



NUMS

NATIONAL UNIVERSITY
OF MEDICAL SCIENCES

**BDS Curriculum
3rd Year
(2025)**

**National University of Medical Sciences
Pakistan**

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General Guidelines

1. Preamble

The recently revised standards by the Pakistan Medical and Dental Council (PM&DC) encourages integration of major subjects both horizontally and longitudinally. This curriculum meets the standards of Pakistan Medical and Dental Council and our students, on completion of program will develop required competencies as defined worldwide in a graduate doctor.

This curriculum also aims to improve different skills of the future dentists including communication, leadership & management and research skills and inculcate ethical values and professionalism

This curriculum has been developed by the BDS faculty from constituent/affiliated colleges in collaboration with NUMS Academic Directorate

2. Curriculum perspective

NUMS curriculum is evolved taking into consideration Constructivist, Cognitivist, behaviorist with some element of Constructivist approach. It allows students to construct their own knowledge based on what they already know and to use that knowledge in purposeful activities requiring decision making, problem solving, and judgments.

3. Level of integration

The approach is discipline-based with clinical relevance.

4. Competencies

The focus of this curriculum is on following competencies:

- a. Medical Knowledge
- b. Problem solving
- c. Procedural skills
- d. Communication skills
- e. Empathy
- f. Professionalism
- g. Leadership and Management skills
- h. Research skills

5. Yearly Outcomes

By the end of third year, students should be able to:

- a. Diagnose common general medical disorders and manage medical emergencies relevant to dental practice
- b. Diagnose and suggest management of common general surgical conditions, provide immediate care in surgical emergencies and carry out common practical procedures relevant to Dental practice
- c. Apply the knowledge of periodontium in health and disease to diagnose and manage various periodontal conditions according to the classification and plan treatment strategies to restore periodontal health and function.
- d. Identify signs, symptoms and clinicopathological features of various disorders related to dentistry

6. **Contact Hours Distribution Year-III**

Subject	Total
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
Total	1260

7. **Implementation plan**
Implementation of curriculum is at the discretion of institute. However, for your convenience a proposed implementation plan is given below which may be modified as per the requirement of each institute

Lectures/day (Mon-Fri): 02/ Day												
Proposed Clinical Rotation Plan												
Block I: 12 weeks				Block II: 12 weeks				Block III: 12 weeks				
A	B	C	D	A	B	C	D	A	B	C	D	
Oral Pathology (2 hrs for 5 days for 3 wks = 30 hrs)	Oral Medicine (2 hrs for 5 days for 3 wks = 30 hrs)	Periodontology (2.5 hrs for 5 days for 3 wks = 37.5 hrs)	Oral & Maxillofacial Surgery (2.5 hrs for 5 days for 3 wks = 35 hrs)	Oral Pathology (1 hr for 5 days for 3 wks = 15 hrs)	Oral Medicine (1 hr for 5 days for 3 wks = 15 hrs)	Operative Dentistry (2 hrs for 5 days for 3 wks = 30 hrs)	Periodontology (2 hrs for 5 days for 3 wks = 30 hrs)	Oral Pathology (2 hrs for 5 days for 3 wks = 30 hrs)	Oral Medicine (2 hrs for 5 days for 3 wks = 30 hrs)	Periodontology (2.5 hrs for 5 days for 3 wks = 37.5 hrs)	Prosthodontics (2.5 hrs for 5 days for 3 wks = 35 hrs)	
General Medicine (3 hrs for 5 days for 3 wks = 45 hrs)	General Surgery (3 hrs for 5 days for 3 wks = 45 hrs)	Operative Dentistry (2.5 hrs for 5 days for 3 wks = 35 hrs)	Prosthodontics (2.5 hrs for 5 days for 3 wks = 35 hrs)	General Medicine (4 hrs for 5 days for 3 wks = 60 hrs)	General Surgery (4 hrs for 5 days for 3 wks = 60 hrs)	Prosthodontics (3 hrs for 5 days for 3 wks = 45 hrs)	Oral & Maxillofacial Surgery (3 hrs for 5 days for 3 wks = 45 hrs)	General Medicine (3 hrs for 5 days for 3 wks = 45 hrs)	General Surgery (3 hrs for 5 days for 3 wks = 45 hrs)	Operative Dentistry (2.5 hrs for 5 days for 3 wks = 35 hrs)	Oral & Maxillofacial Surgery (2.5 hrs for 5 days for 3 wks = 35 hrs)	

8. Educational strategies:

The educational strategies overarching the curriculum shall be:

- a. Student centered
- b. Integration
- c. Problem based
- d. Structured
- e. With component of community based and electives

9. Resources. To be filled in by the institute

- a. Faculty
- b. Facilities
- c. Administration for Course
- d. Administrative structure
- e. Communication with students

10. Examination.

- a. The weighting of internal assessment is 20% in 3rd professional BDS Examination
- b. There will be three end of block and pre annual examinations. The scores of tests of each end block assessment and pre-annual examination will be used for calculation of the internal assessment.
- c. The structure of the paper of all end of block and pre annual will be same as that for annual examination though syllabus will be different. Pre-annual examination will be from whole syllabus.
- d. The date sheet for end of block and pre annual examinations will be published by Examination branch of college while the examinations will be conducted by respective department. The result will be submitted to examination branch for record.
- e. The University shall take the 3rd professional Examination at the end of the academic year. Annual Theory & Practical Examination shall be of 100 marks each in; General Medicine, General Surgery, Oral Pathology and Periodontology and 50 Marks each in Oral Medicine. The pass score shall be 50% in theory and practical separately. However, in clinical subjects, student should pass in clinical exams / OSCE (with 50% marks) and unobserved stations (with 50% marks) separately

Evaluation of the Course. To be filled in by the institute

3rd YEAR BDS
BLOCK WISE DISTRIBUTION

BLOCK-I (12 weeks)

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

BLOCK-II (12 weeks)

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

BLOCK-III (12 weeks)

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

General Medicine

GENERAL MEDICINE

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

	<ul style="list-style-type: none"> • Manage common GI and hepatobiliary presentations 	<p>dyspepsia, abdominal pain</p> <ul style="list-style-type: none"> • Describe the pathophysiology of the acid peptic disease and its appropriate investigations and management. • Approach to the patient with upper GI bleeding • 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. 		
RESPIRATORY SYSTEM	<ul style="list-style-type: none"> • Recognize important respiratory conditions • Manage common respiratory presentations 	<ul style="list-style-type: none"> • Explain the risk factors of pneumonia, its classifications, investigations and appropriate treatment. • Describe the etiology, diagnosis and guidelines of management of chronic bronchial asthma and acute severe asthma • Describe the etiology, diagnosis and treatment pulmonary tuberculosis • Describe the pathophysiology, etiology, investigations and management of chronic obstructive pulmonary disease. 	Interactive lectures, Small group discussions	MCQs, SAQs
NERVOUS SYSTEM	Diagnose and manage the common neurological conditions.	<ul style="list-style-type: none"> • Approach to the patient with headache • Describe the etiology, diagnosis and guidelines of management of meningitis and encephalitis. 	Interactive lectures, Small group discussions	MCQs, SAQs

		<ul style="list-style-type: none"> Describe the etiology, diagnosis and management of cerebrovascular accident Describe the classification, etiology, investigations and management of epilepsy. 		
HAEMATOLOGY	Manage common bleeding disorders	<ul style="list-style-type: none"> Identify and discuss the common clotting disorders like hemophilia and Von-Willibrand disease. Identify and discuss the diseases like immune thrombocytopenic pupura and disseminated intravascular coagulation Describe the classification of anemia and its diagnosis, investigations and management Approach to anticoagulant therapy Identify common haematological malignancies 	Interactive lectures, Small group discussions	MCQs, SAQs
NEPHROLOGY	<ul style="list-style-type: none"> Approach the patient with kidney diseases Manage fluid and electrolyte imbalances Manage common UTIs 	<ul style="list-style-type: none"> Describe the classification, etiology, investigations and management of acute kidney injury and chronic kidney disease. Identify and manage fluid and electrolyte imbalances Discuss etiology, management of common urinary tract infection 	Interactive lectures, Small group discussions	MCQs, SAQs
ENDOCRINOLOGY	<ul style="list-style-type: none"> Diagnose common endocrine disorders Manage diabetic emergencies 	<ul style="list-style-type: none"> Describe the etiology, clinical features, investigations and treatment of hypothyroidism, hyperthyroidism and parathyroid disorders 	Interactive lectures, Small group discussions	MCQs, SAQs

		<ul style="list-style-type: none"> Describe the pathophysiology, classification of diabetes mellitus and its appropriate investigations and management. Manage diabetic emergencies 		
MUSCLOSKELETAL SYSTEM	Identify common rheumatological disorders	<ul style="list-style-type: none"> Describe the etiology, diagnosis and management of systemic lupus erythematosus Describe the etiology, investigations and management of rheumatoid arthritis. Describe the etiology, diagnosis and guidelines of management of osteoporosis and osteoarthritis 	Interactive lectures, Small group discussions	MCQs, SAQs

TOPICAL DETAILS OF CLINICAL SKILLS TO BE LEARNED AT THE BEDSIDE

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

Recommended books

- Davidson's Principles and Practice of Medicine
- Kumar and Clarks Clinical Medicine
- Clinical methods (Macleod or Hutchinsons)

General Surgery

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
PRINCIPLES OF SURGERY				
Body's response to trauma and stress	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"> • Mediators of the metabolic response to injury • Physiological and biochemical changes that occur during injury and recovery • Changes in body composition that accompany surgical injury • Avoidable factors that compound the metabolic response to injury • Concepts behind optimal perioperative care 	<ul style="list-style-type: none"> • Large Class Format • Interactive Session • Student presentations 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical • Scenario based Viva Voce
Shock, Pathology, Types and management	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"> • The pathophysiology of shock and ischaemia–reperfusion injury • The different patterns of shock and the principles and priorities of resuscitation • Appropriate monitoring and end points of resuscitation • Use of blood and blood products, the benefits and risks of blood transfusion 	<ul style="list-style-type: none"> • Large Class Format • Interactive Session • Student presentations 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical • Scenario based Viva Voce
Wound Healing & its complications	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"> • Normal healing and how it can be adversely affected • How to manage wounds of different types, of different structures and at different sites 	<ul style="list-style-type: none"> • Large Class Format • Interactive Session • Student presentations • Bedside demonstrations during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical • Scenario based Viva Voce

