FOUNDATION UNIVERSITY COLLEGE OF DENTISTRY ISLAMABAD

STUDY GUIDE
ORAL & MAXILLOFACIAL SURGERY
FINAL YEAR BDS

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MISSION:

Department of oral surgery is committed for providingrelentless services through prompt diagnosis, investigations, management of emergency patient care along with routine exodontia, procedures under LA & GA. Our mission is to achieve academic excellence at both undergraduate and postgraduate level

INTRODUCTION:

The Oral and maxillofacial srurgery covers the medical & surgical management of disease and disorders affecting the orofacial region. The teaching programme covers the wide range of oral and maxillofacial surgical and non surgical procedures, stressing the need for both dental and medical knowcedge .

Minor oral surgical procedures usually include simple and complicated exodontia. This part of maxillofacial surgery is very important regarding undergraduate teaching and training. These procedures are usually done under local anesthesia, the knowledge of which is a key element of OMFS. Patient's assessment of health status for prevention and management of medical emergencies is necessary for undertaking any minor oral surgical procedures. Other minor oral surgical prodeures include biopsy of oral pathological lesions, preparation of mouth for dentures and modern techniques for oral rehanbliation like dental implant surgery.

Major oral and maxillofacial Surgery focuses on certain major surgical procedures, the knowledge of which is an integral part of undergraduate as well as post graduate teaching. It includes maxillofacial trauma which may be as simple as dentoalveolar trauma to the more complicated pan-facial trauma and gunshot wounds. Temporomandibular joint diseases which may need medical or surgical management are a part of curriculum. Maxillofacial pathology which may be benign or malignant needs special consideration to help in early diagnosis and treatment.Corrective surgeries of the jaw as part of orthognathic surgery or reconstructive surgery is also emphasized in undergradruate and postgraduate teaching and training.

Learning Outcomes of Course of Oral & Maxillofacial Surgery :

By the end of this course of Oral & Maxillofacial Surgery dentistry students of Final year BDS will be able to:

- Take proper history
- Perform physical examination
- Advise relevant investigations
- Interpret investigations in order to devise a plan of treatment.
- Perform basic exodontia procedure under local anesthesia
- Manage per-operative and post-operative complications ,if occur
- Assist efficiently in complex exodontia
- Diagnose basic oral pathologies
- Identify and manage medical emergencies
- Have knowledge about different craniofacial deformities
- Manage patient with Temporo-mandibular dysfunction syndromes
- Diagnose and manage patient with neuropathic pain in head and neck region
- Perform examination on maxillofacial trauma patient
- Generate adequate referrals

Teaching and learning methodologies:

Teaching and learning methods are primarily focused more on promoting active learning through active participation of the learner.Actively learning students take charge of their own learning, actively seeking guidance and performance feedback from tutors, and routinely conducting self-assessment of their own learning needs.

TEACHING& LEARNING MODALITIES

- Large Group Interactive Sessions (LGIS)
- Small Group Interactive Sessions (SGIS)
- Self-Directed Learning (SDL)

Following teaching modalities may be used for clinical/ small group teaching:

1. Live patient demonstrations by supervisors
2. Video demonstrations
3. Case based learning/clinical scenario based learning
4. Formative supervised learning events in clinical settings such as
    a. Mini-CEX (mini clinical evaluation Exercise)
    b. DOPS (direct Observation of procedural Skills)
    c. OMP (one minute preceptor)
5. Role plays
6. Students' presentations
7. Discussions
8. Peer learning

9. Projects/ Assignments

RECOMMENDED REFERENCE MATERIAL:

- **Contemporary Oral & Maxillofacial Surgery**
  Seventh Edition
- **Handbook of Local Anesthesia by Stanley Malamed**

  Seventh Edition
- **Killey's fractures of Mandible**

  Fourth Edition
- **Killey's fractures of the middle third of the facial skeleton**

