SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY

ISLAMABAD

INTEGRATED CURRICULUM

for

Bachelor of Dental Surgery

(Third Year BDS)

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Dedicated to all faculty Members of Curriculum Committee whose persistent efforts in the field of medical education will always be reminisced.

Preface

The Shaheed Zulfiqar Ali Bhutto Medical University (SZABMU), a public sector federal University, was established in the premises of postgraduate medical institute, Pakistan Institute of Medical Sciences, Islamabad by an ordinance of national assembly on 21 March, 2013.

Four medical colleges 1- School of Dentistry is constituent college others affiliated are 2- Rawal Institute of Health Sciences 3- Islamabad Medical &Dental College and 4- HBS Medical & Dental College are attached with the university.

Since its inception the university has made an impact in the field of healthcare, undergraduate, postgraduate medical education and research pertaining to grave health problems faced by our country.

In order to meet the standards of the World Federation of Medical Education a paradigm shift has ensued in the field of medical education. The standards provide a template for medical schools. This led to developing the curriculum as per WFME standards in congruence with the cultural, regional and demographic facets of the country.

Department of medical education of SZABMU started functioning in 2014. DME is 'headed by Dean and has various co- opted members including Dr. Fouzia Sultana and Dr. Zainab Abdullah who worked diligently and integrated the undergraduate curriculum in 2017. It was also made possible by the conscientious efforts of different curriculum committees who clipped it according to the requirement of the medical Colleges. The final draft of the curriculum is an attribute to all those who remained involved in the planning, development and evaluation of the curriculum.

Special appreciations for Prof. M Luqman for his infinite efforts in making this a reality.

I am very thankful to DME who spent their precious hours in typing, editing, reviewing, correcting and giving final shape to the draft which is available now in it's best possible construct. I wish success and prosperity to all everyone associated with this prestigious institution in the years to come.

Prof . Tanwir Khaliq

Vice Chancellor SZABMU

ACKNOWLEDGEMENTS

We would like to express our gratitude and appreciation to all those who gave us the opportunity to complete the curriculum.

Department of Medical Education is very grateful to the Worthy Vice Chancellor Prof.Tanwir Khaliq for his vision in initiating the integrated curriculum under the umbrella of Shaheed Zulfiqar Ali Bhutto Medical University in all affiliated Dental colleges. Our special gratitude to the entire curriculum committee for their support and hard work.

We would also like to thank Prof Anser Maxood ,Prof Haroon Qazi and Brig Manzoor for his endless support and effort in guiding the team to achieve the goal .

Assistant Professor DME SZABMU

Dr.Zainab Abdullah

Dr.Fouzia Sultana

Curriculum Committee

Curriculum Committee for the development of Modular System at undergraduate level of all Medical and Dental Colleges affiliated with Shaheed Zulfiqar Ali Bhutto Medical University consists of following members:

• Prof. Anser Maxood	Chairman	Shaheed Zulfiqar Ali Bhutto Medical University
• Prof. Zahoor Rana	Vice Chairman	Shaheed Zulfiqar Ali Bhutto Medical University
• Prof. Haroon Shahid Qazi	Secretary	Islamabad Medical and Dental College
• Brig. (R)Manzoor Ahmad	Member	Rawal Institute of Health Sciences
• Prof. Arshad Malik	Member	HBS Dental College
• Prof. Saad Asad	Member	Rawal Institute of Health Science
• Dr. Zainab Abdullah	Member	Shaheed Zulfiqar Ali Bhutto Medical University
• Dr. Fouzia Sultana	Member	Shaheed Zulfiqar Ali Bhutto Medical University
• Prof. Rehmah Sarfaraz	Member	Islamabad Medical and Dental College
• Dr. S.H Waqar	Member	Federal Medical and Dental College
• Dr. Shajee Siddiqui	Member	Federal Medical and Dental College

Modular Curriculum Development Committee

The clerkship for 3rd year BDS class have been developed by the following faculty members:

DEPARTMENT OF PERIODONTOLOGY

1.	Dr. Hina Mahmood	HOD	Islamabad Medical and Dental College
2.	Dr. Sohaib Siddique	HOD	HBS College of Dentistry, Islamabad
3.	Dr. Rubina Qamar	HOD	Rawal Institute of Health Sciences

DEPARTMENT OF ORAL PATHOLOGY

1.	Dr. Muhammad Imran	HOD	Islamabad Medical & Dental College
2.	Dr. Seema Shafiq	HOD	Rawal Institute of Health Sciences

DEPARTMENT OF ORAL MEDICINE & ORAL RADIOLOGY

1.	Dr. Abdul Manan Shahid	HOD	Islamabad Medical and Dental College
2.	Dr. Sidra tul Muntaha	HOD	Rawal Institute of Health Sciences

DEPARTMENT OF GENERAL SURGERY

1.	Dr. Sohaib Haider	Asst Prof	Islamabad Medical and Dental College
2.	Dr. Saira Mahmood	HOD	Rawal Institute of Health Sciences
3.	Dr. S.H Waqar	HOD	Federal Medical and Dental College

DEPARTMENT OF GENERAL MEDICINE

1.	Dr. Shakeel Ahmed	Asst Prof	Islamabad Medical and Dental College
2.	Dr. Nadeem Yousaf	HOD	Rawal Institute of Health Sciences
3.	Dr. Shajee Siddiqui	HOD	Federal Medical and Dental College

DEPARTMENT OF PROSTHODONTICS

1.	Prof. Tayyaba Saleem	Prof/HOD	Islamabad Medical and Dental College
2.	Dr. Farooq Kamran	HOD	Rawal Institute of Health Sciences
3.	Dr. Sadia Daniyal	HOD	HBS Dental College, Islamabad

DEPARTMENT OF OPERATIVE DENTISTRY

1.	Prof. Saima Azam	Prof/HOD	Islamabad Medical and Dental College
2.	Dr. Nouman Noor	HOD	Rawal Institute of Health Sciences

DEPARTMENT OF ORAL & MAXILLOFACIAL SURGERY

1.	Prof. Khalid Mahmood Siddiqi	Prof/HOD	Islamabad Medical and Dental College
2.	Prof. Aysha Maqsood	Prof/HOD	Rawal Institute of Health Sciences

SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITRY

CURRICULUM FRAMEWORK: BDS 3rd YEAR

Clerkship							
Periodontology	Oral Medicine	Oral Pathology	General Medicine	General Surgery	Prosthodontic	Junior Operative Dentistry	Oral & Maxillofacial Surgery
175 Hours	125 Hours	150 Hours	200 Hours	200 Hours	150 Hours	100 Hours	150 Hours
Annual University Exam	Annual University Exam	Annual University Exam	Annual University Exam	Annual University Exam	Annual Internal Exam	Annual Internal Exam	Annual Internal Exam

PERIODONTOLOGY

175 Hours

Main Content Areas

Theoretical Content

- Anatomy of the periodontium
- Classification and Epidemiology
- Etiology of periodontal disease
  - ◊ Periodontal Pathogenesis
  - ◊ Role of Dental Calculus and other predisposing factors
  - ◊ Biofilm and periodontal microbiology
  - ◊ Molecular biology of host-microbe interactions
  - ◊ Smoking and periodontal disease
- Relationship between periodontal diseases and systemic health
- Gingival Pathology
  - ◊ Defense mechanism of gingiva
  - ◊ Gingival inflammation
  - ◊ Features of Gingivitis
  - ◊ Acute gingival conditions
  - ◊ Diagnosis and management of Gingival Enlargement
  - ◊ Desquamative gingivitis
- Periodontal Pathology
  - ◊ Periodontal pocket
  - ◊ Bone loss patterns and bone destruction
  - ◊ Periodontal response to external forces (Trauma from occlusion/ occlusal trauma)
  - ◊ Chronic Periodontitis
  - ◊ Necrotizing Ulcerative Periodontitis
  - ◊ Aggressive Periodontitis
  - ◊ Clinical Diagnosis, Prognosis, Risk Assessment

- Clinical Periodontology
  - ◊ Treatment Planning
  - ◊ Periodontal Treatment of Medically compromised patients
  - ◊ Periodontal treatment of aggressive and atypical forms of periodontitis
  - ◊ Diagnosis and Management of periodontal abscess
  - ◊ Diagnosis of Endodontic-Periodontic lesions
- Non-surgical Periodontal Therapy
  - ◊ Anti-infective therapy
  - ◊ Host Modulation
- Surgical Periodontal Therapy
  - ◊ General principles of periodontal surgery
  - ◊ Gingival surgical techniques
  - ◊ Periodontal Flaps
  - ◊ Periodontal regeneration and reconstruction
  - ◊ Furcation
  - ◊ Restorative interrelationship
  - ◊ Supportive Periodontal Treatment
  - ◊ Overview of Implants

Practical Contents

Practical aspects include following:

- Infection control protocols
- History and Intraoral/extraoral examination (including Basic Periodontal Examination)
- Communication skills
- Radiographic interpretation
- Diagnosis
- Treatment Planning
- Patient Education and counselling
- Basic Periodontal instruments (Manual/ultrasonic)
- Manual/ultrasonic scaling on patients

- Identification of Periodontal surgical instruments
- Basic indices for periodontal and gingival diseases
- Prescription writing

Learning Outcome

1. Apply knowledge of the anatomy, histology and physiology of the tissues of the oral cavity and related structures to clinical practice.
2. Apply knowledge of oral microbiology with emphasis on the nature, composition and physiology of plaque biofilm and calculus and its relationship to inflammatory periodontal diseases.
3. Apply knowledge of infectious, inflammatory and immunological processes in oral diseases with emphasis on the pathogenesis of periodontal diseases.
4. Apply knowledge of the principles of wound healing as well as soft and hard tissue regeneration and repair.
5. Apply knowledge of the process of osseointegration as well as the biology of the peri-implant tissues.
6. Apply knowledge of the classification and epidemiology of the periodontal diseases.
7. Apply knowledge of pathogenesis of disease to the diagnosis and management of gingival diseases, including chronic gingivitis, gingival abscess, necrotizing ulcerative gingivitis, and acute gingival conditions.
8. Apply knowledge of pathogenesis of disease to the diagnosis of autoimmune diseases effecting periodontal tissues, and subsequent referral to Oral Medicine specialist.
9. Apply knowledge of pathogenesis of disease to the diagnosis and management of periodontal diseases, including chronic periodontitis and diseases modified by local and/or systemic factors.
10. Apply knowledge of pathogenesis of disease to the diagnosis and management of acute periodontal conditions, including abscesses of the periodontium, pericoronitis etc.
11. Apply knowledge of pathogenesis of disease to the diagnosis and management of aggressive periodontal diseases, including localized and generalized aggressive periodontitis.
12. Apply knowledge of the influence of forces (trauma, parafunction, orthodontic forces etc.) on the periodontium and related structures.
13. Apply knowledge of the periodontal-systemic bi-directional relationships to the diagnosis, management and maintenance of patients.
14. Document relevant medical and dental history, including, periodontal charting and draft a comprehensive treatment plan (including alternatives).
15. Prescribe, justify, perform and assess different imaging techniques and adjunct investigations

as they are related to the diagnosis of periodontal diseases.