		<ul style="list-style-type: none"> • Aspects of disordered healing that lead to chronic wounds • The variety of scars and their treatment 		
Types of Wound closure	Apply the knowledge of wound closure in dental practice.	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> • The principles of skin and abdominal incisions • The principles of wound closure • The principles of drain usage • The factors that determine whether a wound will become infected 	<ul style="list-style-type: none"> • Large Class Format • Interactive Session • Student presentations • Bedside demonstrations during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical Scenario based Viva Voce
Wound Infection / Surgical Site Infection	Apply the knowledge of wound infection in dental practice.	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> • The classification of sources of infection and their severity • The indications for and choice of prophylactic antibiotics • The characteristics of the common surgical pathogens and their sensitivities • The spectrum of commonly used antibiotics in surgery and the principles of therapy • The misuse of antibiotic therapy with the risk of resistance 	<ul style="list-style-type: none"> • Large Class Format • Interactive Session • Student presentations • Bedside demonstrations during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical Scenario based Viva Voce
Cross infection control in the clinical environment	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"> • What basic precautions to take to avoid surgically relevant hospital acquired infections 	<ul style="list-style-type: none"> • Large Class Format • Interactive Session • Student presentations • Bedside demonstrations during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical Scenario based Viva Voce
Blood transfusion in surgical patients	Apply the knowledge of basic principles of Blood transfusion in	Demonstrate basic comprehension of the following	<ul style="list-style-type: none"> • Large Class Format 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical

	surgical patients in dental practice.	with emphasis on clinical application: <ul style="list-style-type: none"> • The concept of 'Transfusion Trigger' • Use of blood and blood products, the benefits and risks of blood transfusion 	Interactive Session <ul style="list-style-type: none"> • Student presentations • Bedside demonstrations during clinical rotations / OR visits 	• Scenario based Viva Voce
Colloids and Crystalloids used in surgical patients	Apply the knowledge of Colloids and Crystalloids used in surgical patients in dental practice.	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> • Fluid and electrolyte requirements in the pre, peri and • postoperative patient 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside demonstrations during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical • Scenario based Viva Voce
Common fluid & electrolyte disorders in surgical patients	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"> • Common clinical scenarios leading to hypo and hypernatremia in a surgical patient, their underlying pathophysiology and management • Common clinical scenarios leading to hypo and hyperkalemia in a surgical patient, their underlying pathophysiology and management 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside demonstrations during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical • Scenario based Viva Voce
Common acid base disorders in surgical patients	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"> • Definition, types and pathophysiology of acidosis and alkalosis • Common clinical scenarios leading to acidosis and alkalosis in a surgical patient, their underlying 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside demonstrations during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical • Scenario based Viva Voce

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

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

		<ul style="list-style-type: none"> • Concepts of injury recognition prediction based on the mechanism and energy of injury • Principles of primary and secondary surveys in the assessment and management of trauma • Techniques for the initial resuscitative and definitive care aspects of trauma based on ATLS protocol • Necessary protocols to allow early stabilization of the patient leading on to definitive Care 		
Head injury	<ul style="list-style-type: none"> • Assess the patient presenting with head injury in dental practice • Apply the knowledge of head injury in clinical scenarios 	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> • Physiology of cerebral blood flow and the • pathophysiology of raised intracranial pressure • Management of head injury and prevention of secondary brain injury 	<ul style="list-style-type: none"> • Large Class Format • Interactive Session • Student presentations • Trauma care workshops 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical • Scenario based Viva Voce • TOACS
Cervical spine injury	<ul style="list-style-type: none"> • Assess the patient presenting with Cervical spine injury in dental practice • Apply the knowledge of Cervical spine injury in clinical scenarios 	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> • Accurate initial assessment of spinal trauma • The pathophysiology and types of spinal cord injury • The basic management of spinal trauma and the major pitfalls • The prognosis of spinal cord injury, factors affecting functional outcome, and common associated complications 	<ul style="list-style-type: none"> • Large Class Format • Interactive Session • Student presentations • Trauma care workshops 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical • Scenario based Viva Voce • TOACS
Maxillofacial trauma	<ul style="list-style-type: none"> • Assess the patient presenting with maxillofacial 	<p>Demonstrate basic comprehension of the following</p>	<ul style="list-style-type: none"> • Large Class Format 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical

	<p>trauma in dental practice</p> <ul style="list-style-type: none"> Apply the knowledge of maxillofacial trauma in clinical practice 	<p>with emphasis on clinical application:</p> <ul style="list-style-type: none"> Recognise the life-threatening nature of facial injuries through compromise of the airway and associated head and spinal injuries A methodology for examining facial injuries The classification of facial fractures The diagnosis and management of fractures of the middle third of the facial skeleton and the mandible The importance of careful cleaning and accurate suturing of facial lacerations 	<p>Interactive Session</p> <ul style="list-style-type: none"> Student presentations Trauma care workshops 	<ul style="list-style-type: none"> Scenario based Viva Voce TOACS
Neck trauma	<ul style="list-style-type: none"> Assess the patient presenting with neck trauma in dental practice Apply the knowledge of neck trauma in clinical scenarios 	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> Overview of surgical anatomy of the neck Pathophysiology of penetrating and blunt neck trauma The neck zones used to describe neck injuries Principles of management of neck trauma 	<ul style="list-style-type: none"> Large Class Format Interactive Session Student presentations Trauma care workshops 	<ul style="list-style-type: none"> MCQs SAQs Clinical Scenario based Viva Voce
Chest trauma and its managementThoracotomy / Use of Chest drains Hemorrhage and its types	<ul style="list-style-type: none"> Assess the patient presenting with chest trauma in dental practice Apply the knowledge of chest trauma in clinical scenarios 	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> The gross and surgical anatomy of the chest and abdomen The pathophysiology of torso injury The strength and weaknesses of clinical assessment in the injured patient The use of special investigations and their limitations 	<ul style="list-style-type: none"> Large Class Format Interactive Session Student presentations Trauma care workshops 	<ul style="list-style-type: none"> MCQs SAQs Clinical Scenario based Viva Voce TOACS

		<ul style="list-style-type: none"> • The operative approaches to the thoracic cavity • The special features of an emergency department • thoracotomy for haemorrhage control • The philosophy of damage control surgery • Basic structure and working of a chest drain with an underwater seal • Insertion of a chest drain and its care • How and when to remove chest drains • Complications associated with use of chest drains 		
Burns	<ul style="list-style-type: none"> • Assess the patient presenting with burn in dental practice • Apply the knowledge of burn in clinical scenarios 	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> • The different causes and types of burns • The pathophysiology of burns • Factors leading to early and late mortality in burn patients • Pre hospital and ER room management of a burn patient • Assessing the area and depth of burns • Fluids available for resuscitation of burn victims, advantages and disadvantages associated with their use • Methods for calculating the rate and quantity of fluids to be given • Early monitoring of a burn patient • Techniques for treating burns patient • The pathophysiology of electrical and chemical burns 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Trauma care workshops 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical based Viva Voce • TOACS
COMMON SURGICAL DISORDERS RELEVANT TO DENTAL PRACTICE				

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

Disorders of the Parathyroid gland (Hyper and hypo-parathyroidism, benign hyperplasia, malignancy, MEN syndromes) and their surgical management	<ul style="list-style-type: none"> Assess the patient presenting with disorders of the Parathyroid gland Outline the management plan for disorders of the Parathyroid gland 	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> The embryology and anatomy of the parathyroid gland The physiology and investigations of parathyroid gland, selection of appropriate investigations for parathyroid disorders Various types of benign and malignant disorders of the parathyroid gland Difference between primary, secondary and tertiary hyper-parathyroidism Clinical history taking / examination of a patient presenting with parathyroid disorder Overview of various treatment modalities available for treatment of parathyroid disorders Parathyroidectomy and its complications The concept of auto-transplantation of parathyroids 	<ul style="list-style-type: none"> Large Class Format Interactive Session Student presentations Bedside learning during clinical rotations / OR visits 	<ul style="list-style-type: none"> MCQs SAQs Clinical Scenario based Viva Voce TOACS Mini-CEX
Differential diagnosis & diagnostic approach to neck swellings	<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"> The differential diagnosis of a neck swelling based on the concept of anatomical triangles of the neck Difference between cyst (true cyst and false cyst), sinus and fistula Clinical diagnostic landmarks of common neck swellings namely plunging ranula, thyroglossal cyst, submandibular gland swelling, laryngocele, pharyngocele, 	<ul style="list-style-type: none"> Large Class Format Interactive Session Student presentations Bedside learning during clinical rotations / OR visits 	<ul style="list-style-type: none"> MCQs SAQs Clinical Scenario based Viva Voce TOACS Mini-CEX

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

		<ul style="list-style-type: none"> • Oral cancer prevalence in Pakistan • Risk factors for development of oral cancer especially the relationship between oral cancers and the use of alcohol and tobacco • Premalignant lesions of the oral cavity, their diagnosis and management • The concept of 'Field change' in malignancies of the aerodigestive tract • The cardinal clinical features and management of patients presenting with oropharyngeal cancer (employing carcinoma tongue and lip as the prototype disease conditions) • Surgical reconstruction in patients undergoing treatment of oro-pharyngeal cancer 	<ul style="list-style-type: none"> • Bedside learning during clinical rotations / OR visits 	<ul style="list-style-type: none"> • TOACS • Mini-CEX
Skin malignancies	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"> • Clinical anatomy of skin • Clinical examination of an ulcer and swelling • Various morphological types of skin ulcers and their differential diagnoses • Premalignant lesions of the skin • Demography, clinical features and management of common skin malignancies namely Squamous and Basal celled carcinoma, Malignant Melanoma 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside learning during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical Scenario based Viva Voce • TOACS • Mini-CEX
Common benign skin swellings	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"> • Clinical anatomy of skin 	<ul style="list-style-type: none"> • Large Class Format Interactive Session 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical

		<ul style="list-style-type: none"> • Clinical examination of a skin swelling • Cardinal clinical features and management of common skin malignancies namely Lipoma, Epidermoid and Dermoid cysts and hemangiomas 	<ul style="list-style-type: none"> • Student presentations • Bedside learning during clinical rotations / OR visits 	<ul style="list-style-type: none"> • Scenario based Viva Voce • TOACS • Mini-CEX
Carcinoma Larynx	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"> • Clinical anatomy of larynx • Demography, clinical features and management of a patient presenting with carcinoma larynx 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside learning during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical Scenario based Viva Voce • TOACS • Mini-CEX
Tracheostomy, indications, care and complications	Outline the indications, care and complications of Tracheostomy	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> • Clinical anatomy of trachea • Types of tracheostomy • Indications of performing tracheostomy • Physiological effects that take place after a tracheostomy is performed • Complications that can occur during or after a tracheostomy • Care of a patient in the early post-operative period after tracheostomy 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside learning during clinical rotations / OR visits • Teaching videos 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical Scenario based Viva Voce • TOACS
Benign and Malignant disorders of the Salivary glands	Apply the relevant knowledge of disorders of the Salivary glands in clinical practice	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> • The surgical anatomy of the salivary glands • The presentation, pathology and investigation of common benign and malignant salivary gland disease • The medical and surgical treatment of stones, 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside learning during clinical rotations / OR visits 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical Scenario based Viva Voce • TOACS • Mini-CEX

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

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

		<p>complications of acute and chronic osteomyelitis in long bones</p> <ul style="list-style-type: none"> • The importance of early recognition and management of acute osteomyelitis in children 	<ul style="list-style-type: none"> • Bedside learning during clinical rotations / OR visits 	<ul style="list-style-type: none"> • TOACS • Mini-CEX
Cleft lip and palate	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"> • Risk factors and classification of cleft lip and palate • The principles of reconstruction of cleft lip and palate • The key features of the perioperative care of the child with cleft lip and palate • The associated complications of cleft lip and palate and their management • The importance of multi-disciplinary approach in managing patients with cleft lip and palate to achieve good results 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside learning during clinical rotations / OR visits • Teaching videos 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical based Viva Voce • TOACS • Mini-CEX

