (HEC) to enable the students to benefit from the valuable resource material, lectures and knowledge bank at these sites. The links are available with the HEC http://lms.uhs.edu.pk/.
- 4. The Learning Management System (LMS) at Avicenna Medical & Dental College is a comprehensive platform managed by the Department of Student Affairs. It is designed to facilitate effective communication and information exchange between students, parents, faculty, and administrative staff. The LMS portals are specifically tailored to meet the needs of the following stakeholders:
 - a. Students: For academic resources and scheduling.
 - b. **Parents:** For monitoring academic progress and other relevant information.
 - c. Faculty: For managing course content and academic activities.
 - d. **Department of Student Affairs:** For overseeing administrative functions.
 - e. Department of Medical/Dental Education: For overseeing academic functions.



- 5. Students can access a comprehensive range of academic resources and information through the student portal. By logging in with their roll number and password, students can:
 - Look at their attendance and results.
 - Review academic activities and weekly timetables/schedules.
 - Access rotation planners and test schedules.
 - Check for any notification, assignment or resource material from their teachers.
- 6. The information to the parent is duplicated by the issuance of the password and login to the Students Learning Management System which is dedicated to the Academic Program of the students. The parents can view the following by logging in to the mobile app of Avicenna Student Management System:
 - a) Syllabus
 - b) Table of specifications
 - c) Annual Planner
 - d) Synopsis
 - e) Block Time Table
 - f) Weekly training program
 - g) Allocation of Marks
 - h) Assessment calendar
 - i) Results of tests / exams*
 - j) Students' attendance record
 - k) Fees & fines

Assessment Guidelines

Assessment in dental education is a critical component designed to ensure that dental students acquire the necessary knowledge, skills, and competencies required for effective dental practice.

Assessment drives learning! – George E. Millar

You will encounter a variety of assessment methods, each serving a specific purpose.

- Written examinations, including multiple-choice and essay questions, will test your grasp of theoretical concepts and subject matter.
- Practical assessments will require you to demonstrate your clinical skills and ability to apply knowledge in real-world scenarios.
- Oral exams will evaluate your communication skills and reasoning abilities through case discussions and problem-solving exercises.
- Clinical skills and work-place based assessments will observe your hands-on proficiency and patient management capabilities.

At Avicenna Medical & Dental College, internal assessments are systematically conducted throughout each academic year of the BDS program, as per the guidelines established by the University of Health Sciences (UHS). These assessments, overseen by the Assessment Cell, adhere to either the Annual Subject-Based System or the Integrated/Modular System, depending on the curriculum structure.

Notably, beginning with the 2024-25 academic year, the weightage of internal assessments will be increased from 10% to 20%. The UHS administers professional examinations independently, organizing them at designated neutral sites and appointing external examiners to ensure objectivity and fairness.

Internal Assessment Weightage	10%	100 %
External Assessment Weightage	90%	100 /0



Internal Assessment Criteria

Internal Assessment	Paper	Assessment Methods	Percentage Weightage
Grand Tests	Theory	MCQs SEQs	30%
Grand Tests	Practical	Viva OSPE	3076
Early Session Exam	Theory	MCQs SEQs	
Larry Session Exam	Practical	Viva	
Mid Cassian France	Theory	MCQs SEQs	70%
Mid Session Exam	Practical	OSPE Viva	
Send-up Exam	Theory MCQ SEQ		100%
	Total		200%

Reference attached on next page.