16. Apply knowledge of behavioral risk factors for periodontal diseases and methods for their modification (including tobacco, stress, and diet).
17. Position the patient appropriately for diagnostic and operative procedures.
18. Educate patients on preventive techniques, tooth brushing techniques, inter-dental cleaning, and any other technique relevant to patient's needs.
19. Apply knowledge of the mechanisms, effects and interactions of medications used for the prevention and therapy of periodontal diseases, including host modulation agents, chemotherapeutics etc.
20. Prescribe, perform, justify and evaluate non-surgical therapy, including scaling and root planing, and be proficient in the use of routine periodontal instruments (scalers, Gracey curettes, power driven scalers etc).
21. Have knowledge of surgical techniques used in periodontics, their indications and contraindications, advantages and disadvantages; and be familiar with specialized surgical instruments.
22. Prescribe and evaluate (in a timely manner) basic surgical procedures under direct supervision, including:
    - ◊ Gingivectomy/Local excision
    - ◊ Periodontal Flap Surgery
23. Have knowledge and understanding of advanced periodontal surgery, including:
    - ◊ Reconstructive and regenerative periodontal surgery procedures
24. Evaluate the results of the non-surgical treatment and be able to refer the patient to a periodontist for any further procedures required to maintain (supportive periodontal therapy) or improve the obtained treatment outcome.
25. Interpret the interrelationship of periodontitis to pulpal disease (Perio-endo Lesions).
26. Be able to identify the structure, different layers of epithelium, and cells in the normal oral mucosa.
27. Be able to identify the different functions of normal oral mucosa.
28. Be able to differentiate between the types of changes in abnormal oral mucosa on the basis of clinical and histological appearances.
29. List the Clinical features and disturbances in the oral mucosa and periodontium with respect to generalized diseases. (Recall)
30. Should be able to take complete history and assess the patient medically and clinically, be able to do complete examination both extra and intra oral.

31. To differentiate between the different types of investigations and its clinical importance.
32. Should be able to give provisional diagnosis based on investigations.
33. Should know the basic principles of therapy.
34. Enlist the therapeutic agents, topical therapeutic agents, covering agents, Antiseptic agents, Topical analgesics, Topical antibiotics and Topical Corticosteroids (Creams and ointments).
35. Should be able to enlist Systemic corticosteroids, immunosuppressants and other systemic drugs
36. Can identify about the limitations of therapy according to the medical condition of the patient.
37. Should enlist the etiology, describe the pathogenesis, and identify the clinical features and sequelae/complications associated with Bacterial, Fungal and Viral Infections relevant to gingival lesions
38. Should enlist, identify and diagnose pigmentation of the oral mucosa
39. Should be able to identify oral manifestations and its management related to different systemic diseases.
40. Should be able to identify signs and symptoms and know the etiology of halitosis.

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions
3. Clinical Practice

Exercises

Clinical Quota

Every student has to complete following clinical quota during periodontology clerkship

Manual Scalings	35
Ultrasonics Scalings	10
Total Scalings	45

Annual University Examination

TABLE OF SPECIFICATION (TOS-PERIODONTOLOGY)

	Contents	Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
		C	P	A					
PART I :Biological Basis Of Periodontology									
1.	**Normal Periodontium**								
i.	Anatomy of periodontium	C1			IL, SGD	Form, Summ, Written	MCQ	10	**12.5%**
ii.	Aging and periodontium	C1			IL, SGD	Summ, written	MCQ		
2.	Classification and epidemiology of periodontal diseases								
i.	Classification of Diseases and Conditions Affecting the Periodontium	C2	✓		IL, SGD, C	Form, Summ, W, P	MCQ		
ii.	Fundamentals in the Methods of Periodontal Disease Epidemiology	C1	✓	✓	IL, SGD, C	Form, Summ, P	MCQ		
3.	Etiology of periodontal diseases								
i.	Periodontal Disease Pathogenesis	C3			IL, SGD	Form, Summ, W	MCQ	**12**	**15%**
ii.	Biofilm and Periodontal Microbiology	C2			IL, SGD	Form, Summ, W	MCQ		
iii.	Smoking and Periodontal Disease	C2	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ		

	Contents		Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
			C	P	A					
iv.	The Role of Dental Calculus and Other Local Predisposing Factors		C2			IL, SGD	Form, Summ, W	MCQ		
4.	**Relationship between periodontal disease and systemic heath**									
i.	Influence of Systemic Conditions	Should understand the influence of systemic conditions on periodontium and its implications	C3	✓	✓	IL, SGD, C	Summ, W, P	MCQ		
ii.	Impact of periodontal infections on systemic health	Should understand the effect of periodontitis on systemic health and its implications.	C1			IL	Summ, W	MCQ		
5.	**Gingival Pathology**									
i.	Defense Mechanisms of the Gingiva	Apply knowledge of pathogenesis of disease to the diagnosis and management of gingival diseases, including chronic gingivitis, gingival abscess, necrotizing ulcerative gingivitis, and acute gingival conditions.	C2			IL, SGD	Form, Summ, W	MCQ	**14**	**17.5%**
ii.	Gingival Inflammation		C3			IL, SGD	Form, Summ, W	MCQ		
iii.	Clinical Features of Gingivitis		C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ		
iv.	Gingival Enlargement		C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ		
v.	Acute Gingival Infections		C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ		

	Contents		Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
			C	P	A					
vi.	Gingival Disease in Childhood		C1			IL	Summ, W	MCQ		
6.	**Periodontal Pathology**									
i.	The Periodontal Pocket	Apply knowledge of pathogenesis of disease to the diagnosis and management of periodontal diseases, including chronic periodontitis and diseases modified by local and/or systemic factors.	C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ, OSPE, Viva		
ii.	Bone Loss and Patterns of Bone Destruction		C2	✓		IL	Summ, W	MCQ		
iii.	Periodontal Response to External Forces		C2			IL	Summ, W	MCQ		
iv.	Chronic Periodontitis		C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ, OSPE, viva		
v.	Aggressive Periodontitis		C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ, Viva		
vi.	Necrotizing Ulcerative Periodontitis		C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ, OSPE, Viva		
vii.	Pathology and management of periodontal problems in patients with human	Apply knowledge of pathogenesis of disease to the diagnosis of autoimmune diseases effecting periodontal tissues, and subsequent	C3			IL	Summ, W	MCQ		

	Contents		Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
			C	P	A					
	Immunodeficiency virus infection	referral to Oral Medicine specialist.								
Section I							Total		**36**	**45%**
PART II: Clinical Periodontics										
7.	**Diagnosis, Prognosis and Treatment Planning**								**14**	**17.5%**
i.	Periodontal Examination and Diagnosis	Position the patient appropriately for diagnostic and operative procedures. Document relevant medical and dental history, including, periodontal charting and intra and extra oral examination		✓	✓	SGD, C	Form, Summ, P	OSCE, Long case, viva		
ii.	Radiographic Aids in the Diagnosis of Periodontal Disease	Should be able to prescribe and assess different imaging techniques and adjunct investigations for the diagnosis of periodontal diseases.	C2	✓	✓	SGD, C	Form, Summ, W. P	OSPE, viva		

	Contents		Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
			C	P	A					
iii.	Clinical Risk Assessment	Should be able to identify risk factors for periodontal diseases and methods for their modification	C2			SGD, C	Form, P	OSPE, Viva		
iv.	Determination of Prognosis	Should have knowledge about different types of prognosis. Should be able to identify factors for determination of prognosis	C2	✓		IL, SGD, C	Form, P	OSCE, viva		
v.	Treatment Planning	Should be able to draft a treatment plan in light of examination, diagnosis, risks involved. Clinical findings and prognosis.	C3	✓	✓	IL, SGD, TBL, C	Form, Summ, W, P	Long case		
8.	**Management of Patients with special needs**									
i.	Periodontal Treatment of Medically Compromised Patients	Should identify common medical conditions and treat periodontal disease according to the guidelines.	C2			IL	Summ, W	MCQ		
ii.	Treatment of Aggressive and	Should apply knowledge about current treatment	C2			IL	Form, P	MCQ		

	Contents		Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
			C	P	A					
	Atypical Forms of Periodontitis	approaches to manage Aggressive and Atypical forms of aggressive periodontitis								
9.	**Diagnosis and treatment of periodontal emergencies**									
i.	Treatment of Acute Gingival Disease	Should apply knowledge of pathogenesis of disease to the diagnosis and management of acute periodontal conditions, including abscesses of the periodontium, pericoronitis etc.	C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ, OSPE, Viva		
ii.	Treatment of Periodontal Abscess		C3	✓	✓	IL, SGD,C	Form, Summ	MCQ, OSPE, Viva		
iii.	Endodontic-Periodontic Lesions	Should Interpret the interrelationship of periodontitis to pulpal disease and know the treatment options.	C3	✓	✓	IL, C	Form, Summ, W	MCQ, Viva		
iv.	Pathogenesis, Diagnosis, and Treatment Considerations		C3	✓	✓	IL, C	Summ, W, P	MCQ, Viva		
10.	**Non-Surgical Periodontal Treatment**								**16**	20%
i.	Phase I Periodontal Therapy	Should know all the steps of non-surgical periodontal phase	C3	✓		IL, SGD,C	Form, Summ, W, P	MCQ		