ANESTHESIA AND ITS RISKS

Anesthesia and its risks	<ul style="list-style-type: none"> • Summarize the techniques of different anaesthesia along with their complications • Outline the management of pain and pain from malignant disease 	<p>Demonstrate basic comprehension of the following with emphasis on clinical application:</p> <ul style="list-style-type: none"> • Techniques of anaesthesia and airway maintenance namely general, regional and local anaesthesia • Methods of providing pain relief • Local and regional anaesthesia techniques especially spinal and epidural anaesthesia its procedure and complications • The management of chronic pain and pain from malignant disease 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside learning during clinical rotations / OR visits • Teaching videos 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical based Viva Voce • TOACS
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QUALITY OF CARE IN CLINICAL PRACTICE

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

Occupational hazards in the clinical environment	Apply the knowledge of occupational hazards in the clinical environment to avoid its occurrence in clinical practice	Demonstrate basic comprehension of the following with emphasis on clinical application: <ul style="list-style-type: none"> • Identification and management of occupational hazards in the surgical environment • Needle stick injuries, their consequences and prevention 	<ul style="list-style-type: none"> • Large Class Format Interactive Session • Student presentations • Bedside learning during clinical rotations / OR visits • Teaching videos 	<ul style="list-style-type: none"> • MCQs • SAQs • Clinical Scenario based Viva Voce • TOACS
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TOPICAL DETAILS OF CLINICAL SKILLS TO BE LEARNED AT THE BEDSIDE OR IN THE CLINICAL SKILLS LABORATORY

S NO	Clinical Skills to be Learned	Teaching Methodology	Assessment tool
1.	Clinical history taking	<ul style="list-style-type: none"> • Student presentations • Bedside learning during clinical rotations / in the clinical skills lab / OR visits • Teaching videos • Teaching Radiology films 	<ul style="list-style-type: none"> • TOACS • Mini-CEX
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"> a. Common surgical instruments b. Chest drain with under water seal. c. Common drains (NG tube, foley catheter) d. Commonly used surgical sutures 		

	<ul style="list-style-type: none"> e. Commonly used intravenous cannulas, central venous catheters, LP needles, intra-venous fluids f. Instruments used for airway management (Guedel's airway, endotracheal tube, cricothyroidotomy / tracheostomy tube. g. Diathermy machine h. General anesthesia apparatus 		
15.	Identification of radiologic anatomy in a normal Chest X ray		
16.	Identification of following pathologies on X ray: <ul style="list-style-type: none"> a. Pleural effusion. b. Pneumothorax c. Cervical spine injury 		
17.	Identification of typical presentations of extra-dural, 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)

Ser	Skills to be learned	Observation/ Performance level	Assessment tool
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 anesthesia (O)	Observed	Clinical Log book
15.	Application of POP cast to a long bone fracture (O)	Observed	Clinical Log book

Recommended books

1. Bailey and Love's Short Practice of Surgery – 27th 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

Theme/Topics	Learning Outcomes At the end of this course, student will be able to:	Learning Objectives This course enables the student to:	Instructional Strategy	Assessment Tools
BIOLOGIC BASIS OF PERIODONTOLOGY				
ANATOMY AND PHYSIOLOGY OF PERIODONTIUM	<ul style="list-style-type: none"> • Outline the knowledge of the anatomy and physiology of the tissues of the periodontium and related structures. • Outline age changes in periodontium 	<ul style="list-style-type: none"> • Describe, label and Identify diverse anatomical features of periodontium. • Identify microscopic features of periodontium. • Describe physiology of saliva and role of gingival crevicular fluid. • Identify blood supply, nerve supply and lymphatic drainage of periodontium of each tooth. • Describe the features of age changes in periodontium 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SAQs • MCQs • VIVA VOCE • OSCE
CLASSIFICATION OF PERIODONTAL DISEASES	<ul style="list-style-type: none"> • Classify and tabulate gingival and periodontal diseases • Recognize developmental and acquired deformities along with mucogingival deformities around teeth 	<ul style="list-style-type: none"> • Define gingival diseases. • Define periodontal diseases. • Tabulate gingival diseases. • Tabulate periodontal diseases. 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SAQs • MCQs • VIVA VOCE
EPIDEMIOLOGY OF PERIODONTAL DISEASE	<ul style="list-style-type: none"> • Identify periodontal diseases by applying epidemiology indices and select appropriate diagnostic tools • Quote incidence and prevalence of periodontal diseases in the community and worldwide. 	<ul style="list-style-type: none"> • Define indices, including: <ul style="list-style-type: none"> ➢ Plaque index ➢ Debris index ➢ Gingival bleeding index ➢ Sulcus index ➢ Periodontal index ➢ Community periodontal index ➢ Periodontal destructive index • Recognize epidemiological tools to 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL • Clinical demonstration 	<ul style="list-style-type: none"> • SAQs • MCQs • VIVA VOCE • OSCE

		<p>assess periodontal conditions.</p> <ul style="list-style-type: none"> • Select appropriate instruments for calculating indices • Quote incidence and prevalence of periodontal diseases in the community and worldwide. 		
PERIODONTAL MICROBIOLOGY	<ul style="list-style-type: none"> • Interpret the role of bacteria in the pathogenesis of periodontal tissue destruction. • Identify various colonies of bacteria responsible for periodontal tissue destruction 	<ul style="list-style-type: none"> • Describe the nature, composition and physiology of plaque biofilm and its relationship to inflammatory periodontal diseases • Interpret the role of bacteria in the pathogenesis of periodontal tissue destruction. • Identify various colonies of bacteria responsible for periodontal tissue destruction. • Distinguish between various colored complexes of periodontal pathogens. 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SAQs • MCQs • VIVA VOCE • OSCE
HOST RESPONSE AND HOST BACTERIAL INTERACTIONS IN PERIODONTAL DISEASE	<ul style="list-style-type: none"> • Interpret inflammatory response from host after bacterial interactions. • Relate the behaviors of different bacteria with host response. • Enlist putative periodontal pathogens 	<ul style="list-style-type: none"> • Define and describe Host bacterial interactions • Express risk factors for periodontal disease. • Name different disease causing periodontal pathogens 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SAQs • MCQs • VIVA VOCE

<p>SYSTEMIC FACTORS; SYSTEMIC DISEASES ASSOCIATED WITH PERIODONTAL DISEASE</p>	<p>Recognize the bidirectional influence of systemic conditions on periodontium and its implications (vice versa)</p>	<ul style="list-style-type: none"> • Identify the role of systemic diseases/conditions in the etiology of periodontal disease. • Describe clinical features of periodontal disease associated with systemic diseases/factors. • Tabulate common systemic diseases or conditions that have an impact of periodontal health. • Differentiate between clinical features of various systemic conditions/diseases. • Recognize the role of AIDS on periodontium. • Identify treatment options for gingival disease. 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SAQs • MCQs • VIVA VOCE
<p>PERIODONTAL PATHOGENESIS</p> <p>a. GINGIVAL INFLAMMATION</p> <p>b. PERIODONTAL POCKET</p> <p>c. BONE LOSS AND PATTERNS</p>	<ul style="list-style-type: none"> • Explain the pathogenesis and its significance in initiation of periodontal pockets • Distinguish types of periodontal pockets on the basis of its classification • Enlist patterns and classification of bone loss • Interpret and diagnose anatomical landmarks and bone loss by different methods. (Bone sounding) • Differentiate and explain types of bone loss Radiographically and clinically 	<ul style="list-style-type: none"> • Define, identify and Describe gingival inflammation, periodontal pocket and bone loss patterns. • Describe pathogenesis of gingival inflammation, pocket formation and bone destruction patterns. • Calculate clinical attachment loss. • Demonstrate gingival and periodontal probing. • Determine pathological signs of periodontal tissues. • Interpret normal and pathological structures found on dental radiographs. • Describe histopathological features associated with 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL • Clinical demonstration 	<ul style="list-style-type: none"> • SAQs • MCQs • VIVA • VOCE • OSCE

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

PERIO-ENDO, PROSTHODONTI C, ORTHO, RESTORATIVE PERIODONTAL CONSIDERATIO N	<ul style="list-style-type: none"> • Interpret the interrelationship of periodontitis to pulpal disease • Classify endo Perio lesions • Summarize the hazards of orthodontic forces on periodontium and role of oral hygiene maintenance during orthodontic treatment • Discuss the significance of biologic width with practicing prosthodontics procedures. 	<ul style="list-style-type: none"> • Define and classify periodontal- endodontic lesions. • Identify local factors affecting periodontium. • Express the importance of: <ul style="list-style-type: none"> ➤ Biological width violation consequences ➤ Aesthetic tissue management Occlusal consideration in restorative therapy 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • MCQs • VIVA VOCE
CLINICAL PERIODONTOLOGY AND NON-SURGICAL PERIODONTAL THERAPY				
PERIODONTAL DISEASES: 1. GINGIVAL CONDITIONS	<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"> • Identify and classify the types of gingival diseases. • Differentiate Acute and Chronic forms of gingivitis. • Describe clinical and histopathological features of gingival diseases. • Identify and distinguish between various gingival diseases. • Identify and Correlate clinical features of common gingival disease: <ul style="list-style-type: none"> ➤ Acute necrotizing ulcerative gingivitis ➤ Gingival desquamation • Recognize and describe gingival enlargements 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SAQs • MCQs • VIVA VOCE • OSCE

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

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

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

	<p>(chemical plaque control)</p> <ul style="list-style-type: none"> • Classify interdental cleaning aids and name chemical and mechanical plaque control techniques • Demonstrate the use of correct types of brushing techniques • Emphasize the need of good oral hygiene practices (including use of oral irrigation technique and disclosing agents) 	<ul style="list-style-type: none"> • Identify and Describe Oral hygiene instructions. • Employ various adjuncts to non- surgical therapy to show rationale for use. • Classify interdental cleaning aids. • Identify the importance of: <ul style="list-style-type: none"> ➤ Toothbrush brushing techniques ➤ Oral irrigation technique ➤ Disclosing agent 		
CHEMICAL PLAQUE CONTROL	<ul style="list-style-type: none"> • Describe the effects and interactions of medications used for the prevention and therapy of periodontal diseases • Classify antimicrobial agents used in periodontal disease • Identify commonly used antimicrobial agents (Chlorhexidine) and explain its mechanism 	<ul style="list-style-type: none"> • Define antimicrobial agent. • Classify antimicrobial agents used in periodontal disease. • Identify commonly used antimicrobial agents in periodontal disease. • Differentiate between the use of Systemic and Local antimicrobial agents. • Label serial and combination antibiotic therapy 	<ul style="list-style-type: none"> • LGIS • SGIS 	<ul style="list-style-type: none"> • SAQs • MCQs • VIVA VOCE
PERIODONTAL SURGERY AND SUPPORTIVE THERAPY				
GENERAL PRINCIPLES OF PERIODONTAL SURGERY 1) SUTURES 2) PERIODONTAL DRESSING 3) HEMOSTASIS	<ul style="list-style-type: none"> • Identify indications and contraindications for periodontal surgery. • Explain consent and procedure to patient. • Identify steps for patient preparation before surgery. • Recognize different types of suturing materials • Describe suturing techniques and identify 	<ul style="list-style-type: none"> • 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 • Identify steps for patient 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SEQs • MCQs • VIVA VOCE