aminati t	a Dental College							
amination N	arks Scheme 2024-202	25						_
3	d Year BDS							
m-2	BDS-3 Form-4		BDS-3 Form-	5	В	DS-3	Form-6	
		Session	Exam			Sen	d Up	
al	Theory		Practical		Theory		Practical	
-22		(3,4)*	70%			10	0%	
30	MCQ 45, SEQ 45	90	Viva	50	MCQ 45, SEQ 45	90	Viva	00000
30	MCQ 45, SEQ 45	90	Viva	50	MCQ 45, SEQ 45	90	Viva	Townson or the same of the sam
30	MCQ 45, SEQ 45	90	Viva	50	MCQ 45, SEQ 45	90	Viva	88
50	MCQ 21, SEQ 24	45	OSPE 45	45	MCQ 21, SEQ 24	45	OSPE 45	
50	MCQ 45, SEQ 45	90	OSPE 45, VIVA 45	90	MCQ 45, SEQ 45	90	OSPE 45, VIVA 45	
	Clinical							
			Final Clinic		sment			
			(Late Session	CA) *6 & Send u	up Exam)			
m-8		BDS-3 Fo	orm-9		В	DS-3 F	Form-10	_
Test			Grand	Ward Te	est	1 606		_
_		50% Case 1	5		Short		0%	
100	Long	Case II 3		90	Long	Case	II 30,	
100	Short	Case II 3	**	0	Short Case I 30,		130,	
		SPE 30	-,			SPE 3		
sessment 6 nd up Exam)								
id up Exami								
90								
45								
NON EX	MINABLE SUBJECTS							-
No.	Viva 50							
	Viva 50							-
	Viva 50							
	st will get 15% weightage &	VIVA / C	OSPE will get 15% Weig	htage in	Grand Test			
, The Theory te	son Theory test will get full	30% we	ightage in Grand Test					
	0:Q21 will get 30% weighta	re & VIV	A / OSPE will get 30%	Weightag	ze in Session Exam			-
held for any re	ander min Par paid mail				ge in occosion and in	_		_
held for any re		-0/	ntage in Session Exam					_
held for any re	on Theory test will get full 7	0% weig						
Theory test A	10 10 10 10 10 10 10 10 10 10 10 10 10 1	2 3	otation for each batch	1				
theld for any reaseld for any reasement(BCA)	10 10 10 10 10 10 10 10 10 10 10 10 10 1	of each re	20/2004 CO. D.C. BOX S	all studer	nts			
theld for any reaseld for any reasement(BCA)	nical exam held at the end o	of each re	20/2004 CO. D.C. BOX S	all studer	nts			_
held for Theory	19 10	ny reason Theory test will get full 7	CA) Clinical exam held at the end of each re	CA) Clinical exam held at the end of each rotation for each batch	CA) Clinical exam held at the end of each rotation for each batch			

Principal Avicenna Dental College

Chairman Avicenna Medical College

HOD Assessment Cell

External Assessment

Paper Details		Assessment Methods	Total Marks	Percentage Weightage
Thoony	External	45 MCQs (1 mark each)	45 marks	
Theory • 100 marks		15 SEQs (3 marks each)	45 marks	50 %
• 3 hrs	Internal Assessment	See Internal Assessment Criteria	10 marks	
Practical • 100 marks	External Assessment	Viva & OSPE	90 marks	500/
• 3 hrs	Internal Assessment	See Internal Assessment Criteria	10 marks	50%
	Total		200 Marks	100%

Sample Paper

MCQ

A 9-year-old girl presented in the dental OPD with a prominent chin and certain missing teeth. Clinical examination revealed she was able to oppose her shoulders to the midline of the chest. Radiography revealed tortuous suture lines (Wormian bones) with depressed Maxilla and normal Mandible. What could be the most likely diagnosis? What could be the most likely diagnosis?

Option:

- a) Hemifacial Atrophy
- b)Cleidocranial dysplasia *
- c)Crouzon Syndrome
- d) Treacher Collins Syndrome
- e) Papillon Lefever syndrome

COGNITIVE LEVEL: Recall
DIFFICULTY LEVEL: Moderate
IMPORTANCE: Need to Know

REFERENCE: Contemporary Oral and Maxillofacial Pathology

SEQ/SAQ

A 7 years old child was presented in the dental OPD for management of lower right first molar with open carious lesion with reddish soft tissue extruding from within the tooth which was painless yet bled profusely on palpation. The dentist decided to extract the tooth as the only treatment option.