	Contents		Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
			C	P	A					
ii.	Plaque Biofilm Control for the Periodontal Patient	Should be able to educate patients on preventive techniques, tooth brushing techniques, inter-dental cleaning, and any other technique relevant to patient's needs.	C3	✓	✓	SGD, C	Form, Summ, P	Long case		
iii.	Breath Malodor		C2			IL	Summ, W	MCQ		
iv.	Scaling and Root Planing	Should prescribe, perform, justify and evaluate non-surgical therapy, including scaling and root planing, and be proficient in the use of routine periodontal instruments (scalers, Gracey curettes, power driven scalers etc)		✓	✓	SGD, D, C	Form, Summ, P	Long case, OSPE		
v.	Sonic and Ultrasonic Instrumentation and Irrigation			✓	✓	SGD, D, C	Form, Summ, P	OSPE		
vi.	Systemic Anti-infective Therapy for periodontal diseases	Apply knowledge of the mechanisms, effects and interactions of medications used for the prevention and therapy of periodontal diseases, including host	C2	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ		
vii.	Locally delivered, Controlled-release antimicrobials		C1			IL, SGD	Summ, W	MCQ		

	Contents		Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
			C	P	A					
viii.	Host Modulation	modulation agents, chemotherapeutics etc.	C1			IL				
11.	**Surgical Periodontal Treatment**									
	Phase II Periodontal Therapy	1. Have knowledge of surgical techniques used in periodontics, their indications and contraindications, advantages and disadvantages; and be familiar with specialized surgical instruments. 2. Have understanding of advanced periodontal surgery, including: Reconstructive and regenerative periodontal surgery procedures.	C3			IL	Summ, W		**10**	**12.5%**
	General Principles of Periodontal Surgery		C2			IL, SGD	Summ, W			
	Periodontal Surgical Therapy		C3			IL, SGD	Summ, W	MCQ		
	Treatment of Gingival Enlargement		C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ, OSPE, Viva		
	Guided Tissue Regeneration		C3			IL, SGD	Form, Summ, W	MCQ, OSPE, Viva		
	Furcation		C3	✓	✓	IL, SGD, D, C	Form, Summ, W, P	MCQ, OSPE, Viva		
	Surgical management of gingival recession		C3			IL, SGD	Summ, W, P	MCQ, Viva		
Section II :			**Total**						**40**	**50%**

	Contents		Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
			C	P	A					
PART III: Oral Implantology										
12.	**Periodontal Restorative Interface**									
	Preparation of the Periodontium for Restorative Dentistry	Should know the techniques which can be performed in anticipation of esthetics or implant dentistry	C1			IL	Summ, W	MCQ		
13.	**Supportive care and results of periodontal Treatment**									
	Supportive periodontal care	1. Should understand the rationale of supportive periodontal care 2. Should have knowledge about specific methods of maintenance programs.	C2	✓	✓	IL, D, SGD	Form, P	OSCE, Viva	**2**	**2.5%**
	Results of Periodontal Treatment	1. Should have knowledge about prevention and treatment of gingivitis and periodontitis in the light of evidence.	C2	✓	✓	SGD, D	Form, P	Viva		
14.	**Biology, Diagnosis and Biomechanics of Dental Implants**								**2**	**2.5%**

	Contents		Learning domain			MOT	Assessment Method	Assessment Tools	MCQs	Weightage
			C	P	A					
	Peri-implant Anatomy, Biology, and Function	1. Have knowledge of the process of osseointegration as well as the anatomy, biology and function of the peri-implant tissues.	C1			IL	Summ, W	MCQ		
	Basic Implant Surgical Procedures	1. Should have knowledge about basic principles of implant surgery. 2. Should have knowledge about one stage and two stage approach for implant placement	C1			IL	Summ, W	MCQ		
SECTION III							**TOTAL**		**4**	**5%**
GRAND TOTAL									**80**	**100%**

ORAL MEDICINE & RADIOLOGY

125 Hours

MAIN CONTENT AREAS

Learning Outcomes:

1. Be able to identify the structure, different layers of epithelium, and cells in the normal oral mucosa.
2. Be able to identify the different functions of normal oral mucosa(Application)
3. Be able to differentiate between the types of changes in abnormal oral mucosa on the basis of clinical and histological appearances. (Application)
4. Know the Clinical features and disturbances in the oral mucosa and periodontium with respect to generalized diseases (Recall)
5. Should be able to take compete history and assess the patient medically and clinically, be able to do complete examination both extra and intra oral.
6. To differentiate between the different types of investigations and there clinical importance (Application).
7. Should be able to give provisional diagnosis based on investigations.
8. Should know the basic principles of therapy.
9. Enlist the therapeutic agents, topical therapeutic agents, covering agents, Antiseptic agents, Topical analgesics, Topical antibiotics and Topical Corticosteroids (Creams and ointments).
10. Should be able to enlist Systemic corticosteroids, immunosuppressants and other systemic drugs
11. Should know about the limitations of therapy according to the medical condition of the patient.
12. Should know how to differentiate between different types of Bacterial Infections their clinical features
13. Should know how To differentiate between different types of Fungal Infections their clinical features
14. Should know how to differentiate between different types of Viral Infections their clinical features
15. Should enlist the etiology, describe the pathogenesis, and identify the clinical features and sequelae/complications associated with Bacterial, Fungal and Viral Infections.
16. Should be able to enlist, identify and diagnose pigmentation of the oral mucosa

17. Should be able to diagnose and manage different kind of white lesions.
18. Should enlist the etiology, causes and different types of oral ulcers
19. Should diagnose and differentiate between acute and chronic Ulcerations on the basis of clinical and radiographic features.
20. Should identify the complications/sequelae of oral ulcers
21. Should enlist and classify diseases of the lips, Investigations and provisional diagnosis
22. Should classify, diagnose and enlist different diseases and developmental anomalies of the Tongue.
23. Should enlist the WHO Classification of cysts of the jaws
24. Should diagnose the odontogenic cysts on the basis of clinical, radiographic and histological features
25. Should describe the clinical and histological differences between retention and extravasation mucocele.
26. Should diagnose the non-neoplastic oral hyperplastic lesions on the basis of clinical and histological features.
27. Should enlist the Causes of salivary gland enlargement.
28. Should classify salivary gland tumors and describe the Etiopathogenesis, clinical and histological features of diseases of Salivary glands.
29. Should be able to differentiate between various inflammatory growths and developmental lesions
30. Should identify, diagnose and differentiate between benign and malignant neoplasms of the oral and facial region
31. Should be able to identify different pigmented lesions, investigate and give provisional diagnosis
32. Should enlist HPV associated benign mucosal lesions and diagnose SCC on the basis of clinical and histological features.
33. Should enumerate pre-malignant lesions and conditions
34. Should describe clinical and histological features of melanocytic nevus, malignant melanoma, Hodgkin's and non-Hodgkin's lymphomas.
35. Should describe the clinical and histological features of Fibroma, Hemangioma, Neurofibroma and Shwanoma
36. Should classify, diagnose and describe the sign symptoms and clinical features of immune-mediated vesiculobullous diseases
37. Should describe the clinical features of different developmental, inflammatory and functional disorders of TMJ.

38. Should be able to enlist different types of facial pain and its etiology.
39. Should be able to identify oral manifestations and its management related to different systemic diseases.
40. Should be able to identify signs and symptoms and know the etiology of halitosis, taste abnormality and nutritional deficiencies
41. Identify the oral clinical features related to nutritional deficiency
42. Should be able to diagnose and identify different types of allergic reactions and their management
43. Should have comprehensive knowledge about local anesthesia and its constituents
44. Should be able to give local anesthesia both infiltration and nerve block (Application)
45. Should be able to differentiate between types of medical emergencies occurring while dental procedure
46. Should know how to step wise manage a medical emergency and have knowledge about different drugs being used in medical emergencies
47. Should know about different medical conditions and significance of their management in dental clinics
48. Should be able to identify the following films/images and relevant anatomical structures
    - ◊ Periapical (Application)
    - ◊ Orthopantomogram (Application)
    - ◊ Occlusal radiographs
    - ◊ Cephalometric radiographs
    - ◊ CCD
    - ◊ Phosphorous plates
    - ◊ CT Scan
    - ◊ MRI
    - ◊ CBCT

Practical: Contents

- Infection control protocols
- History taking
- Intraoral/extraoral examination (including Basic Periodontal Examination)

- Communication skills
- Radiographic interpretation
- Diagnosis
- Treatment Planning
- Local Anesthesia application
- Post Op instructions
- Basic Biopsy instruments
- Basic surgical instruments
- Oral Radiology
    - ◊ Periapical (Application)
    - ◊ Orthopantomogram (Application)
    - ◊ Occlusal radiographs
    - ◊ Cephalometric radiographs
    - ◊ CCD
    - ◊ Phosphorous plates
    - ◊ CT scan
    - ◊ MRI
    - ◊ CBCT

Teaching Methodologies:

4. Lectures
5. Clinical demonstrations and small group clinical discussions
6. Clinical Practice
7. Exercises

Clinical Quota

Every student should complete following clinical quota during oral medicine clerkship

Check List			
Sr. No	**Task Completed**	**Required Credits**	**Completed**
1	History taking and clinical examination	30	
2	Local anesthesia a. Infiltration b. Infra alveolar block	 25 25	
3	Steps of periapical radiographs (Each Step has 1 Credit) Steps of periapical radiographs (Each Step has 1 Credit)	13 02	
4	Radiographic assessment a. Periapical b. OPG	 25 10	
5	Biopsy (Exercise) a. Incisional b. Excisional	10	
6	Suturing technique (Exercise) a. Single interrupted a. Horizontal mattress b. Vertical mattress	10	
Total		150	

