**COLLEGE OF DENTISTRY**

**LAHORE MEDICAL & DENTAL COLLEGE**

**ORAL & MAXILLOFACIAL SURGERY**

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**STUDY GUIDE**

**FINAL YEAR BDS 2022**

**Course Director**

**Prof. Aqib Sohail** BDS, FCPS (Pak) FCPS (Bd), MOMSRCPS (UK) MHPE (UHS)

Principal & head of the Department

**Contributors**

**Dr. Nighat Zahid** BDS, FCPS Associate Professor

**Dr. Tayyaba Rafiq** BDS, FCPS Assistant professor

**Dr. Fareed Chishti** BDS, FCPS Assistant Professor

**Co contributors**

**Dr. Sadia Gull**  BDS, FCPS residency completed Demonstrator

**Dr. Sharjeel Siddiqui** BDS, FCPS residency completed Demonstrator

**Dr. Zoya Aslam** BDS, FCPS resident Demonstrator

**Dr.Qurat ul Ain Hanan** BDS Demonstrator

**INTRODUCTION:**

Oral and Maxillofacial Surgery (OMFS) is the specialty of Dentistry that encompasses the art and science of the diagnosis and surgical management of diseases, injuries, and defects of the Oral and Maxillofacial region.

The OMFS curriculum is planned over a total of 36 weeks, to train the students to provide services of Oral Surgery particularly of exodontia, for the management of patients in practice of general dentistry along with integrated lectures with departments of operative dentistry, orthodontics and prosthodontics. It is also designed to develop instinct to become a lifelong learner and to take active part in Continual Dental Education (CDE).

The OMFS Department is based at Lahore Medical & Dental College (LMDC) and Ghurki Trust Teaching Hospital (GTTH), Lahore. There are 27 dental units in the department. The OMFS Unit at GTTH has 20 beds. Seven dental units are reserved for open surgical Procedures. Major surgeries under general anesthesia are being done at GTTH and surgeries under local anesthesia are being performed at LMDC.

**SCOPE & SEQUENCE:**

Training in OMFS starts in 3rd year of BDS. Lectures / group discussions are being held once in a week with 8 weeks of clinical rotation of each batch in the OMFS Department where students perform simple extraction of teeth. Principles of complicated Exodontia are taught, followed by the surgical oral & maxillofacial pathology course which is also integrated with the third year BDS Oral Pathology Curriculum.

During the 4th year of BDS, two lectures will be delivered weekly. Students will complete 10 weeks of clinical duties in the OMFS department and will accomplish their clinical requirements. Final year course is integrated with other Dental specialties like Oral Pathology, Oral Medicine, Orthodontics, Prosthodontics, Operative dentistry and Periodontics.

**CURRICULUM**

**OBJECTIVES:**

**At the end of the OMFS curriculum, the graduate should be able to:**

1. Perform a-traumatic tooth extraction (P2,3)
2. Perform difficult cases under direct supervision.
3. Identify different injuries, diseases and defects (Cognitive = C1, C2, C3)
4. Enlist appropriate investigations for diagnosis of injuries, defects and pathologies
5. Observe & assist minor & major surgical procedures
6. Devise a management protocol for presented patient
7. Develop research instinct