Questions	Marks
a)What is the most likely diagnosis?	1
b) What etiological factors are responsible for leading to this condition?	1.5
C)Why was the extruding soft tissue in the crown painless?	0.5

Key	Marks
a)Chronic hyperplastic pulpitis (pulp polyp)	1
b) Etiology: result of rampant acute caries in young teeth that quickly reaches the pulp before it becomes completely necrotic. In this rapid form of caries, the crown will sometimes disintegrate before the young, well-nourished pulp succumbs to infection, resulting in an open pulpitis.	1.5
c) Under normal circumstances these lesions produce no symptoms because they are said to be deficient in nerve fibers.	0.5

COGNITIVE LEVEL: Recall/ Application

DIFFICULTY LEVEL: Hard/Moderate/Easy

IMPORTANCE: Must Know/Need to Know/Nice to Know

REFERENCE: Contemporary Oral and Maxillofacial Pathology

OSPE

Scenario: A 7-year-old child arrives at the dental outpatient department with complaints of a sore throat, fever, and difficulty eating due to pain. During the oral examination, the dentist observes a bright red, swollen tongue as shown in the picture. There was also a diffuse red rash on the trunk and limbs. (3 marks)



Key:

- The appearance of the tongue described is referred to as a "strawberry tongue." This symptom is most commonly associated with scarlet fever, a disease caused by a specific strain of Streptococcus pyogenes. (2 marks)
- The causative organism of scarlet fever is Streptococcus pyogenes, a type of group A Streptococcus bacteria. (1 mark)

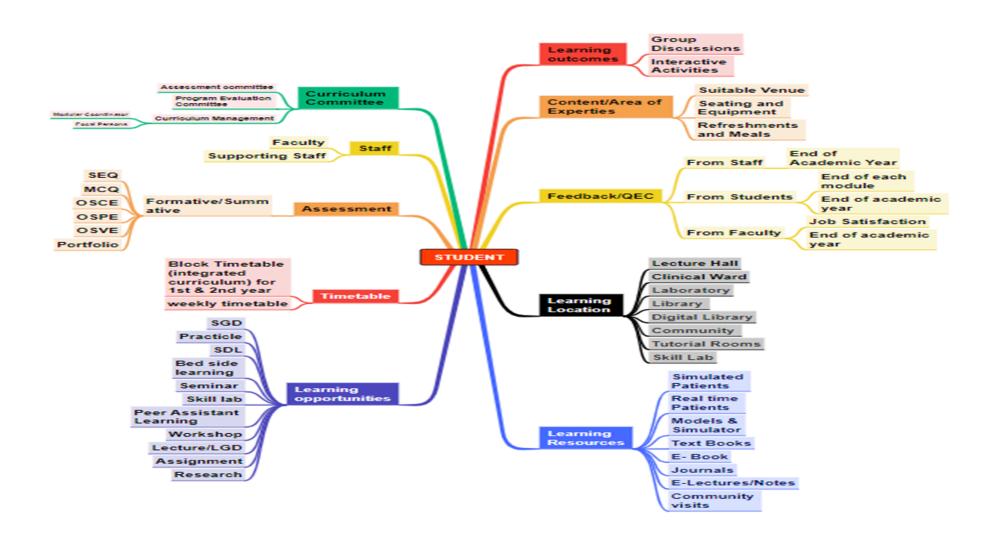
CURRICULUM DETAILS

Curricular Framework including allocation of hours (PMDC)

BDS SCHEME OF STUDIES				
Basic Dental Sciences	s / Preclinical Year	Clinical Dental Sciences / Clinical Years		
1 st Professional Year	2 nd Professional Year	3 rd Professional Year	4 th Professional Year	
Anatomy 300 Hours	General Pathology 220 Hours	General Medicine 180 Hours	Operative Dentistry 250 Hours	
Physiology 300 Hours	Pharmacology 220 Hours	General Surgery 170 Hours	Prosthodontics 250 Hours	
Biochemistry 180 Hours	Science of Dental Materials 300 Hours	Oral Pathology 180 Hours	Orthodontics 250 Hours	
Oral biology & Tooth Morphology 300 Hours	Community Dentistry 200 Hours	Oral Medicine 150 Hours	Oral & Maxillofacial Surgery 250 Hours	
General Education 120 Hours (Islamiat, Pakistan Studies Behavioural Sciences, Research, English, Arts & Humanities)	Pre-clinical Operative Dentistry 80 Hours	Periodontology 180 Hours	Paediatric Dentistry 100 Hours	
	Pre-clinical Prosthodontics 80 Hours	Clinical Operative 80 Hours	General Education 100 Hours (Research, English, Arts & Humanities, ICT)	
	General Education 100 Hours (Behavioural Sciences, Research, English, Arts & Humanities, ICT)	Clinical Prosthodontics 80 Hours		
		Clinical Oral & Maxillofacial Surgery 80 Hours		
		General Education 100 Hours (Research, English, Arts & Humanities, ICT)		
1200 hours	1200 hours	1200 hours	1200 hours	