Annual University Examination

TABLE OF SPECIFICATION (TOS- ORAL MEDICINE & RADIOLOGY)

Contents		Learning Domain			Teaching Methodology	Assessment Method	Assessment Tools	Weightage	MCQs
		C	P	A					
1.	Oral Mucosa	C1			IL, SGD	Form, Summ, W, P	MCQ, viva	10%	08
2.	Principles of oral medicine: assessment and investigation of patients	C2	✓	✓	IL, D, C	Form, Summ, W, P	MCQ, OSPE, Viva		
3.	Therapy	C2	✓	✓	IL, C	Summ, W,P	MCQ, Viva		
4.	Local Anesthesia		✓	✓				5%	04
5.	Infections of gingiva and oral mucosa (Bacterial, Viral, Fungal)	C3	✓	✓	IL, C	Form, Summ, W, P	MCQ, OSPE, Viva	2%	02
6.	Pigmentation of the oral mucosa	C3	✓	✓	IL	Summ, W, P	MCQ, Viva	25%	19
7.	White Lesion of the oral mucosa	C3	✓	✓	IL, C	Summ, Form, W, P	MCQ, OSPE, Viva		
8.	Oral ulceration	C3	✓	✓	IL, C	Form, Summ, W, P	MCQ, OSPE, Viva		
9.	Vesiculobullous lesions	C3	✓	✓	IL, C	Summ, W, P	MCQ, Viva		
10.	Diseases of the lips and tongue	C2	✓	✓	IL, C	Form, Summ, W, P	MCQ, OSPE, Viva		
11.	Swellings of the face and neck	C3	✓	✓	IL, C	Summ, W, P	MCQ, OSPE, Viva		

12.	Salivary glands and Saliva	C3			IL	Summ, W, P	MCQ, Viva	20%	16
13.	Inflammatory overgrowths, developmental and benign lesions, and	C3	✓	✓	IL	Summ, W, P	MCQ, Viva		
14.	Oral epithelial and connective tissue tumors	C2			IL	Summ, W	MCQ		
15.	Diseases of the Temporomandibular joint	C3	✓	✓	IL, SGD, C	Form, Summ, W, P	MCQ, Viva		
16.	Facial Pain	C3	✓	✓	IL, C	Summ, W, P	MCQ, Viva		
17.	Oral manifestation of systemic disease	C3	✓	✓	IL, C	Summ, W, P	MCQ, Viva	10%	08
18.	Halitosis Nutrition and Oral Health Taste Abnormalities	C1	✓	✓	IL	Summ, W	MCQ	7%	06
19.	Patient evaluation and Medical Emergencies in dentistry Allergy and drug reactions in dental practice	C3	✓	✓	IL	Summ, W, P	MCQ, Viva	6%	05
20.	Oral Radiology		✓	✓		Summ, W, P		15%	12

ORAL PATHOLOGY

150 Hours

MAIN CONTENT AREAS

Learning Outcomes:

Content Topic	Learning Outcomes
Disorders of development of teeth and craniofacial anomalies	1.1) Be able to identify the differences between the clinical manifestations due to defects associated with the secretory and maturation stage of amelogeneisis. 1.2) Be able to differentiate between the types of dentinogenesis imperfecta on the basis of clinical and radiographic appearances 1.3) To identify the disturbances in the number and shape of teeth and craniofacial anomalies.
Dental caries	2.1) Know the histopathogenesis of enamel and dentine caries, aetiology and classification of dental caries. 2.2) Know the clinical and radiographic features of different types of dental caries.
Disorders of eruption and Post-developmental loss of tooth structure	3.1) To be able to enlist the aetiology and know the clinical features of disorders associated with early and delayed eruption and shedding of teeth. 3.2)To be able to enlist the clinical features of systemic conditions associated with disturbances in eruption and shedding of teeth
Disorders of the dental pulp	4.1) Know the Clinical features, aetiology and histopathology of pulpitis 4.2) To differentiate between the different types of pulpitis on the basis of clinical and radiographic features 4.3) Know the pathogenesis of Pulp healing 4.4) Know the Clinical and radiographic features of Pulpal calcifications 4.4) To be able to diagnose pulpal necrosis and its related sequelae on the basis of clinical and radiographic features
Periapical periodontitis	5.1) To be able to enlist the aetiology and types of periapical periodontitis. 5.2.) To diagnose and differentiate between acute and chronic periapical periodontitis on the basis of clinical and radiographic features. 5.3.)Know the complications/sequelae of periapical periodontitis 5.4.)To be able to enlist the causes of periapical periodontitis 5.5.) Know the potential routes of spread of periapical inflammation/ acute periapical abcess and severity of the condition. 5.6.) To diagnose Cellulitis and Ludwig's angina and identify the associated potential threats.

Cysts of the jaws and oral soft tissues	6.1) Enlist the WHO Classification of cysts of the jaws 6.2.) To diagnose the odontogenic cysts on the basis of clinical, radiographic and histological features 6.3.) To describe the clinical and histological differences between retention and extravasation mucocele.
Hyperplastic, neoplastic, and related disorders of oral mucosa	7.1. To diagnose the non-neoplastic oral hyperplastic lesions on the basis of clinical and histological features.
Keratoses and related disorders of oral mucosa	8.1)Know the Classification of white lesions 8.2)Know the clinical and histological features of hereditary white lesions .i.e. white sponge nevus and leukoedema 8.3)Diagnose lesion of oral mucosa due to traumatic keratosis 8.4)Know the aetiology, clinical and histological features and prognosis of Leukoplakia and Erythroplakia 8.5)Know the histological features of Epithelial dysplasia 8.6) Diagnose Lichen planus and Lupus erythematosus on the basis of clinical and histological features
Oral epithelial tumours, melanocytic naevi, and malignant melanoma	9.1.) Enlist HPV associated benign mucosal lesions 9.2.) Diagnose SCC on the basis of clinical and histological features 9.3)Know the prognostic factors of SCC 9.4)To enumerate the variants of SCC 9.5)To enumerate pre-malignant lesions and conditions 9.6)Know the clinical and histological features of melanocytic nevus, malignant melanoma, Hodgkin's and non-Hodgkin's lymphomas, and make a diagnosis based on these features 9.7) Know the clinical and histological features of Fibroma, Haemangioma, Neurofibroma and Shwanoma
Infections of the oral mucosa	10.1)To enlist the bacteria, viral, and fungal infections of the oral mucosa 10.2) Make a diagnosis on the basis of the clinical features and pathogenesis of Herpetic stomatitis, Recurrent herpes labialis, chicken pox, shingles, Herpangina, Hand foot and mouth disease, Infectious mononucleosis, Measles, Hairy tongue 10.3)To enumerate the oral manifestations of AIDS 10.4)Know the clinical features of Cancrum oris, actinomycosis, syphilis, leprosy and gonorrhoea 10.5) Make a diagnosis on the basis of clinical and histological features of Thrush, Acute and Chronic erythematous candidiasis, chronic hyperplastic candidiasis, chronic atrophic candidiasis, angular chelitis, and median rhomboid glositis.

Oral ulceration and vesiculobullous diseases	11.1)To enlist the aetiology of oral ulceration 11.2.) Diagnose traumatic ulceration on the basis of aetiology and clinical features 11.3.) To compare the clinical features of different types of recurrent aphthous stomatitis 11.4.) Enlist the types/classification of immune-mediated vesiculobullous diseases 11.5.) To diagnose the common immune-mediated vesiculobullous diseases on the basis of clinical and histological features.
Diseases of salivary glands	12.1.) Enlist the Causes of salivary gland enlargement 12.2) Describe the Etiopathogenesis, clinical and histological features of acute and chronic bacterial sialadenitis, and recurrent parotitis. 12.3) Describe the clinical features of sialolithiasis, necrotising sialometaplasia and sjogren syndrome 12.4) Enlist the Classification of salivary gland tumors 12.5) Make a diagnosis on the basis of clinical and histological features of Pleomorphic adenoma, warthin's tumor, mucoepidermoid carcinoma, adenoid cystic carcinoma, and PLGA.
Odontomes and odontogenic tumours	13.1) Enlist the types of Odontomes 13.2) Describe the clinical and radiographic features of complex, compound, invaginated, evaginated odontomes and enamel pearl 13.3) Enlist Classification of odontogenic tumors 13.4) Make a diagnosis on the basis of the clinical, histological and radiographic features of ameloblastoma, CEOT, AOT, Calcifying cystic odontogenic tumor, odontogenic fibroma and odontogenic myxoma.
Disorders of bone	14.1) Enlist the types of inflammatory disorders of bone 14.2) Describe the histopathogenesis of alveolar osteitis 14.3) Diagnose alveolar osteitis on the basis of history and clinical features 14.4) Enlist the types, and diagnose osteomyelitis on the basis of clinical, radiographic and histological features 14.5) Enlist the fibro-osseous, metabolic and endocrine disorders of bone and describe their clinical features 14.6) Describe the clinical features of bony exostoses of the oral cavity 14.7) Diagnose osteoma, osteosarcoma and ossifying fibroma on the basis of clinical, radiographic and histological features.
Diseases of the temporomandibular joint	15.1) Describe the clinical features of different developmental, inflammatory and functional disorders of TMJ. 15.2) Describe the causes of trismus. 15.3) Describe the clinical features of disc displacement and joint dislocation.