	<p>various types of periodontal dressings.</p> <ul style="list-style-type: none"> • Demonstrate the use of periodontal dressing • Express the techniques and agents used in achieving intraoperative hemostasis 	<p>preparation before surgery.</p> <ul style="list-style-type: none"> • Recognize types of sutures. • Describe suturing techniques. • Identify various types of periodontal dressing. • Demonstrate the use of periodontal dressing 		
GINGIVAL CURETTAGE	<ul style="list-style-type: none"> • Enlist the indications and contraindications of gingival curettage • Identify rationale for treatment • Describe procedure and healing after treatment 	<ul style="list-style-type: none"> • Enlist the indications and contraindications of gingival curettage • Identify Rationale for treatment. • Describe procedure. • Describe procedure and steps of healing after surgical procedure. 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SEQs • MCQs • VIVA VOCE
GINGIVECTOMY AND GINGIVOPLASTY	<ul style="list-style-type: none"> • Explain the treatment options for different gingival enlargements • Reproduce all the indications, contraindications and prerequisites to perform procedure. 	<ul style="list-style-type: none"> • Identify rationale for treatment. • Describe different techniques. • Recognize Epulis removal procedure. 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SEQs • MCQs • VIVA VOCE
FLAP SURGERY OSSEOUS SURGERY FURCATION INVOLVEMENT	<ul style="list-style-type: none"> • Identify and classify types of flaps. • Describe flap designs and techniques. • Discuss indications and contraindications of Modified Widman flap surgery. • Identify rationale for osseous surgery. • Discuss indications and contraindications of osseous surgery. • Discuss healing after periodontal surgery. • Discuss gingival recession, classification and treatment 	<ul style="list-style-type: none"> • Identify and classify types of flaps. • Describe flap designs and techniques/Modified Widman flap • Discuss indications and contraindications of flap surgery. • Identify rationale for osseous surgery. • Discuss indications and contraindications of osseous surgery. • Discuss healing after periodontal surgery. 	<ul style="list-style-type: none"> • LGIS • SGIS • SDL 	<ul style="list-style-type: none"> • SEQs • MCQs • VIVA VOCE

	<ul style="list-style-type: none"> modalities Describe furcation, factors, indications, and treatment options. 			
REGENERATIVE PERIODONTAL THERAPY	<ul style="list-style-type: none"> Describe the rationality, indications and technique of the GTR procedure. Classify graft materials used in periodontal therapy. 	<ul style="list-style-type: none"> Describe the rationality of the procedure. Describe the procedure of GTR. Classify graft materials used in periodontal therapy 	<ul style="list-style-type: none"> LGIS SGIS SDL 	<ul style="list-style-type: none"> SEQs MCQs VIVA VOCE
ESTHETIC AND PERIODONTAL PLASTIC SURGERY	<ul style="list-style-type: none"> Recall the objectives of periodontal plastic/Mucogingival surgery Recognize recession defects according to Miller's classification Describe gingival grafting techniques 	<ul style="list-style-type: none"> Enlist indications of mucogingival/plastic surgery Discuss techniques to Increase Attached Gingiva Classify gingival recession defects by Miller Describe free gingival grafting, connective tissue grafting, apically repositioned flap, coronally advance flap. 	<ul style="list-style-type: none"> LGIS 	<ul style="list-style-type: none"> SAQ MCQ VIVA VOCE OSCE
SUPPORTIVE PERIODONTAL THERAPY	<ul style="list-style-type: none"> Summarize the rationale for supportive periodontal treatment Implement the maintenance program in patients Define splinting of teeth Bullet pointing the indications and contraindications of splint 	<ul style="list-style-type: none"> Discuss the goal of supportive periodontal therapy Tabulate maintenance recall procedure Describe splinting and its types Enlist indications and contraindications of splints 	<ul style="list-style-type: none"> LGIS SGIS SDL 	<ul style="list-style-type: none"> SAQ MCQ VIVA VOCE OSCE
ORAL IMPLANTOLOGY				
Oral Implantology	<ul style="list-style-type: none"> Discuss the concept of osteointegration Discuss the Anatomy, Biology, Function of peri-implant tissue Outline the stages in surgical placement of 	<ul style="list-style-type: none"> Discuss the concept of osteointegration Describe Peri-implant Infections Describe Implant-Related Complications and Failures 	<ul style="list-style-type: none"> LGIS SDL 	<ul style="list-style-type: none"> MCQs VIVA VOCE

	dental implant • Enlist contraindications and complications of dental implant	• Discuss supportive Implant Treatment • Describe basic Implant Surgical Procedure.		
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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”

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

Oral Pathology

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

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

	features of various bone pathologies	osteogenesis imperfect, cherubism and cleidocranial dysplasia <ul style="list-style-type: none"> • Diagnose between tori, osteoblastoma, osteoid osteoma and giant cell lesions on the basis of clinicopathological and radiographic features. • Distinguish between osteogenic sarcoma, chondrosarcoma, ewing's sarcoma on the basis of clinicopathological features. 	<ul style="list-style-type: none"> • Quiz 	
Connective Tissue Lesions	<ul style="list-style-type: none"> • Comprehend the clinical presentation of various connective tissue lesions and analyze the diagnosis by correlating clinical and microscopic features 	<ul style="list-style-type: none"> • Recall classification based on benign and malignant tumors • Benign Tumors <ul style="list-style-type: none"> ○ Peripheral Giant Cell Granuloma ○ Peripheral Ossifying Fibroma ○ Lipoma (only microscopy) ○ Traumatic Neuroma ○ Palisaded Encapsulated Neuroma ○ Neurilemoma ○ Neurofibroma ○ Neurofibromatosis Type-1 ○ Multiple Endocrine Neoplasia Type-2B ○ Melanotic Neuroectodermal Tumor of Infancy ○ Paraganglioma ○ Granular Cell Tumor ○ Congenital Epulis ○ Hemangioma and Vascular Malformations ○ Sturge-Weber Angiomatosis ○ Nasopharyngeal Angiofibroma ○ Hemangiopericytoma ○ Lymphangioma 	<ul style="list-style-type: none"> • Interactive Lectures • Small Group Discussions • PBL • Quiz 	<ul style="list-style-type: none"> • MCQs • SAQs • OSPE

		<ul style="list-style-type: none"> ○ Leiomyoma ○ Rhabdomyoma ○ Osseous and Cartilaginous Choristomas ● Malignant tumors <ul style="list-style-type: none"> ○ Fibrosarcoma ○ Malignant fibrous histiocytoma ○ Liposarcoma ○ Angiosarcoma ○ Kaposi Sarcoma ○ Leiomyosarcoma ○ Rhabdomyosarcoma ● Describe microscopic features of following reactive lesions. ● Reactive lesions <ul style="list-style-type: none"> ○ Giant cell fibroma ○ Epulis fissuratum ○ Inflammatory Papillary Hyperplasia ○ Fibrous Histiocytoma ○ Fibromatosis ○ Myofibroma ○ Oral-focal mucinosis ○ Pyogenic Granuloma (All these epulides will be taught by perio dept) ● Diagnose these lesions by correlating with clinical and microscopic features of the following diseases: <ul style="list-style-type: none"> ○ Neoplasms of Fibrous tissue origin ○ Neural tissue neoplasms ○ Muscle tissue neoplasms ○ Adipose and Vascular tissue neoplasms ○ Osseous and cartilaginous tissue neoplasms 		
Hematological Malignancies	Distinguish between hematological malignancies and recall treatment	● Distinguish Hodgkin's and non Hodgkin's lymphoma	● Interactive Lectures ● Small Group	● MCQs ● SAQs ● OSPE

	modalities in relation to their clinicopathological picture.	<p>on the basis of oral and histopathological features</p> <ul style="list-style-type: none"> • Diagnose Burkitt's lymphoma, multiple myeloma, plasmacytoma and langerhan cell histiocytosis on the basis of histopathological features. 	<ul style="list-style-type: none"> • Discussions • PBL • Quiz 	
Odontogenic and non-odontogenic cysts	Discuss and distinguish various cysts on the basis of their origin, nature, expansion and radiographic presentation	<ul style="list-style-type: none"> • Classify odontogenic and non odontogenic cysts • Distinguish following odontogenic and non odontogenic cysts on the basis of origin, nature, expansion, clinical presentation, histopathology and radiographic features <p>ODONTOGENIC CYSTS:</p> <ol style="list-style-type: none"> 1. Periapical cysts 2. Dentigerous cysts 3. Eruption cysts 4. Paradental cysts 5. Lateral periodontal cysts 6. Gingival cysts of adult & newborn 7. Glandular odontogenic cyst <p>NON ODONTOGENIC CYSTS:</p> <ol style="list-style-type: none"> 1. Nasopalatine duct cysts 2. Nasolabial cysts 3. Globulomaxillary cyst 4. Median palatal cyst 5. Median mandibular cyst 6. Palatal cysts of newborn <p>Dermoid and Epidermoid cysts(only microscopic features)</p>	<ul style="list-style-type: none"> • Interactive Lectures • Small Group • Discussions • PBL • Quiz 	<ul style="list-style-type: none"> • MCQs • SAQs • OSPE
Odontogenic Tumors	Diagnose odontogenic tumors on the basis of clinical, radiographic and microscopic features	<ul style="list-style-type: none"> • Differentiate between odontogenic tumors of epithelial origin using clinical, radiographic and histopathological correlation, tumors include Ameloblastoma, Keratocystic odontogenic tumour, Calcifying 	<ul style="list-style-type: none"> • Interactive Lectures • Small Group <p>Discussions</p> <ul style="list-style-type: none"> • PBL • Quiz 	<ul style="list-style-type: none"> • MCQs • SAQs • OSPE

		<p>epithelial odontogenic tumour, Adenomatoid odontogenic tumour, Squamous odontogenic tumour</p> <ul style="list-style-type: none"> • Diagnose between different odontogenic tumors of odontogenic origin on the basis of clinical and microscopic features , tumors include Odontogenic fibroma, Odontogenic myxoma, Cementoblastoma, • Ameloblastic fibroma & fibrodontoma, Odontogenic carcinoma, Primary intra osseous carcinoma 		
<p>Salivary Gland Pathology</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</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"> • Diagnose reactive lesions, immune mediated diseases of salivary gland pathology by correlation of their clinicopathological features. • Distinguish benign and malignant tumors of salivary gland on the basis of clinical presentation and histopathological features. 	<ul style="list-style-type: none"> • Interactive Lectures • Small Group <p>Discussions</p> <ul style="list-style-type: none"> • PBL • Quiz 	<ul style="list-style-type: none"> • MCQs • SAQs • OSPE

carcinoma, acinic cell carcinoma, polymorphous low-grade adenocarcinoma				
<p>DENTAL CARIES AND PERIAPICAL DISORDER</p> <p>DENTAL CARIES:</p> <ol style="list-style-type: none"> Aetiology Clinical Types Role of Plaque, Carbohydrates Enamel Caries Dentine Caries Cementum Caries <p>PERIAPICAL PATHOLOGY:</p> <ol style="list-style-type: none"> Acute and chronic periodontitis Chronic apical periodontitis Periapical abscess (to be taught by perio dept) Periapical granuloma Acute and chronic osteomyelitis Cellulitis 	<p>Dental Caries: Differentiate between various clinical types of dental caries on clinicopathological basis</p> <p>Periapical: Compare and contrast various periapical pathologies on clinicopathological basis</p>	<ul style="list-style-type: none"> Distinguish between different types of dental caries on the basis of etiology and clinicopathological features Discuss the role of plaque and carbohydrates in the development of dental caries. Distinguish periapical abscess from periapical granuloma, acute and chronic osteomyelitis on the basis of clinical presentation and histopathological presentation. Discuss the pathogenesis of cellulitis. 	<ul style="list-style-type: none"> Interactive Lectures Small Group <p>Discussions</p> <ul style="list-style-type: none"> PBL Quiz 	<ul style="list-style-type: none"> MCQs SAQs OSPE
<p>IMMUNE MEDIATED DISORDERS</p> <ol style="list-style-type: none"> Pemphigus vulgaris Mucous-membrane pemphigoid 	<p>Distinguish between immune mediated disorders on histological and cytological basis</p> <p>(Clinical features and immunofluorescence will be taught by oral med dept)</p>	<ul style="list-style-type: none"> Differentiate between pemphigus vulgaris and mucous membrane pemphigoid on the basis of their cytological and histopathological features. Diagnose epidermolysis bullosa, erythema 	<ul style="list-style-type: none"> Interactive Lectures Small Group <p>Discussions</p> <ul style="list-style-type: none"> PBL Quiz 	<ul style="list-style-type: none"> MCQs SAQs OSPE