Curricular Map & Rationale

1. This pictorial, vertical and horizontal presentation of the course content and extent shows the sequence in which various systems are to be covered. Curricular map to cover all the subjects and modules and the time allocated to study of the systems for the undergraduate programs offered at four colleges at campus are as follows:



	Rationale 3 rd Professional Year				
Subjects	Oral Pathology				
TERM-I	 Developmental disturbances Cysts Infections and Odontogenic Tumors Dental Caries Bone lesions 				
TERM- II	Epithelial, immune-mediated and connective tissue disorders, Oral infections				
TERM-III	 Salivary glands, Blood Metabolic disorders. Physical and chemical injuries Wound healing 				

Learning Outcomes & Table of Specification

Unit/ Chapter	Topic/ Content	Student Learning Outcomes	Mode of Information (MOIT)	Learning Domain (KSA-Model)
Developm ental disturbanc es of the Oral Regions	 Developmental disturbances in size of teeth Developmental disturbances in number of teeth Disturbances in eruption of teeth Disturbances in Shape of teeth Enamel Defects Dentine Defects Soft Tissue Anomalies Syndromes 	Student should be able to: Describe the typpes of anomalies associated with the teeth sizes. Describe the most common site for these teeth. Describe the syndromes associated with these disturbances Classify the disturbances associated with the number of teeth. Explain the etiological factors associated with these anomalies. Describe the clinical features of these anomalies. Classify the disturbances associated with the eruption of teeth. Describe the most common teeth associated with these types. Describe the etiological factors associated with these types. Describe the etiological factors associated with these teeth. Explain the complications of delayed eruption. Understand the eruption sequestrum and its etiology. Enlist the disturbances associated with the shape of teeth. Illustrate the most common teeth involved in each anomaly. Know the syndromes associated with each anomaly. Understand the treatment and complications linked with each anomaly. Differentiate among the acquired and hereditary enamel defects. Enlist the etiological factors involved in acquired enamel defects. Classify the amelogenesis imperfecta (Witkop classification) Explain their clinical features i.e. appearance, severity and color of involved teeth classify the fluorosis. Classify the Dentinogenesis imperfecta and dentine dysplasia Categorized Dentinogenesis imperfecta and dentine dysplasia. Know the clinical features, radiographic features and histopathological features of dentine defects. Know tho differentiate among these lesions on the basis of clinical, radiographic and histopathological features and histopathological features of dentine defects. Enstitute of the defects of the development of soft tissue disturbances. Recognize the etiological agents for the development of soft tissue disturbances.	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is