Practical Quota

- Drawing histological pictures in practical note book
  - ◊ Stratified Squamous Epithelium
  - ◊ Inflammatory cells/chronic
  - ◊ Pyogenic granuloma
  - ◊ Fibroma
  - ◊ Salivary glands
  - ◊ Oral mucocele
  - ◊ Periapical cyst
  - ◊ Odontogenic Keratocyst (OKC)
  - ◊ Dentigerous cyst
  - ◊ Biopsy specimen handling
  - ◊ Tooth Anomalies
  - ◊ Verrucous carcinoma
  - ◊ Squamous cell carcinoma
  - ◊ Dysplasia
  - ◊ Pleomorphic adenoma
  - ◊ Ameloblstoma
- Tissue Processing Exercises
  - ◊ Fixation
  - ◊ Dehydration
  - ◊ Clearing
  - ◊ Waxing
  - ◊ Dewaxing
  - ◊ Casting
  - ◊ Staining

Teaching Methodologies:

8. Lectures
9. Demonstrations and small group clinical discussions

10. Clinical Practice

11. Exercises

Annual University Examination

TABLE OF SPECIFICATION (TOS-ORAL PATHOLOGY)										
S/No	Course content	Learning outcome	Learning domain			MOT	Assessment method	Assessment tool	Weightage	MCQs
			C	P	A					
1	Disorders of development of teeth and craniofacial anomali	● Be able to identify the differences between the clinical manifestations due to defects associated with the secretory and maturation stage of amelogeneisis. ● Be able to differentiate between the types of dentinogenesis imperfecta on the basis of clinical and radiographic appearances ● To identify the disturbances in the number and shape of teeth and craniofacial anomalies	C3				Summ	MCQS, VIVA, OSPE	10%	08
2	Dental caries	Know the histopathogenesis of enamel and dentine caries, aetiology and classification of dental caries	C1			IL, SGD, D, Lab	Summ	MCQS, VIVA	12%	09
		Know the clinical and radiographic features of different types of dental caries	C2							
3	Disorders of eruption and Post-developmental loss of tooth structure	To be able to enlist the aetiology and know the clinical features of disorders associated with early and delayed eruption and shedding of teeth.	C2			IL, SGD, D, Lab	Summ	MCQS, VIVA	5%	04
		To be able to enlist the clinical features of systemic conditions associated with disturbances in eruption and shedding of teeth	C1							

4	Disorders of the dental pulp	Know the Clinical features, aetiology and histopathology of pulpitis	C1			IL, SGD, D, Lab	Summ	MCQS, VIVA	10%	08
		To differentiate between the different types of pulpitis on the basis of clinical and radiographic features	C3							
		Know the pathogenesis of Pulp healing	C1							
		Know the Clinical and radiographic features of Pulpal calcifications	C1							
		To be able to diagnose pulpal necrosis and its related sequelae on the basis of clinical and radiographic features	C3							
5	Periapical periodontitis	To be able to enlist the aetiology and types of periapical periodontitis.	C1			IL, SGD, D, Lab	Summ	MCQS, VIVA	10%	08
		To diagnose and differentiate between acute and chronic periapical periodontitis on the basis of clinical and radiographic features	C3							
		Know the complications/sequelae of periapical periodontitis	C3							
		To be able to enlist the causes of periapical periodontitis	C1							
		Know the potential routes of spread of periapical inflammation/acute periapical abcess and severity of the condition.	C2							
		To diagnose Cellulitis and Ludwig's angina and identify the associated potential threats.	C3							
6	Cysts of the jaws and oral soft tissues	Enlist the WHO Classification of cysts of the jaws	C1			IL, SGD, D, Lab	Summ	MCQS, VIVA, OSPE	5%	04
		To diagnose the odontogenic cysts on the basis of clinical, radiographic and histological features	C3							
		To describe the clinical and histological differences between retention and extravasation mucocele	C2							

7	Hyperplastic, neoplastic, and related disorders of oral mucosa	To diagnose the non-neoplastic oral hyperplastic lesions on the basis of clinical and histological features.	C3			IL, SGD, D, Lab	Summ	MCQS, VIVA, OSPE	7%	06
8	Keratoses and related disorders of oral mucosa	Know the Classification of white lesions	C1			IL, SGD, D, Lab	Summ	MCQS, VIVA, OSPE	5%	04
		Know the clinical and histological features of hereditary white lesions .i.e. white sponge nevus and leukoedema	C1							
		Diagnose lesion of oral mucosa due to traumatic keratosis	C3							
		Know the aetiology, clinical and histological features and prognosis of Leukoplakia and Erythroplakia	C1							
		Know the histological features of Epithelial dysplasia	C1							
		Diagnose Lichen planus and Lupus erythematosus on the basis of clinical and histological features	C3							
9	Oral epithelial tumours, melanocytic naevi, and malignant melanoma	Enlist HPV associated benign mucosal lesions	C1			IL, SGD, D, Lab	Summ	MCQS, VIVA, OSPE	7%	05
		Diagnose SCC on the basis of clinical and histological features	C3							
		Know the prognostic factors of SCC	C1							
		To enumerate the variants of SCC	C1							
		To enumerate pre-malignant lesions and conditions	C1							
		Know the clinical and histological features of melanocytic nevus, malignant melanoma, Hodgkin's and non-Hodgkin's lymphomas, and make a diagnosis based on these features	C3							
		Know the clinical and histological features of Fibroma, Haemangioma, Neurofibroma and Shwanoma	C1							

10	Infections of the oral mucosa	To enlist the bacteria, viral, and fungal infections of the oral mucosa	C1			IL, SGD, D, Lab	Summ	MCQS, VIVA	5%	04
		Make a diagnosis on the basis of the clinical features and pathogenesis of Herpetic stomatitis, Recurrent herpes labialis, chicken pox, shingles, Herpangina, Hand foot and mouth disease, Infectious mononucleosis, Measles, Hairy tongue	C3							
		To enumerate the oral manifestations of AIDS	C1							
		Know the clinical features of Cancrum oris, actinomycosis, syphilis, leprosy and gonorrhoea	C2							
		Make a diagnosis on the basis of clinical and histological features of Thrush, Acute and Chronic erythematous candidiasis, chronic hyperplastic candidiasis, chronic atrophic candidiasis, angular chelitis, and median rhomboid glositis.	C3							
11	Oral ulceration and vesiculobullous diseases	To enlist the aetiology of oral ulceration	C1			IL, SGD, D, Lab	Summ	MCQS, OSPE, VIVA	7%	06
		Diagnose traumatic ulceration on the basis of aetiology and clinical features	C3							
		To compare the clinical features of different types of recurrent aphthous stomatitis	C2							
		Enlist the types/classification of immune-mediated vesiculobullous diseases	C3							
		To diagnose the common immune-mediated vesiculobullous diseases on the basis of clinical and histological features.	C1							

12	Diseases of salivary glands	Enlist the Causes of salivary gland enlargement	C1			IL, SGD, D, Lab	Summ	MCQS, OSPE, VIVA	5%	04
		Describe the Etiopathogenesis, clinical and histological features of acute and chronic bacterial sialadenitis, and recurrent parotitis.	C2							
		Describe the clinical features of sialolithiasis, necrotising sialometaplasia and sjogren syndrome	C1							
		Enlist the Classification of salivary gland tumors	C1							
		Make a diagnosis on the basis of clinical and histological features of Pleomorphic adenoma, warthin's tumor, mucoepidermoid carcinoma, adenoid cystic carcinoma, and PLGA.	C3							
13	Odontomes and odontogenic tumours	Enlist the types of Odontomes	C1			IL, SGD, D, Lab	Summ	MCQS, OSPE, VIVA	5%	04
		Describe the clinical and radiographic features of complex, compound, invaginated, evaginated odontomes and enamel pearl	C2							
		Enlist Classification of odontogenic tumors	C1							
		Make a diagnosis on the basis of the clinical, histological and radiographic features of ameloblastoma, CEOT, AOT, Calcifying cystic odontogenic tumor, odontogenic fibroma and odontogenic myxoma.	C3							

14	Disorders of bone	Enlist the types of inflammatory disorders of bone	C1			IL, SGD, D, Lab	Summ	MCQS, OSPE, VIVA	5%	04
		Describe the histopathogenesis of alveolar osteitis	C2							
		Diagnose alveolar osteitis on the basis of history and clinical features	C3							
		Enlist the types, and diagnose osteomyelitis on the basis of clinical, radiographic and histological features	C3							
		Enlist the fibro-osseous, metabolic and endocrine disorders of bone and describe their clinical features	C2							
		Describe the clinical features of bony exostoses of the oral cavity	C1							
		Diagnose osteoma, osteosarcoma and ossifying fibroma on the basis of clinical, radiographic and histological features	C3							
15	Diseases of the temporomandibular joint	Describe the clinical features of different developmental, inflammatory and functional disorders of TMJ.	C1			IL, SGD, D, Lab	Summ	MCQS, OSPE, VIVA	2%	02
		Describe the causes of trismus.	C1							
		Describe the clinical features of disc displacement and joint dislocation.	C1							

GENERAL MEDICINE

200 Hours

MAIN CONTENT AREAS

Learning Outcomes:

Topic	Topic Detail	Learning Outcome
Diseases of Cardiovascular system	Introduction to Cardiology	• Students should be able to take relevant history of CVS diseases. • Students should be able to perform CVS examination Systemic &relevant general physical examination. • Students should be able to diagnose and initiate management plan of CVS diseases. • Understand the importance of the diseases related to heart & vessels. • The life threatening nature of the related conditions. Importance of timely diagnosis.
	Rheumatic fever and Rheumatic heart disease	• Able to diagnose rheumatic fever, outline treatment and the prophylaxis to prevent cardiac complications.
	Valvular Heart Diseases (Introduction and pathophysiology S/S and management)	• Able to identify common valvular lesions MS,MR,AR,AS,TR & outline treatment options
	Congenital Heart Disease (CCF)	• Able to identify CCF & its causes Relevant investigations required and the management plan Congenital Heart Disease Can clinically identify common defects VSD, ASD, TOF, PDA and Echocardiography and cardiac catheterization as main diagnostic modalities
	Infective endocarditis	• Knows the criteria for the diagnosis & the management
	Introduction to ischemic heart diseases (Myocardial Infarction)	• Can diagnose MI on basis of history and diagnostic modalities Know the associated complications Understand the urgency in management Knows and can initiate treatment
	Chest pain and differential diagnosis and management	• Can differentiate different causes of chest pain