  Fourth Edition

FACULTY OF DEPARTMENT

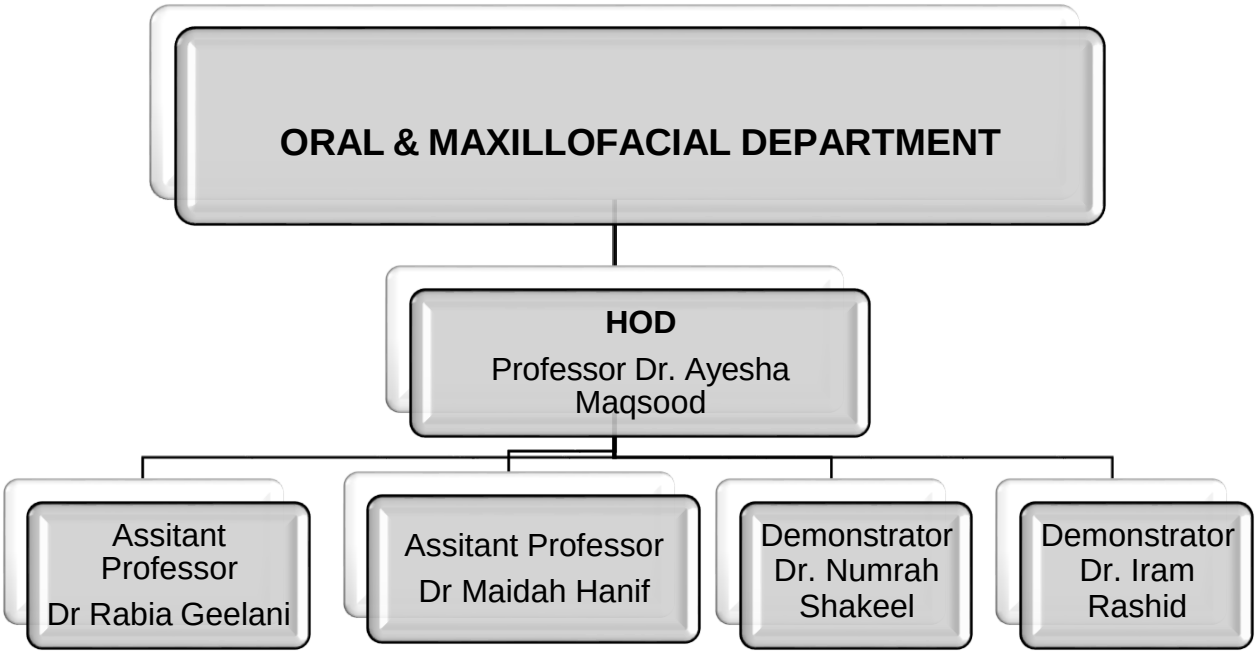
HEAD OF DEPARTMENT:

Professor Dr Ayesha Maqsood

FACULTY MEMBERS:

Assistant Professor	Dr Syeda Rabia Rahat Geelani
Assistant Professor	Dr Maidah Hanif
Demonstrator	Dr. Iram Rashid
Demonstrator	Dr. Numrah Shakeel Malik

ORGANOGRAM



COURSE OUTLINE

S.No	COURSE CONTENT	LEARNING OBJECTIVES **By the end of the session, students will be able to:**	TEACHING STRATEGY	ASSESSMENT METHOD
1.	**Pre-Operative Health status Evaluation** • Presenting Complaint • History of presenting Complaint • Past Medical & Surgical History • Drug history • Past Dental History • Physical Examinartion General Examination Local Examination	• Acquire proper history • Perform elaborate general and head and neck examination • Advise Required Investigations in order to reach a diagnosis and formulate a treatment plan	LGIS Demonstration	MCQS SEQS Mini-CEX
2.	**Prevention and Management of Medical emergencies** • CVS problems • Pulmonary Problems • Renal Problems • Hepatic Disorders • Endocrine Disorders • Hematologic Problems • Neurologic Disorders • Pregnancy	• Diagnose and manage patients presenting with different medical conditions and Manage per-operative medical emergencies,if occur any	LGIS Case Based Learning Role play	MCQS SEQS OSCE OMP
3.	**Principles of surgery** • Incisions Principles • Flaps Principles • Tissue handling • Hemostasis	• Define basic principles of surgery and their implementation in minor and major surgical procedures	LGIS DOPS	MCQS SEQS Mini-CEX