ORAL CYSTS	 Oral Cyst Cyst Arises from rest of Malassez Cyst Arises from reduced enamel epithelium Cyst Arises from Dental Lamina Cyst Arises from vestigial tract Treatment of Cyst 	 Differentiate among the similar anomalies on the basis of clinical and histopathological features. Create differential diagnosis of soft tissue disturbances. Learn the mutation involved in each syndrome along with their gene maps. Learn the clinical features of syndromes. Sub-classify the syndromes. Describe the oral manifestation involved in each syndrome. Student should be able to Define cyst. Know the difference among true and pseudo-cysts. Know the inflammatory and non-inflammatory cyst. Classify the odontogenic and non-odontogenic cysts of the oral cavity. Know the general features of oral cyst. Classifying the cyst arises from the Rest of Malassez. Understand the pathogenesis of these cyst. Learn the clinical features, radiographic features and histopathological features of these cysts. Create differential diagnosis. Draw the histopathological features of cyst in their practical note book. Classifying the cyst arises from reduced enamel epithelium. Understand the pathogenesis of these cyst. Distinguish the clinical features, radiographic features and histopathological features of these cysts. Draw the histopathological features of cyst in their practical note book. Classifying the cyst arises from dental Lamina. Understand the pathogenesis of these cyst. Learn the clinical features, radiographic features and histopathological features of these cyst. Learn the clinical features, radiographic features and histopathological features of these cysts. Know the syndromes associated with OKC. Recognize the reason for the recurrence of OKC. Learn the complications associated with these cysts. Create differential diagnosis. Draw the histopathological features of cyst in their practical note book. 	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil
	Treatment of Cyst	 Create differential diagnosis. Draw the histopathological features of cyst in their practical note book. Classify these cysts. Understand the pathogenesis of these cysts Know the clinical features, radiographic features and histo-pathological features of these cyst. 		
		 Treatment protocol of oral cyst. Identify the indications and contra-indications of enucleation. Identify the indications and contra-indications of marsupialization. Understand and perform the technique of FNAC. 		

		Student should be able to:		
BONE	 Fibrous-osseo us Lesions of Jaw Metabolic Conditions of Bone Benign Tumors of Bone Giant Cell Lesions of Bone Cyst of Bone Malignant Tumours of Bone 	 Classify the fibrous-osseous lesions of the jaw. Understand the clinical features of the fibrous-osseous lesions. Classify and know the radiographic features according to stage of lesion and key radiographic features of each lesion. Draw and learn the histopathological features of the lesion Differentiate between fibrous-osseous lesions on the basis of radiographic and histopathological features. Classify the metabolic conditions of the jaw. Understand the Pathogenesis of the metabolic conditions of bone. Understand the clinical and radiographic features of conditions. Learn and know the histopathological features of these conditions. Know the complications associated with these conditions Make differential diagnosis of conditions on the basis of clinical, radiographic and histopathological features. Classify the benign tumors of bone. Know the etiological factors involved in each benign tumor. Understand the clinical, radiographic and histopathological features of benign tumors of bone. Differentiate among these benign tumors of the bone on the basis of their clinical and radiographic features. Classify the giant cell lesions. Understand the clinical, radiographic and histopathological features. Draw the histopathological features of Giant cell lesions. Differentiate it from its other mimicking lesions. Understand the pathogenesis involved in the formation of bone cyst. Know the clinical and radiographic features of these cyst. Create differential diagnosis on the basis of their clinical, radiographic and histopathological features Classify the malignant tumors of bone. Understand the pathogenesis involved in these tumors. Classify each and every tumor on the basis of their clinical and histopathological features. Learn the radiographic features of the tumor along with their disti	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is

ODONTOG ENIC TUMORS	 Odontogenic tumor arises from Epithelium Connective tissue origin odontogenic tumor Epithelium and connective tissue origin odontogenic tumor Malignant odontogenic tumors 	Student should be able to Classify odontogenic tumors according to their origin. Understand the clinical features of Ameloblastoma, CEOT, AOT, CEC and Squamous odontogenic tumor. Learn the radiographic features of epithelial origin odontogenic tumors Know and be able to draw the histopathological features. Differentiate these tumors from each other on the basis of clinical, radiographic and histopathological features. Create differential diagnosis. Learn the clinical, radiographic and histopathological features of these tumors. Understand distinctive radiographic and histopathological features of these tumors. Learn the clinical, radiographic and histopathological features of these tumors. Create differentiating points between similar lesions. Learn the difference between malignant odontogenic tumors. Learn the clinical features and histopathological features of these tumors.	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is
EPITHELIA L LESION	 Squamous Papilloma Keratoacantho ma Benign Pigmented lesion Leukoplakia Epithelial hyperplasia Epithelial atrophy 	 Student should be able to Know the pathogenesis of these lesions. Understand the clinical features. Identify, label and be able to draw the histopathological features. Classify the benign pigmented lesions. Understand the differences on the basis of clinical features i.e. site, size and age. Know the pathogenesis involved in these lesions. Draw and perceive histopathological knowledge of these lesions. Know the syndromes associated with these lesions. Classify the lesions on their clinical and histopathological features. Define the major terminologies used in epithelial hyperplasia. Understands the etiological factors involved in Leukoplakia. Know the clinical features of variants of leukoplakia. Differentiate between premalignant and malignant lesions. Distinguish among premalignant lesions and premalignant conditions. Learn and identify the histopathological points of the lesions. 	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is