Diseases of Respiratory system	Chronic bronchitis	• Clinical presentations, Diagnostic tests and Management
	Bronchial asthma	• Diagnose Asthma clinically Formulate appropriate management as per severity of disease Prevention of asthmatic attacks
	Emphysema	• Clinical presentations, Diagnostic tests and Management
	Bronchiectasis	
	Pneumonia	• Learn: Types and causes of Pneumonia & Relevant Management
	COPD	• Students should be able to take relevant history of respiratory diseases • Students should be able to perform respiratory system examination and Systemic &relevant general physical examination • Prevention, Diagnosis and Management • Identify it as critical care state • Can identify the relevant modes of supplementing oxygen
	Resp distress syndrome	
	Pulmonary edema	
	Pulmonary embolism	
	Cystic fibrosis	
	Dyspnea	
	Clubbing	
	Cyanosis	
	TB	• Able to diagnose TB on clinical basis and diagnostics and initiate appropriate treatment. To identify treatment related complications
	Lung Cancer	• Know the types and clinical presentations of lung cancer, diagnostic modalities, TNM classification, management outline
Haematological diseases	Anaemias	• Know the clinical differentials of Anemia and the clinical presentation, diagnosis and management of Anemia
	Polycythemia	• Know the clinical presentation, complications ,relevant diagnostics and treatment
	Leukaemia	• Know the clinical presentation, complications ,relevant diagnostics and treatment
	Myeloproliferative disorders	• Students should be able to take relevant history of BLOOD diseases • Students should be able to perform BLOOD disease Systemic examination & relevant general physical examination • Know the clinical presentation, complications ,relevant diagnostics and treatment
	Myeloblastic disorders	
	Throbocytopaenia	
	Clotting disorders	
Infectious diseases	Bacterial infections	• Etiology, pathogenesis, clinical presentation, investigations & management principles
	Protozoal infections	
	Fungal infections	
	Viral infections	
	Meningitis	• Students should be able to take relevant history of CNS diseases • Students should be able to perform CNS Systemic & relevant general physical examination. • Students should be able to diagnose and initiate management plan of CNS diseases. • Knows the aetiology, clinical presentation & complications diagnostic tests, interpretation of CSF examination findings and the relevant treatment as per aetiology

Diseases of nervous system	Headache	• Knows clinical presentation, causes diagnostic test and management plans
	Migraine	
	Facial pain	• Knows the clinical presentation and management of lesion of these cranial nerves
	Facial paralysis	
	CVA	• Knows the clinical presentation, relevant examination, diagnostic tests and management
	Epilepsy	• Know various types • Can make Diagnosis on basis of clinical history • Can list relevant investigations • Know treatment of epilepsy and status epilepticus
	Parkinson`s disease & Dementia	• Knows the etiology & can diagnose on clinical assessment • Understands parkinsonism & parkinsons disease Knows the management
Diseases of gastrointestinal system & Liver diseases	Peptic Ulcer Disease/Gastritis	• Students should be able to take relevant history of gastrointestinal diseases • Students should be able to perform gastrointestinal Systemic & relevant general physical examination. • Students should be able to diagnose and initiate management plan of gastrointestinal diseases • Know the etiology & complications • Can diagnose based on clinical presentation and diagnostic tests. • Know the treatment
	Malabsorption/Coeliac/Tropical Sprue	• Can diagnose based on clinical presentation and diagnostic tests. • Know the treatment and importance of diet
	Chronic diarrhea Inflammatory Bowel Disease	• Can diagnose based on clinical presentation and diagnostic tests. • Know the treatment outline
	Liver function Tests	• Can diagnose based on relevant diagnostic tests. • Know the criteria's for assessing the clinical severity
	Celiac Disease	• Can diagnose based on clinical presentation and diagnostic tests. • Know the treatment
	Acute Hepatitis	• Know the etiologies
	Chronic Hepatitis(B,C,D,E)	• Clinical presentations and diagnostic test and management
	Hereditary and acquired causes of	• Know the types and diagnostic tests and outline management of each type
	jaundice	• Know the clinical presentation, diagnostic tests and treatment outline
	Liver Cirrhosis	• Know the etiology and complications and the management of each

Kidney diseases	Nephrotic syndrome	• Know the causes • Can diagnose on basis of clinical presentation and relevant investigations and outline management plan.
	Kidney stones	• Students should be able to take relevant history of renal diseases. • Know the clinical presentation, diagnostic modalities and treatment outline. • Students should be able to perform renal system examination and Systemic &relevant general physical examination. • know the inherited tubular disorders, their biochemical findings and how to diagnose renal tubular acidosis
	Renal dialysis/ transplant	
	Acute Renal Failure	• Know causes of ARF • Diagnostic tests required Management steps
	Chronic Renal Failure	• Know causes of CRF, clinical presentations, diagnostic tests, management and role of renal replacement therapy.
Endocrine disorders	Diabetes	• Know types of diabetes and etiology. • Able to diagnose on basis of symptoms and signs. • Know the relevant laboratory tests and their interpretation Able to outline management of type 1 & type 2 DM. • Can identify complications of DM and outline management of acute & chronic complications. • Students should be able to take relevant history of Diabetes Mellitus and other diseases. • Students should be able to perform Systemic & relevant general physical examination.
	Gonadal disorders	
	Pituitary disorders	
	Parathyroid disorders	
	Adrenal disorders	

Practical Content

Every student has to complete following clinical quota during periodontology clerkship

Student should be trained in the clinical methods involved in

a- Inspection

b- Palpation

c- Percussion

d- Auscultation

Clinical Quota

- Observer status (OS)
- Assistant status (AS)
- Perform under supervision (PS)

Skill Quota	Count	Status
CVP placement	01	OS
ETT placement	03	AS
ECG	05	PS
Breaking bad news	02	AS
BP recording	50	PS
Glucometer Use	25	PS
Insulin Injection Technique	10	AS
Peak Flow Meter	05	PS
Nebulization	02	AS
Pleural Tap	02	AS
Urinary Catheter Placement	02	AS
Nasogastric tube placement	05	AS
Cranial Nerve Examination	05	PS
Blood drawing for investigations	20	PS

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions
3. Clinical Practice
4. Exercises
5. Bed side teaching

Annual University Examination

TABLE OF SPECIFICATION (TOS-GENERAL MEDICINE)		
Topic	**Topic Detail**	**MCQs**
Diseases of Cardiovascular system	Introduction to Cardiology	10
	Rheumatic fever and Rheumatic heart disease	
	Valvular Heart Diseases (Introduction and pathophysiology S/S and management)	
	Congenital Heart Disease (CCF)	
	Infective endocarditis	
	Introduction to ischemic heart diseases (Myocardial Infarction)	
	Chest pain and differential diagnosis and management	
Diseases of Respiratory system	Chronic bronchitis	15
	Bronchial asthma	
	Emphysema	
	Bronchiectasis	
	Pneumonia	
	COPD	
	Resp distress syndrome	
	Pulmonary edema	
	Pulmonary embolism	
	Cystic fibrosis	
	Dyspnea	
	Clubbing	
	Cyanosis	
	TB	
	Lung Cancer	
Haematological diseases	Anaemias	12
	Polycythemia	
	Leukaemia	
	Myeloproliferative disorders	
	Myeloblastic disorders	
	Throbocytopaenia	
	Clotting disorders	
Infectious diseases	Bacterial infections	06
	Protozoal infections	
	Fungal infections	
	Viral infections	

Diseases of nervous system	Meningitis	09
	Headache	
	Migraine	
	Facial pain	
	Facial paralysis	
	CVA	
	Epilepsy	
	Parkinson`s disease & Dementia	
Diseases of gastrointestinal system & Liver diseases	Peptic Ulcer Disease/Gastritis	10
	Malabsorption/Co eliac/Tropical Sprue	
	Chronic diarrhea Inflammatory Bowel Disease	
	Liver function Tests	
	Celiac Disease	
	Acute Hepatitis	
	Chronic Hepatitis(B,C,D,E)	
	Hereditary and acquired causes of	
	jaundice	
	Liver Cirrhosis	
Kidney diseases	Nephrotic syndrome	10
	Kidney stones	
	Renal dialysis/transplant	
	Acute Renal Failure	
	Chronic Renal Failure	
Endocrine disorders	Diabetes	08
	Gonadal disorders	
	Pituitary disorders	
	Parathyroid disorders	
	Adrenal disorders	
Total MCQs		80

GENERAL SURGERY

200 Hours

MAIN CONTENT AREAS

Learning Outcomes:

Topic	Topic Detail	Learning Outcome
Principles	The metabolic response to injury	• Understand the classical concepts of homeostasis and mediators of the metabolic response to injury. • Know the physiological and biochemical changes that occur during injury and recovery.
	Shock & Blood Transfusion	• Know the pathophysiology of shock and ischaemia–reperfusion injury. • Understand the different patterns of shock and the principles and priorities of resuscitation. • Understand the appropriate monitoring and end points of resuscitation. • Use of blood and blood products, the benefits and risks of blood transfusion.
	Wounds, Tissue repairs and scars	• Know the normal healing and how it can be adversely affected. • Understand the management of wounds of different types, different structures and at different sites. • Recognise the disordered healing that lead to chronic wounds. • Know the variety of scars and their treatment. • Differentiate between acute and chronic wounds.
	Surgical infection	A student should be able to understand: • Understand the characteristics of the common surgical pathogens and their sensitivities. • Recognise the different factors that determine whether a wound will become infected. • Know the classification of sources of infection and their severity. • Recognise the clinical presentation of surgical infections. • Know the indications and choice of prophylactic antibiotics. • Advise the commonly used antibiotics in surgery and understand the principles of therapy. • Can manage the abscesses. • Can apply the aseptic and antiseptic techniques for the management of delayed primary or secondary closure in contaminated wounds.

