

**Institute of Dentistry,  
CMH Lahore Medical College  
Study Guide  
BDS 3rd Year**

**INSTITUTE OF DENTISTRY**

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## Introduction to Study Guide

Welcome to the 3<sup>rd</sup> Year BDS program at CMH Lahore Medical College & Institute of Dentistry. This study guide has been created especially for you to serve as a reliable companion throughout your academic year. It is designed not only to share what you will study, but also to explain why each part of your training is important and how it contributes to your development as a future dental professional. Inside this guide, you will find the program outcomes, block-wise and module-wise objectives, teaching methods, contact hours, and assessment strategies. By having all this information in one place, you can plan your studies more effectively, stay organized, and approach each subject with clarity.

One of the most valuable aspects of this guide is its integrated approach. You will see how each subject connects with each other, and how these foundations link with your future dental practice. This not only makes learning meaningful but also prepares you to think critically and apply knowledge in real clinical settings. Beyond academics, this guide also highlights institutional policies, feedback opportunities, and support services available to you. It emphasizes the values of professionalism, ethics, leadership, and research, which are vital qualities for any healthcare provider.

Remember, this study guide is not just a document—it is a learning tool meant to empower you. Use it to track your progress, align your efforts with assessments, and make the most of the resources available. By taking ownership of your studies and following the structure provided here, you will be able to build strong foundations and set yourself up for success in dentistry.

We are confident that, with your dedication and the support of your faculty, this guide will help you excel in your academic year BDS at CMH LMC & IOD.

Wishing you a rewarding and successful journey ahead!

School of Health Professions Education

CMH Lahore Medical College & Institute of Dentistry

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## **Vision of National University of Medical Sciences**

To be the best medical university by conducting world-class bio-medical research and creative research activities that develop knowledge and contribute to improve the health care system and social advancement for the people of Pakistan and benefit humanity as a whole with a standard of excellence.

## **Mission of National University of Medical Sciences**

Our mission is to emphasize rigorous research fundamentals while stimulating innovation and providing talented students and faculty with the high standard research facilities in the colleges/institutions of NUMS, necessary to achieve excellence in bio-medical research to contribute toward best care for our individuals and communities, embraces the challenges of health disparities and improve health care system up to international standards.

## **Vision of CMH Lahore Medical College and Institute of Dentistry**

To be a leading institute in medical education that provides an inclusive and conducive environment to foster excellence in teaching, learning, acquisition of clinical skills, research, and innovation to improve future health indicators within our region and beyond.

## **Mission of CMH Lahore Medical College and Institute of Dentistry**

To improve healthcare by:

1. Providing quality medical education that prepares healthcare professionals according to internationally accepted benchmarks for empathy, social accountability, lifelong learning, critical thinking, and sound clinical acumen.
2. Ensuring a conducive and equitable learning environment in research and continuous professional development for students and faculty respectively, enabling their success in national and international licensure examinations and opportunities.
3. Fostering evidence-based and patient-centered care to efficiently address global healthcare challenges, focusing on prevention and community health improvement.

## **Vision of Institute of Dentistry**

To advance dental education, research, and oral health care..

## **Mission of Institute of Dentistry**

- Prepare learned, skilled, and ethical dental professionals for comprehensive and evidence-based practice.

- Conduct research to advance knowledge and practices.
- Promote community oral health and disease prevention.

## **Rationale for Sequencing of BDS Curriculum**

The planned competency-based curriculum for BDS at Institute of Dentistry, CMH Lahore Medical College, was developed under the supervision of the National University of Medical Sciences (NUMS). It is designed following the principles of Harden's Integration Ladder ). The integrated curriculum incorporates major elements from Harden's Level 7 (Correlation) and some components from Level 8 (Complementary Programme) Click or tap here to enter text..

The integrated curriculum comprises of five vertically aligned themes spanning across four academic years of BDS program. Each theme includes a number of sub-themes that are presented as modules for horizontal and vertical integration and to ensure temporal coordination. These modules are systematically organized and divided into blocks for balanced distribution of curriculum content. Specific topics within each module are identified for integrated sessions, which is a requirement for Harden level 7 (Correlation).

The sequence of courses/modules and alignment, which may be viewed in curriculum map, is based on Pakistan Medical & Dental Council (PM&DC) and Higher Education Commission (HEC) guidelines. The *Z-shaped* curriculum model is adopted. In this educational approach students initiate with most content of basic science education with early clinical exposure, progressively moving to advanced level with more clinical education towards program completion. The vertical themes ensure that the topics are revisited throughout subsequent years providing an essence of spiral integrated curriculum. Click or tap here to enter text..

As the subject boundaries have been maintained, approximately 80% content of each subject is covered in the relevant year, while the remaining 20% is integrated vertically across rest of the years. This strategy promotes inter-connected learning across various subjects promoting the main aim of integration i.e. better understanding and relevance Assessment strategies are aligned with the block-wise distribution of content, promoting coherence and ensuring a comprehensive evaluation of students' competencies in knowledge, skills and attitudes.

# Curricular Framework

BDS 4 Years Curricular Framework			
Scheme Of Studies			
1st Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	Final Year
Anatomy + Clinical Lectures	Science of Dental Material	Periodontology	Prosthodontics
Physiology+ Clinical Lecture	Gen. Pathology & Microbiology	Oral Pathology	Operative Dentistry
Biochemistry + Clinical Lecture	Pharmacology	Oral Medicine	Oral & Maxillofacial Surgery
Oral Biology & Tooth Morphology + Clinical Lecture / Clinical Rotation	Behavioural Sciences	Gen. Medicine	Orthodontics
	Community & Preventive Dentistry	Gen. Surgery	
Pak studies & Islamic Studies	Pre- Clinical Prosthodontics	Oral & Maxillofacial Surgery	
	Pre- Clinical Operative Dentistry	Prosthodontics	Paedontics
Behavioural Sciences			
		Operative Dentistry	
Research Methodology			

Professionalism & Leadership			Dental Entrepreneurship
Expository Writing			
Computer Skills			
Dental Photography			

### Contact Hours Distribution for BDS 3<sup>rd</sup> Year

Subject	Contact Hours (NUMS & PM&DC)
General Surgery	200
General Medicine	200
Oral Pathology	150
Oral Medicine	125
Periodontology	175
Prosthodontics	125
Operative Dentistry	100
Oral & Maxillofacial Surgery	125
*Behavioral Sciences (Curriculum Separately Attached)	50
SDL	10
<b>Total</b>	<b>1260</b>

## Evaluation of the Course

The major goals of the evaluation are to monitor quality of teaching and assessment and improve the implemented curricula's.

- Feedback through CMS will be taken at the end of block from students and faculty members.
- LQEC receives recommendation from Evaluation Committee comprising of
  - Head of LQEC: Dr. Rizwana Kamran (Associate Professor SHaPE)
  - Any one student from each academic year.
  - Representation from each academic year.
- LQEC generates reports to be shared with the yearly curriculum and institutional curricular committee for implementation of recommendation from students and faculty members.

## Online Learning & Assessment

The COVID-19 pandemic has transformed education, introduced new challenges while fostered innovation catering for the unforeseen situations: Now institutions within Pakistan and across the world are expected to be ready to resume online learning and assessment in times of emergency. The Learning Management System (LMS) at CMH LMC & IOD ensures that online education is standardized, interactive, and aligned with academic and professional requirements.

Switch over to online learning will be notified a day before or on the same day before the first academic session depending upon the nature of national emergency situation.

The LMS combines Moodle and Zoom, designed to meet the needs of students. Key features include:

- **Access to Courses:** Students can view recorded lectures, access course materials, and engage with faculty.
- **Attendance Verification:** Attendance is tracked using a dual system:
  - Moodle login records.
  - Mandatory quizzes after each lecture (not-graded).
- **Progress Monitoring:** Regular assessments such as quizzes and assignments track students' performance.

## Feedback Mechanisms

Integrated evaluation forms enable students and faculty to provide input for continuous improvement.

To ensure privacy and security:

- Students: Receive personalized logins to access course materials.
- Faculty: Have permissions to upload content, grade assignments, and track student progress.
- SHaPE & QEC: Monitor and evaluate LMS activities to monitor quality.
- IT Support: Manage user accounts, system updates, and security.

Special access requests are managed through the CE Secretariat in consultation with the IT department. Assessments are designed to support learning and maintain academic rigor:

- Formative Assessments: Quizzes and assignments contribute to assessment for learning but do not count toward final grades.
- Summative Assessments: Online term exams and send-ups.
- Feedback and Quality Assurance: Student evaluations collected through QEC proformas ensure ongoing improvement of online teaching practices.

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## CMH Lahore Medical College - Policies

- Attendance and disciplinary policy <https://cmhlahore.edu.pk/wp-content/uploads/2024/10/std-policy.pdf>
- Policy for Steering Committee for the Selection of Class Representatives (BR and GR) Based on Student Feedback <https://cmhlahore.edu.pk/wp-content/uploads/2025/01/Steering-committee.pdf>
- Social Media Policy for Faculty, Staff, and Students <https://cmhlahore.edu.pk/wp-content/uploads/2024/02/Social-Media-Policy-for-students-02-08-2023.pdf>
- Code of Conduct <https://cmhlahore.edu.pk/wp-content/uploads/2024/02/SOP-Code-of-Conduct-27-02-24.pdf>
- Internet Usage Policy <https://www.cmhlahore.edu.pk/wp-content/uploads/2023/09/CMH-Internet-Usage-Policy-02-08-2023.pdf>
- Healthcare Facility <https://www.cmhlahore.edu.pk/wp-content/uploads/2023/09/Health-Care-Facility.pdf>
- Complaint Cell <https://www.cmhlahore.edu.pk/wp-content/uploads/2023/09/Complaint-Cell-CMH-LMC-IOD.pdf>
- Retake Policy (For Internal Assessment Only) <https://www.cmhlahore.edu.pk/wp-content/uploads/2023/05/ion-Updated-Retake-Policy-2.pdf>
- Drug and tobacco abuse/smoking <https://www.cmhlahore.edu.pk/wp-content/uploads/2022/11/SOP-Drug-and-Tobacco.pdf>
- Sexual harassment <https://www.cmhlahore.edu.pk/wp-content/uploads/2022/11/Sexual-Hars-policy.pdf>
- Disciplinary Committee Policy <https://www.cmhlahore.edu.pk/wp-content/uploads/2022/11/Disciplinary-Committe-Policy.pdf>
- Co-curricular Activities <https://www.cmhlahore.edu.pk/wp-content/uploads/2022/11/Co-curricular-privacy-policy.pdf>
- Electives Policy <https://www.cmhlahore.edu.pk/wp-content/uploads/2022/11/electives-policy.pdf>
- CMH LMC Formative Assessment and Feedback Policy <https://www.cmhlahore.edu.pk/wp-content/uploads/2022/11/CMH-LMC-Formative-Assessment-and-Feedback-Policy.pdf>

## Assessment Plan for BDS

- The assessment plan comprises 3 block exams (1<sup>st</sup> year to 3<sup>rd</sup> year)/ 2 term exams (final year), 1 send-up, and 1 professional examination. Examination consists of one-best multiple-choice questions and short essay type questions along with OSPE/OSCE. All exams except for University's exam/professional exam contribute towards internal assessment of the respective subjects according to the institutional policy. The assessment schedule is given below:

Type of Assessment	Weightage	Frequency and Time	Methods/ Tools for Assessment
Formative		Informally during and after the session	Class tests (MCQs, SEQs, SAQs), Class presentations, Assignments, Tutorials, Case Based Discussions, Portfolios
Summative	Continuous Internal assessment 20%	3 block exams (1 <sup>st</sup> year to 3 <sup>rd</sup> year), 2 term exams (final year), Send up (before the professional exam) (80%)  Attitude/ behavior/ attendance/ assignments/ achievements (throughout the year) (20%)	MCQs, SAQs, SEQs, OSPE, OSCE, CBD, Viva, Log Books, Mini-Cex, DOPS
	University exam 80%	Once at the end of academic year	MCQs, SAQs, SEQs, OSPE, OSCE, Viva

### 3<sup>rd</sup> YEAR BDS BLOCK WISE DISTRIBUTION

#### BLOCK-I (12 weeks)

General Medicine	General Surgery	Periodontology	Oral Pathology	Oral Medicine
<ul style="list-style-type: none"> <li>• Cardiovascular system</li> <li>• Haematology</li> <li>• Nephrology</li> </ul>	<p>Principles of surgery</p>	<ul style="list-style-type: none"> <li>• Anatomy &amp; physiology of periodontium</li> <li>• Classification of periodontal disease &amp; epidemiology.</li> <li>• Periodontal microbiology</li> <li>• Host response and host bacterial interactions</li> <li>• Local factors and Systemic factors</li> <li>• Periodontal pathogenesis</li> <li>• Gingival inflammation</li> <li>• Periodontal pocket</li> <li>• Bone loss and patterns of bone loss</li> </ul>	<ul style="list-style-type: none"> <li>• White Lesions</li> <li>• Epithelial Pathology</li> <li>• Dental Caries</li> <li>• Heamatological Malignancies/Lymphomas</li> <li>• Periapical disorders</li> </ul>	<ul style="list-style-type: none"> <li>• Intro to Oral Med</li> <li>• Principles of Assesment &amp; management</li> <li>• Oral ulcers</li> <li>• Diseases of lips &amp; tongue</li> <li>• Cancer n Precancerous lesions</li> <li>• Oral pigmentation</li> <li>• Vesiculobullous lesions</li> <li>• Blood related disorders</li> <li>• Renal diseases</li> </ul>

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## BLOCK-II (12 weeks)

General Medicine	General Surgery	Periodontology	Oral Pathology	Oral Medicine
<ul style="list-style-type: none"> <li>• Respiratory system</li> <li>• Nervous system</li> <li>• Gastrointestinal system</li> </ul>	<ul style="list-style-type: none"> <li>• Trauma and its management</li> <li>• Anesthesia and its risks</li> </ul>	<ul style="list-style-type: none"> <li>• Effect of Smoking on periodontium</li> <li>• Halitosis</li> <li>• Gingivitis</li> <li>• Acute gingival infections</li> <li>• Desquamative gingivitis</li> <li>• Gingival enlargement</li> <li>• Chronic Periodontitis</li> <li>• Aggressive periodontitis</li> <li>• Necrotizing ulcerative periodontitis</li> <li>• Trauma from occlusion</li> <li>• Perio Non-Surgical Therapy</li> <li>• Plaque biofilm control</li> <li>• Perio-endo/prostho considerations</li> </ul>	<ul style="list-style-type: none"> <li>• Developmental Disturbances of Oral Region</li> <li>• Odontogenic Tumours</li> <li>• Odontogenic Cysts</li> <li>• Non-Odontogenic Cysts</li> <li>• Salivary Glands</li> <li>• Connective Tissue Lesions (Fibrous, Neural tissue lesions)</li> </ul>	<ul style="list-style-type: none"> <li>• Orofacial pain</li> <li>• Facial paralysis</li> <li>• TMDs</li> <li>• Face n neck swellings</li> <li>• Salivary glands</li> <li>• GIT disorders</li> <li>• Nutritional disorders</li> </ul>

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## BLOCK-III (12 weeks)