- Oral submucous fibrosis)
- Epithelial Dysplasia
- Erythroplakia
- Malignant epithelial neoplasms
- Melanoma

- Create differential diagnosis.
- Understand the pathogenesis involved in the progression of the lesion. Understand the clinical features of the lesions.
- Learn the histo-pathological features of the lesion.
- Define epithelial dysplasia.
- Classify/ grade epithelial dysplasia on the histo-pathological basis.
- Learn the architectural and cytological alterations observed in epithelial dysplasia.
- Differentiate epithelial dysplasia from Carcinoma-in-situ.
- Differentiate carcinoma-in-situ from Carcinoma.
- Define the erythroplakia.
- Understand the pathogenesis involved in and progression of lesion.
- Know the histopathological features of the lesions.
- Understand the logical points for the color of lesion.
- Know how to differentiate it from its other similar lesions
- Create differential diagnosis.
- Define malignant epithelial tumors.
- Define Squamous cell carcinoma.
- Understand the pathogenesis involved in the Squamous cell carcinoma.
- Know the risk factors involved in the Squamous cell carcinoma of the oral cavity.
- Learn the clinical features of OSCC according to the site of tumor i.e. tongue, lip, buccal mucosa, hard palate and soft palate.
- Understand and be able to draw the histopathological features of OSCC.
- Know the grading of the OSCC.
- Learn the TNM staging of the OSCC.
- Know the most common sites for metastasis of OSCC.
- Learn the treatment protocol of OSCC.
- Classify the SCC into its clinical variants.
- Understand the clinical features and histopathological features of each and every variant of SCC.
- Define melanoma.
- Understand the pathogenesis involved in the development and progression of melanoma.
- Understand the vertical and nodular growth pattern of melanoma.

		 Learn the clinical features of melanoma. Classify melanoma. Understand the clinical and histopathological features of each type of melanoma. Knows how to differentiate it from Nevus or its benign counterpart. Knows the Clarks classification of the melanoma. Understand the prognosis and the factors associated with it. Learn the treatment protocol of melanoma. 		
CARIES AND PULPAL INFECTIO NS	Dental caries Pulpitis Periapical lesions Osteomyelitis	Student should be able to To describe the dental caries Classify dental caries Describe the enamel and dentin caries Explain the clinical and histopathological features of enamel and dentin caries Able to explain and distinguish various clinical types of pulpitis Explain different etiological agents associated with pulpitis Describe reversible and irreversible pulpitis. Differentiate between reversible and irreversible pulpitis Explain pulp necrosis Understand different diagnostic techniques to assess the vitality of symptomatic tooth and pulp Describe the histopathological features and management of acute, chronic and hyperplastic pulpitis Describe and identify the factors leading to acute and chronic periapical lesions. Differentiate and explain chronic apical (periapical granuloma & cyst) and acute apical (periapical abscess) periodontitis. Explain the complications and management of acute and chronic periapical periodontitis Understand and classify osteomyelitis. Describe the clinical, radiographic and histopathological features of acute and chronic osteomyelitis Illustrate features and complications of cellulitis and Ludwig's angina. Explain the Garre's osteomyelitis	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is