<p>3- Epidermolysis bullosa 4- Erythema Multiforme Lichen Planus</p>		<p>multifome, lichen planus on the basis of oral manifestations, cytological and histopathological features.</p>		
<p>Granulomatous disorders a. Crohn's disease b. Cheilitis granulomatosa c. Wegeners Granulomatosis d. Sarcoidosis (only microscopy)</p>	<p>Evaluate various granulomatous disorders and distinguish between caseating and non caseating 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"> • Crohn's disease • Cheilitis granulomatosa • Wegeners Granulomatosis • Sarcoidosis 	<ul style="list-style-type: none"> • Interactive Lectures • Small Group <p>Discussions</p> <ul style="list-style-type: none"> • PBL • Quiz 	<ul style="list-style-type: none"> • MCQs • SAQs • OSPE
<p>DEVELOPMENTAL DISTURBANCES OF ORAL LESIONS</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"> • Developmental disturbances in Teeth (will be taught by oral medicine dept) • Developmental disturbances in soft tissue • Developmental disturbances in bone (cleft lip and palate will be covered by gen surgery dept) • Developmental cysts(non-odontogenic) 	<ul style="list-style-type: none"> • Interactive Lectures • Small Group <p>Discussions</p> <ul style="list-style-type: none"> • PBL • Quiz 	<ul style="list-style-type: none"> • Type 1 • MCQs • SAQs • OSPE

Learning Outcomes Practical
Oral Pathology Third Year BDS

Topic				
1- Actinomycosis 2- Tuberculous granuloma 3- Candidiasis 4- Squamous cell carcinoma 5- 5.Oral epithelial dysplasia 6- Squamous cell carcinoma 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	Skills	<ul style="list-style-type: none"> • Prepare H&E slides • Use microscopes • Identify the microscopic features of slides • Diagnose the slides • Illustrate the salient features on workbook with H&E pencils 	Multimedia/ Optika Interactive demonstration Group activity on microscope	OSPE Workbook

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

BDS Curriculum Year III (2025)

Theme/ Topics	Learning Outcomes Students should be able to:	Learning Objectives	Instructional Strategy	Assessment Tools
Introduction and Terminologies used in oral medicine	Differentiate between various terms and identify different clinical terms depending on clinical and radiographic examination.	<ul style="list-style-type: none"> Define basic terms used in Oral medicine Differentiate different clinical terms. 	Presentations	<ul style="list-style-type: none"> Quiz Viva
Principles of oral medicine (patient assessment)	Demonstrate proper history taking and clinical examination of patient with oral lesions.	<ul style="list-style-type: none"> Take a comprehensive relevant history Perform extra-oral and intra-oral examination of the patient. 	History and examination in clinical rotations	Hands on OSPE
Investigations	<ul style="list-style-type: none"> Advise required investigations of blood, urine, Endocrine function, Immunological, serology, & microbiology. Classify different types of biopsy and their use in dentistry. 	<ul style="list-style-type: none"> Identify various diagnostic modalities used in patients suffering from oral diseases and manifestations of systemic diseases in the oral cavity Describe & advise the required biopsy technique, & all imaging techniques 	<ul style="list-style-type: none"> Biopsy techniques Radiographic examination in clinical rotations 	OSCE
Principles of Management	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
Bacterial Infections	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"> SAQ MCQs Viva
Viral Infections	Manage oral lesions associated with viruses after diagnosis.	<ul style="list-style-type: none"> Diagnosis & management of Herpes Simplex, Varicella zoster, EBV, Coxsackie, & human papilloma viral infections. 	Lectures, Clinical rotation	<ul style="list-style-type: none"> SAQ MCQs Viva

		<ul style="list-style-type: none"> Only oral features of HIV infection. 		
Fungal Infections	<ul style="list-style-type: none"> Differentiate between candidal infections Establish a diagnosis on basis of its causes, clinical examination and investigations 	<ul style="list-style-type: none"> Oral signs/symptoms & treatment of Superficial Oral Candidiasis. Identify the causes of fungal infectio 	Presentations Lectures	<ul style="list-style-type: none"> SAQ MCOs Viva
Oral Ulcerations	Identify different types of ulcerations and syndromes associated with it. Manage oral ulcerations in all age groups including adolescents after diagnosis	Diagnose & manage Traumatic ulceration, <ul style="list-style-type: none"> RAS (all 3 types), Behcet's disease, PFAPA syndrome, MAGIC syndrome. 	Presentations Clinical rotations	<ul style="list-style-type: none"> SAQ MCOs Viva
Diseases of Tongue	Manage different abnormalities of tongue after diagnosis	<ul style="list-style-type: none"> Differentiate between Fissured tongue, coated tongue, hairy tongue, geographic tongue, Median Rhomboid glossitis Discuss their causes & management of fissured tongue, coated tongue, hairy tongue, geographic tongue, Median Rhomboid glossitis, Macroglossia & Ankyloglossia. 	Presentations	<ul style="list-style-type: none"> SAQ MCOs Viva
Diseases of lips	Manage different diseases of lips after diagnosis	Diagnose & propose management of swellings of lips, Angular cheilitis, lip fissures, lick eczema, Actinic cheilitis, Allergic cheilitis.	Lectures	<ul style="list-style-type: none"> SAQ MCOs Viva
Swellings of the neck	<ul style="list-style-type: none"> Perform neck examination and establish differential 	<ul style="list-style-type: none"> Classification of neck swellings. Causes of cervical lymphadenopathy. 	Lectures, Clinical rotations	<ul style="list-style-type: none"> SAQ MCOs Viva OSCE

	diagnosis of the face and neck swellings	<ul style="list-style-type: none"> Perform neck examination & describe cervical lymph node levels. 		
Salivary gland Swellings	<ul style="list-style-type: none"> Manage different salivary gland swellings e.g. different obstructive, viral, bacterial, infections after making diagnosis Differentiate between unilateral and bi-lateral salivary gland swellings involving any of the three major salivary glands or minor salivary glands. 	<ul style="list-style-type: none"> Identify Mucocele, Ranula. Diagnose viral & bacterial sialadenitis, eg. Mumps. Sialosis & its causes. Manage different salivary gland swellings e.g. different obstructive, viral, bacterial, infections 	Lectures Clinical rotations	<ul style="list-style-type: none"> SAQ MCQs Viva OSCE
Disturbances of salivary flow	<ul style="list-style-type: none"> Assess & Diagnose patients presenting with dryness in the oral cavity on the basis of etiology and identify complications associated with it. 	<p>Xerostomia, Hypersalivation, Halitosis, Sjogren's syndrome.</p> <ul style="list-style-type: none"> Identify their causes, order investigations, & suggest suitable treatment. 	Lectures Clinical rotations	<ul style="list-style-type: none"> SAQ MCQs Viva
Oral Pigmentation	<ul style="list-style-type: none"> Manage oral lesions presenting as pigmented lesions based on history and clinical findings and differential diagnosis 	Identify Amalgam tattoo, Melano-acanthoma, Familial & drug induced pigmentation.	Lectures Clinical rotations	<ul style="list-style-type: none"> SAQ MCQ Viva
Precancerous Lesions	<ul style="list-style-type: none"> Demonstrate understanding of white and red lesions that may progress to cancerous lesions. Manage pre-cancerous conditions after diagnosis Differentiate between pre-cancerous lesions and conditions. 	Clinical diagnosis & management of Leukoplakia(all types) Erythroplakia, Tobacco pouch keratosis, Nicotine stomatitis, white sponge nevus, Leukoedema, Oral submucous fibrosis.	Lectures Clinical rotations	<ul style="list-style-type: none"> SAQ MCQs Viva OSPE

Oral Carcinoma & Carcinogenesis	Identify cancerous lesions and conditions and refer to specialist	<ul style="list-style-type: none"> • Explain TNM staging of OSCC, • Cervical lymph nodes • Discuss management modalities. 	Lectures Clinical rotations	<ul style="list-style-type: none"> • SAQ • MCQs • Viva • OSPE
Vesiculobullous diseases	<ul style="list-style-type: none"> • Relate different mucosal symptoms with dermal signs to diagnose and treat mucocutaneous blistering disorders • Differentiate between all vesicobullous lesions by means of comprehensive history and clinical evaluation & investigations. 	<ul style="list-style-type: none"> • Oral manifestations, investigations and treatment of VBD. • Lichen planus, Pemphigus vulgaris, MMPemphigoid, Bullous pemphigoid, Epidermolysis bullosa, Erythema multiforme. 	Lectures	<ul style="list-style-type: none"> • SAQ • MCQs • Viva
Blood related Disorders	Identify oral manifestations of blood related disorders.	Identify Oral manifestations of Anemia, Leukemia, Thrombocytopenia, Myelodysplastic syndrome.	Lectures Clinical rotations	<ul style="list-style-type: none"> • SAQ • MCQs • Viva
Disorders of nutrition	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"> • SAQ • MCQs • Viva
Gastro-Intestinal Disorders	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"> • SAQ • MCQs • Viva
Endocrinopathies and Renal diseases	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"> • SAQ • MCQs • Viva
Facial Pain	Classify different types of headache, their diagnosis	Diagnose & differentiate between	Lectures	<ul style="list-style-type: none"> • SAQ • MCQs

	and management using non-surgical methods.	Migraine, Cluster & Tension headaches, Giant cell arteritis.	Clinical rotations	<ul style="list-style-type: none"> • Viva
Trigeminal Neuralgia	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"> • SAQ • MCQs • Viva • OSPE
Glossopharyngeal Neuralgia	Diagnose & manage a patient with Glossopharyngeal neuralgia	Diagnosis & medical management of GN.	Lectures	<ul style="list-style-type: none"> • SAQ • MCQs • Viva
Facial Paralysis	<ul style="list-style-type: none"> • Differentiate between UMNL and LMNL on the basis of etiology • Manage facial palsy 	<ul style="list-style-type: none"> • Diagnose Facial (Bell's palsy) • Recognize Upper motor neuron & lower motor neuron lesions. • Explain their causes & advise management. 	Lectures	<ul style="list-style-type: none"> • SAQ • MCQs • Viva
Temporomandibular disorders-TMDs	<ul style="list-style-type: none"> • Differentiate between TMPDS, Internal derangements, & Arthritis. • Advise appropriate management. Demonstrate diagnostic methods of TMDs, specially TMJ examination. 	<ul style="list-style-type: none"> • Explain anatomy of TMJ and disorders related to it. • Discuss the diagnostic modalities and brief treatment of such disorders. • Demonstrate diagnostic methods of TMDs, specially TMJ examination. 	Lectures	<ul style="list-style-type: none"> • SAQ • MCQs • Viva
Immunity	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"> • SAQ • MCQs • Viva
Disorders of teeth	Recognize various syndromes that directly or indirectly affect facial hard tissues and teeth.	<ul style="list-style-type: none"> • Diagnose Hypodontia, variation in number size & shape of teeth. • Causes of Teeth attrition, erosion, abrasion. 	Lectures	<ul style="list-style-type: none"> • SAQ • MCQs • Viva