General Medicine	General Surgery	Periodontology	Oral Pathology	Oral Medicine
<ul style="list-style-type: none"> <li>• Endocrinology</li> <li>• Musculoskeletal system</li> <li>• Infections</li> </ul>	<ul style="list-style-type: none"> <li>• Common surgical disorders relevant to dental practice</li> <li>• Quality of care in clinical practice</li> </ul>	<ul style="list-style-type: none"> <li>• General principles of periodontal surgery</li> <li>• Gingival curettage</li> <li>• Gingivectomy and Gingivoplasty</li> <li>• Flap surgery</li> <li>• Modified Widman flap</li> <li>• Osseous surgery</li> <li>• Furcation involvement</li> <li>• Regenerative Periodontal Therapy</li> <li>• Esthetic and periodontal plastic surgery</li> <li>• Supportive Periodontal care</li> <li>• Splinting of Teeth</li> <li>• Oral Implantology</li> </ul>	<ul style="list-style-type: none"> <li>• Connective Tissue (Muscle, Vascular, Adipose and Osseous Lesions)</li> <li>• Immune-mediated Disorders,</li> <li>• Bone Pathology</li> <li>• Viral infections</li> <li>• Fungal Infections</li> <li>• Bacterial/Granulomatous Infections</li> </ul>	<ul style="list-style-type: none"> <li>• Immunity</li> <li>• Endocrinopathies</li> <li>• Disorders of teeth</li> <li>• Osteochemo necrosis</li> <li>• Infections</li> <li>• Medical Emergencies</li> </ul>

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**General Medicine**

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## GENERAL MEDICINE

TOPIC/ THEME	LEARNING OUTCOMES	LEARNING OBJECTIVES	INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
<b>CARDIOVASCULAR SYSTEM</b>	<p>By the end of a unit, candidates will be able to:</p> <ul style="list-style-type: none"> <li>• Recognize important cardiovascular conditions</li> <li>• age acute chest pain and Vasovagal syncope</li> </ul>	<p>This course enables the student to:</p> <ul style="list-style-type: none"> <li>• List differential diagnosis of acute chest pain and its principles of management.</li> <li>• List spectrum of ischemic heart disease and its management.</li> <li>• Describe the etiology, diagnosis and guidelines of management of hypertension.</li> <li>• Discuss the etiology, diagnosis and treatment of rheumatic fever/RHD</li> <li>• Describe the pathophysiology, etiology, investigations and management of cardiac failure.</li> <li>• Describe the infectious agents of infective endocarditis and its diagnosis, investigations and management</li> </ul>	Interactive lectures, Small group discussions	MCQs, SAQs
<b>INFECTIONS</b>	Manage the common infections	<ul style="list-style-type: none"> <li>• Diagnose and treat the common infective causes of fever like enteric fever, dengue fever and malaria.</li> <li>• Diagnose common viral infections like influenza, COVID 19</li> <li>• Identify the infections like HIV/AIDS and other STDs, and important fungal infections like candidiasis</li> </ul>	Interactive lectures, Small group discussions	MCQs, SAQs

<b>GASTROINTESTINAL SYSTEM</b>	<ul style="list-style-type: none"> <li>Recognize important GI and hepatobiliary conditions</li> <li>Manage common GI and hepatobiliary presentations</li> </ul>	<ul style="list-style-type: none"> <li>Recognize and approach to common GI symptoms like diarrhea, vomiting, dyspepsia, abdominal pain</li> <li>Describe the pathophysiology of the acid peptic disease and its appropriate investigations and management.</li> <li>Approach to the patient with upper GI bleeding</li> <li>Describe the etiology, clinical features, investigations and management of acute hepatitis, chronic hepatitis and cirrhosis of liver with special emphasis on clinical implications of the liver diseases in dentistry.</li> </ul>	Interactive lectures, Small group discussions	MCQs, SAQs
<b>RESPIRATORY SYSTEM</b>	<ul style="list-style-type: none"> <li>Recognize important respiratory conditions</li> <li>Manage common respiratory presentations</li> </ul>	<ul style="list-style-type: none"> <li>Explain the risk factors of pneumonia, its classifications, investigations and appropriate treatment.</li> <li>Describe the etiology, diagnosis and guidelines of management of chronic bronchial asthma and acute severe asthma</li> <li>Describe the etiology, diagnosis and treatment pulmonary tuberculosis</li> <li>Describe the pathophysiology, etiology, investigations and management of chronic obstructive pulmonary disease.</li> </ul>	Interactive lectures, Small group discussions	MCQs, SAQs

<b>NERVOUS SYSTEM</b>	Diagnose and manage the common neurological conditions.	<ul style="list-style-type: none"> <li>• Approach to the patient with headache</li> <li>• Describe the etiology, diagnosis and guidelines of management of meningitis and encephalitis.</li> <li>• Describe the etiology, diagnosis and Management of cerebrovascular accident</li> <li>• Describe the classification, etiology, investigations and management of epilepsy.</li> </ul>	Interactive lectures, Small group discussions	MCQs, SAQs
<b>HAEMATOLOGY</b>	Manage common bleeding disorders	<ul style="list-style-type: none"> <li>• Identify and discuss the common clotting disorders like hemophilia and Von-Willibrand disease.</li> <li>• Identify and discuss the diseases like immune thrombocytopenic pupura and disseminated intravascular coagulation</li> <li>• Describe the classification of anemia and its diagnosis, investigations and management</li> <li>• Approach to anticoagulant therapy</li> <li>• Identify common haematological malignancies</li> </ul>	Interactive lectures, Small group discussions	MCQs, SAQs
<b>NEPHROLOGY</b>	<ul style="list-style-type: none"> <li>• Approach the patient with kidney diseases</li> <li>• Manage fluid and electrolyte imbalances</li> <li>• Manage common UTIs</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the classification, etiology, investigations and management of acute kidney injury and chronic kidney disease.</li> <li>• Identify and manage fluid and electrolyte imbalances</li> </ul>	Interactive lectures, Small group discussions	MCQs, SAQs

		<ul style="list-style-type: none"> <li>• Discuss etiology , management of common urinary tract infection</li> </ul>		
<b>ENDOCRINOLOGY</b>	<ul style="list-style-type: none"> <li>• Diagnose common endocrine disorders</li> <li>• Manage diabetic emergencies</li> </ul>	<ul style="list-style-type: none"> <li>• Describe the etiology, clinical features, investigations and Treatment of hypothyroidism, hyperthyroidism and parathyroid disorders</li> <li>• Describe the pathophysiology, classification of diabetes mellitus and its appropriate investigations and management.</li> <li>• Manage diabetic emergencies</li> </ul>	Interactive lectures, Small group discussions	MCQs, SAQs
<b>MUSCLOSKELETAL SYSTEM</b>	Identify common rheumatological disorders	<ul style="list-style-type: none"> <li>• Describe the etiology, diagnosis and management of systemic lupus erythematosus</li> <li>• Describe the etiology, investigations and Management of rheumatoid arthritis.</li> <li>• Describe the etiology, diagnosis and guidelines of management of osteoporosis and osteoarthritis</li> </ul>	Interactive lectures, Small group discussions	MCQs, SAQs

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**PICAL DETAILS OF CLINICAL SKILLS TO BE LEARNED AT THE BEDSIDE**

<b>Learning Objective:</b>	<b>Psychomotor Objectives:</b>	<b>Teaching Methodology</b>	<b>Assessment tool</b>
Art Of History Taking	Examination Technique of: <ul style="list-style-type: none"> <li>• Abdomen</li> <li>• Respiratory System</li> <li>• Neurology</li> <li>• Cardiology</li> </ul>	Bed Side Teaching/ Skills Lab	OSCE
Formal Structure of Medical History			
Symptoms Pertaining to: <ul style="list-style-type: none"> <li>• Abdomen</li> <li>• Respiratory System</li> <li>• Neurology</li> <li>• Cardiology</li> </ul>			
Normal and Abnormal Signs in <ul style="list-style-type: none"> <li>• Abdomen</li> <li>• Respiratory System</li> <li>• Neurology</li> <li>• Cardiology</li> </ul>			

**Recommended books**

1. Davidson's Principles and Practice of Medicine
2. Kumar and Clarks Clinical Medicine
3. Clinical methods (Macleod or Hutchinsons)

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**General Surgery**

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Topic/ Theme	Learning outcomes At the end of this activity, the learner will be able to:	Learning objectives At the end of this activity, the learner will be able to:	Instructional Strategies	Assessment Tools
<b>PRINCIPLES OF SURGERY</b>				
<b>Body's response to trauma and stress</b>	Apply basic principles of surgery related to trauma and stress in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• Mediators of the metabolic response to injury</li> <li>• Physiological and biochemical changes that occur during injury and recovery</li> <li>• Changes in body composition that accompany surgical injury</li> <li>• Avoidable factors that compound the metabolic response to injury</li> <li>• Concepts behind optimal perioperative care</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>Shock, Pathology, Types and management</b>	Apply basic principles of surgery related to shock in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• The pathophysiology of shock and ischaemia–reperfusion injury</li> <li>• The different patterns of shock and the principles and priorities of resuscitation</li> <li>• Appropriate monitoring and end points of resuscitation</li> <li>• Use of blood and blood products, the benefits and risks of blood</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>

		transfusion		
<b>Wound Healing &amp; its complications</b>	Apply the knowledge of wound healing and its complications in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• Normal healing and how it can be adversely affected</li> <li>• How to manage wounds of different types, of different structures and at different sites</li> <li>• Aspects of disordered healing that lead to chronic wounds</li> <li>• The variety of scars and their treatment</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>Types of Wound closure</b>	Apply the knowledge of wound closure in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• The principles of skin and abdominal incisions</li> <li>• The principles of wound closure</li> <li>• The principles of drain usage</li> <li>• The factors that determine whether a wound will become infected</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>Wound Infection / Surgical Site Infection</b>	Apply the knowledge of wound infection in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• The classification of sources of infection and their severity</li> <li>• The indications for and choice of prophylactic antibiotics</li> <li>• The characteristics of the common surgical pathogens and their sensitivities</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>

		<ul style="list-style-type: none"> <li>• The spectrum of commonly used antibiotics in surgery and the principles of therapy</li> <li>• The misuse of antibiotic therapy with the risk of resistance</li> </ul>		
<b>Cross infection control in the clinical environment</b>	Apply basic principles of cross infection control in the clinical environment in dental practice.	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• What basic precautions to take to avoid surgically relevant hospital acquired infections</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>Blood transfusion in surgical patients</b>	Apply the knowledge of basic principles of Blood transfusion in surgical patients in dental practice.	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• The concept of 'Transfusion Trigger'</li> <li>• Use of blood and blood products, the benefits and risks of blood transfusion</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>Colloids and Crystalloids used in surgical patients</b>	Apply the knowledge of Colloids and Crystalloids used in surgical patients in dental practice.	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• Fluid and electrolyte requirements in the pre, peri and</li> <li>• postoperative patient</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>

<b>Common fluid &amp; electrolyte disorders in surgical patients</b>	Apply the knowledge of common fluid & electrolyte disorders in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• Common clinical scenarios leading to hypo and hypernatremia in a surgical patient, their underlying pathophysiology and management</li> <li>• Common clinical scenarios leading to hypo and hyperkalemia in a surgical patient, their underlying pathophysiology and management</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>Common acid base disorders in surgical patients</b>	Apply the knowledge of common acid base disorders in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• Definition, types and pathophysiology of acidosis and alkalosis</li> <li>• Common clinical scenarios leading to acidosis and alkalosis in a surgical patient, their underlying pathophysiology and management</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>Nutritional management of surgical patients</b>	Apply basic principles of nutritional management of surgical patient in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• The causes and consequences of malnutrition in the surgical patient</li> <li>• How to detect malnutrition in a patient</li> <li>• The nutritional requirements of surgical patients in the pre, peri and post-operative period</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>

		<ul style="list-style-type: none"> <li>• The nutritional consequences of intestinal resection</li> <li>• The different methods of providing nutritional support to patients and their complications</li> </ul>		
<b>Risk assessment in surgery</b>	Apply basic principles of surgical risk assessment in dental practice.	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• The concept of risk versus benefit in surgical care of patients</li> <li>• Common tools available for risk stratification and allocation in surgical patients</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>Pre-operative preparation of Surgical patients</b>	Apply basic principles of Pre-operative preparation of patients in dental practice.	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• Surgical, medical and anaesthetic aspects of patient</li> <li>• assessment</li> <li>• How to optimise the patient's condition before surgery</li> <li>• How to identify and optimise the patient at higher risk</li> <li>• How to take consent</li> <li>• How to organise an operating list</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>

<b>Post-operative care of Surgical patients</b>	Apply basic principles of Post-operative care of patients in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• The system of postoperative care</li> <li>• How to recognise and treat common post-operative complications in the immediate postoperative period</li> <li>• The principles of enhanced recovery</li> <li>• The system for discharging patients</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>Principles of Minimal Access Surgery Application of invasive and non-invasive diagnostic modalities in surgical practice</b>	Discuss principles of laparoscopic and robotic surgery with focus on its indications, advantages and disadvantages	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• The principles of laparoscopic and robotic surgery</li> <li>• The advantages and disadvantages of such surgery</li> <li>• The safety issues and indications for laparoscopic and robotic surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside demonstration s during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> </ul>
<b>TRAUMA AND ITS MANAGEMENT</b>				
<b>Trauma Management based on ATLS protocol</b>	<ul style="list-style-type: none"> <li>• Assess the patient presenting with trauma in dental practice</li> <li>• Apply the knowledge of trauma management in clinical scenarios</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate basic comprehension of the following with emphasis on clinical application:</li> <li>• The importance of time in trauma management</li> <li>• How to assess a trauma patient</li> <li>• How to respond to a trauma patient</li> <li>• Value of team work and planning in trauma care</li> <li>• Sequence of priorities in</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Trauma care workshops</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> </ul>

		<p>the early assessment of the trauma patient</p> <ul style="list-style-type: none"> <li>• Principle of triage in immediate management of the trauma patients</li> <li>• Concepts of injury recognition prediction based on the mechanism and energy of injury</li> <li>• Principles of primary and secondary surveys in the assessment and management of trauma</li> <li>• Techniques for the initial resuscitative and definitive care aspects of trauma based on ATLS protocol</li> <li>• Necessary protocols to allow early stabilization of the patient leading on to definitive Care</li> </ul>		
<b>Head injury</b>	<ul style="list-style-type: none"> <li>• Assess the patient presenting with head injury in dental practice</li> <li>• Apply the knowledge of head injury in clinical scenarios</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• Physiology of cerebral blood flow and the</li> <li>• pathophysiology of raised intracranial pressure</li> <li>• Management of head injury and prevention of secondary brain injury</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format Interactive Session</li> <li>• Student presentations</li> <li>• Trauma care workshops</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> </ul>

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<p><b>Cervical spine injury</b></p>	<ul style="list-style-type: none"> <li>Assess the patient presenting with Cervical spine injury in dental practice</li> <li>Apply the knowledge of Cervical spine injury in clinical scenarios</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>Accurate initial assessment of spinal trauma</li> <li>The pathophysiology and types of spinal cord injury</li> <li>The basic management of spinal trauma and the major pitfalls</li> <li>The prognosis of spinal cord injury, factors affecting functional outcome, and common associated complications</li> </ul>	<ul style="list-style-type: none"> <li>Large Class Format Interactive Session</li> <li>Student presentations</li> <li>Trauma care workshops</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>Clinical</li> <li>Scenario based Viva Voce</li> <li>TOACS</li> </ul>
<p><b>Maxillofacial trauma</b></p>	<ul style="list-style-type: none"> <li>Assess the patient presenting with maxillofacial trauma in dental practice</li> <li>Apply the knowledge of maxillofacial trauma in clinical practice</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>Recognise the life-threatening nature of facial injuries through compromise of the airway and associated head and spinal injuries</li> <li>A methodology for examining facial injuries</li> <li>The classification of facial fractures</li> <li>The diagnosis and management of fractures of the middle third of the facial skeleton and the mandible</li> <li>The importance of careful cleaning and accurate suturing of facial lacerations</li> </ul>	<ul style="list-style-type: none"> <li>Large Class Format Interactive Session</li> <li>Student presentations</li> <li>Trauma care workshops</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>Clinical</li> <li>Scenario based Viva Voce</li> <li>TOACS</li> </ul>