SALIVARY GLAND LESION	 Reactive lesions of salivary glands Salivary gland infections Immune-media ted diseases Salivary gland tumors (Benign) Malignant Salivary gland tumors 	Student should be able to Explain mucocele Differentiate between mucocele and mucus retention cyst Understand sialolithiasis and clinical & histopathological features of the affected gland Discuss etiology, clinical and histopathological features of chronic sclerosing sialadenitis Understand necrotizing sialometaplasia, its pathophysiology, clinical and histopathological features Create differential diagnosis of necrotizing sialometaplasia Understand features of acute and chronic sialadenitis Explain viral and bacterial sialadenitis. Know about immune mediated diseases Describe Sjogren's syndrome and understand its primary and secondary types Understand the clinical and laboratory detection of Sjogren's syndrome Explain diagnostic criteria, histopathological features and management of Sjogren's syndrome Classify salivary gland tumors Understand distinguishing features of benign and malignant tumors Distinguish the clinical features, radiographic features and histopathological features of benign tumors (pleomorphic adenoma, monomorphic adenomas, oncocytoma & Warthin tumor). Know the reason for higher recurrence rate of pleomorphic adenoma • Create differential diagnosis of these tumors. Discuss clinical, histopathological features and grading criteria of mucoepidermoid carcinoma. Learn the clinical and distinguishing histopathological features of adenoid cystic carcinoma. Know the variants of adenoid cystic carcinoma.	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is
		 Learn the clinical and distinguishing histopathological features of adenoid cystic carcinoma. Know the variants of adenoid cystic carcinoma. 		

CONNECT IVE TISSUE LESIONS	 Fibrous tissue Neural tissue Adipose tissue Vascular Tissue Osseous and cartilaginous tissue 	Student should be able to Distinguish between fibrous hyperplasia, benign and malignant fibrous tumors Able to describe clinical, histopathological features and differential diagnosis of fibrous hyperplasia. Explain clinical, radiographic, histopathological and differential diagnosis of benign fibrous lesions Describe the clinical, radiographic and histopathological features as well as differential diagnosis of neural tissue. Clinical, histopathological findings and differential diagnosis of neural tissue. Clinical, histopathological findings and differential diagnosis of neural hyperplasia Know the features, mutated genes & diagnostic criteria of syndrome (multiple endocrine neoplasia) associated with neural hyperplasia (palisaded encapsulated neuroma) Distinguish the clinical, histopathological & differential diagnosis of benign neural tumors Understand & explain multiple neurofibromatosis Describe clinical, radiographic, histopathological & differential diagnosis of malignant neural tumor Know clinical, histopathological and differential diagnosis of benign and malignant muscle tumors. Describe the clinical histopathological features and differentials of benign as well as malignant adipose tissue tumor Distinguish between vascular proliferations in both soft and bony tissues Know clinical, histopathological features & differential diagnosis of benign vascular proliferations Distinguish between hamartomas & tumors of vascular tissues Elaborate the various forms of vascular hamartomas, clinical, histopathological features, and immunomarkers Distinguish between hamartomas & tumors of vascular tissues Explain the related syndromes Describe malignant vascular proliferations in both soft and bony tissues Know clinical, histopathological features & differential diagnosis of benign vascular proliferations Distinguish between hamartomas & tumors of vascular hamartomas, clinical, histopathological features, and immunomarkers Describe malignant vascular proliferations in both soft and bony tissues	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is
-------------------------------------	--	--	--	----------------------