**COURSE OUTLINE**

**ORAL & MAXILLOFACIAL TRAUMA**

**Course Director: Prof. Aqib Sohail**

**Recommended Textbooks:**

1. Contemporary Oral & Maxillofacial Surgery (7th Ed) James R. Hupp, Myron R. Tucker
2. Killey’s Fractures of Mandible (4th Ed) [Peter Banks](http://www.google.com.pk/search?hl=en&biw=1366&bih=566&tbm=bks&tbm=bks&q=inauthor:%22Peter+Banks%22&sa=X&ei=BlH8TpGKD8ii-gaQx_nXAQ&sqi=2&ved=0CDQQ9Ag), [Homer Charles Killey](http://www.google.com.pk/search?hl=en&biw=1366&bih=566&tbm=bks&tbm=bks&q=inauthor:%22Peter+Banks%22&q=inauthor:%22Homer+Charles+Killey%22&sa=X&ei=BlH8TpGKD8ii-gaQx_nXAQ&sqi=2&ved=0CDUQ9Ag)
3. Killey’s Fractures of the middle third of the facial skeleton [Homer Charles Killey](http://www.google.com.pk/search?tbo=p&tbm=bks&q=inauthor:%22Homer+Charles+Killey%22), [Peter Banks](http://www.google.com.pk/search?tbo=p&tbm=bks&q=inauthor:%22Peter+Banks%22)
4. Handbook of Oral & Maxillofacial trauma Prof. Aqib Sohail

**At the end of this course, the student will be able to:**

* + 1. Perform patient assessment (C3)
    2. Enlist significant investigations and radiographs(C2)
    3. Diagnose and devise stepwise treatment plan for presented facial fractures (dento-alveolar, mandible, maxilla, Zygoma)
    4. Perform suturing, splinting and MMF on models (P2)

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| **DATE** | **TOPIC OF LECTURE** | **FACILITATOR** |
| 29-03-22 | Orientation of oral surgery/introduction of the department | Prof. Aqib Sohail |
| 31-03-22 | Introduction to maxillofacial trauma | Prof. Aqib Sohail |
| 05-04-22 | Exercise on awareness of armamentarium, interpretation of radiographs and general management of trauma patient. | OMFS Department |
| 07-04-22 | Mandible fracture and its management | Prof. Aqib Sohail |
| 12-04-22 | Exercise on management of mandibular fractures | OMFS Department |
| 14-04-22 | Condylar fracture and management | Dr. Nighat Zahid |
| 19-04-22 | **CLASS TEST**  **(Introduction to trauma, Mandibular fractures, Condylar fractures)** | |
| 21-04-22 | BLS and ATLS | Dr. Fareed Chishti |
| 26-04-22 | Exercise BLS and ATLS | Skills Lab |
| 28-04-22 | Zygomatic fractures and management | Prof. Aqib Sohail |
| 10-05-22 | Maxillary fractures and management | Dr. Nighat Zahid |
| 12-05-22 | Maxillary fractures and management | Dr. Nighat Zahid |
| 17-05-22 | **CLASS TEST**  **(Zygomatic Fractures, Maxillary fractures, BLS and ATLS)** | |
| 19-05-22 | Dento-alveolar trauma and its management | Dr. Fareed Chishti |
| 24-05-22 | Exercise on mandibular and zugomatic fractures | OMFS Department |
| 26-05-22 | **PBL/TEST DISCUSSION** | |

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| **Sr #** | **MIT** | **Total** |
| 1 | Lectures | 10 |
| 2 | Hands on exercises / Small Group discussions | 03 |
| 3 | PBL sessions | 01 |
| 4 | Assessments | 02 |

**ORAL AND MAXILLOFACIAL SURGICAL PATHOLOGY**

**Course Director: Prof. Aqib Sohail**

**Recommended Textbooks:**

Contemporary Oral & Maxillofacial Surgery (7th Ed) James R. Hupp, Myron R. Tucker

**At the end of this course, the student will be able to:**

* + - 1. Assess common oral pathological lesions
      2. Enlist important investigations
      3. Enlist management protocol of different maxillofacial pathologies.