		<ul style="list-style-type: none"> Abnormalities of structure of Enamel & Dentine. 		
Osteochemonecrosis	Diagnose patients presenting with symptoms of osteochemonecrosis or osteoradionecrosis and management of such a patient.	Outline Oral manifestations, causes, & management of <ul style="list-style-type: none"> Osteoradionecrosis (ORN), Bisphosphonate ON of Jaws (BONJ). 	Lectures	<ul style="list-style-type: none"> SAQ MCOs Viva
Medical Emergencies	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"> SAQ MCO Viva OSCE
Clinical training				
a. Take detailed history of the patient b. Perform extra-oral and intra-oral examination <ol style="list-style-type: none"> Examination of lymph nodes Examination of cranial nerves Examination of temporo-mandibular joint Examination of muscles of mastication Examination of salivary glands Examination of hard and soft tissues of oral cavity (Tongue, Mucosa, Soft Palate, Hard Palate, Teeth, Alveolar bone Lingual & Pharyngeal tonsils. Major & Minor Salivary glands. c. Advise investigations d. Establish diagnosis e. Formulate appropriate treatment plan f. Recognize instruments used in medical emergency <ol style="list-style-type: none"> Endotracheal tube Guedel's airway Oxygen mask AMBU bag IV cannula Syringe Nasogastric Tube g. Justify uses of drugs prescribed to patients in a dental OPD <ol style="list-style-type: none"> Analgesics Steroids Adrenaline Nitroglycerine Anxiolytics Antibiotics 			In Dental clinics	OSCE

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|-------------------------------|--|--|
| 7) Glucagon
8) Saltbutamol | | |
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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.

**BEHAVIORAL SCIENCES
CURRICULUM
FOR
BDS 100 Hours**

(April, 2024)

Revised by:

□ Behavioural Sciences Department (BHS) & Department of Medical Education (DME)

The Behavioural Sciences and Professionalism curriculum represents an innovative curricular framework revised by the Behavioural Sciences Department & Department of Medical Education. Its aim is to cultivate future dentists, capable of providing society with exceptional care and empathy. This module is integrated longitudinally throughout the initial three years of BDS training, covering behavioural sciences, professionalism, leadership, and management. This document outlines the topics, learning objectives, yearly placement of topics, hours allocated to each topic, and the methods of assessment. The first section of the module study guide outlines the overarching learning outcomes, while the second part delves into the specific learning objectives and table of specification.

Core Components of Behavioural Sciences Curriculum

Following are the core components of behavioural sciences curriculum.

1. Professionalism
2. Leadership & Management
3. Communication Skills
4. Ethics

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Table of Abbreviations

FA	Final Assessment
IA	Internal Assessment
GS	Guest Speaker

1 st Year				
Learning Outcomes	Course Content	Instructional Strategies	Assessment Tool	Teaching Faculty
Behavioural Sciences				
1. Metacognitive Strategies of Dental Students				
Understand the importance of metacognition	<ul style="list-style-type: none"> Define metacognition Importance of metacognition in dental student life Phases of metacognition Metacognitive Strategies for dental students 	Interactive lecture/Role play / Case Scenarios/ Small group discussions (SGD)/ Workshop	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Psychologist or Psychiatrist / Behavioural Scientist
2. Importance of Sleep Hygiene				
Understand the significance role of sleep hygiene in dental student life	<ul style="list-style-type: none"> Define sleep Stages of sleep Sleep disorders Factors contributing to sleep hygiene Steps for sleep induction Coping strategies for insomnia 	Interactive lecture/ Workshop/ Small group discussions (SGD)/ Case Scenarios	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Psychologist or Psychiatrist / Behavioural Scientist
3. Introduction to Professionalism/ Dental Professionalism				
Understand Dental professionalism and its significance in clinical practice	<ul style="list-style-type: none"> Define professionalism Define dental professionalism List the key elements of professionalism Describe the importance of professionalism in practice of dentistry 	Interactive lecture/ Group discussion/ Small group discussions (SGD)/ Seminars	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist / DME Faculty

4. Attributes of Dental Professionals

Identify the key attributes of dental professionals	Demonstrate following attributes in practice of dentistry: <ul style="list-style-type: none"> • Self-care • Politeness • Respectfulness • Mindfulness, compassion and consideration • Selflessness • Professional competency • Social accountability • Empathy/Sympathy • Adhere to ethical principles • Integrity • Honesty • Confidentiality and Trustworthiness • Sensitivity to patient beliefs • Moral reasoning • Interact with patients, attendants, medical, administrative and paramedical staff, peers with respect 	Interactive lecture/ Role play/ Case Scenarios/ Small group discussions (SGD)	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist / DME Faculty
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5. Introduction to Leadership and Management and Its Importance in Dental Setting

Analyse and differentiate between leadership and management	<ul style="list-style-type: none"> • Foundations of Leadership & Management • Difference b/w Leaders & Managers • Difference b/w Leadership & Management 	Interactive lecture/ Group discussion	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist/ DME faculty
Evaluate the significance of leadership in a dental setting	Dental Leadership <ul style="list-style-type: none"> • Overview of leadership in dental settings 	Interactive lecture/ Role	FA: MCQs, SAQs, SEQs and OSCE	Behavioural Scientist/ DME faculty

	<ul style="list-style-type: none"> • Importance of leadership in dental settings 	play/ Case Scenarios	IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	
Exhibit effective self-management skills	Self-Management <ul style="list-style-type: none"> • What is self-management? It's Importance. • Self-management Mechanisms 	Interactive lecture/Role play / Case Scenarios	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist/ DME faculty/ Guest Speaker

2nd Year

Behavioural Sciences

1. Introduction to Behavioural Sciences and Its Importance in Health

<p>Comprehend significance of Behavioural Sciences in Dental practice</p>	<p>Significance of behavioural Sciences in clinical practice</p>	<p>Seminar with Psychologist, anthropologist and Sociologist</p>	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<ul style="list-style-type: none"> • Psychologist or Psychiatrist / Behavioural Scientist • Anthropologist (GS) • Sociologist (GS)
<p>Demonstrate understanding of holistic and bio medicine model in clinical practice along with understanding of culture and dental practice</p>	<p>Differentiate:</p> <ol style="list-style-type: none"> 1. Holistic Vs. Traditional Allopathic Medicine 2. Culture & Dental Practice 	<ul style="list-style-type: none"> • Lectures/ Presentations 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<ul style="list-style-type: none"> • Psychologist or Psychiatrist / Behavioural Scientist • Physician (GS)
<p>Comprehensive understanding of psychology, sociology and anthropology as well as biological determinants of health and disease in clinical practice, along with public health approach of primary and secondary prevention of disease/disorder</p>	<p>Discuss Health Care Models and their Clinical Applications</p> <ol style="list-style-type: none"> 1. Bio-Psychosocial Model of health and disease 2. The Integrated Model of Health Care: Correlation of Body, Brain, Mind, Spirit and Behavioural Sciences 3. The Public Health Care Model 	<ul style="list-style-type: none"> • Lectures/Presentations • Small group discussions (SGD)/seminars 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<ul style="list-style-type: none"> • Psychologist or Psychiatrist / Behavioural Scientist • Anthropologist (GS) • Sociologist (GS) • Public Health specialist (GS)

and promotion of health.				
2. Understanding Behaviour				
Analyse human behaviour and other factors affecting health and disease by Enhancing doctor's own learning and clinical skill.	Understand human behaviour through Principles of Psychology 1. Sensation and sense organs 2. Perception 3. Attention and concentration 4. Memory 5. Thinking 6. Communication	<ul style="list-style-type: none"> • Lectures/ Presentations • Interactive Video Vignettes • Large group Interactive session (LGIS) 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Psychologist or Psychiatrist / Behavioural Scientist
3. Individual Differences				
Understand and assess types of human personality and phases of personality development along with intelligence.	Understand individual human differences 1. Intelligence 2. Personality Development	<ul style="list-style-type: none"> • Lectures/ Presentations • Interactive Video Vignettes • Large group Interactive session (LGIS) 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Psychologist or Psychiatrist/ Behavioural Scientist
Understand the complex interplay of Brain and Behaviour.	Describe Neurobiological and Psychological Basis of Behaviour 1. Emotions 2. Motivation/need/ drive 3. Learning	<ul style="list-style-type: none"> • Lectures/ Presentations • Interactive Video Vignettes • Group Project 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Psychologist or Psychiatrist / Behavioural Scientist

4. Dental Ethics and Mental Health Acts				
Integrate the principles of dental ethics in professional life	Dental Ethics and Professionalism	<ul style="list-style-type: none"> Lectures/ Presentations Small Group Discussion 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<ul style="list-style-type: none"> Psychologist or Psychiatrist / Behavioural Scientist Physicians
Integrate significance of dental ethics in dental practice	Describe and demonstrate relevance of ethics in the life of a Dentist <ol style="list-style-type: none"> Scope and Meaning of Dental Ethics Guiding Principles of Dental Ethics Common Ethical Issues in Dental Practice Common Ethical Dilemmas in a Health Professional's Life Doctor-Patient Relationship 	<ul style="list-style-type: none"> Lectures/ Presentations Declamation Contests, Dramas, Documentaries, Short Films and Videos (e.g. on common ethical dilemmas) Role-playing with peers Case-Based Learning (CBL) 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies reflective writing and student portfolios</p>	Psychologist or Psychiatrist / Physicians
5. Doctor Patient Relationship				
Analyse critical situations/ challenges in clinical practice to solve clinical problems	<p>Discuss Rights and Responsibilities of Patients and Doctors</p> <ol style="list-style-type: none"> Rights of the Patient Responsibilities of the Patients Rights of the Doctor Responsibilities of the Doctor 	<ul style="list-style-type: none"> Lectures/ Presentations Case-Based Learning (CBL) Large group Interactive session (LGIS) Storytelling by students 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	Psychologist or Psychiatrist/ Behavioural/ Scientist /Physician