<p><b>Neck trauma</b></p>	<ul style="list-style-type: none"> <li>Assess the patient presenting with neck trauma in dental practice</li> <li>Apply the knowledge of neck trauma in clinical scenarios</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>Overview of surgical anatomy of the neck</li> <li>Pathophysiology of penetrating and blunt neck trauma</li> <li>The neck zones used to describe neck injuries</li> <li>Principles of management of neck trauma</li> </ul>	<ul style="list-style-type: none"> <li>Large Class Format Interactive Session</li> <li>Student presentations</li> <li>Trauma care workshops</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>Clinical</li> <li>Scenario based Viva Voce</li> </ul>
<p><b>Chest trauma and its managementThoracotomy / Use of Chest drains Hemorrhage and its types</b></p>	<ul style="list-style-type: none"> <li>Assess the patient presenting with chest trauma in dental practice</li> <li>Apply the knowledge of chest trauma in clinical scenarios</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>The gross and surgical anatomy of the chest and abdomen</li> <li>The pathophysiology of torso injury</li> <li>The strength and weaknesses of clinical assessment in the injured patient</li> <li>The use of special investigations and their limitations</li> <li>The operative approaches to the thoracic cavity</li> <li>The special features of an emergency department</li> <li>thoracotomy for haemorrhage control</li> <li>The philosophy of damage control surgery</li> <li>Basic structure and working of a chest drain with an underwater seal</li> <li>Insertion of a chest drain and its care</li> <li>How and when to remove chest drains</li> </ul>	<ul style="list-style-type: none"> <li>Large Class Format Interactive Session</li> <li>Student presentations</li> <li>Trauma care workshops</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>Clinical</li> <li>Scenario based Viva Voce</li> <li>TOACS</li> </ul>

		<ul style="list-style-type: none"> <li>• Complications associated with use of chest drains</li> </ul>		
<b>Burns</b>	<ul style="list-style-type: none"> <li>• Assess the patient presenting with burn in dental practice</li> <li>• Apply the knowledge of burn in clinical scenarios</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• The different causes and types of burns</li> <li>• The pathophysiology of burns</li> <li>• Factors leading to early and late mortality in burn patients</li> <li>• Pre hospital and ER room management of a burn patient</li> <li>• Assessing the area and depth of burns</li> <li>• Fluids available for resuscitation of burn victims, advantages and disadvantages associated with their use</li> <li>• Methods for calculating the rate and quantity of fluids to be given</li> <li>• Early monitoring of a burn patient</li> <li>• Techniques for treating burns patient</li> <li>• The pathophysiology of electrical and chemical burns</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Trauma care workshops</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> </ul>

**COMMON SURGICAL DISORDERS RELEVANT TO DENTAL PRACTICE**

<b>Benign and malignant disorders of the Thyroid gland</b>	<ul style="list-style-type: none"> <li>• Assess the patient presenting with disorders of the Thyroid gland</li> <li>• Outline the management plan for disorders of the Thyroid gland</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• The embryology and anatomy of the thyroid and parathyroid gland</li> <li>• The physiology and investigations of thyroid gland</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
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		<ul style="list-style-type: none"> <li>• Various types of benign and malignant thyroid swellings</li> <li>• Clinical history taking / examination of a patient presenting with thyroid swelling</li> <li>• Clinical symptoms and signs that indicate thyroid malignancy</li> <li>• Selection of appropriate investigations for thyroid swellings</li> <li>• Overview of various treatment modalities available for treatment of thyroid disorders, their advantages and disadvantages</li> </ul>		
<b>Thyroidectomy &amp; its complications</b>	Outline the indications, preoperative preparation of a patient with thyroid disorder and post-operative complications of thyroidectomy	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• Indications of surgery in thyroid disorders</li> <li>• Pre-op preparation of a patient with thyroid disorder</li> <li>• Complications after thyroid surgery particularly life-threatening complications that can occur after thyroidectomy</li> <li>• Hyperparathyroidism</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
<b>Disorders of the Parathyroid gland (Hyper and hypo-parathyroidism, benign hyperplasia, malignancy, MEN syndromes) and their surgical</b>	<ul style="list-style-type: none"> <li>• Assess the patient presenting with disorders of the Parathyroid gland</li> <li>• Outline the management plan for disorders of the Parathyroid gland</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• The embryology and anatomy of the parathyroid gland</li> <li>• The physiology and investigations of parathyroid gland,</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>

<p><b>management</b></p>		<p>selection of appropriate investigations for parathyroid disorders</p> <ul style="list-style-type: none"> <li>• Various types of benign and malignant disorders of the parathyroid gland</li> <li>• Difference between primary, secondary and tertiary hyperparathyroidism</li> <li>• Clinical history taking / examination of a patient presenting with parathyroid disorder</li> <li>• Overview of various treatment modalities available for treatment of parathyroid disorders</li> <li>• Parathyroidectomy and its complications</li> <li>• The concept of auto-transplantation of parathyroids</li> </ul>		
<p><b>Differential diagnosis &amp; diagnostic approach to neck swellings</b></p>	<p>Diagnose the patient presenting with neck swelling on the basis of history and clinical examination</p>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• The differential diagnosis of a neck swelling based on the concept of anatomical triangles of the neck</li> <li>• Difference between cyst (true cyst and false cyst), sinus and fistula</li> <li>• Clinical diagnostic landmarks of common neck swellings namely plunging ranula, thyroglossal cyst, submandibular gland swelling, laryngocele, pharyngocele, Branchial cyst, branchial fistula and cystic hygroma</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>

<b>Cervical lymphadenopathy</b>	Diagnose the patient of cervical lymphadenopathy in clinical practice	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• Clinical anatomy of the lymph nodes and lymphatic drainage of the head and neck</li> <li>• The levels of neck lymph nodes</li> <li>• Common causes of localized and generalized lymphadenopathy and their clinical features</li> <li>• Clinical differentiation between acute and chronic lymphadenitis</li> <li>• Cold abscess and the collar stud abscess</li> <li>• Clinical features suggesting malignant lymphadenopathy</li> <li>• Where to look for the primary disease in cases of secondary malignant deposits in the neck lymph nodes</li> <li>• Planning a diagnostic workup for a patient presenting with cervical lymphadenitis</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
<b>Neck dissections &amp; its types</b>	Apply the knowledge of types of neck dissections, their pros and cons in clinical scenarios	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• The meaning of term 'Neck dissection'</li> <li>• The concept of en-bloc resection of draining lymph nodes in surgical oncology</li> <li>• The various types of neck dissections used in</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> </ul>

		surgical practice, their pros and cons		
<b>Oral cancer and precancerous conditions (Carcinoma tongue and lip)</b>	Apply the knowledge of oral cancer and precancerous conditions in clinical practice	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• Demography of oral cancer</li> <li>• Oral cancer prevalence in Pakistan</li> <li>• Risk factors for development of oral cancer especially the relationship between oral cancers and the use of alcohol and tobacco</li> <li>• Premalignant lesions of the oral cavity, their diagnosis and management</li> <li>• The concept of 'Field change' in malignancies of the aero- digestive tract</li> <li>• The cardinal clinical features and management of patients presenting with oropharyngeal cancer (employing carcinoma tongue and lip as the prototype disease conditions)</li> <li>• Surgical reconstruction in patients undergoing treatment of oro-pharyngeal cancer</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
<b>Skin malignancies</b>	Differentiate between different malignant skin swellings in clinical practice	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• Clinical anatomy of skin</li> <li>• Clinical examination of an ulcer and swelling</li> <li>• Various morphological types of skin ulcers and</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>

		<p>their differential diagnoses</p> <ul style="list-style-type: none"> <li>• Premalignant lesions of the skin</li> <li>• Demography, clinical features and management of common skin malignancies namely Squamous and Basal celled carcinoma, Malignant Melanoma</li> </ul>		
<b>Common benign skin swellings</b>	Differentiate between different benign skin swellings in clinical practice	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• Clinical anatomy of skin</li> <li>• Clinical examination of a skin swelling</li> <li>• Cardinal clinical features and management of common skin malignancies namely Lipoma, Epidermoid and Dermoid cysts and hemangiomas</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
<b>Carcinoma Larynx</b>	Apply the knowledge of Carcinoma Larynx in clinical scenarios	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• Clinical anatomy of larynx</li> <li>• Demography, clinical features and management of a patient presenting with carcinoma larynx</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>

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<b>Tracheostomy, indications, care and complications</b>	Outline the indications, care and complications of Tracheostomy	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• Clinical anatomy of trachea</li> <li>• Types of tracheostomy</li> <li>• Indications of performing tracheostomy</li> <li>• Physiological effects that take place after a tracheostomy is performed</li> <li>• Complications that can occur during or after a tracheostomy</li> <li>• Care of a patient in the early post-operative period after tracheostomy</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> <li>• Teaching videos</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> </ul>
<b>Benign and Malignant disorders of the Salivary glands</b>	Apply the relevant knowledge of disorders of the Salivary glands in clinical practice	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• The surgical anatomy of the salivary glands</li> <li>• The presentation, pathology and investigation of common benign and malignant salivary gland disease</li> <li>• The medical and surgical Treatment of stones,</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
		infections and tumours that affect salivary glands <ul style="list-style-type: none"> <li>• Parotidectomy, its complications and their management</li> <li>• Surgical excision of the submandibular salivary gland and its complications</li> </ul>		
<b>Dysphagia</b>	Apply the knowledge of Dysphagia in clinical	Demonstrate basic comprehension of the following with emphasis on	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> </ul>

	scenarios	<p>clinical application:</p> <ul style="list-style-type: none"> <li>• The clinical anatomy and physiology of the oesophagus</li> <li>• and their relationship to disease</li> <li>• Types and differential diagnoses of dysphagia</li> <li>• The clinical features, investigations and treatment</li> <li>• of benign and malignant disease with particular reference to the common adult disorders</li> <li>• Demography, pre malignant lesions, clinical features and management of a patient presenting with malignant dysphagia</li> <li>• Esophagectomy and its types</li> </ul>	<p>Session</p> <ul style="list-style-type: none"> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
<b>Skin grafts, flaps, basics of reconstructive surgery</b>	Apply the knowledge of Skin grafts, flaps, basics of reconstructive surgery in clinical scenarios	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• The spectrum of plastic surgical techniques used to restore bodily form and function the concept of 'Reconstruction ladder'</li> <li>• The relevant anatomy and physiology of tissues used in reconstruction</li> <li>• The various skin grafts and how to use them appropriately</li> <li>• The principles and use of flaps</li> <li>• How to use plastic surgery to manage difficult and complex tissue loss</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> <li>• Teaching videos</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> </ul>

<b>Surgical Infections</b>	Apply the knowledge of Surgical Infections in clinical scenarios	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• Causes, clinical features and management of folliculitis, cellulitis, carbuncle, an abscess, necrotizing fasciitis and synergistic gangrene</li> <li>• Causes, clinical features and management of Tetanus and Gas gangrene</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
<b>Parasitic infections of surgical importance</b>	Apply the relevant knowledge of Parasitic infections in clinical scenarios	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• Demography causes, clinical features and management of Amoebiasis and Hydatid disease with special reference to hepatic involvement in these conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
<b>General introduction to fractures</b>	Apply the relevant knowledge of principles of fracture in clinical practice	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> <li>• Clinical anatomy of long bones</li> <li>• Pathophysiology of fractures</li> <li>• Types of fractures with special reference to difference between simple (closed) and compound (open) fractures</li> <li>• Stages of fracture healing</li> <li>• Principles of fracture management</li> <li>• Complications after fractures</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format</li> <li>• Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical</li> <li>• Scenario based Viva Voce</li> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>

<b>Osteomyelitis</b>	Apply the knowledge of Osteomyelitis in clinical scenarios	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>Causes, clinical features, Management and complications of acute and chronic osteomyelitis in long bones</li> <li>The importance of early recognition and management of acute osteomyelitis in children</li> </ul>	<ul style="list-style-type: none"> <li>Large Class Format Interactive Session</li> <li>Student presentations</li> <li>Bedside learning during clinical rotations / OR visits</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>Clinical Scenario based Viva Voce</li> <li>TOACS</li> <li>Mini-CEX</li> </ul>
<b>Cleft lip and palate</b>	Apply the knowledge of Cleft lip and palate in clinical practice	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>Risk factors and classification of cleft lip and palate</li> <li>The principles of reconstruction of cleft lip and palate</li> <li>The key features of the perioperative care of the child with cleft lip and palate</li> <li>The associated complications of cleft lip and palate and their management</li> <li>The importance of multi-disciplinary approach in managing patients with cleft lip and palate to achieve good results</li> </ul>	<ul style="list-style-type: none"> <li>Large Class Format Interactive Session</li> <li>Student presentations</li> <li>Bedside learning during clinical rotations / OR visits</li> <li>Teaching videos</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>Clinical Scenario based Viva Voce</li> <li>TOACS</li> <li>Mini-CEX</li> </ul>
<b>ANESTHESIA AND ITS RISKS</b>				
<b>Anesthesia and its risks</b>	<ul style="list-style-type: none"> <li>Summarize the techniques of different anaesthesia along with their</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p>	<ul style="list-style-type: none"> <li>Large Class Format Interactive Session</li> <li>Student</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>Clinical Scenario based Viva</li> </ul>

	<p>complications</p> <ul style="list-style-type: none"> <li>Outline the management of pain and pain from malignant disease</li> </ul>	<ul style="list-style-type: none"> <li>Techniques of anaesthesia and airway maintenance namely general, regional and local anaesthesia</li> <li>Methods of providing pain relief</li> <li>Local and regional anaesthesia techniques especially spinal and epidural anaesthesia its procedure and complications</li> <li>The management of chronic pain and pain from malignant disease</li> </ul>	<p>presentations</p> <ul style="list-style-type: none"> <li>Bedside learning during clinical rotations / OR visits</li> <li>Teaching videos</li> </ul>	<p>Voce</p> <ul style="list-style-type: none"> <li>TOACS</li> </ul>
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**QUALITY OF CARE IN CLINICAL PRACTICE**

<b>Maintaining Quality of care</b>	<ul style="list-style-type: none"> <li>Discuss Key Performance Indicators (KPIs) in clinical care</li> <li>Differentiate between clinical audit and clinical research</li> </ul>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>Can quality of clinical care be measured</li> <li>Key Performance Indicators (KPIs) in clinical care</li> <li>Introduction to clinical audit and the audit cycle</li> <li>Differences between clinical audit and clinical research</li> </ul>	<ul style="list-style-type: none"> <li>Large Class Format Interactive Session</li> <li>Student presentations</li> <li>Bedside learning during clinical rotations / OR visits</li> <li>Teaching videos</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>Clinical</li> <li>Scenario based Viva Voce</li> <li>TOACS</li> </ul>
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<b>Evidence based Medicine</b>	Integrate EBM in clinical practice	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>What is Evidence Based Medicine (EBM)</li> <li>Why is EBM required</li> <li>How is EBM integrated into clinical practice</li> <li>Lessons learned from history from poor EBM practices</li> </ul>	<ul style="list-style-type: none"> <li>Large Class Format Interactive Session</li> <li>Student presentations</li> <li>Bedside learning during clinical rotations / OR visits</li> <li>Teaching videos</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>Clinical</li> <li>Scenario based Viva Voce</li> <li>TOACS</li> </ul>
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<b>Patient safety in</b>	Apply patient safety	Demonstrate basic	<ul style="list-style-type: none"> <li>Large Class</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> </ul>
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<p><b>the clinical environment</b></p>	<p>strategies in clinical practice</p>	<p>comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• The importance of patient safety and the scale of the problem</li> <li>• Medical errors, their range and definition</li> <li>• Models for understanding how adverse events and near misses occur</li> <li>• Patient safety strategies and solutions</li> <li>• Applying the science of patient safety to practice</li> <li>• Patient safety principles that are specific to the surgeon</li> <li>• Dealing with the 'second victim' of a medical error</li> </ul>	<p>Format Interactive Session</p> <ul style="list-style-type: none"> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> <li>• Teaching videos</li> </ul>	<ul style="list-style-type: none"> <li>• SAQs</li> <li>• Clinical Scenario based Viva Voce</li> <li>• TOACS</li> </ul>
<p><b>Occupational hazards in the clinical environment</b></p>	<p>Apply the knowledge of occupational hazards in the clinical environment to avoid its occurrence in clinical practice</p>	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> <li>• Identification and management of occupational hazards in the surgical environment</li> <li>• Needle stick injuries, their consequences and prevention</li> </ul>	<ul style="list-style-type: none"> <li>• Large Class Format Interactive Session</li> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / OR visits</li> <li>• Teaching videos</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• Clinical Scenario based Viva Voce</li> <li>• TOACS</li> </ul>