		• Aware of the causes of reduced resistance to infection (host response) and basic precautions to avoid surgically relevant hospital acquired infections.
	Basic surgical skills	• Know the principles of patient positioning and operating theatre safety. • Understand the principles of incisions, flaps, wound closure and anastomoses as well as drain use. • Know the principles of diathermy and advanced energy devices. • Know the principles, advantages and disadvantages of robotic surgery. • Describe clinically important differences between adults and children trauma management
	Surgical ethics and law	• Know the importance of autonomy in good surgical practice. • Understand the moral and legal boundaries and practical difficulties of informed consent. • Know the good practices in making decisions about the withdrawal of life-sustaining treatment. • Understand the importance and boundaries of confidentiality in surgical practice. • Know the importance of appropriate regulation in surgical research. • Understand the importance of rigorous training and maintenance of good practice standards.
Investigation and diagnosis	Diagnostic imaging	• Understand the advantages of good working relationships and close collaboration with the imaging department in planning appropriate investigations. • Know the basic principles of radiation protection and know the law in relation to the use of ionising radiation. • Understand the principles of different imaging techniques and their advantages and disadvantages in different clinical scenarios. • Understand the role of imaging in directing treatment in various surgical scenarios.
	Tissue and molecular diagnosis	• Know the value and limitations of tissue diagnosis. • Understand the tissue sampling, process, and role of histology and cytology. • Know the role of additional techniques used in clinical practice, including special stains, immunohistochemistry and molecular pathology. • Understand the principles of microscopic diagnosis, including the features of neoplasia and importance of clinicopathological correlation.

Perioperative Care	Preoperative care including the high-risk surgical patient	● Understand the preoperative care and the operating list management. ● Understand preoperative preparation regarding the surgical, medical and anaesthetic aspects of assessment. ● Know how to identify and optimise the patient at higher risk. ● Know the importance of critical care in management. ● Able to take informed consent for surgery.
	Anaesthesia and pain relief	● Understand the different techniques of anaesthesia and airway maintenance. ● Know the methods of providing pain relief including pain from malignancy. ● Understand the local and regional anaesthesia techniques.
	Nutrition and fluid therapy	● Know the causes and consequences of malnutrition in the surgical patient. ● Understand the fluid and electrolyte requirements in the pre- and postoperative patients. ● Understand the nutritional requirements of surgical patients. ● Know the different methods of providing nutritional support and their complications.
	Postoperative care	● Know the common postoperative problems seen in the immediate postoperative period and requirement of immediate postoperative care. ● Able to predict and prevent common postoperative complications. ● Know how to recognise and treat common postoperative complications. ● Know the principles of enhanced recovery. ● Handle the system for discharging patients.
	Day case surgery	● Know the concept of the day surgery, importance of patient selection and preoperative assessment. ● Understand the basic principles of anaesthesia for day surgery. ● Know the spectrum of surgical procedures suitable for day surgery and postoperative management and discharge arrangements.
Trauma	Introduction to trauma	● Become familiar with the timeline concept in trauma management. ● Understand how to assess a trauma problem and respond to a trauma problem. ● Understand how to select early total care and damage control surgical strategies.
	Early assessment and management of severe trauma	● Identify and assess the severely injured patient. ● Know the early treatment goals for multiple injured patients. ● Understand the role of permissive hypotension, tranexamic acid and massive transfusion protocols. ● Understand the principles of damage control surgery (DCS) versus early total care (ETC).

	Traumatic brain injury	● Know the physiology of cerebral blood flow and the pathophysiology of raised intracranial pressure. ● Know the classification and assessment of head injury. ● Understand the management and sequelae of minor and mild traumatic brain injury. ● Know the medical and surgical management of moderate and severe traumatic brain injury.
	Maxillofacial trauma	● Identify and understand the significance of potentially life-threatening injuries to the face, head and neck. ● Know the systematic methodology for examining facial injuries. ● Enlist the classification of facial fractures. ● Understand the diagnosis and management of fractures of the middle third of the facial skeleton and the mandible. ● Understand the principles of the diagnosis and management of facial soft tissue injuries.
	Conflict surgery	● Know the fundamental differences of war surgery. ● Know the Injury patterns of modern warfare including blast and ballistic injury and principles for their surgical management
Specialized Surgery	Tumours	● Differentiate the signs and symptoms associated with benign and malignant tumour. ● Understand the timely referral of a suspected tumour to a specialist centre for staging, biopsy and multidisciplinary management. ● Understand the different types of biopsies and their underlying principles. ● Describe the principles of surgical treatment of different tumours. ● List the aims of surgical treatment for metastatic tumors. ● Evaluate the risk of pathological fracture.
	Burns	● Know how to assess the area and depth of burns. ● Know the methods for calculating the rate and quantity of fluids to be given. ● Enlist the techniques for treating burns patients. ● Differentiate the pathophysiology of electrical and chemical burns.
	Plastic and reconstructive surgery	● Know the relevant anatomy and physiology of tissues used in reconstruction. ● Know the various skin grafts and how to use them appropriately. ● Know the principles and management of different flaps used for difficult and complex tissue loss.

	Cleft lip and palate: developmental abnormalities of the face, mouth and jaws	• Understand the aetiology and classification of developmental abnormalities of the face, mouth and jaws. • Know perinatal and early childhood management. • Know the principles of reconstruction of cleft lip and palate. • Enlist the complications associated with cleft lip and palate.
	Oral cavity malignancy	• Understand the relationship between oral (pre)malignancy and the use of alcohol and tobacco. • Understand the cardinal features of premalignant and malignant lesions of the oral cavity. • Know the investigations and treatment options for these patients.
	Disorders of the salivary glands	• Know the surgical anatomy of the salivary glands. • Understand the presentation, pathology and investigation of salivary gland disease. • Enlist the medical and surgical treatment of stones, infections and tumours that affect salivary glands.

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions
3. Clinical Practice
4. Exercises

Practical Content

Every student has to complete following clinical quota during periodontology clerkship

Student should be trained in the clinical methods involved in

a- Inspection

b- Palpation

c- Percussion

d- Auscultation

Clinical Quota

- Observer status (OS)
- Assistant status (AS)
- Perform under supervision (PS)

Skills	Objectives	Count	Status
History Taking Communication with patient Perform general physical examination Examination of cervical lymph nodes Counseling Informed consent	Carve diagnosis Develop patient –doctor relationship To identify the general signs Legal consideration Ethical consideration	10	PS
Examination of swelling	To find out physical signs of different swellings	3	PS
Examination of wound	To differentiate between healing wound and infected wound	5	AS
Examination of ulcer	To identify different types of ulcer especially head and neck region	3	PS
Examination of sinus and fistula	To know different types of sinuses and fistulae in head and neck region	2	AS
Examination of salivary glands	To identify physical signs of different diseases of salivary glands	5	PS
Examination of cranial nerves	Hypoglossal nerve Facial nerve Vagus nerve Trigeminal nerve	5	PS
Take blood sample	Draw sample and label	10	PS
Secure I/V line	Passing I/V cannula	3	PS
Record vital signs	Pulse, Temperature Blood pressure	10	PS
Adjust drip set	Able to adjust drops	3	PS
To passing NG tube	For feeding or decompression of stomach	3	PS
To Pass Foley's catheter	Monitor out put	3	PS
To pass endotracheal tube	To secure airway	1	AS
To pass chest tube	For management of pneumothorax	1	OS
Tracheostomy	To secure airway	1	OS
Suturing	Simple interrupted Horizontal mattress Continuous	3	PS
Incision making	Handling of knife	3	PS
Gloving and gowning	Aseptic measure	3	PS
Scrubbing	Aseptic measure	3	AS
Barrel bandage	Fracture mandible	1	AS
Incision biopsy	Oral cavity lesions	1	OS
Lymph node biopsy	For diagnostic purpose	1	OS
Wound debridement & Dressing	Principles	1	AS

Annual University Examination

TABLE OF SPECIFICATION (TOS-GENERAL SURGERY)		
Topic	**Topic Detail**	**MCQs**
Principles	The metabolic response to injury	25
	Shock & Blood Transfusion	
	Wounds, Tissue repairs and scars	
	Surgical infection	
	Basic surgical skills	
	Surgical ethics and law	
Investigation and diagnosis	Diagnostic imaging	15
	Tissue and molecular diagnosis	
Perioperative Care	Preoperative care including the high-risk surgical patient Anaesthesia and pain relief Nutrition and fluid therapy Postoperative care Day case surgery	10
Trauma	Introduction to trauma	15
	Early assessment and management of severe trauma	
	Traumatic brain injury	
	Maxillofacial trauma	
	Conflict surgery	
Specialized Surgery	Tumours	15
	Burns	
	Plastic and reconstructive surgery	
	Cleft lip and palate: developmental abnormalities of the face, mouth and jaws	
	Oral cavity malignancy	
	Disorders of the salivary glands	
		80

PROSTHODONTICS

150 Hours

MAIN CONTENT AREAS

Learning Outcomes:

Topic	Learning Objectives
Introduction to Prosthodontics	Define basic terminology of prosthodontics Define various types of prostheses for a partially dentate patient
	Identify and enlist instruments used in partial denture fabrication
Impressions for partially dentate patients	Describe pre-requisites of impressions for partially dentate patients Describe various types of impressions Evaluate an impression for acceptance
Treatment planning for a removable partial denture case	Diagnose a dental patient for replacement of missing teeth with removable prostheses
	Enlist suitable treatment options for a partially dentate patient
	Formulate treatment plan of removable prosthesis for a simple partially dentate case
Cast partial dentures	Identify and describe component parts of cast partial dentures
	Have knowledge of laboratory procedures for cast partial dentures
	Describe the support problem associated with distal extension bases and enlist solutions for compensation
	Describe pre-prosthetic mouth preparation and abutment preparation
	Identify various parts of a surveyor Enlist uses of surveyors Survey a cast for cast partial denture design
	Describe trial and insertion of a cast partial dentures
Occlusion	Define occlusion & describe types of occlusion used in partial dentures
	Design and fabricate acrylic partial dentures (clinical and laboratory
Acrylic partial dentures	Describe common problems with acrylic partial dentures
	Describe various types of acrylic partial dentures
Other treatment options for partially dentate patient	Give outline of role of fixed prosthesis in RPD
	Describe partial immediate and over dentures

Practical work and quota

The third year BDS students will be required to complete 12 credits of partial dentures out of which 8 credits are must on patients. Other content for practical work is:

- Infection control protocols

- Communication skills
- History taking, clinical examination
- Radiographic interpretation
- Diagnosis
- Treatment Planning for partially edentulous arches
- Fabrication and insertion of acrylic partial dentures
- Post insertion instructions

Assessment:

Assessment of these topic will be done in final professional examination as per PMDC rules.