	• Edema control			
4.	**Wound Repair** • Causes of tissue damage • Wound repair types and stages • Nerve Injuries and healing	• Discuss the Surgical significance of wound healing,its types and stages	LGIS Assignments Demos	MCQs
5.	**Infection Control in Surgical Practice** • Communicable pathogenic organisms • Aseptic techniques • Sterilization • Disinfection • Surgical staff preparation	• Learn and practice the protocol of asepsis in patient care setting	LGIS Demos Role play	MCQS OSCE
6.	**Pain and Anxiety control in Surgical Practice** • Definitions • Classification of local anesthetic agents • Anatomy and application of local anesthetic • Time and MOA for each specific agent • Infiltration and block techniques • Management of associated Complications	• Identify the different types of local anesthetic agents used • Have a comprehension on the use of local anesthesia for routine oral surgery procedures	LGIS Vedio Demos Live patient demonstrations by supervisors Demos on Models	MCQs SEQS OSCE Mini-CEX
7.	**Principles of Routine exodontia** • Principles and techniques of simple	• Tabulate principles of Exodontia • Select appropriate Instruments • Describe the basic procedure of extraction	LGIS Live patient demonstrations by supervisors	MCQS SEQS OSCE

	and complex exodontia • Instruments used • Indication and Coontraindications of extraction • Radiographic interpretation • Suturing techniques • Post extraction care • Classifications of impaction • Procedure for removal of impacted teeth • Management of complications	• Classify impacted teeth • Discuss different types of sutures and suturing techniques • Describe per-operative and post-operative complications and their management	Case based learning DOPS	Mini-CEX
8.	**Principles of Mnaagement and prevention of Oro facial infections** • Principles of management • Microbiology • Principles of prevention of infection • Principles of prophylaxis • Complex odontogenic infections • Deep space infection, complication and management • Osteomyelitis • Actinomycosis • Candidiasis	• Have information on microbiology and pathophysiology of odontogenic informations • Describe surgical and non surgical treatment options of complex odontogenoic infections • Discuss the recognition and prevention of odontogenic infections and use of prophylactic antibiotic in various clinical scenarios	LGIS Demonstrations Case based learning DOPS	MCQS SEQS OSCE
9.	**Surgical Management of benign oral pathologic lesions**	• Classify odontogenic and non-odontogenic Cysts and tumuors • Tabulate different Surgical techniques for manangement of individual oral pathologic lesions	LGIS Vedio Demo DOPS	MCQS SEQS OSCE

	• Surgical management of cyst and cyst like lesions of jaw • Benign tumors (soft and hard tissue) • Principles of surgical management of benign tumors of jaw • Reconstruction options after removal of benign tumors			
10.	**Surgical Mnaagement of Oral malignancies** • Principles of management • Type of resections • Neck dissection • Complications and associated risk factors • Reconstruction options • Radiotherapy and chemotherapy and their effects and MOA	• Enlist different surgical and non-surgical treatment options available for oral malignancies • Describe the indications nd contraindications of radiation nd chemotherapy • Discuss medicine related necrosis of Jaws	LGIS Vedio Demos DOPS Discussions	MCQS SEQS
11.	**Principles of Endodontic Surgery** • Definition • Surgical Technique • Indications & contraindications • Complications	• State and differentiate between different surgical flap designs for periradicular surgery • Formulate the surgical steps involved	LGIS Vedio Demos DOPS	MCQS SEQS
12.	**Principles of Differential Diagnosis & Biopsy** • General principles of biopsy	• Identify different orderly steps for the diagnosis of a oral pathologic lesion • Enlist different Biopsy techniques,their indications &	LGIS DOPS	MCQS SEQS OSCE

	• Indications and contraindications • Types of biopsy • Biopsy specimen handling • Fixation medium • Complications and their management	contraindications in a clinical scenario	LGIS Live patient demonstrations by supervisors Case based learning	MCQS SEQS
13.	**Odontogenic diseases of maxillary Sinus** • History and examination • Investigations • Types of maxillary sinus infections • Treatment options • Complications involving maxillary sinus • Management of complications	• Describe the anatomy of Maxillary sinus and pathophysiology of Odontogenic diseases of maxillary sinus • Identify and select appropriate treatment option according to the patients need ands stage of the disease	LGIS Live patient demonstrations by supervisors Case based learning	MCQS SEQS
14.	**Management of Temporomandibular disorders** • History and examination • Investigations • Classification of TMJ disorders • Treatment options • Total joint replacement • Distraction osteogenesis	• Describe the steps in diagnosis and management of Temporomandibular Disorders • State and Differentiate the types of Temporomandibular Disorders • Discuss conservative and surgical treatment options with their indications & contraindications • Have knowledge about recent advancements in the management of Temporomandibular disorders	LGIS Live patient demonstrations by supervisors Case based learning DOPS Discussions	MCQS SEQS
15.	**Diagnosis and management of Salivary Gland Disorders**	• Have knowledge about Incidence and pathophysiology of salivary gland disorders	LGIS Live patient demonstrations by supervisors	MCQS SEQS