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**TOPICAL DETAILS OF CLINICAL SKILLS TO BE LEARNED AT THE BEDSIDE OR IN THE CLINICAL SKILLS LABORATORY**

<b>S NO</b>	<b>Clinical Skills to be Learned</b>	<b>Teaching Methodology</b>	<b>Assessment tool</b>
1.	Clinical history taking	<ul style="list-style-type: none"> <li>• Student presentations</li> <li>• Bedside learning during clinical rotations / in the clinical skills lab / OR visits</li> <li>• Teaching videos</li> <li>• Teaching Radiology films</li> </ul>	<ul style="list-style-type: none"> <li>• TOACS</li> <li>• Mini-CEX</li> </ul>
2.	General physical examination of a patient		
3.	Systemic physical examination of a patient with special emphasis on chest examination		
4.	Formulating a diagnosis and treatment plan for a patient		
5.	Clinical examination of a swelling		
6.	Clinical examination of an ulcer		
7.	Clinical examination of a patient with cervical lymphadenopathy		
8.	Clinical examination of a parotid swelling		
9.	Clinical examination of a submandibular gland swelling		
10.	Clinical examination of facial and trigeminal cranial nerve lesions		
11.	Clinical examination of a patient with oral lesion suspected to be malignant		
12.	Clinical examination of a goiter		
13.	Clinical examination of a branchial cyst / fistula, thyroglossal cyst, cystic hygroma		
14.	Identification and uses of: <ol style="list-style-type: none"> <li>a. Common surgical instruments</li> <li>b. Chest drain with under water seal.</li> <li>c. Common drains (NG tube, foley catheter)</li> <li>d. Commonly used surgical sutures</li> </ol>		

	<ul style="list-style-type: none"> <li>e. Commonly used intravenous cannulas, central venous catheters, LP needles, intra-venous fluids</li> <li>f. Instruments used for airway management (Guedel's airway, endotracheal tube, cricothyroidotomy / tracheostomy tube.</li> <li>g. Diathermy machine</li> <li>h. General anesthesia apparatus</li> </ul>		
15.	Identification of radiologic anatomy in a normal Chest X ray		
16.	<ul style="list-style-type: none"> <li>Identification of following pathologies on X ray: <ul style="list-style-type: none"> <li>a. Pleural effusion.</li> <li>b. Pneumothorax</li> <li>c. Cervical spine injury</li> </ul> </li> </ul>		
17.	Identification of typical presentations of extradural, sub-dural intracranial hematomas and sub-arachnoid hemorrhage on CT scan		
18.	Introduction to protocols of operation theatre, ward work, patient clerking and out-patient clinics		

**TOPICAL DETAILS OF CLINICAL SKILLS TO BE LEARNED THROUGH WORKSHOPS**

Ser	Topic	Workshop	Assessment tool
1.	Intravenous access	For serial 1 & 2 Basic Surgical Skills Workshop	Formative
2.	Introduction to basic surgical skills		Formative
3.	Antisepsis, cross infection control and gowning up in the operating room	For serial 3 Cross Infection Control Workshop	Formative
4.	Primary Trauma Care based on the ATLS protocol		Formative
5.	Clinical communication (Role modeling) with special emphasis on counseling and taking written informed consent	For serial 4 Trauma Care Workshop  For serial 5 Clinical Communication Skills Workshop	Formative

**TOPICAL DETAILS OF CLINICAL SKILLS AND SURGICAL PROCEDURES TO BE OBSERVED (O) OR PERFORMED (P) IN THE OPERATING ROOM (OR), EMERGENCY DEPARTMENT AND SURGICAL WARD**

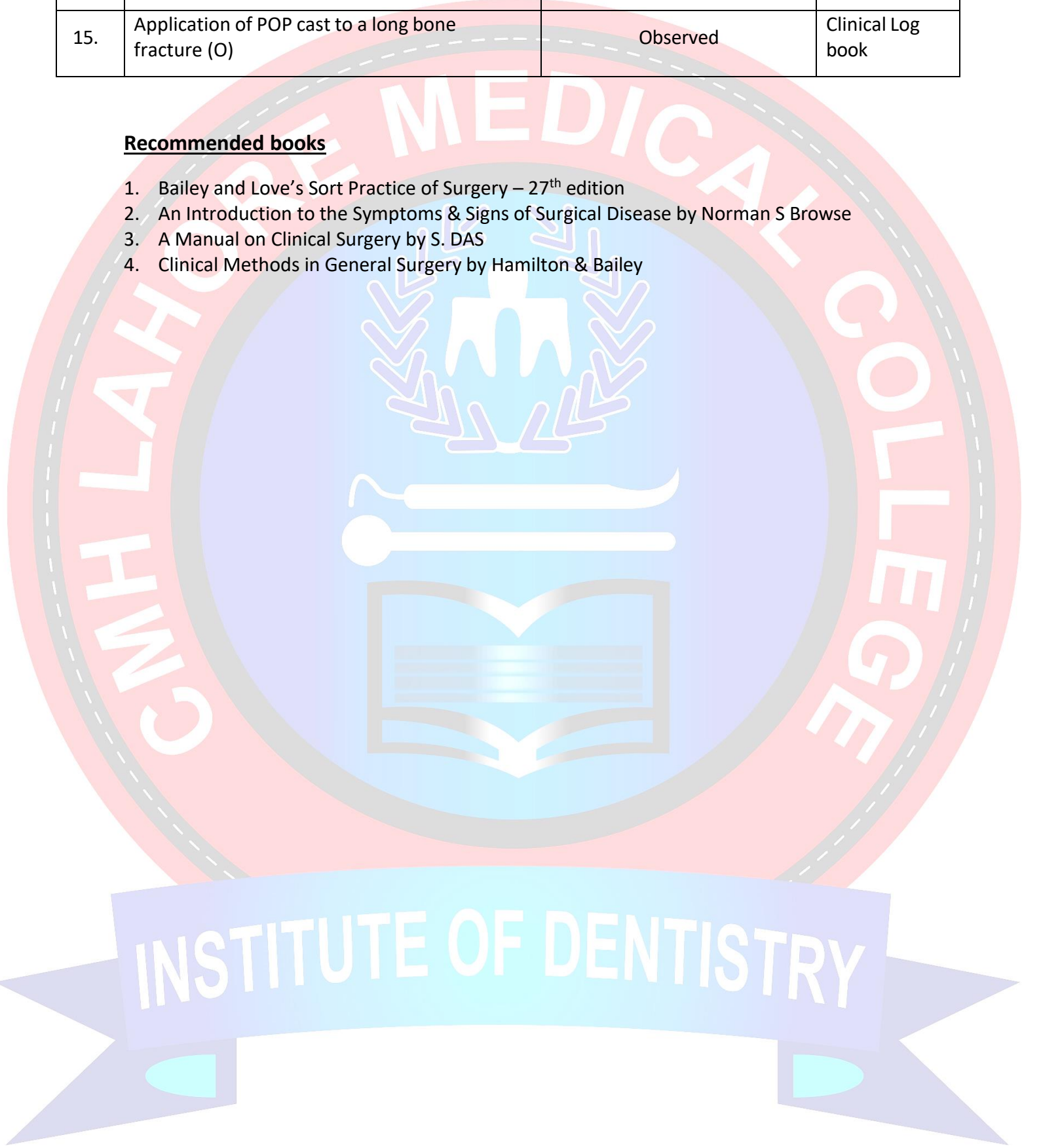
**(LOG BOOK TO BE MAINTAINED FOR THESE SKILLS / PROCEDURES)**

<b>Ser</b>	<b>Skills to be learned</b>	<b>Observation/ Performance level</b>	<b>Assessment tool</b>
1.	Collection of samples of blood, urine, sputum, pus swab (P)	Performed under supervision	Clinical Log book
2.	Administration of drugs by intramuscular and intravenous routes (P)	Performed under supervision	Clinical Log book
3.	Wound care and dressings (P)	Performed under supervision	Clinical Log book
4.	Skin suturing and (O)	Observed	Clinical Log book
5.	Skin suture removal (P)	Performed under supervision	Clinical Log book
6.	Needle biopsies, aspiration of localized fluids (O)	Observed	Clinical Log book
7.	Pre-operative preparations, sterilization, and disinfection techniques in the OR (O)	Observed	Clinical Log book
8.	Incision and drainage of an abscess (O)	Observed	Clinical Log book
9.	Excision of soft tissue lumps (O)	Observed	Clinical Log book
10.	Thyroidectomy (O)	Observed	Clinical Log book
11.	Excision of a major salivary gland (Parotidectomy, sub-mandibular excision) (O)	Observed	Clinical Log book
12.	Application of skin graft (O)	Observed	Clinical Log book
13.	Administration of General anesthesia (O)	Observed	Clinical Log book
14.	Administration of Spinal and Epidural	Observed	Clinical Log

	anesthesia (O)		book
15.	Application of POP cast to a long bone fracture (O)	Observed	Clinical Log book

**Recommended books**

1. Bailey and Love's Sort Practice of Surgery – 27<sup>th</sup> edition
2. An Introduction to the Symptoms & Signs of Surgical Disease by Norman S Browse
3. A Manual on Clinical Surgery by S. DAS
4. Clinical Methods in General Surgery by Hamilton & Bailey





**Periodontology**

**INSTITUTE OF DENTISTRY**

Theme/Topics	Learning Outcomes	Learning Objectives	Instructional Strategy	Assessment Tools
<b>BIOLOGIC BASIS OF PERIODONTOLOGY</b>				
<b>ANATOMY AND PHYSIOLOGY OF PERIODONTIUM</b>	<ul style="list-style-type: none"> <li>• Outline the knowledge of the anatomy and physiology of the tissues of the periodontium and related structures.</li> <li>• Outline age changes in periodontium</li> </ul>	<ul style="list-style-type: none"> <li>• Describe, label and Identify diverse anatomical features of periodontium.</li> <li>• Identify microscopic features of periodontium.</li> <li>• Describe physiology of saliva and role of gingival crevicular fluid.</li> <li>• Identify blood supply, nerve supply and lymphatic drainage of periodontium of each tooth.</li> <li>• Describe the features of Age changes in periodontium</li> </ul>	<ul style="list-style-type: none"> <li>• LGIS</li> <li>• SGIS</li> <li>• SDL</li> </ul>	<ul style="list-style-type: none"> <li>• SAQs</li> <li>• MCQs</li> <li>• VIVA VOCE</li> <li>• OSCE</li> </ul>
<b>CLASSIFICATION OF PERIODONTAL DISEASES</b>	<ul style="list-style-type: none"> <li>• Classify and tabulate gingival and periodontal diseases</li> <li>• Recognize developmental and acquired deformities along with mucogingival Deformities around teeth</li> </ul>	<ul style="list-style-type: none"> <li>• Define gingival diseases.</li> <li>• Define periodontal diseases.</li> <li>• Tabulate gingival diseases.</li> <li>• Tabulate periodontal diseases.</li> </ul>	<ul style="list-style-type: none"> <li>• LGIS</li> <li>• SGIS</li> <li>• SDL</li> </ul>	<ul style="list-style-type: none"> <li>• SAQs</li> <li>• MCQs</li> <li>• VIVA VOCE</li> </ul>

<p><b>EPIDEMIOLOGY OF PERIODONTAL DISEASE</b></p>	<ul style="list-style-type: none"> <li>Identify periodontal diseases by applying epidemiology indices and select appropriate diagnostic tools</li> <li>Quote incidence and prevalence of periodontal diseases in the community and worldwide.</li> </ul>	<ul style="list-style-type: none"> <li>Define indices, including:             <ul style="list-style-type: none"> <li>Plaque index</li> <li>Debris index</li> <li>Gingival bleeding index</li> <li>Sulcus index</li> <li>Periodontal index</li> <li>Community periodontal index</li> <li>Periodontal destructive index</li> </ul> </li> <li>Recognize epidemiological tools to Assess periodontal conditions.</li> <li>Select appropriate instruments for calculating indices</li> <li>Quote incidence and prevalence of periodontal diseases in the community and worldwide.</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> <li>Clinical demonstration</li> </ul>	<ul style="list-style-type: none"> <li>SAQs</li> <li>MCQs</li> <li>VIVA</li> <li>VOCE</li> <li>OSCE</li> </ul>
<p><b>PERIODONTAL MICROBIOLOGY</b></p>	<ul style="list-style-type: none"> <li>Interpret the role of bacteria in the Pathogenesis of periodontal tissue destruction.</li> <li>Identify various colonies of bacteria responsible for periodontal tissue destruction</li> </ul>	<ul style="list-style-type: none"> <li>Describe the nature, composition and physiology of plaque biofilm and its relationship to inflammatory periodontal diseases</li> <li>Interpret the role of bacteria in the Pathogenesis of Periodontal tissue destruction.</li> <li>Identify various colonies of bacteria responsible for periodontal tissue destruction.</li> <li>Distinguish between various colored complexes of periodontal pathogens.</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>SAQs</li> <li>MCQs</li> <li>VIVA</li> <li>VOCE</li> <li>OSCE</li> </ul>

<b>HOST RESPONSE AND HOST BACTERIAL INTERACTIONS IN PERIODONTAL DISEASE</b>	<ul style="list-style-type: none"> <li>• Interpret inflammatory response from host after bacterial interactions.</li> <li>• Relate the behaviors of different bacteria with host response.</li> <li>• Enlist putative periodontal pathogens</li> </ul>	<ul style="list-style-type: none"> <li>• Define and describe Host bacterial interactions</li> <li>• Express risk factors for periodontal disease.</li> <li>• Name different disease causing periodontal pathogens</li> </ul>	<ul style="list-style-type: none"> <li>• LGIS</li> <li>• SGIS</li> <li>• SDL</li> </ul>	<ul style="list-style-type: none"> <li>• SAQs</li> <li>• MCQs</li> <li>• VIVA VOCE</li> </ul>
<b>SYSTEMIC FACTORS; SYSTEMIC DISEASES ASSOCIATED WITH PERIODONTAL DISEASE</b>	<p>Recognize the bidirectional influence of systemic conditions on periodontium and its implications (vice versa)</p>	<ul style="list-style-type: none"> <li>• Identify the role of systemic diseases/ conditions in the etiology of periodontal disease.</li> <li>• Describe clinical features of periodontal disease associated with systemic diseases/factors.</li> <li>• Tabulate common systemic diseases or conditions that have an impact of periodontal health.</li> <li>• Differentiate between clinical features of various systemic conditions/diseases.</li> <li>• Recognize the role of AIDS on periodontium.</li> <li>• Identify treatment options for gingival disease.</li> </ul>	<ul style="list-style-type: none"> <li>• LGIS</li> <li>• SGIS</li> <li>• SDL</li> </ul>	<ul style="list-style-type: none"> <li>• SAQs</li> <li>• MCQs</li> <li>• VIVA VOCE</li> </ul>
<b>PERIODONTAL PATHOGENESIS</b>  a. GINGIVAL INFLAMMATION b. PERIODONTAL POCKET c. BONE LOSS AND PATTERNS	<ul style="list-style-type: none"> <li>• Explain the pathogenesis and its significance in initiation of periodontal pockets</li> <li>• Distinguish types of periodontal pockets on the basis of its classification</li> <li>• Enlist patterns and classification of bone loss</li> <li>• Interpret and diagnose anatomical landmarks and bone loss by different methods.</li> </ul>	<ul style="list-style-type: none"> <li>• Define, identify and Describe gingival inflammation, periodontal pocket and bone loss patterns.</li> <li>• Describe pathogenesis of gingival inflammation, pocket formation and bone destruction patterns.</li> <li>• Calculate clinical attachment loss.</li> <li>• Demonstrate gingival and periodontal probing.</li> <li>• Determine pathological</li> </ul>	<ul style="list-style-type: none"> <li>• LGIS</li> <li>• SGIS</li> <li>• SDL</li> <li>• Clinical demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• SAQs</li> <li>• MCQs</li> <li>• VIVA</li> <li>• VOCE</li> <li>• OSCE</li> </ul>