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions
3. Clinical Practice
4. Exercises

Annual Internal Examination

JUNIOR OPERATIVE DENTISTRY

100 Hours

MAIN CONTENT AREAS

Theoretical Content

- Instruments & Equipment for tooth preparation
- Principles of Tooth Preparation
- Rubber Dam Application
- Class I cavity preparation (Maxillary & Mandibular Molars, Premolars)
- Lining & Restoration
- Class I compound cavity preparation (Maxillary & Mandibular Molars)
- Matrix band application (Barton Matrix)
- Class II cavity preparation (Maxillary & Mandibular Molars, Premolars)
- Matrix band application & its importance, Wedges
- Class II restorations
- Class III cavity preparation
- Steps of composite restorations
- Class V cavity preparation
- Endodontic Treatment

Learning Outcomes

At the end of 100 hours of rotation in pre-clinical operative dentistry, the student should be able to

- Identify instruments and equipment used for tooth preparation
- Apply rubber dam
- Demonstrate understanding of the classification systems of cavity preparation
- Demonstrate understanding of the principles of tooth preparation
- Demonstrate understanding of different matrix systems & their uses
- Execute steps for amalgam restorations in class I, class I compound, class II and class V cavity preparation
- Execute steps for composite restoration in class III, class IV and class V cavity preparation

- Execute steps for endodontic treatment of single rooted teeth

Practical Content

- Instruments & Equipment for tooth preparation
- Principles of Tooth Preparation
- Rubber Dam Application
- Class I cavity preparation(Maxillary & Mandibular Molars)
- Class I cavity preparation
- Lining & Restoration
- Class I cavity preparation(Maxillary & Mandibular Premolars)
- Class I restorations
- Class I compound cavity preparation(Maxillary & Mandibular Molars)
- Matrix band application
- Class I compound restorations (Maxillary & Mandibular Molars)
- Class II cavity preparation
- Matrix band application & its importance, Wedges
- Class II restorations
- Class II restorations
- Class III cavity preparation
- Steps of composite restorations
- Class III restorations
- Class V cavity preparation
- Endodontic Treatment
- Class V restorations
- Endodontic Treatment
- Exit Exam
- Submission of completed log books

Teaching Methodologies:

1. Lectures
2. Clinical demonstrations and small group clinical discussions

3. Clinical Practice

4. Exercises

Annual Internal Examination

ORAL & MAXILLOFACIAL SURGERY

150 Hours

MAIN CONTENT AREAS

Learning Outcome:

At the end of 3rd year clerkship in Oral & Maxillofacial Surgery BDS student should be able to:

1. Evaluate patient for simple dental extraction.
2. Perform history taking and fill the history sheet for patients.
3. Identify the different patients who need modifications in dental treatment due to systemic conditions.
4. Enlist and identify various causes of tooth extractions.
5. Define and describe different types of mechanical principles used in dental extraction.
6. Describe various sterilization techniques for sterilization.
7. Describe basics principles of Oral & Maxillofacial Surgery.
8. Identify the different instruments used in simple dental extraction.
9. Examine and assist in simple and complicated dental extraction procedures.
10. Enlist and identify different radiographs (Peri-apical, OPG) and their normal land marks.
11. Enlist and describe different types of cysts of the oral and maxillofacial area.

Teaching Methodologies:

5. Lectures
6. Clinical demonstrations and small group clinical discussions
7. Clinical Practice
8. Exercises

Topics	Topic Detail	Learning Outcome
Principles of surgery	Preoperative Health Status Evaluation	• Take record and interpret an accurate history from patients of any age and communicate effectively • Work effectively with other health care professionals • Make a differential diagnosis • Perform relevant diagnostic tests & carry out investigations to establish definitive diagnosis • Devise strategies and plans based on the likely prognosis and outcomes of the various treatment options, relating this to prognosis without treatment and establishing a resultant priority and sequence of treatment
	Prevention and Management of Medical Emergencies	• Evaluate and identify the medical conditions patients are suffering through history, examination and diagnostics • Modify dental treatment plan according to medical conditions • Manage the medical emergencies in dental office • Work effectively with other health care professionals
	Principles of Surgery	• Understand and apply basics principles in clinical practice
	Wound Repair	• Identify different stages of healing and correlate clinically on actual patients
	Infection Control in Surgical Practice	• Practice aseptic techniques while doing dental procedures
Local Anesthesia	Types and composition of local anesthesia	• Identify and describe the different type of local anaesthetics agents working and composition • understand how local anaesthetics work • know the potency, speed of onset and duration of action of common agents
	Armamentarium of local anesthesia	• Identify the armamentarium required for effective delivery of local anesthesia in dentistry
	Techniques of regional anesthesia in dentistry	• know the safe dosages of common local anaesthetic drugs • Administer local anesthesia in maxilla and mandibular regions safely and effectively by different techniques
	Complications of local anesthesia	• Describe and identify the different reasons for failure of anaesthesia • identify and manage common complications that can occur
Principles of exodontia	Instrumentation for basic oral surgery	• Identify and describe the use of different instruments used during basic surgical procedure in dentistry

Principles of exodontia	Principles of routine exodontia	• Devise a management plan tailored to patient's needs • Demonstrate an understanding of various aspects of dental extractions • Understand the indications and contraindications for removal of a teeth • Use instruments safely and appropriately • Demonstrate the techniques available for extraction • Carry out steps of procedure safely and correctly • Resist pressure from patient or caretaker to provide inappropriate treatment e.g. extraction of tooth that does not warrant such • Offer care, behave appropriately when dealing with a difficult patient
	Principles of more complex exodontia	• Demonstrate the various techniques used to remove teeth surgically • Remove a fractured tooth surgically • Practice the aseptic techniques and apply basic surgical principles during teeth removal • Offer care, behave appropriately when dealing with a difficult patient
	Principles of management of impacted teeth	• understand the terms impacted and ectopic and know which teeth are likely to be affected • Examine and assess patients with impacted/ectopic teeth and classify the impacted teeth according to severity of difficulty • know the surgical techniques, their application and complications • Understand the treatment options and referral protocols
	Postoperative patient management	• Communicate and demonstrate the postoperative instructions properly
	Prevention and management of extraction complications	• Identify the patients at the risk of developing complications after surgical procedures (simple or complicated exodontia) • Demonstrate the understanding of potential complications following extraction and their treatment. • Manage effectively common postoperative complications (Dry socket, Oro antral fistula, wound dehiscence)
Management	Principles of Differential Diagnosis and Biopsy	• Demonstrate the understanding of basic principles of different biopsy techniques

	Surgical Management of Oral Pathologic Lesions	• Demonstrate the understanding of etiology, investigations and treatment options of different cystic lesions of orofacial region • Demonstrate the understanding of etilogy, investigations and treatment options of common pathologic lesions
	Management of Temporomandibular Disorders	• Demonstrate the knowledge and understanding of etiology, investigations and treatment options of the TMJ disorder

Annual Internal Examination

SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY BDS 3rd Professional Examination Assessment Grid for Class Third Year						
80% Component from Prof Annual Exam: Theory and Practical: 80 + 80 20% Component from Internal Assessment: Theory and Practical 20 + 20 Marks Theory: 500 Marks Practical: 500 Total Marks: 1000						
Subjects		**Periodontology**	**Oral Medicine**	**Oral Pathology**	**General Surgery**	**General Medicine**
Theory	Annual University Examination	80 Marks MCQs 01 Mark each	80 Marks MCQs 01 Mark each	80 Marks MCQs 01 Mark each	80 Marks MCQs 01 Mark each	80 Marks MCQs 01 Mark each
	Internal Assessment	20 Marks	20 Marks	20 Marks	20 Marks	20 Marks
	Total	100 Marks	100 Marks	100 Marks	100 Marks	100 Marks
Practical	Annual University Examination	80 Marks	80 Marks	80 Marks	80 Marks	80 Marks
	Internal Assessment	20 Marks	20 Marks	20 Marks	20 Marks	20 Marks
	Total	100 Marks	100 Marks	100 Marks	100 Marks	100 Marks
	Total (Theory + Practical)	200 Marks	200	200 Marks	200 Marks	200 Marks
Grand Total		1000 Marks				

SHAHEED ZULFIQAR ALI BHUTTO MEDICAL UNIVERSITY BDS 3rd Professional Examination Internal Assessment Grid Component of Internal Assessment (IA): 20% Marks of Each Block: Theory (20) Practical (20) Total Marks: 40					
THEORY					
	Term-I	**Term-2**	**Term-3**	**Pre-Prof**	**Attitude**
	4 Marks	**4 Marks**	**4 Marks**	**6 Marks**	**2 Marks**
Internal Assessment	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 2 Mark 61% to 70% 3 Marks 71% to 80% 4 Marks 81% and Above 6 Marks	
Total	**4 marks**	**4 marks**	**4 marks**	**6 marks**	**2 marks**
Grand Total	**20 Marks**				

PRACTICAL					
	Term-I	**Term-2**	**Term-3**	**Pre-Prof**	**Attitude**
	4 Marks	**4 Marks**	**4 Marks**	**6 Marks**	**2 Marks**
Internal Assessment	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 1 Mark 61% to 70% 2 Marks 71% to 80% 3 Marks 81% and Above 4 Marks	50% to 60% 2 Mark 61% to 70% 3 Marks 71% to 80% 4 Marks 81% and Above 6 Marks	
Total	**4 marks**	**4 marks**	**4 marks**	**6 marks**	**2 marks**
Grand Total	**20 Marks**				