IMMUNE MEDIATE D DISORDE RS	 Recurrent Aphthous Stomatitis Mucosal And Skin Conditions Allergic Reactions Granulomatou s Condition of Oral Cavity 	 Describe myositis ossificans, its clinical, radiographic, histopathological features and differential diagnosis. Student should be able to Define RAS Describe its types Describe the systemic conditions associated with RAS Describe the syndromes associated with RAS Classify immune mediated disorder. Explain the pathogenesis of these immune mediated disorders. Describe the clinical features of these conditions along with histopathology Describe the concept of immunofluorescence Draw the histopathological features of theses disorders in their practical note book. Create differential diagnosis. Define allergic reactions Describe its types Describe the etiological factors associated with types of allergic reaction along with its clinical presentation. Enlist the different granulomatous condition of oral cavity Explain their clinical features 	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is
PHYSICAL AND CHEMICA L INJURIES	 Physical Injuries Physical Injuries Related to Gingiva & Tongue Mucosal Tissue Injuries Radiation Injuries Chemical Injuries 	 Student should be able to Describe physical injuries associated with teeth Differentiate clinically, Attrition, Abrasion and Erosion. Describe the concept of resorption and differentiate between its types. Classify physical injuries related to gingiva. Describe lesions associated with tongue like traumatic atrophic glossitis, benign migratory glossitis, hairy tongue, fissured tongue Create differential diagnosis. Describe mucosal tissue injuries like Factitious Injuries, Denture Injuries, Electrical Burns, Thermal Burns Distinguish the clinical features of these injuries Create differential diagnosis. Describe mucosal tissue injuries like Radiation Mucositis, Xerostomia, Radiation Caries, Osteoradionecrosis and Soft Tissue Radiation Injuries. Distinguish the clinical features of these injuries Create differential diagnosis. Describe chemical injuries associated with teeth, gingiva and oral mucosa Distinguish the clinical features of these injuries Create differential diagnosis. Describe chemical injuries associated with teeth, gingiva and oral mucosa Distinguish the clinical features of these injuries Create differential diagnosis. 	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is

Explain histopathology and laboratory diagnosis of common fungal diseases of oral	BLOOD DISORDE RS	 Red Blood Cells White Blood Cells Neoplasms Bleeding Disorders Viral Infections Bacterial Infections Fungal Infection 	Student should be able to Describe diseases associated with WBCs like Leukopenia, Agranulocytosis, Cyclic Neutropenia etc. Explain its types, their clinical features along with its oral manifestation Describe neoplasm related to blood cells like leukemia, Lymphomas, multiple myeloma. Understand the etiological factors associated with these blood disorders Explain its types, their clinical features along with its oral manifestation Describe bleeding disorder like Thrombocytopenia, Scurvy, Haemophilia etc Describe its types, their clinical features along with its oral manifestation Describe common viral infections occurring in the oral cavity. Learn the structure and pathogenesis of the viruses. Mention oral manifestation of viral diseases. Explain histopathology and laboratory diagnosis of common viral diseases of oral cavity Describe common bacterial infections occurring in the oral cavity. Mention oral manifestation of bacterial diseases. Explain histopathology and laboratory diagnosis of common bacterial diseases of oral cavity Describe common fungal infections occurring in the oral cavity Learn the etiological factors involved in the acquisition of fungal infections. Mention oral manifestation of fungal diseases Explain histopathology and laboratory diagnosis of common fungal diseases of oral	Lecture/Tuto rial/ Practical/SD L/Demonstr ation	Knowledge/Skil Is
---	------------------------	---	--	--	----------------------

Assessment TOS/Blueprint

Topic/ Content	Assessment Method (No. of Questions)			
	MCQS	SEQs	Viva	OSPE/ Practical
DEVELOPMENTAL DISTURBANCES OF ORAL AND PARAORAL STRUCTURES	3	2	Possible Viva Questions	15 Unobserve d Stations + 1 Long Slide Station
EPITHELIAL PATHOLOGY	4	2		
SOFT TISSUE PATHOLOGY	3	0.5		
BONE PATHOLOGY	3	1		
SALIVARY GLAND PATHOLOGY	3	1		
CYST OF ODONTOGENIC ORIGIN	2	0.5		
TUMOR OF ODONTOGENIC ORIGIN	2	1		
INFECTIONS	7	1		
DENTAL CARIES	2	1.5		
DISEASES OF PULP AND PERIAPICAL TISSUE	1	0.5		
SPREAD OF ORAL INFECTIONS	1	0		
PHYSICAL AND CHEMICAL INJURY	2	1.5		

ALLERGIES AND IMMUNO-LOGICAL ORDERS	4	1	
HEALING OF WOUNDS	1	0	
DISEASES OF BLOOD AND BLOOD FORMING ORGANS	2	1	
ORAL ASPECTS OF METABOLIC DISEASES	1	0.5	
DISEASES OF SKIN	3	0.5	
FACIAL AND NEUROMUSCULAR PATHOLOGY	1	0	
Total	45	15	15