	<p>(Bone sounding)</p> <ul style="list-style-type: none"> <li>Differentiate and explain types of bone loss Radiographically and clinically</li> </ul>	<p>signs of periodontal tissues.</p> <ul style="list-style-type: none"> <li>Interpret normal and pathological structures found on dental radiographs.</li> <li>Describe histopathological features associated with</li> </ul>		
		<p>gingival inflammation.</p> <ul style="list-style-type: none"> <li>Label periodontal pocket</li> <li>Point out techniques available for detecting change in bone heights on radiographs</li> <li>Identify and discuss clinical features of gingival inflammation, periodontal pocketing and bone loss patterns.</li> </ul>		
<b>SMOKING AND PERIODONTAL DISEASE</b>	<ul style="list-style-type: none"> <li>Apply knowledge of environmental risk factors for periodontal diseases and methods for their modification (including tobacco, stress, and diet)</li> <li>Summarize the mechanism and role of smoking on periodontal therapy</li> <li>Enlist effects of smoking on etiology and Pathogenesis of periodontal disease</li> </ul>	<ul style="list-style-type: none"> <li>Describe effects of smoking on etiology and pathogenesis of periodontal disease</li> <li>Explain the effect of smoking on periodontal therapies.</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>SAQs</li> <li>MCQs</li> <li>VIVA VOCE</li> </ul>
<b>HALITOSIS</b>	<ul style="list-style-type: none"> <li>Recognize origin/pathogenesis of halitosis</li> <li>Outline diagnostic tools with treatment options</li> </ul>	<ul style="list-style-type: none"> <li>Differentiate between various types of halitosis</li> <li>Put together all the investigations tools with treatment options</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>Clinical demo</li> </ul>	<ul style="list-style-type: none"> <li>MCQ</li> <li>SAQ</li> <li>VIVA VOCE</li> <li>OSCE</li> </ul>

<p><b>PERIO-ENDO, PROSTHODONTICS, ORTHO, RESTORATIVE PERIODONTAL CONSIDERATION</b></p>	<ul style="list-style-type: none"> <li>• Interpret the interrelationship of periodontitis to pulpal disease</li> <li>• Classify endo Perio lesions</li> <li>• Summarize the hazards of orthodontic forces on periodontium and role of oral hygiene maintenance during orthodontic treatment</li> <li>• Discuss the significance of biologic width with practicing prosthodontics procedures.</li> </ul>	<ul style="list-style-type: none"> <li>• Define and classify periodontal- endodontic lesions.</li> <li>• Identify local factors affecting periodontium.</li> <li>• Express the importance of: <ul style="list-style-type: none"> <li>➢ Biological width violation consequences</li> <li>➢ Aesthetic tissue management</li> </ul> </li> <li>• Occlusal consideration in restorative therapy</li> </ul>	<ul style="list-style-type: none"> <li>• LGIS</li> <li>• SGIS</li> <li>• SDL</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• VIVA VOCE</li> </ul>
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**CLINICAL PERIODONTOLOGY AND NON-SURGICAL PERIODONTAL THERAPY**

<p><b>PERIODONTAL DISEASES:</b></p> <p><b>1. GINGIVAL CONDITIONS</b></p>	<p>Discuss the pathogenesis of different gingival diseases, including chronic gingivitis, necrotizing ulcerative gingivitis, and acute gingival conditions, enlargements.</p>	<ul style="list-style-type: none"> <li>• Identify and classify the types of gingival diseases.</li> <li>• Differentiate Acute and Chronic forms of gingivitis.</li> <li>• Describe clinical and histopathological features of gingival diseases.</li> <li>• Identify and distinguish between various gingival diseases.</li> <li>• Identify and Correlate clinical features of common gingival disease: <ul style="list-style-type: none"> <li>➢ Acute necrotizing ulcerative gingivitis</li> <li>➢ Gingival desquamation</li> </ul> </li> <li>• Recognize and describe gingival enlargements</li> </ul>	<ul style="list-style-type: none"> <li>• LGIS</li> <li>• SGIS</li> <li>• SDL</li> </ul>	<ul style="list-style-type: none"> <li>• SAQs</li> <li>• MCQs</li> <li>• VIVA VOCE</li> <li>• OSCE</li> </ul>
<p><b>PERIODONTAL CONDITIONS</b></p>	<ul style="list-style-type: none"> <li>• Should be able to review the disease initiation and progression of periodontal diseases.</li> </ul>	<ul style="list-style-type: none"> <li>• Enlist causative factors.</li> <li>• Discuss Histopathological changes associated with</li> </ul>	<ul style="list-style-type: none"> <li>• LGIS</li> <li>• SGIS</li> <li>• SDL</li> </ul>	<ul style="list-style-type: none"> <li>• SEQs</li> <li>• MCQs</li> <li>• VIVA</li> </ul>

	<ul style="list-style-type: none"> <li>Should apply knowledge about diagnosis of different periodontal diseases like chronic and aggressive periodontitis approaches to manage Aggressive and Atypical forms of aggressive periodontitis.</li> </ul>	<p>various periodontal diseases.</p> <ul style="list-style-type: none"> <li>Summarize immune reactions in pathogenesis of periodontal diseases.</li> <li>Describe clinical features of Aggressive and Chronic Periodontitis.</li> <li>Diagnose Aggressive and Chronic Periodontitis.</li> <li>Report differential diagnosis of periodontal disease.</li> <li>Describe acute necrotizing ulcerative periodontitis.</li> <li>Identify and describe features of periodontal abscess.</li> <li>Identify Refractory Periodontitis.</li> </ul>	<ul style="list-style-type: none"> <li>PBL</li> </ul>	<p>VOCE</p> <ul style="list-style-type: none"> <li>OSCE</li> </ul>
<b>TRAUMA FROM OCCLUSION</b>	<ul style="list-style-type: none"> <li>Apply knowledge about Parafunctional habits and types of trauma from occlusion.</li> <li>Enumerate treatment options including psychological behavior after diagnosing of condition</li> </ul>	<ul style="list-style-type: none"> <li>Define Trauma from occlusion.</li> <li>Identify types.</li> <li>Indicate</li> <li>Consequences of trauma.</li> <li>Examine and recall tissue response of trauma.</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>SAQs</li> <li>MCQs</li> <li>VIVA VOCE</li> </ul>
<b>NON-SURGICAL PERIODONTAL THERAPY</b>	<ul style="list-style-type: none"> <li>Apply the techniques and principles of non-surgical therapy</li> <li>Implement the rationale clinically.</li> <li>Select appropriate non-surgical technique from Scaling, root planing,</li> </ul>	<ul style="list-style-type: none"> <li>Discuss the goals &amp; rationale of Non-surgical Periodontal therapy</li> <li>Understand the Difference between Scaling &amp; Root planing</li> <li>Describe the procedure</li> </ul>	<ul style="list-style-type: none"> <li>SGIS</li> <li>SDL</li> <li>Clinical demo</li> </ul>	<ul style="list-style-type: none"> <li>SAQ</li> <li>MCQ</li> <li>VIVA VOCE</li> <li>OSCE</li> </ul>

	curettage.	of Scaling and Root planing		
		<ul style="list-style-type: none"> <li>• Discuss the process of wound healing after non-surgical therapy.</li> <li>• Select proper instruments for scaling and root planing.</li> <li>• Understand the hazards of over instrumentation</li> <li>• Describe the possible causes of treatment failure</li> </ul>		
<b>PERIODONTAL EXAMINATION AND DIAGNOSIS</b>	<ul style="list-style-type: none"> <li>• Take patient's personal, medical and dental history.</li> <li>• Execute findings of history and correlate with patient's diagnosis.</li> <li>• Carry out Basic periodontal examination (BPE)</li> <li>• Interpret investigation results; Radiographs, Periodontal charting.</li> <li>• Diagnose and document periodontal disease.</li> <li>• Recognize when to ask for help and refer.</li> </ul>	<ul style="list-style-type: none"> <li>• Appraise the importance of patient's history.</li> <li>• Express patient's personal, medical and dental history.</li> <li>• Analyze findings of medical and dental history and correlate with patient's diagnosis.</li> <li>• Score correctly on BPE chart</li> <li>• Detecting periodontal disease by reading comprehensive periodontal charting</li> <li>• Interpret investigation tools such as: <ul style="list-style-type: none"> <li>➢ Vitality tests</li> <li>➢ Hematological and microbiological tests</li> <li>➢ Sensitivity/ Specificity measuring tests</li> <li>➢ Radiographs</li> </ul> </li> <li>• Diagnose a periodontal disease.</li> <li>• Recognize own limits to ask for help.</li> <li>• Point out the facts in</li> </ul>	<ul style="list-style-type: none"> <li>• SGIS</li> <li>• PBL</li> <li>• Clinical demo</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• VIVA VOCE</li> <li>• OSCE</li> </ul>

		<p>terms, appropriate to the intellectual capacity of the patient.</p> <ul style="list-style-type: none"> <li>Outline clearly and succinctly the impact of oral health status on quality of life of the patient.</li> </ul>		
<b>TREATMENT PLANNING AND PROGNOSIS</b>	<ul style="list-style-type: none"> <li>Categorize treatment plans.</li> <li>Outline the impact of proposed treatment on quality of life to the patient.</li> <li>Appraise possible and probable outcomes of treatment options as well as the need for future supportive care, prevention and maintenance.</li> <li>Recognize types of prognosis</li> </ul>	<ul style="list-style-type: none"> <li>Categorize treatment plans and outline clearly and succinctly the impact of proposed treatment on quality of life to the patient</li> <li>Appraise possible and probable outcomes of treatment options as well as the need for future supportive care, prevention and maintenance</li> <li>Recognize types of prognosis and have clear concept of treatment plan in light of examination, diagnosis, risks involved. Clinical findings and prognosis.</li> </ul>	<ul style="list-style-type: none"> <li>SGIS</li> <li>PBL</li> </ul>	<ul style="list-style-type: none"> <li>SAQs</li> <li>MCQs</li> <li>VIVA VOCE</li> <li>OSCE</li> </ul>
<b>PERIODONTAL INSTRUMENTS AND INSTRUMENTATION</b>	<ul style="list-style-type: none"> <li>Classify and identify use of different instruments in non-surgical and surgical therapy</li> <li>Demonstrate chair side manners and various hand grasp techniques for instrumentation.</li> </ul>	<ul style="list-style-type: none"> <li>Classify periodontal instruments.</li> <li>Identify periodontal instruments</li> <li>Describe the use of the various periodontal instruments.</li> <li>Demonstrate chair side manners and techniques.</li> <li>Demonstrate various hand grasp techniques for instruments</li> </ul>	<ul style="list-style-type: none"> <li>SGIS</li> <li>Clinical demo</li> </ul>	<ul style="list-style-type: none"> <li>SAQs</li> <li>MCQs</li> <li>VIVA VOCE</li> <li>OSCE</li> </ul>

<p><b>PLAQUE CONTROL:</b></p> <p><b>MECHANICAL PLAQUE CONTROL</b></p>	<ul style="list-style-type: none"> <li>Evaluate the status of oral hygiene to educate the patient and employ various adjuncts to non-surgical therapy to show rationale for use.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and describe various plaque control techniques.</li> <li>Explain chemical and mechanical plaque control techniques.</li> </ul>	<ul style="list-style-type: none"> <li>SGIS</li> <li>SDL</li> <li>Clinical demonstration</li> </ul>	<ul style="list-style-type: none"> <li>SAQs</li> <li>MCOs</li> <li>VIVA VOCE</li> <li>OSCE</li> </ul>
	<p>(chemical plaque control)</p> <ul style="list-style-type: none"> <li>Classify interdental cleaning aids and name chemical and mechanical plaque control techniques</li> <li>Demonstrate the use of correct types of brushing techniques</li> <li>Emphasize the need of good oral hygiene practices (including use of oral irrigation Technique and disclosing agents)</li> </ul>	<ul style="list-style-type: none"> <li>Identify and Describe Oral hygiene instructions.</li> <li>Employ various adjuncts to non- surgical therapy to show rationale for use.</li> <li>Classify interdental cleaning aids.</li> <li>Identify the importance of: <ul style="list-style-type: none"> <li>➤ Toothbrush brushing techniques</li> <li>➤ Oral irrigation technique</li> <li>➤ Disclosing agent</li> </ul> </li> </ul>		
<p><b>CHEMICAL PLAQUE CONTROL</b></p>	<ul style="list-style-type: none"> <li>Describe the effects and interactions of medications used for the prevention and therapy of periodontal diseases</li> <li>Classify antimicrobial agents used in periodontal disease</li> <li>Identify commonly used antimicrobial agents (Chlorhexidine) and explain its mechanism</li> </ul>	<ul style="list-style-type: none"> <li>Define antimicrobial agent.</li> <li>Classify antimicrobial agents used in periodontal disease.</li> <li>Identify commonly used antimicrobial agents in periodontal disease.</li> <li>Differentiate between the use of Systemic and Local antimicrobial agents.</li> <li>Label serial and Combination antibiotic therapy</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> </ul>	<ul style="list-style-type: none"> <li>SAQs</li> <li>MCOs</li> <li>VIVA VOCE</li> </ul>

**PERIODONTAL SURGERY AND SUPPORTIVE THERAPY**

<p><b>GENERAL PRINCIPLES OF PERIODONTAL SURGERY</b></p> <p>1) SUTURES</p> <p>2) PERIODONTAL DRESSING</p> <p>3) HEMOSTASIS</p>	<ul style="list-style-type: none"> <li>Identify indications and contraindications for periodontal surgery.</li> <li>Explain consent and procedure to patient.</li> <li>Identify steps for patient preparation before surgery.</li> <li>Recognize different types of suturing materials</li> <li>Describe suturing techniques and identify various types of periodontal dressings.</li> <li>Demonstrate the use of periodontal dressing</li> <li>Express the techniques and agents used in achieving intraoperative hemostasis</li> </ul>	<ul style="list-style-type: none"> <li>Apply knowledge of different surgical techniques and instruments used in periodontics, their Indications and contraindications, advantages and disadvantages; and be able to tell the use of specialized surgical instruments</li> <li>Identify steps for patient Preparation before surgery.</li> <li>Recognize types of sutures.</li> <li>Describe suturing techniques.</li> <li>Identify various types of periodontal dressing.</li> <li>Demonstrate the use of periodontal dressing</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>SEQs</li> <li>MCQs</li> <li>VIVA VOCE</li> </ul>
<p><b>GINGIVAL CURETTAGE</b></p>	<ul style="list-style-type: none"> <li>Enlist the indications and contraindications of gingival curettage</li> <li>Identify rationale for treatment</li> <li>Describe procedure and healing after treatment</li> </ul>	<ul style="list-style-type: none"> <li>Enlist the indications and contraindications of gingival curettage</li> <li>Identify Rationale for treatment.</li> <li>Describe procedure.</li> <li>Describe procedure and steps of healing after surgical procedure.</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>SEQs</li> <li>MCQs</li> <li>VIVA VOCE</li> </ul>
<p><b>GINGIVECTOMY AND GINGIVOPLASTY</b></p>	<ul style="list-style-type: none"> <li>Explain the treatment options for different gingival enlargements</li> <li>Reproduce all the indications, contraindications and Prerequisites to perform procedure.</li> </ul>	<ul style="list-style-type: none"> <li>Identify rationale for treatment.</li> <li>Describe different techniques.</li> <li>Recognize Epulis removal procedure.</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>SEQs</li> <li>MCQs</li> <li>VIVA VOCE</li> </ul>
<p><b>FLAP SURGERY OSSEOUS</b></p>	<ul style="list-style-type: none"> <li>Identify and classify types of flaps.</li> <li>Describe flap designs and techniques.</li> <li>Discuss indications and</li> </ul>	<ul style="list-style-type: none"> <li>Identify and classify types of flaps.</li> <li>Describe flap designs and techniques/Modified Widman flap</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>SEQs</li> <li>MCQs</li> <li>VIVA VOCE</li> </ul>