<p>Critique the ethical boundaries of conduct in doctor-patient relationship</p>	<p>Understand Psychological Reactions in Doctor-Patient Relationship</p> <ol style="list-style-type: none"> 1. Social bonding 2. Dependence 3. Transference 4. Countertransference 5. Resistance 6. Unwell Physician / Burn-out 	<ul style="list-style-type: none"> • Lectures/ Presentations • Case-Based Learning (CBL) • Large group Interactive session (LGIS) • Storytelling by students • Role-playing with peers 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<p>Psychologist or Psychiatrist / Behavioural Scientist</p>
<p>Demonstrate professional excellence of a doctor to maintain healthy doctor-patient relationship</p>	<p>Understand Professionalism in Health Care</p> <ol style="list-style-type: none"> 1. Knowledge 2. Skills 3. Attitudes 	<ul style="list-style-type: none"> • Lectures/ Presentations • Large group Interactive session (LGIS) 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<ul style="list-style-type: none"> • Psychologist or Psychiatrist t/ Behavioural Scientist • Physician (GS)
<p>6. Psychological Aspects of Health & Disease</p>				
<p>Illustrate human thought, behaviour and interactions by health and disease situations influenced by psychological factors.</p>	<p>Discuss role of Psychology in Dental Practice</p> <ol style="list-style-type: none"> 1. Role of psychological factors in the aetiology of health problems 2. Role of psychological factors in the precipitation (triggering) of illnesses 3. Role of psychological factors in the management of illnesses 4. Role of psychological and social factors in diseases causing disability. handicap and stigma 	<ul style="list-style-type: none"> • Lectures/ Presentations • Large group Interactive session (LGIS) • Reflective Writing • Interactive Video Vignettes 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<ul style="list-style-type: none"> • Psychologist or Psychiatrist / Behavioural Scientist • Physician (GS)

	5. Role of psychological factors in patients' reactions to illness 6. Medically Unexplained Physical Symptoms (MUPS)			
Recognize the factors contributing towards a state of psychological and social well-being of human in clinical practice.	Discuss and Demonstrate Psychosocial Aspects of Health and Disease 1. Health and Normality 2. Defense Mechanisms 3. Psychosocial Assessment in Health Care 4. Clinical Situations Demanding a Comprehensive Psychosocial Assessment 5. Psychological reactions to illness and hospitalization	<ul style="list-style-type: none"> Lectures/ Presentations Large group Interactive session (LGIS) Role-playing with peers 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Psychologist or Psychiatrist / Behavioural Scientist
7. Life Events: Psych trauma, Psychological Reactions, Stress and Stressors, Stress Management				
Identify sources of stress and its management towards patients, self and other staff members	Define and discuss Stress and its Management 1. Job-related stress & burnout 2. Response to stress 3. Stress Management	<ul style="list-style-type: none"> Lectures/ Presentations Case-Based Learning (CBL), Case studies Individual assignment 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Psychologist or Psychiatrist / Behavioural Scientist
Equip dental students with knowledge and skills in order to respond to psycho-traumatic cases in hospital settings.	Understanding Psychotrauma	<ul style="list-style-type: none"> Lectures/ Presentations Case studies Reflective writing 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects,	Psychologist or Psychiatrist / Behavioural Scientist

			case studies, reflective writing and student portfolios	
Professionalism				
8. Physician Self-Regulation and Maintenance of Competence				
Comprehensive understanding of physician self-regulation and maintenance of competence	<ul style="list-style-type: none"> Show commitment to autonomous growth, Maintenance and continuous improvement of competence/ knowledge 	<ul style="list-style-type: none"> Interactive lecture/ Workshop/ Small group discussions (SGD) Case Scenarios 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist / DME Faculty
9. Professional Identity Formation				
Understand professional identity formation	<ul style="list-style-type: none"> Reflections on White Coat Ceremony List types of identities and its Components, Define ways to transform professional identity 	<ul style="list-style-type: none"> Lecture/ Presentation/ Small group discussion (SGD) Reflective writing 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist / DME Faculty
10. Professional Misconduct and Unprofessional Attitudes				
Understand professional misconduct and unprofessional attitudes	<ul style="list-style-type: none"> Define professional misconduct and list its elements and give examples List the types of misconduct and its punishments Define Dental Malpractice 	<ul style="list-style-type: none"> Interactive lecture/ Workshop/ Small group discussions (SGD) Case Scenarios 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist / DME Faculty
11. Steps to Inculcate Dental Professionalism in Students				

Identify steps to inculcate Dental professionalism in students	Recognize probable Path towards Dental Professionalism through <ul style="list-style-type: none"> • Confess • Teach • Assess • Reward • Foster 	Interactive lecture/workshop / Small group discussion (SGD)/ Case scenario/ Seminar	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist / DME Faculty
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Leadership & Management

12. Principles of Leadership and Various Approaches to Leadership

Explore the principles of leadership and examine various approaches to leadership	Healthcare Leadership Principles <ul style="list-style-type: none"> • Effective leadership Traits and • Behaviours • Different approaches to Leadership • Effective leadership Abilities & Skills 	Interactive lecture/workshop	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist/ DME faculty
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13. Leadership Styles and Theories

Examine and describe various attributes and leadership styles within their respective cultural contexts	Leadership styles <ul style="list-style-type: none"> • Leadership styles and their impact on healthcare team Contemporary Leadership Theories <ul style="list-style-type: none"> • Exploration of various leadership theories • Application of leadership models in dental contexts 	Interactive lecture/ Role plays/ Case Scenarios	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist/ DME faculty
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<p>Compare various models of leadership and management and assess their application in a dental context</p>	<p>Classic and Modern Management Theories</p> <ul style="list-style-type: none"> • Exploration of various Management theories • Managerial Styles 	<ul style="list-style-type: none"> • Interactive lecture/workshop/ Group Discussion 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<p>Behavioural Scientist/ DME faculty</p>
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14. Healthcare Decision-Making & Leadership

<p>Analyse and implement effective decision-making strategies in crisis leadership within the context of dental emergencies</p>	<p>Healthcare Decision-Making & Leadership</p> <ul style="list-style-type: none"> • Decision-making processes in healthcare • Risk management & mitigation • Crisis leadership in dental emergencies 	<ul style="list-style-type: none"> • Interactive lecture/workshop/ Group Discussion 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<p>Behavioural Scientist/ DME faculty</p>
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3rd Year

Behavioral Sciences

1. Non Pharmacological Interventions: Communication Skills, Counselling, Crisis Intervention, Conflict Resolution, Informational Care and Breaking Bad News

<p>Demonstrate effective communication skills in clinical practice, assimilate and handle patient information in different clinical scenarios. Handling uncertain situations in clinical practice.</p>	<p>Demonstrate Non-Pharmacological Interventions (NPIs) in Clinical Practice</p> <ol style="list-style-type: none"> 1. Communication Skills 2. Counselling 3. Informational Care (IC) 4. Handling Difficult Patients and their Families 5. Breaking Bad News 6. Crisis Intervention and Disaster Management 7. Conflict Resolution Empathy 	<p>Lecture/ /Presentation Role-playing with peers Storytelling by students Problem Based Learning (PBL) Case-Based Learning (CBL), Interactive Video Vignettes</p>	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<p>Psychologist or Psychiatrist / Behavioural Scientist</p>
<p>Integrate skills to deal with psychological and social peculiarities while practicing dentistry in clinical settings.</p>	<p>Explain psychosocial peculiarities of dentistry</p>	<p>Large group Interactive session (LGIS) Lecture/ Presentation</p>	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<p>Psychologist or Psychiatrist / Behavioural Scientist</p>

2. Pain, Consciousness and Sexuality

<p>Understand the complex interplay of Brain and Behaviour</p>	<p>Describe Neurobiological Basis of Behaviour</p> <ol style="list-style-type: none"> 1. Arousal 2. Consciousness 	<ul style="list-style-type: none"> • Lectures/ Presentations • Interactive Video Vignettes • Group Project 	<p>FA: MCQs, SAQs, SEQs and OSCE</p>	<p>Psychologist or Psychiatrist / Behavioural Scientist</p>
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			IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	
Integrate knowledge and skills of coping and treatment of pain in various situations.	Discuss Psychosocial aspects of Pain	<ul style="list-style-type: none"> • Lectures/ • Presentations • Individual Assignments / Group Projects 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Psychologist or Psychiatrist / Behavioural Scientist
3. Common Psychiatric Disorders in General Health Settings				
Common Psychiatric Disorders in General Health Settings	<ol style="list-style-type: none"> 1. Mixed Anxiety and Depression 2. Panic Disorder 3. Unexplained Somatic Complaints: Persistent Complainers 4. Dissociative and Possession States 5. Drug Abuse, Alcohol & Tobacco use 6. Suicide and Deliberate Self Harm (DSH) 7. Delirium 	<ul style="list-style-type: none"> • Lectures/ Presentations • Case studies 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Psychologist or Psychiatrist / Behavioural Scientist
4. Interviewing/ Psychological History Taking				
Interviewing and Psychosocial Assessment	<ul style="list-style-type: none"> • Techniques for interviewing in clinical setting • History taking <ol style="list-style-type: none"> 1. Developmental History 2. Educational history 3. Job stressors 4. Social history 	<ul style="list-style-type: none"> • Lectures/ Presentations • Demonstrations of these techniques by role playing in peer groups 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies,	<input type="checkbox"/> Psychologist or Psychiatrist / Behavioural Scientist

	<ul style="list-style-type: none"> 5. Marital history 6. Drug addiction history 7. Legal history 8. Medical/surgical history 9. Assessment of health services & other psychosocial stressors 10. Assessment of patient perception of disease according to Health Belief Model 		reflective writing and student portfolios	
Professionalism				
5. Personal Development Plan (PDP)				
Prepare personal development plan (PDP)	<ul style="list-style-type: none"> • Prepare personal development plan & reflective portfolios • Feedback on PDP 	<ul style="list-style-type: none"> • Small group discussion (SGD)/ Interactive Lecture/ 	Assignment	Behavioural Scientist / DME Faculty
6. Interprofessional Education: Tips for Design and Implementation				
Understand the importance and use of Interprofessional education: Tips for design and implementation	<ul style="list-style-type: none"> • Define Interprofessional education • Exhibit responsibility and decision making skills • Clarify their role in society • Provide evidence based health care to patients, peers, families and community 	<ul style="list-style-type: none"> • Interactive lecture/workshop / Small group discussion (SGD)/ Role play 	FA: MCQs, SAQs, SEQs and OSCE IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios	Behavioural Scientist / DME Faculty
7. Civic Engagement and its importance in Dental practice				

<p>Understand the importance of Civic Engagement and its importance in dental practice</p>	<ul style="list-style-type: none"> • Define civic engagement • Elaborate the importance of civic engagement in dental practices • List the steps to improve access to care • Ways to do justice in distribution of limited resources • Discuss the ways in which welfare concerns of community can be added to concerns for individual patient care • Manage to keep pace with modern changes in practice and in the community. • Discuss the implications of modern communication technology in clinical practice 	<ul style="list-style-type: none"> • Interactive lecture/ workshop/ Small Group Discussions (SGD) 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<p>Behavioural Scientist / DME Faculty</p>
<p>8. Technology-Driven Healthcare Leadership</p>				
<p>Assess the role of modern technology in the management and leadership within the dental field</p>	<ul style="list-style-type: none"> • Integrating technology in dental management / leadership • Modernization of Healthcare Services 	<ul style="list-style-type: none"> • Interactive lecture/ workshop/ Small Group Discussions (SGD/ Role play) 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	<p>Behavioral Scientist/ DME faculty</p>
<p>9. Enhancing Healthcare Team Performance</p>				