16.	• Anatomy and physiology of different types of salivary glands • Obstructive salivary gland disease and their management • Salivary gland infections • Traumatic salivary gland injuries • Salivary gland neoplasm **Oral & Maxillofacial trauma** • BLS • Soft tissue injuries and their management • Dentoalveolar injuries and their management • Definitions • Classifications • Maxillary and mandibular fractures • Investigations and diagnosis • Management • Concept of ORIF	• Describe the several diagnostic methods and contemporary radiographic evaluation modes • Discuss the ,management of variety of salivary gland disorders ranging from minor,self limiting disease to more significant disorders of major and minor salivary glands • Describe Etiology of Maxillofacial Trauma • Discuss Primary management of Maxillofacial Trauma • State the steps involved in examination,diagnosis and management of hard and soft tissue Injuries • Cite the complications and their management	Case based learning DOPS LGIS Live patient demonstrations by supervisors Case based learning DOPS	OSCE MCQS SEQS OSCE
17.	**Pre-prosthetic surgery** • History and examination of patient • Indications and contraindications • Treatment options • Understanding of basics of soft and Hard tissue procedures	• Have knowledge about the steps involved in pre-op evaluation of a patient for pre-prosthetic surgery • State the variety of soft and hard tissue procedures alongwith their indications and contraindications	LGIS Live patient demonstrations by supervisors Case based learning DOPS	MCQS OSCE

18.	• Hard and soft tissue augmentation • Complications and associated risk factors **Implant Treatment** • Concept of ossteointegration • Mechanism of dental implant • Soft and hard tissue considerations • Indication and contraindication • Investigations • Risk factors • Anatomical Landmarks • Patient preparation • Surgical procedure • Tissue augmentation • GBR • Complications and their management	• Discuss the basics of Implant Osteointegration • Describe the steps involved in patient preparation for dental Implants • Enlist the advanced procedures for soft and hard tissue augmentation	LGIS Live patient demonstrations by supervisors Vedio Demos Case based learning DOPS	MCQS
19.	**Management of patients with OroFacial Clefts** • Anatomy • Concerns • Surgical options for cleft lip and palate • Complications • Treatment plan • Alveolar bone grafting	• State clinical features of Cleft lip and palatae afflicted patients,the functional and esthetic problems associated with it • Tabulate the different treatment types and their timings	LGIS Live patient demonstrations by supervisors Case based learning DOPS	MCQS SEQS OSCE
20.	**Correction of Dentofacial Deformities** • Definition	• Classify the different types of procedures indicated in patients with dentofacial deformities	LGIS DOPS	MCQS

21.	• Patient assessment and records • Outline of mandibular and maxillary osteotomy procedures • Distraction osteogenesis • Complications and their management **Facial Neuropathology** • Patient assessment • Classification of pain • Types of neuralgias and management options • Types of headaches and management options • Burning mouth syndrome diagnosis and management	• Discuss the basic concepts of DO and its implication in recent times • Enlist the different types of neuropathic pain presenting in a clinical setting • Discuss the non-surgical and surgical management options for neuropathic pain • State and differentiate the difference between different types of headachs and their management	LGIS Live patient demonstrations by supervisors Case based learning DOPS Discussion	MCQS SEQS OSCE

CLINICAL ROTATION

The following procedures will be performed under the supervision of department:

NO	LEARNING OBJECTIVES	LEARNING MODALITY
1.	Obtain patient history Perform Clinical Examination	Live patient demo Mini CEX CBD
2.	Administer local anesthesia using appropriate technique.	Live patient demo DOPS
3.	Perform Exodontia	Live patient demo DOPS
4.	Diagnose & Manage Per-operative & post-operative exodontia complications	Live patient demo OMP
5.	Sutures & Suturing Techniques	DOPS Practice on Rubber Sheets
6.	Inter-Maxillary Fixation	DOPS Practice on Plaster Models

Assessment Structure & Marks Distribution

Theory paper 100 marks				Practical/OSCE Viva 200 marks	
Type of Assessment	**MCQ's**	**SEQ's**	**Internal Assessment 10%**	**OSCE/OSPE Viva**	**Internal Assessment 10%**
Description	40 MCQs One mark each	10 SEQs 5 Marks each	10 marks	12 stations in total (180 Marks) 7 static stations of 10 marks each (70 Marks) 3 interactive stations of 10 marks each (30 Marks) 2 Viva stations of 40 marks each (80 Marks)	20 marks
Marks	**40**	**50**	**10**	**180**	**20**

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