<b>SURGERY FURCATION INVOLVEMENT</b>	<p>contraindications of Modified Widman flap surgery.</p> <ul style="list-style-type: none"> <li>Identify rationale for osseous surgery.</li> <li>Discuss indications and contraindications of osseous surgery.</li> <li>Discuss healing after periodontal surgery.</li> <li>Discuss gingival recession, classification and treatment modalities</li> <li>Describe furcation, factors, indications, and treatment options.</li> </ul>	<ul style="list-style-type: none"> <li>Discuss indications and contraindications of flap surgery.</li> <li>Identify rationale for osseous surgery.</li> <li>Discuss indications and contraindications of osseous surgery.</li> <li>Discuss healing after periodontal surgery.</li> </ul>		
<b>REGENERATIVE PERIODONTAL THERAPY</b>	<ul style="list-style-type: none"> <li>Describe the rationality, indications and technique of the GTR procedure.</li> <li>Classify graft materials Used in periodontal therapy.</li> </ul>	<ul style="list-style-type: none"> <li>Describe the rationality of the procedure.</li> <li>Describe the procedure of GTR.</li> <li>Classify graft materials used in periodontal therapy</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>SEQs</li> <li>MCQs</li> <li>VIVA VOCE</li> </ul>
<b>ESTHETIC AND PERIODONTAL PLASTIC SURGERY</b>	<ul style="list-style-type: none"> <li>Recall the objectives of periodontal plastic/Mucogingival surgery</li> <li>Recognize recession defects according to Miller's classification</li> <li>Describe gingival grafting techniques</li> </ul>	<ul style="list-style-type: none"> <li>Enlist indications of mucogingival/plastic surgery</li> <li>Discuss techniques to Increase Attached Gingiva</li> <li>Classify gingival recession defects by Miller</li> <li>Describe free gingival grafting, connective tissue grafting, apically Repositioned flap, coronally advance flap.</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> </ul>	<ul style="list-style-type: none"> <li>SAQ</li> <li>MCQ</li> <li>VIVA VOCE</li> <li>OSCE</li> </ul>

<b>SUPPORTIVE PERIODONTAL THERAPY</b>	<ul style="list-style-type: none"> <li>Summarize the rationale for supportive periodontal treatment</li> <li>Implement the maintenance program in patients</li> <li>Define splinting of teeth</li> <li>Bullet pointing the indications and contraindications of splint</li> </ul>	<ul style="list-style-type: none"> <li>Discuss the goal of supportive periodontal therapy</li> <li>Tabulate maintenance recall procedure</li> <li>Describe splinting and its types</li> <li>Enlist indications and contraindications of splints</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>SAQ</li> <li>MCQ</li> <li>VIVA VOCE</li> <li>OSCE</li> </ul>
<b>ORAL IMPLANTOLOGY</b>				
<b>Oral Implantology</b>	<ul style="list-style-type: none"> <li>Discuss the concept of osteointegration</li> <li>Discuss the Anatomy, Biology, Function of peri-implant tissue</li> <li>Outline the stages in surgical placement of dental implant</li> </ul>	<ul style="list-style-type: none"> <li>Discuss the concept of osteointegration</li> <li>Describe Peri-implant Infections</li> <li>Describe Implant-Related Complications and Failures</li> </ul>	<ul style="list-style-type: none"> <li>LGIS</li> <li>SDL</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>VIVA VOCE</li> </ul>
	<ul style="list-style-type: none"> <li>Enlist contraindications and complications of dental implant</li> </ul>	<ul style="list-style-type: none"> <li>Discuss supportive Implant Treatment</li> <li>Describe basic Implant Surgical Procedure.</li> </ul>		

### DETAILS OF CLINICAL TRAINING IN PERIODONTICS

#### Clinical Learning Outcome

*“By the end of successful completion of periodontics training, the students will gain clinical skills for basic periodontal assessment and treatment by effectively managing assigned patients with periodontal disease under direct supervision”*

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Periodontics clinical training learning objectives	Teaching Strategies	Assessment tool
<p>By the end of the clinical rotation students should be able to;</p> <ol style="list-style-type: none"> <li>1. Carry out patient's history in log book.</li> <li>2. Practice chair side manners and ethics.</li> <li>3. Perform basic periodontal examinations with consent.</li> <li>4. Formulating a diagnosis of periodontal disease.</li> <li>5. Appreciate the radiographic changes associated with periodontal diseases.</li> <li>6. Identify the etiological factors of periodontal conditions.</li> <li>7. Determine the disease prognosis.</li> <li>8. Construct a treatment plan according to the patient's medical history</li> <li>9. Identify risk factors with emphasis on total patient care.</li> <li>10. Recognize periodontal armamentarium.</li> <li>11. Possess hands on skills for using hand and power-driven periodontal instrumentation.</li> <li>12. Perform manual scaling on 40 patients under direct supervision.</li> <li>13. Perform ultrasonic scaling on 10 patients under direct supervision.</li> <li>14. Follow anxiety reduction protocol while ensuring pain control during the provision of treatment.</li> <li>15. Be acquainted with common medical emergencies on dental chair.</li> <li>16. Outline a maintenance plan for the patient.</li> <li>17. Effectively communicate the maintenance plan to the patient.</li> <li>18. Evaluate the results of periodontal therapy.</li> <li>19. Provide oral hygiene instructions while positively reinforcing the patient's plaque control efforts.</li> </ol>	<ul style="list-style-type: none"> <li>• Active clinical demonstrations</li> <li>• Small group interactive sessions;             <ol style="list-style-type: none"> <li>1. Role play /Mock history taking group activities</li> <li>2. Paper scenarios as triggers</li> <li>3. You-tube or other online sites as a source of film triggers for identified learning outcome.</li> <li>4. Anonymised patient data.</li> <li>5. Radiograph interpretations.</li> <li>6. Treatment plan discussions and assignments.</li> </ol> </li> <li>• Simulation of clinical procedure /practice of instrument grasp and strokes on dental models or phantom head</li> <li>• Presentations</li> </ul>	<p>OSCE /TOCS</p> <p>Students log book of clinical procedures</p> <p>Chair side viva</p>

### Recommended books

1. Newman and Carranza Clinical Periodontology 13<sup>th</sup> edition
2. Clinical periodontology Jan Lindhe 6<sup>th</sup> edition
3. Atlas of periodontology and Implant therapy
4. Periodontics by J.D Manson 6<sup>th</sup> Edition



**Oral Pathology**

**INSTITUTE OF DENTISTRY**

## Course Outline

Theme/ Topics	Learning Outcome	Learning Objectives	Educational Strategy	Assessment Tools
	At the completion of this Course, the students will be able to:	This course enables the students to:		
<b>White Lesion (only microscopic features)</b>	Identify signs, symptoms and clinicopathological features of various white lesions.	<ul style="list-style-type: none"> <li>• Differentiate between acute and chronic forms of Candidiasis on the basis of histopathological features</li> <li>• Learn about microscopic features of leukoedema, white spongy Nevus, tobacco pouch keratosis and nicotine stomatitis</li> <li>• Describe the pathogenesis and histopathology of actinic cheilitis and submucous fibrosis</li> <li>• Differentiate between hairy leukoplakia, hairy tongue and geographic tongue on clinicopathological basis</li> <li>• Learn about the reticular and erosive types of lichen planus.</li> <li>• Identify the risk factors responsible to cause different forms of leukoplakia along with their clinical and histopathological features.</li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lectures</li> <li>• Small Group Discussion</li> <li>• PBL</li> <li>• Quiz</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• OSPE</li> </ul>
<b>Epithelial Pathology</b>	Differentiate between various epithelial pathologies on the basis of clinicopathological features.	<ul style="list-style-type: none"> <li>• Differentiate between speckled leukoplakia and proliferative verrucous leukoplakia</li> <li>• Differentiate histopathological features of mild, moderate and severe dysplasia, carcinoma in situ</li> <li>• Learn about the red lesion, its pathogenesis and clinical presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lectures</li> <li>• Small Group Discussions</li> <li>• PBL</li> <li>• Quiz</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• OSPE</li> </ul>

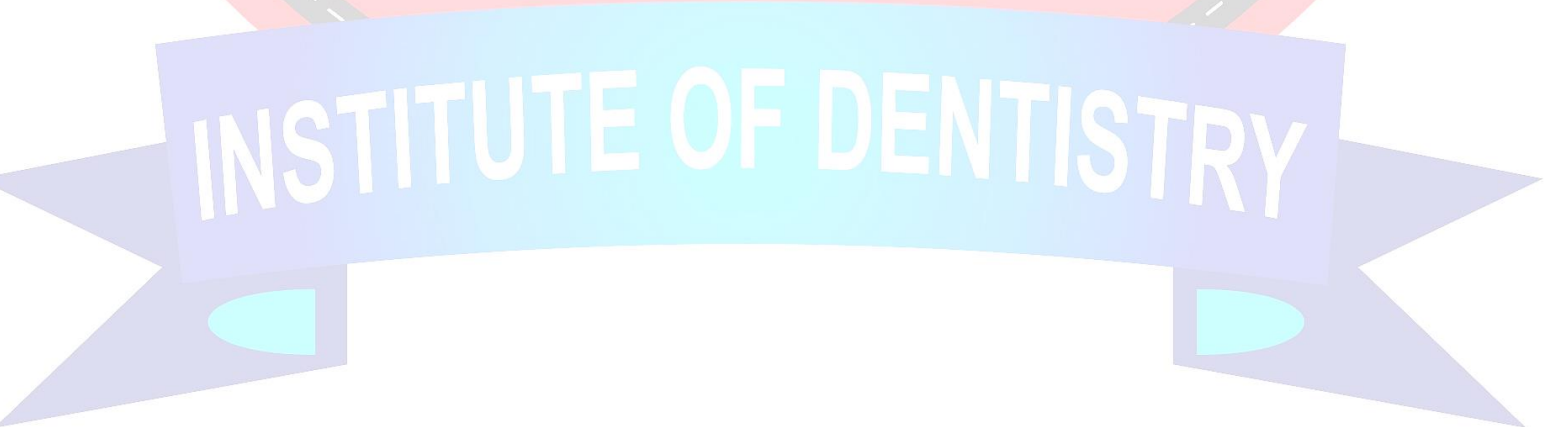
		<ul style="list-style-type: none"> <li>• Describe the risk factors along with the mutagenic and carcinogenic ingredients</li> <li>• Describe the clinical staging and histopathological grading of Oral Squamous Cell Carcinoma</li> <li>• Differentiate between different variants of squamous cell carcinoma including varicose, adenosquamous, basaloid, adenoid squamous cell, nasopharyngeal carcinoma.</li> <li>• Learn about benign epithelial lesions including squamous papilloma and keratoacanthoma</li> <li>• Have knowledge about ABCD of melanoma</li> </ul>		
<p><b>Infections</b></p>	<p>Identify the etiology and histopathology of bacterial, viral, fungal infections.</p>	<ul style="list-style-type: none"> <li>• Distinguish between Tuberculosis, Syphilis and Actinomycosis on the basis of histopathological features</li> <li>• Recall histopathology of Herpes simplex, Varicella Zoster Epstein- barr Cytomegalo Human Herpes virus 8 Human papilloma viruses and Retrovirus (HIV)</li> <li>• Identify superficial fungal infections (Candidiasis) and deep fungal infections Histoplasmosis. Paracoccidioidomycosis, Blastomycosis, Aspergillosis and Zygomycosis on the basis of oral and histopathological features.</li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lectures</li> <li>• Small Group</li> <li>• Discussions</li> <li>• PBL</li> <li>• Quiz</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• OSPE</li> </ul>

<p><b>Bone Pathology</b></p>	<p>Classify and differentiate between benign and malignant bone tumors and study the histopathological features of various bone pathologies</p>	<ul style="list-style-type: none"> <li>• Distinguish between fibrous, cement-osseous, ossifying fibroma, paget's, hyperparathyroidism, osteopetrosis, osteogenesis imperfect, cherubism and cleidocranial dysplasia</li> <li>• Diagnose between tori, osteoblastoma, osteoid osteoma and giant cell lesions on the basis of clinicopathological and radiographic features.</li> <li>• Distinguish between osteogenic sarcoma, chondrosarcoma, ewing's sarcoma on the basis of clinicopathological features.</li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lectures</li> <li>• Small Group</li> <li>• Discussions</li> <li>• PBL</li> <li>• Quiz</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• OSPE</li> </ul>
<p><b>Connective Tissue Lesions</b></p>	<ul style="list-style-type: none"> <li>• Comprehend the clinical presentation of various connective tissue lesions and analyze the diagnosis by correlating clinical and microscopic features</li> </ul>	<ul style="list-style-type: none"> <li>• Recall classification based on benign and malignant tumors</li> <li>• <b>Benign Tumors</b> <ul style="list-style-type: none"> <li>○ Peripheral Giant Cell Granuloma</li> <li>○ Peripheral Ossifying Fibroma</li> <li>○ Lipoma (only microscopy)</li> <li>○ Traumatic Neuroma</li> <li>○ Palisaded Encapsulated Neuroma</li> <li>○ Neurilemoma</li> <li>○ Neurofibroma</li> <li>○ Neurofibromatosis Type-1</li> <li>○ Multiple Endocrine Neoplasia Type-2B</li> <li>○ Melanotic Neuroectodermal Tumor of Infancy</li> <li>○ Paraganglioma</li> <li>○ Granular Cell Tumor</li> <li>○ Congenital Epulis</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lectures</li> <li>• Small Group Discussions</li> <li>• PBL</li> <li>• Quiz</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• OSPE</li> </ul>

		<ul style="list-style-type: none"> <li>○ Hemangioma and Vascular Malformations</li> <li>○ Sturge-Weber Angiomatosis</li> <li>○ Nasopharyngeal Angiofibroma</li> <li>○ Hemangiopericytoma</li> <li>○ Lymphangioma</li> </ul>		
		<ul style="list-style-type: none"> <li>○ Leiomyoma</li> <li>○ Rhabdomyoma</li> <li>○ Osseous and Cartilaginous Choristomas</li> <li>● <b>Malignant tumors</b> <ul style="list-style-type: none"> <li>○ Fibrosarcoma</li> <li>○ Malignant fibrous histiocytoma</li> <li>○ Liposarcoma</li> <li>○ Angiosarcoma</li> <li>○ Kaposi Sarcoma</li> <li>○ Leiomyosarcoma</li> <li>○ Rhabdomyosarcoma</li> </ul> </li> <li>● <b>Describe</b> microscopic features of following reactive lesions.</li> <li>● <b>Reactive lesions</b> <ul style="list-style-type: none"> <li>○ Giant cell fibroma</li> <li>○ Epulis fissuratum</li> <li>○ Inflammatory Papillary Hyperplasia</li> <li>○ Fibrous Histiocytoma</li> <li>○ Fibromatosis</li> <li>○ Myofibroma</li> <li>○ Oral-focal mucinosis</li> <li>○ Pyogenic Granuloma (All these epulides will be taught by perio dept)</li> </ul> </li> <li>● Diagnose these lesions by correlating with clinical and microscopic features of the following diseases: <ul style="list-style-type: none"> <li>○ Neoplasms of Fibrous tissue origin</li> <li>○ Neural tissue neoplasms</li> <li>○ Muscle tissue</li> </ul> </li> </ul>		