Foster teamwork and develop the ability to identify, raise, and address concerns to effectively resolve conflicts	<ul style="list-style-type: none"> • Understanding and managing healthcare teams • Collaboration and interdisciplinary teamwork • Conflict resolution in dental settings • Negotiation Skills 	<ul style="list-style-type: none"> • Interactive lecture/Role play 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	Behavioral Scientist/ DME faculty
10. Strategic Management of Healthcare Resources				
Formulate and implement effective strategies for managing healthcare resources	<ul style="list-style-type: none"> • Strategic planning in healthcare • Financial management in dental institutions • Quality improvement initiatives 	<ul style="list-style-type: none"> • Lecture/ Role play/ Case Scenarios 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	Behavioral Scientist/ DME faculty
11. Patient-Centered Approach to Safety				
Implement patient-centered approaches in healthcare settings to enhance the quality of care and patient satisfaction	<ul style="list-style-type: none"> • Fostering patient centered approaches • Ensuring patient safety in dental settings • Balancing patient needs with organizational goals 	<ul style="list-style-type: none"> • Interactive lecture/workshop/ Group Discussion 	<p>FA: MCQs, SAQs, SEQs and OSCE</p> <p>IA: quizzes, presentations, assignments, group projects, case studies, reflective writing and student portfolios</p>	Behavioral Scientist/ DME faculty/GS

Precis for BDS Students

This curriculum of Behavioural Sciences for BDS program comprises all required and desired topics essential for effective clinical practice of Dentist. Whereas, Student who intends to appear in Overseas Registration Examination (ORE). The Overseas Registration Examination (ORE) is an exam that overseas qualified dentists have to pass in order to register with GDC. Registration allows the dentists to practice unsupervised in the UK. Apart from this curriculum, ORE demands further knowledge of management and leadership. Students are recommended to go for further reading material from the latest version of ORE Part-1

Behavioural Sciences Table of Specification (TOS) for BDS

Third Professional BDS Examination 2024 – Theory

Marks of theory paper	= 80 Marks
Time Allowed	= 3 hours
Internal Assessment	= 20 Marks
Total marks (MCQs: 40+ SEQs: 40+ IA: 20) = 100	
Pass Marks	= 50

Paper-1 60 x MCQs (1 mark each)
(60 Marks, Weighting: 40%, Time = 60 minutes)

Paper-2 (40 Marks, 40%: Time = 2 hours)
5x6 = 30
2x5 =10

Behavioural Sciences TOS for BDS				
100 Hours				
Subjects	Topics	Number of MCQ's (60)		Number of SEQs
		Recall (20)	Application (40)	5x6 = 30 2x5 =10
1. Metacognitive Strategies of Dental Students				
Understand the importance of metacognition	<ul style="list-style-type: none"> • Define metacognition • Importance of metacognition in dental student life • Phases of metacognition • Metacognitive Strategies for dental students 	1		
2. Importance of Sleep Hygiene				
Understand the significance role of sleep hygiene in dental student life	<ul style="list-style-type: none"> • Define sleep • Stages of sleep • Sleep disorders • Factors contributing to sleep hygiene • Steps for sleep induction • Coping strategies for insomnia 	1	1	
3. Attributes of Dental Professionals				

Identify the key attributes of dental professionals	<p>Demonstrate following attributes in practice of dentistry:</p> <ul style="list-style-type: none"> • Self-care • Politeness • Respectfulness • Mindfulness, compassion and consideration • Selflessness • Professional competency • Social accountability • Empathy/Sympathy • Adhere to ethical principles • Integrity • Honesty • Confidentiality and Trustworthiness • Sensitivity to patient beliefs • Moral reasoning • Interact with patients, attendants, medical, administrative and paramedical staff, peers with respect 	1	1	
4. Introduction to Leadership and Management and Its Importance in dental Setting				
Evaluate the significance of leadership in a dental setting	<p>Dental Leadership</p> <ul style="list-style-type: none"> • Overview of leadership in dental settings • Importance of leadership in dental settings 	1		
Exhibit effective self-management skills	<ul style="list-style-type: none"> • What is self-management? It's Importance. • Self-management Mechanisms 		1	
5. Introduction to Behavioural Sciences and Its Importance in Health				
Demonstrate understanding of holistic and bio medicine model in clinical practice along with understanding of culture and dental practice	<p>Differentiate:</p> <ul style="list-style-type: none"> • Holistic Vs. Traditional • Allopathic • Medicine • Culture & Dental Practice 	1		
Comprehensive understanding of	Discuss Health Care Models and their	1		

psychology, sociology and anthropology as well as biological determinants of health and disease in clinical practice, along with public health approach of primary and secondary prevention of disease/disorder and promotion of health.	Clinical Applications 1. Bio-Psychosocial Model of health and disease 2. The Integrated Model of Health Care: Correlation of Body, Brain, Mind, Spirit and Behavioural Sciences 3. The Public Health Care Model		1 1	1
6. Understanding Behaviour				
Analyse human behaviour and other factors affecting health and disease by Enhancing doctor's own learning and clinical skill.	Understand human behaviour through Principles of Psychology • Sensation and sense organs • Perception • Attention and concentration • Memory • Thinking • Communication	1	1 1	
7. Individual Differences				
Understand and assess types of human personality and phases of personality development along with intelligence.	Understand individual human differences • Intelligence • Personality • Development	1	1	
Understand the complex interplay of Brain and Behaviour.	Describe Neurobiological and Psychological Basis of Behaviour • Emotions • Motivation/need/ drive • Learning	1	1 1	
8. Dental Ethics and Mental Health Acts				
Integrate the principles of dental ethics in professional life	Dental Ethics and Professionalism	1	1	

Integrate significance of dental ethics in dental practice	Describe and Demonstrate relevance of Ethics in the Life of a Dentist 1. Scope and Meaning of Dental Ethics 2. Guiding Principles of Dental Ethics 3. Common Ethical Issues in Dental Practice 4. Common Ethical Dilemmas in a Health Professional's Life 5. Doctor-Patient Relationship		1 1 1	1
9. Doctor Patient Relationship				
Analyse critical situations/ challenges in clinical practice to solve clinical problems	Discuss Rights and Responsibilities of Patients and Doctors • Rights of the Patient • Responsibilities of the Patients • Rights of the Doctor • Responsibilities of the Doctor		1 1	
Critique the ethical boundaries of conduct in doctor-patient relationship	Understand Psychological Reactions in Doctor-Patient Relationship • Social bonding • Dependence • Transference • Countertransference • Resistance • Unwell Physician / Burn-out	1	1 1	
Demonstrate professional excellence of a doctor to maintain healthy doctor-patient relationship	Understand Professionalism in Health Care • Knowledge • Skills • Attitudes		1	
10. Psychological Aspects of Health & Disease				

<p>Illustrate human thought, behaviour and interactions by health and disease situations influenced by psychological factors.</p>	<ul style="list-style-type: none"> • Discuss role of Psychology in dental Practice • Role of psychological factors in the aetiology of health problems • Role of psychological factors in the precipitation (triggering) of illnesses • Role of psychological factors in the management of illnesses • Role of psychological and social factors in diseases causing disability, handicap and stigma • Role of psychological factors in patients' reactions to illness • Medically Unexplained Physical Symptoms (MUPS) • 	<p>1</p>	<p>1</p> <p>1</p> <p>1</p>	
<p>Recognize the factors contributing towards a state of psychological and social well-being of human in clinical practice.</p>	<p>Discuss and Demonstrate Psychosocial Aspects of Health and Disease</p> <ul style="list-style-type: none"> • Health and Normality • Defense Mechanisms • Psychosocial Assessment in Health Care • Clinical Situations Demanding a Comprehensive Psychosocial Assessment • Psychological reactions to Illness and Hospitalization 	<p>1</p>	<p>1</p> <p>1</p>	
<p>11. Life Events: Psych trauma, Psychological Reactions, Stress and Stressors, Stress Management</p>				
<p>Identify sources of stress and its management towards patients, self and other staff members</p>	<p>Define and discuss Stress and its Management</p> <ul style="list-style-type: none"> • Job-related Stress & Burnout • Response to stress • Stress Management 	<p>1</p>	<p>1</p>	<p>1</p>
<p>Equip dental students with knowledge and</p>	<p>Understanding Psychotrauma</p>			

skills in order to respond to psycho-traumatic cases in hospital settings.		1	1	
Professionalism				
12. Physician Self-Regulation and Maintenance of Competence				
Comprehensive understanding of physician self-regulation and maintenance of competence	Show commitment to autonomous growth, maintenance and continuous improvement of competence/ knowledge		1	
13. Professional Identity Formation				
Understand professional identity formation	<ul style="list-style-type: none"> • Reflections on White Coat Ceremony • List types of identities and its Components, • Define ways to transform professional identity 		1	
14. Professional Misconduct and Unprofessional Attitudes				
Understand professional misconduct and unprofessional attitudes	<ul style="list-style-type: none"> • Define professional misconduct and list its elements and give examples • List the types of misconduct and its punishments • Define Dental Malpractice 	1		
15. Steps to Inculcate Dental Professionalism in Students				
Identify steps to inculcate Dental professionalism in students	Recognize probable Path towards Dental Professionalism through <ul style="list-style-type: none"> • Confess • Teach • Assess • Reward • Foster 			1
Leadership & Management				
16. Principles of Leadership and Various Approaches to Leadership				

Explore the principles of leadership and examine various approaches to leadership	Healthcare Leadership Principles <ul style="list-style-type: none"> • Effective leadership Traits and Behaviours • Different approaches to Leadership • Effective leadership Abilities & Skills 		1	
17. Leadership Styles and Theories				
Examine and describe various attributes and leadership styles within their respective cultural contexts	Leadership styles <ul style="list-style-type: none"> • Leadership styles and their impact on healthcare team Contemporary Leadership Theories <ul style="list-style-type: none"> • Exploration of various leadership theories • Application of leadership models in dental contexts 			1
Compare various models of leadership and management and assess their application in a dental context	Classic and Modern Management Theories <ul style="list-style-type: none"> • Exploration of various Management theories • Managerial Styles 		1	
18. Healthcare Decision-Making & Leadership				
Analyse and implement effective decision-making strategies in crisis leadership within the context of dental emergencies	Healthcare Decision-Making & Leadership <ul style="list-style-type: none"> • Decision-making processes in healthcare • Risk management & mitigation • Crisis leadership in dental emergencies 		1	
19. Non Pharmacological Interventions: Communication Skills, Counselling, Crisis Intervention, Conflict Resolution, Informational Care and Breaking Bad News				
Demonstrate effective communication skills in clinical practice, assimilate	Demonstrate Non-Pharmacological Interventions (NPIs) in Clinical Practice <ul style="list-style-type: none"> • Communication Skills 		1	

	<p>7. Legal history</p> <p>8. Medical/surgical history</p> <p>9. Assessment of health services & other psychosocial stressors</p> <p>10. Assessment of patient perception of disease according to Health Belief Model</p>		1	
23. Civic Engagement and its importance in Dental practice				
<p>Understand the importance of Civic Engagement and its importance in dental practice</p>	<ul style="list-style-type: none"> • Define civic engagement • Elaborate the importance of civic engagement in dental practices • List the steps to improve access to care • Ways to do justice in distribution of limited resources • Discuss the ways in which welfare concerns of community can be added to concerns for individual patient care • Manage to keep pace with modern changes in practice and in the community. • Discuss the implications of modern communication technology in clinical practice 		1	

Rotation Plan for BDS