		<p>neoplasms</p> <ul style="list-style-type: none"> <li>○ Adipose and Vascular tissue neoplasms</li> <li>○ Osseous and cartilaginous tissue neoplasms</li> </ul>		
<b>Hematological Malignancies</b>	Distinguish between hematological malignancies and recall treatment modalities in relation to their clinicopathological picture.	<ul style="list-style-type: none"> <li>● Distinguish Hodgkin's and non Hodgkin's lymphoma on the basis of oral and histopathological features</li> <li>● Diagnose Burkitt's lymphoma, multiple myeloma, plasmacytoma and langerhan cell histiocytosis on the basis of histopathological features.</li> </ul>	<ul style="list-style-type: none"> <li>● Interactive Lectures</li> <li>● Small Group</li> <li>● Discussions</li> <li>● PBL</li> <li>● Quiz</li> </ul>	<ul style="list-style-type: none"> <li>● MCQs</li> <li>● SAQs</li> <li>● OSPE</li> </ul>
<b>Odontogenic and non-odontogenic cysts</b>	Discuss and distinguish various cysts on the basis of their origin, nature, expansion and radiographic presentation	<ul style="list-style-type: none"> <li>● Classify odontogenic and non odontogenic cysts</li> <li>● Distinguish following odontogenic and non odontogenic cysts on the basis of origin, nature, expansion, clinical presentation, histopathology and radiographic features</li> </ul> <p><b>ODONTOGENIC CYSTS:</b></p> <ol style="list-style-type: none"> <li>1. Periapical cysts</li> <li>2. Dentigerous cysts</li> <li>3. Eruption cysts</li> <li>4. Paradental cysts</li> <li>5. Lateral periodontal cysts</li> <li>6. Gingival cysts of adult &amp; newborn</li> <li>7. Glandular odontogenic cyst</li> </ol> <p><b>NON ODONTOGENIC CYSTS:</b></p> <ol style="list-style-type: none"> <li>1. Nasopalatine duct cysts</li> <li>2. Nasolabial cysts</li> <li>3. Globulomaxillary cyst</li> <li>4. Median palatal cyst</li> <li>5. Median mandibular cyst</li> <li>6. Palatal cysts of newborn</li> </ol>	<ul style="list-style-type: none"> <li>● Interactive Lectures</li> <li>● Small Group</li> <li>● Discussions</li> <li>● PBL</li> <li>● Quiz</li> </ul>	<ul style="list-style-type: none"> <li>● MCQs</li> <li>● SAQs</li> <li>● OSPE</li> </ul>

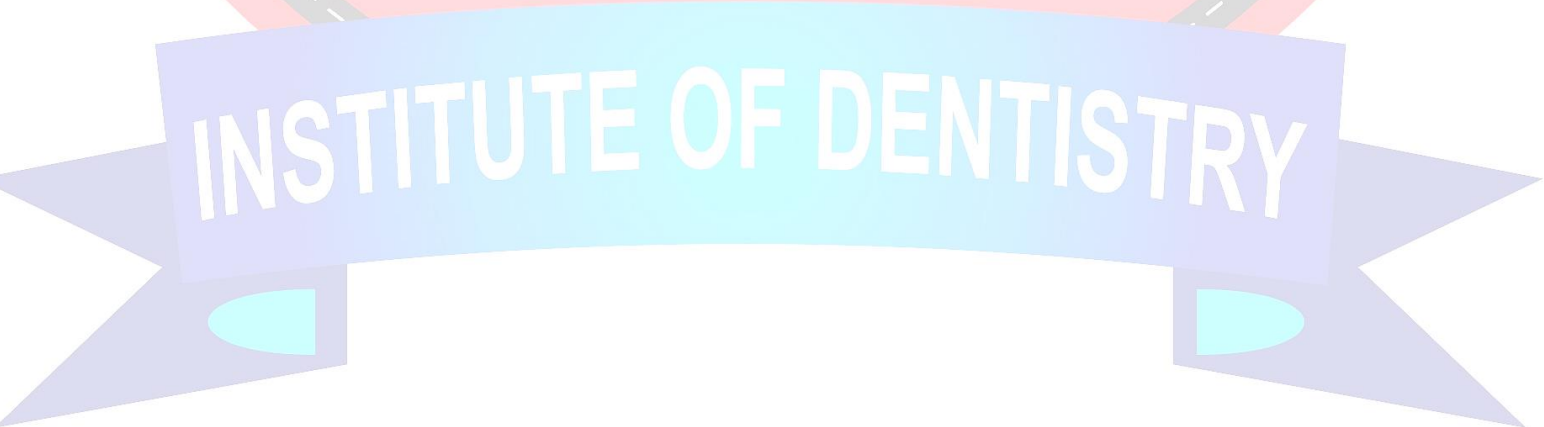
		Dermoid and Epidermoid cysts(only microscopic features)		
<b>Odontogenic Tumors</b>	Diagnose odontogenic tumors on the basis of clinical, radiographic and microscopic features	<ul style="list-style-type: none"> <li>• Differentiate between odontogenic tumors of epithelial origin using clinical, radiographic and histopathological correlation, tumors include Ameloblastoma, Keratocystic odontogenic tumour, Calcifying epithelial odontogenic tumour, Adenomatoid odontogenic tumour, Squamous odontogenic tumour</li> <li>• Diagnose between different odontogenic tumors of odontogenic origin on the basis of clinical and microscopic features , tumors include Odontogenic fibroma, Odontogenic myxoma, Cementoblastoma,</li> <li>• Ameloblastic fibroma &amp; fibrodontoma, Odontogenic carcinoma, Primary intra osseous carcinoma</li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lectures</li> <li>• Small Group</li> </ul> <p><b>Discussions</b></p> <ul style="list-style-type: none"> <li>• PBL</li> <li>• Quiz</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• OSPE</li> </ul>



<p><b>Salivary Gland Pathology</b></p> <p>a. Reactive Lesions (mucocele, mucous retention cyst, necrotizing sialometaplasia)</p> <p>b. Immune-mediated diseases ( Sjogren syndrome)</p> <p>c. Benign tumours (pleomorphic adenoma, warthin tumor, monomorphic adenoma)</p> <p>d. Malignant tumours (mucoepidermoid carcinoma, adenoid cystic carcinoma, acinic cell carcinoma, polymorphous low-grade adenocarcinoma)</p>	<p>Classify salivary gland on the basis of pathology and diagnose the lesions by correlating clinical and histological features.</p>	<ul style="list-style-type: none"> <li>• Diagnose reactive lesions, immune mediated diseases of salivary gland pathology by correlation of their clinicopathological features.</li> <li>• Distinguish benign and malignant tumors of salivary gland on the basis of clinical presentation and histopathological features.</li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lectures</li> <li>• Small Group</li> </ul> <p><b>Discussions</b></p> <ul style="list-style-type: none"> <li>• PBL</li> <li>• Quiz</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• OSPE</li> </ul>
<p><b>DENTAL CARIES AND PERIAPICAL DISORDER</b></p> <p><b>DENTAL CARIES:</b></p> <p>a. Aetiology</p> <p>b. Clinical Types</p> <p>c. Role of</p>	<p><b>Dental Caries:</b> Differentiate between various clinical types of dental caries on clinicopathological basis</p> <p><b>Periapical:</b> Compare and contrast</p>	<ul style="list-style-type: none"> <li>• Distinguish between different types of dental caries on the basis of etiology and clinicopathological features</li> <li>• Discuss the role of plaque and carbohydrates in the development of dental</li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lectures</li> <li>• Small Group</li> </ul> <p><b>Discussions</b></p> <ul style="list-style-type: none"> <li>• PBL</li> <li>• Quiz</li> </ul>	<ul style="list-style-type: none"> <li>• MCQs</li> <li>• SAQs</li> <li>• OSPE</li> </ul>

<p>Plaque, Carbohydrates</p> <p>d. Enamel Caries e. Dentine Caries f. Cementum Caries</p> <p><b>PERIAPICAL PATHOLOGY:</b></p> <p>a. Acute and chronic periodontitis b. Chronic apical periodontitis c. Periapical abscess d. <b>(to be taught by perio dept)</b> e. Periapical granuloma f. Acute and chronic osteomyelitis g. Cellulitis</p>	<p>various periapical pathologies on clinicopathological basis</p>	<p>caries.</p> <ul style="list-style-type: none"> <li>Distinguish periapical abscess from periapical granuloma, acute and chronic osteomyelitis on the basis of clinical presentation and histopathological presentation.</li> <li>Discuss the pathogenesis of cellulitis.</li> </ul>		
<p><b>IMMUNE MEDIATED DISORDERS</b></p> <p>1- Pemphigus vulgaris 2- Mucous-membrane pemphigoid 3- Epidermolysis bullosa 4- Erythema Multiforme Lichen Planus</p>	<p>Distinguish between immune mediated disorders on histological and cytological basis</p> <p><b>(Clinical features and immunofluorescence will be taught by oral med dept)</b></p>	<ul style="list-style-type: none"> <li>Differentiate between pemphigus vulgaris and mucous membrane pemphigoid on the basis of their cytological and histopathological features.</li> <li>Diagnose epidermolysis bullosa, erythema multiforme, lichen planus on the basis of oral manifestations, cytological and histopathological features.</li> </ul>	<ul style="list-style-type: none"> <li>Interactive Lectures</li> <li>Small Group</li> </ul> <p><b>Discussions</b></p> <ul style="list-style-type: none"> <li>PBL</li> <li>Quiz</li> </ul>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>OSPE</li> </ul>
<p><b>Granulomatous disorders</b></p> <p>a. Crohn's disease b. Cheilitis</p>	<p>Evaluate various granulomatous disorders and distinguish between caesating and non caesating granulomas</p>	<p>Describe histopathological features of disorders having caseating and non-caseating granulomas on the basis of microscopy.</p>	<ul style="list-style-type: none"> <li>Interactive Lectures</li> <li>Small Group</li> </ul> <p><b>Discussions</b></p>	<ul style="list-style-type: none"> <li>MCQs</li> <li>SAQs</li> <li>OSPE</li> </ul>

<p>granulomas a c. Wegeners Granulomatosis d. Sarcoidosis  (only microscopy)</p>		<ul style="list-style-type: none"> <li>• Crohn's disease</li> <li>• Cheilitis granulomatosa</li> <li>• Wegeners Granulomatosis</li> <li>• Sarcoidosis</li> </ul>	<ul style="list-style-type: none"> <li>• PBL</li> <li>• Quiz</li> </ul>	
<p><b>DEVELOPMENTAL DISTURBANCES OF ORAL LESIONS</b></p>	<p>Classify developmental anomalies and defects in development of oral structures while appreciating the difference in various genetic syndromes</p>	<p>Demonstrate understanding of developmental disturbances of oral region under three broad categories</p> <ul style="list-style-type: none"> <li>• Developmental disturbances in Teeth ( will be taught by oral medicine dept)</li> <li>• Developmental disturbances in soft tissue</li> <li>• Developmental disturbances in bone ( cleft lip and palate will be covered by gen surgery dept)</li> <li>• Developmental cysts(non-odontogenic)</li> </ul>	<ul style="list-style-type: none"> <li>• Interactive Lectures</li> <li>• Small Group <b>Discussions</b></li> <li>• PBL</li> <li>• Quiz</li> </ul>	<ul style="list-style-type: none"> <li>• Type 1</li> <li>• MCQs</li> <li>• SAQs</li> <li>• OSPE</li> </ul>



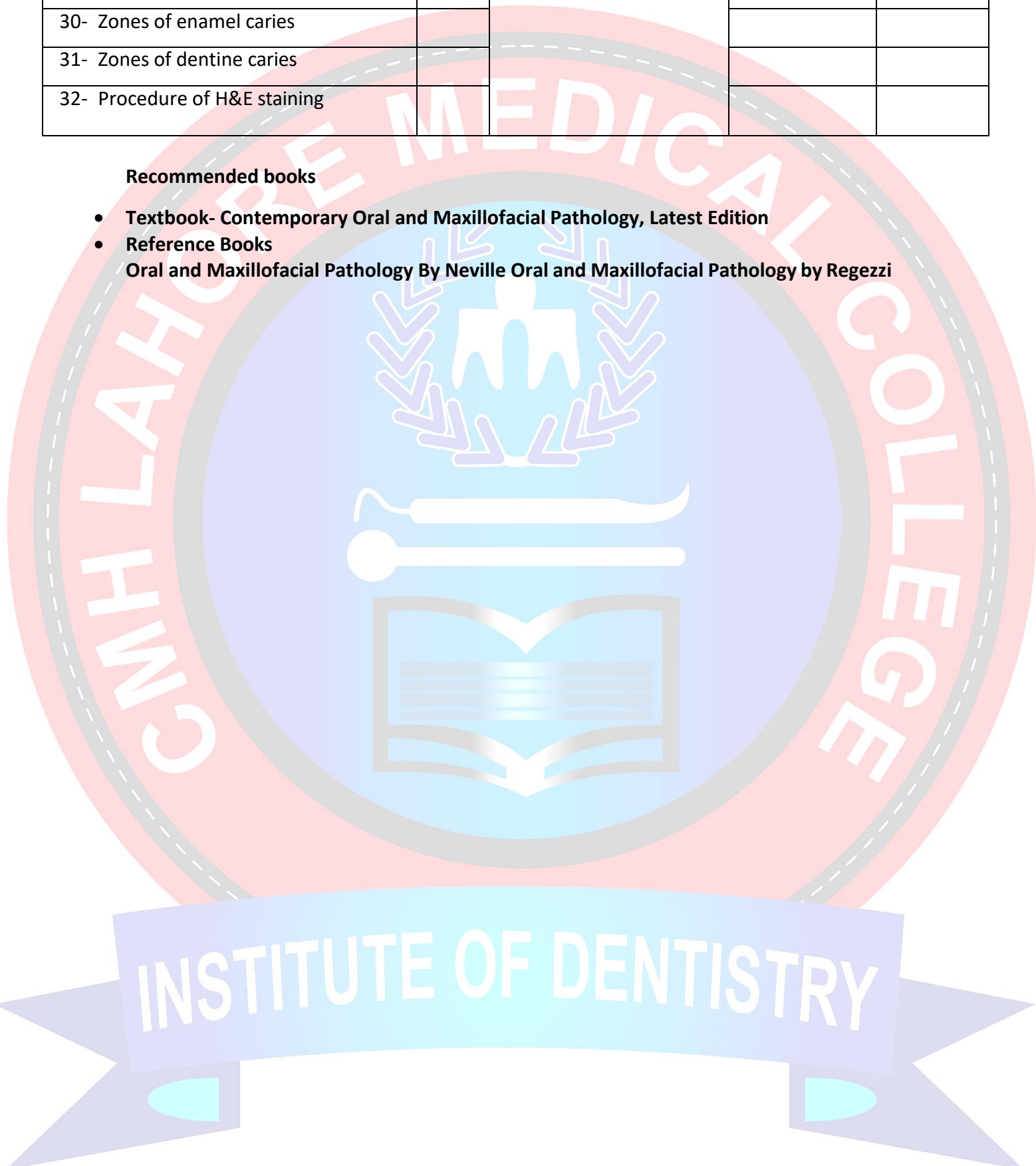
**Learning Outcomes Practical Oral Pathology Third Year BDS**

<b>Topic</b>				
1- Actinomycosis	Skills	<ul style="list-style-type: none"> <li>• Prepare H&amp;E slides</li> <li>• Use microscopes</li> <li>• Identify the microscopic features of slides</li> <li>• Diagnose the slides</li> <li>• Illustrate the salient features on workbook with H&amp;E pencils</li> </ul>	Multimedia/	OSPE
2- Tuberculous granuloma			Optika	
3- Candidiasis			Interactive	Workbook
4- Squamous cell carcinoma			demonstration	
5- 5.Oral epithelial dysplasia			Group activity	
6- Squamous cell carcinoma			on microscope	
7- Mucocele				
8- Pleomorphic adenoma				
9- Warthin's tumor				
10- Mucoepidermoid carcinoma				
11- Adenoid cystic carcinoma				
12- Acinic cell carcinoma				
13- Polymorphous low-grade adenocarcinoma				
14- Lichen planus				
15- Pemphigus vulgaris				
16- Radicular cyst				
17- Dentigerous cyst				
18- Lateral periodontal cyst				
19- Keratocystic odontogenic tumor				
20- Ameloblastoma				
21- Calcifying odontogenic tumor				
22- Adenomatoid odontogenic tumor				
23- Hemangioma				
24- Pyogenic granuloma				
25- Giant cellgranuloma				
26- Hodgkin's lymphoma				
27- Burkitt's lymphoma				
28- Fibrous dysplasia				

29- Ossifying fibroma				
30- Zones of enamel caries				
31- Zones of dentine caries				
32- Procedure of H&E staining				

**Recommended books**

- **Textbook- Contemporary Oral and Maxillofacial Pathology, Latest Edition**
- **Reference Books**  
**Oral and Maxillofacial Pathology By Neville Oral and Maxillofacial Pathology by Regezzi**





**Oral Medicine**

**INSTITUTE OF DENTISTRY**

<b>Theme/ Topics</b>	<b>Learning Outcomes</b> Students should be able to:	<b>Learning Objectives</b>	<b>Instructional Strategy</b>	<b>Assessment Tools</b>
<b>Introduction and Terminologies used in oral medicine</b>	Differentiate between various terms and identify different clinical terms depending on clinical and radiographic examination.	<ul style="list-style-type: none"> <li>Define basic terms used in Oral medicine</li> <li>Differentiate different clinical terms.</li> </ul>	Presentations	<ul style="list-style-type: none"> <li>Quiz</li> <li>Viva</li> </ul>
<b>Principles of oral medicine (patient assessment)</b>	Demonstrate proper history taking and clinical examination of patient with oral lesions.	<ul style="list-style-type: none"> <li>Take a comprehensive relevant history</li> <li>Perform extra-oral and intra-oral examination of the patient.</li> </ul>	History and examination in clinical rotations	Hands on OSPE
<b>Investigations</b>	<ul style="list-style-type: none"> <li>Advise required investigations of blood, urine, Endocrine function, Immunological, serology, &amp; microbiology.</li> <li>Classify different types of biopsy and their use in dentistry.</li> </ul>	<ul style="list-style-type: none"> <li>Identify various diagnostic modalities used in patients suffering from oral diseases and manifestations of systemic diseases in the oral cavity</li> <li>Describe &amp; advise the required biopsy technique, &amp; all imaging techniques</li> </ul>	<ul style="list-style-type: none"> <li>Biopsy techniques</li> <li>Radiographic examination in clinical rotations</li> </ul>	OSCE
<b>Principles of Management</b>	Diagnose & identify different therapeutic options including topical and systemic modalities, their uses, and limitations in the oral cavity.	Execute a suitable treatment plan. Select appropriate topical creams, ointments, &/or systemic therapy, their indications & limitations.	Lectures Clinical rotations.	Viva
<b>Bacterial Infections</b>	Manage bacterial lesions presenting in the oral cavity due to specific bacteria after diagnosis	Describe oral manifestations of Syphilis, only.	Lectures and clinical rotations	<ul style="list-style-type: none"> <li>SAQ</li> <li>MCQs</li> <li>Viva</li> </ul>

<b>Viral Infections</b>	Manage oral lesions associated with viruses after diagnosis.	<ul style="list-style-type: none"> <li>• Diagnosis &amp; management of</li> <li>• Herpes Simplex, Varicella zoster, EBV, Coxsackie, &amp; human papilloma viral infections.</li> <li>• Only oral features of HIV infection.</li> </ul>	Lectures, Clinical rotation	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Fungal Infections</b>	<ul style="list-style-type: none"> <li>• Differentiate between candidal infections</li> <li>• Establish a diagnosis on basis of its causes, clinical examination and investigations</li> </ul>	<ul style="list-style-type: none"> <li>• Oral signs/symptoms &amp; treatment of Superficial Oral Candidiasis.</li> <li>• Identify the causes of fungal infectio</li> </ul>	Presentations Lectures	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Oral Ulcerations</b>	Identify different types of ulcerations and syndromes associated with it. Manage oral ulcerations in all age groups including adolescents after diagnosis	<p>Diagnose &amp; manage Traumatic ulceration,</p> <ul style="list-style-type: none"> <li>• RAS (all 3 types),</li> <li>• Behcet's disease,</li> <li>• PFAPA syndrome, MAGIC syndrome.</li> </ul>	Presentations Clinical rotations	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Diseases of Tongue</b>	Manage different abnormalities of tongue after diagnosis	<ul style="list-style-type: none"> <li>• Differentiate between Fissured tongue, coated tongue, hairy tongue, geographic tongue, Median Rhomboid glossitis</li> <li>• Discuss their causes &amp; management of fissured tongue, coated tongue, hairy tongue, geographic tongue, Median Rhomboid glossitis, Macroglossia &amp; Ankyloglossia.</li> </ul>	Presentations	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>

<b>Diseases of lips</b>	<p>Manage different diseases of lips after diagnosis</p>	<p>Diagnose &amp; propose management of swellings of lips, Angular cheilitis, lip fissures, lick eczema, Actinic cheilitis, Allergic cheilitis.</p>	<p>Lectures</p>	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Swellings of the neck</b>	<ul style="list-style-type: none"> <li>• Perform neck examination and establish differential diagnosis of the face and neck swellings</li> </ul>	<ul style="list-style-type: none"> <li>• Classification of neck swellings.</li> <li>• Causes of cervical lymphadenopathy.</li> <li>• Perform neck examination &amp; describe cervical lymph node levels.</li> </ul>	<p>Lectures, Clinical rotations</p>	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> <li>• OSCE</li> </ul>
<b>Salivary gland Swellings</b>	<ul style="list-style-type: none"> <li>• Manage different salivary gland swellings e.g. different obstructive, viral, bacterial, infections after making diagnosis</li> <li>• Differentiate between unilateral and bi-lateral salivary gland swellings involving any of the three major salivary glands or minor salivary glands.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify Mucocele, Ranula.</li> <li>• Diagnose viral &amp; bacterial sialadenitis, eg. Mumps.</li> <li>• Sialosis &amp; its causes.</li> <li>• Manage different salivary gland swellings e.g. different obstructive, viral, bacterial, infections</li> </ul>	<p>Lectures Clinical rotations</p>	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> <li>• OSCE</li> </ul>
<b>Disturbances of salivary flow</b>	<ul style="list-style-type: none"> <li>• Assess &amp; Diagnose patients presenting with dryness in the oral cavity on the basis of etiology and identify complications associated with it.</li> </ul>	<p>Xerostomia, Hypersalivation, Halitosis, Sjogren's syndrome.</p> <ul style="list-style-type: none"> <li>• Identify their causes, order investigations, &amp; suggest suitable treatment.</li> </ul>	<p>Lectures Clinical rotations</p>	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>

<b>Oral Pigmentation</b>	<ul style="list-style-type: none"> <li>• Manage oral lesions presenting as pigmented lesions based on history and clinical findings and differential diagnosis</li> </ul>	<p>Identify Amalgam tattoo, Melano-acanthoma, Familial &amp; drug induced pigmentation.</p>	<p>Lectures Clinical rotations</p>	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQ</li> <li>• Viva</li> </ul>
<b>Precancerous Lesions</b>	<ul style="list-style-type: none"> <li>• Demonstrate understanding of white and red lesions that may progress to cancerous lesions.</li> <li>• Manage pre-cancerous conditions after diagnosis</li> <li>• Differentiate between pre-cancerous lesions and conditions.</li> </ul>	<p>Clinical diagnosis &amp; management of Leukoplakia(all types) Erythroplakia, Tobacco pouch keratosis, Nicotine stomatitis, white sponge nevus, Leukoedema, Oral submucous fibrosis.</p>	<p>Lectures Clinical rotations</p>	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> <li>• OSPE</li> </ul>
<b>Oral Carcinoma &amp; Carcinogenesis</b>	<p>Identify cancerous lesions and conditions and refer to specialist</p>	<ul style="list-style-type: none"> <li>• Explain TNM staging of OSCC,</li> <li>• Cervical lymph nodes</li> <li>• Discuss management modalities.</li> </ul>	<p>Lectures Clinical rotations</p>	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> <li>• OSPE</li> </ul>
<b>Vesiculobullous diseases</b>	<ul style="list-style-type: none"> <li>• Relate different mucosal symptoms with dermal signs to diagnose and treat mucocutaneous blistering disorders</li> <li>• Differentiate between all vesicobullous lesions by means of comprehensive history and clinical evaluation &amp; investigations.</li> </ul>	<ul style="list-style-type: none"> <li>• Oral manifestations, investigations and treatment of VBD.</li> <li>• Lichen planus, Pemphigus vulgaris, MMPemphigoid, Bullous pemphigoid, Epidermolysis bullosa, Erythema multiforme.</li> </ul>	<p>Lectures</p>	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Blood related Disorders</b>	<p>Identify oral manifestations of blood related disorders.</p>	<p>Identify Oral manifestations of Anemia, Leukemia, Thrombocytopenia,  Myelodysplastic syndrome.</p>	<p>Lectures Clinical rotations</p>	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>

<b>Disorders of nutrition</b>	Identify and manage oral symptoms of diseases due to nutritional deficiencies	Oral manifestations of nutritional deficiencies, Scurvy, Burning mouth syndrome, & their management	Lectures	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Gastro-Intestinal Disorders</b>	Identify and manage oral symptoms of different Gastro-intestinal disorders.	Oral manifestations of Coeliac disease, Crohn's disease, Ulcerative colitis, GERD, Orofacial granulomatosis, & only their management.	Lectures	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Endocrinopathies and Renal diseases</b>	Identify and manage oral symptoms of different endocrine disturbances and renal diseases.	Oral manifestations & dental treatment of pregnant, diabetic, CRF, dialysis and Renal transplant patients, Addison's disease & Cushing syndrome.	Lectures Clinical rotations	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Facial Pain</b>	Classify different types of headache, their diagnosis and management using non-surgical methods.	Diagnose & differentiate between Migraine, Cluster & Tension headaches, Giant cell arteritis.	Lectures Clinical rotations	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Trigeminal Neuralgia</b>	Diagnose a patient with Trigeminal neuralgia and manage such a patient.	Diagnosis & medical management of Trigeminal neuralgia. Outline of surgical treatment methods.	Lectures Clinical rotations	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> <li>• OSPE</li> </ul>
<b>Glossopharyngeal Neuralgia</b>	Diagnose & manage a patient with Glossopharyngeal neuralgia	Diagnosis & medical management of GN.	Lectures	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>

<b>Facial Paralysis</b>	<ul style="list-style-type: none"> <li>• Differentiate between UMNL and LMNL on the basis of etiology</li> <li>• Manage facial palsy</li> </ul>	<ul style="list-style-type: none"> <li>• Diagnose Facial (Bell's palsy)</li> <li>• Recognize Upper motor neuron &amp; lower motor neuron lesions.</li> <li>• Explain their causes &amp; advise management.</li> </ul>	Lectures	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Temporomandibular disorders-TMDs</b>	<ul style="list-style-type: none"> <li>• Differentiate between TMPDS, Internal derangements, &amp; Arthritis.</li> <li>• Advise appropriate management. Demonstrate diagnostic methods of TMDs, specially TMJ examination.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain anatomy of TMJ and disorders related to it.</li> <li>• Discuss the diagnostic modalities and brief treatment of such disorders.</li> <li>• Demonstrate diagnostic methods of TMDs, specially TMJ examination.</li> </ul>	Lectures	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Immunity</b>	Diagnose and manage hypersensitivity reactions that may show signs and symptoms in the oral cavity.	Autoimmunity, Hypersensitivity, Immunodeficiency, Drug allergies.	Lectures	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Disorders of teeth</b>	Recognize various syndromes that directly or indirectly affect facial hard tissues and teeth.	<ul style="list-style-type: none"> <li>• Diagnose Hypodontia, variation in number size &amp; shape of teeth.</li> <li>• Causes of Teeth attrition, erosion, abrasion.</li> <li>• Abnormalities of structure of Enamel &amp; Dentine.</li> </ul>	Lectures	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>
<b>Osteochemonecrosis</b>	Diagnose patients presenting with symptoms of osteochemonecrosis or osteoradionecrosis and management of such a patient.	<p>Outline Oral manifestations, causes, &amp; management of</p> <ul style="list-style-type: none"> <li>• Osteoradionecrosis (ORN),</li> <li>• Bisphosphonate ON of Jaws (BONJ).</li> </ul>	Lectures	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQs</li> <li>• Viva</li> </ul>

<b>Medical Emergencies</b>	Manage medical emergencies in their clinical practices.	Diagnosis and Mx of all dental chairside emergencies.	Lectures Role play, clinical rotation	<ul style="list-style-type: none"> <li>• SAQ</li> <li>• MCQ</li> <li>• Viva</li> <li>• OSCE</li> </ul>
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**Clinical training**

<p>a. Take detailed history of the patient</p> <p>b. Perform extra-oral and intra-oral examination</p> <ol style="list-style-type: none"> <li>1) Examination of lymph nodes</li> <li>2) Examination of cranial nerves</li> <li>3) Examination of temporo-mandibular joint</li> <li>4) Examination of muscles of mastication</li> <li>5) Examination of salivary glands</li> <li>6) Examination of hard and soft tissues of oral cavity (Tongue, Mucosa, Soft</li> <li>7) Palate, Hard Palate, Teeth, Alveolar bone Lingual &amp; Pharyngeal tonsils.</li> <li>8) Major &amp; Minor Salivary glands.</li> </ol> <p>c. Advise investigations</p> <p>d. Establish diagnosis</p> <p>e. Formulate appropriate treatment plan</p> <p>f. Recognize instruments used in medical emergency</p> <ol style="list-style-type: none"> <li>1) Endotracheal tube</li> <li>2) Guedel's airway</li> <li>3) Oxygen mask</li> <li>4) AMBU bag</li> <li>5) IV cannula</li> <li>6) Syringe</li> <li>7) Nasogastric Tube</li> </ol> <p>g. Justify uses of drugs prescribed to patients in a dental OPD</p> <ol style="list-style-type: none"> <li>1) Analgesics</li> <li>2) Steroids</li> <li>3) Adrenaline</li> <li>4) Nitroglycerine</li> <li>5) Anxiolytics</li> <li>6) Antibiotics</li> <li>7) Glucagon</li> <li>8) Saltbutamol</li> </ol>	<p><b>In Dental clinics</b></p>	<p><b>OSCE</b></p>
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**Recommended Books:**

- Tyldesley's Oral Medicine, 5th Edition, by Anne Field & Lesley Longman.
- Oral and Maxillofacial Medicine, the Basis of Diagnosis and Treatment, 2nd Edition, by Crispian Scully.
- Medical Problems in Dentistry, 6th Edition, by Crispian Scully.
- A Clinical guide to Oral Medicine by P J Lamely & M A O Lewis.