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| **DATE** | **TOPIC OF LECTURE** | **FACILITATOR** |
| 31-05-22 | INTRODUCTION to surgical pathology/principles of differential diagnosis/biopsy | Prof. AqibSohail |
| 02-06-22 | Review of odontogenic cyst/tumors | Dr. SadiaIqbal |
| 07-06-22 | Diagnosis/management of odontogenic cyst and tumors | Prof. AqibSohail |
| 09-06-22 | Diagnosis and Management of Salivary gland disorders | Dr.NighatZahid |
| 14-06-22 | Diagnosis and Management of Salivary gland disorders | Dr. NighatZahid |
| 16-06-22 | Maxillary sinus | Prof. Aqib Sohail |
| 21-06-22 | **CLASS TEST (Management of Odontogenic cyst and tumor, Biopsy, Premalignant lesions, Chemoradio therapy,salivary glands)** | |
| 23-06-22 | Facial pain | Dr Nighat Zahid |
| 28-06-22 | Principles of management and prevention of odontogenic infections | Prof. AqibSohail |
| 30-06-22 | Complex odontogenic infections | Prof. AqibSohail |
| 05-07-22 | Diagnosis and Management of TMJ disorders | Dr.NighatZahid |
| 07-07-22 | Diagnosis and management of TMJ disorders | Dr. NighatZahid |
| 12-07-22 | Premalignant and malignant oral lesions | Prof Aqib Sohail |
| 14-07-22 | **PBL session** Management of patients undergoing radio/chemotherapy | |
| 19-07-22 | **CLASS TEST (maxillary sinus, facial pain, Temporomandibular joint, Odontogenic infections)** | |
| 21-07-22 | **Test Discussion** | |

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| **Sr #** | **MIT** | **Total** |
| 1 | Lectures | 16 |
| 2 | PBL sessions | 01 |
| 3 | Assesments | 02 |

**‘CRITICAL LITERATURE REVIEW, RESEARCH PAPERS’ PRESENTATIONS & PRINCIPLES OF SURGERY :**

* Presentations will be organized for 4 weeks session ( 6-8 lectures)
* Schedule of presentations & topics detail will be displayed on notice board

**GROUP PRESENTATION EVALUATION:**

Group members will be graded from A - D

1. Grade A+ for the main presenter along with active participation in Q& A session
2. Grade A for the main presenter
3. Grade B + for the second presenter member for active participation in preparation of presentation with Q &A session
4. Grade B for the second presenter for active participation in preparation of presentation
5. Grade C for taking passive part in preparation of presentation but present on the day of presentation
6. Grade D for those who will be absent on the day of presentation but take part in presentation
7. Grade E for those who will be absent on the day of presentation and did not part in preparation

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| **GROUPS**  **(MEMBERS)** | **TOPICS & OBJECTIVES** | **Date** |
| **GROUP 1** | **Management of common medically compromised patients**  Specific management steps with significance; for**cardiorespiratory** (angina /MI, hypertension) Endocrine (diabetes mellitus, adrenal insufficiency) **Hematologicaldisorders** (coagulopathies and anticoagulants), **Hepatic insufficiency**and **Renal diseases** (hemodialysis, renal transplant). | 26-07-22 |
| **GROUP 2** | **Management of most prevalent medical emergencies in dental office**  Protocol for management of **chest pain**, **respiratory distress** (asthma, HVS), **Collapse**and **foreign body obstruction** in a stepwise manner. Enlist the drugs necessary for management for each emergency, Needle stick injury Management. | 28-07-22 |
| **GROUP 3** | **Principles of oral surgery incision, flap design, suturing and antibiotics**  Discuss the principles of flap design, incision and suturing.Enlist the common flap designs with their indications.  Selection of suture materials and suturing techniques.  Criteria for selection of antibiotics. Indication and regimen of prophylactic antibiotics in dentistry | 02-08-22 |
| **GROUP 4** | **Management of hospitalized patients**  Devise a protocol for post op review of patients operated under GA, give management protocol for **fever**, **chest infection, fluids electrolyte imbalance**and **urinary retention** in a hospitalized patient. | 02-08-22 |
| **GROUP 4** | **Dental ethics and best dental practice guidelines**  Refusal Of dental treatment to a known hepatitis patient: discuss the ethical; issues. Also discuss the ethical concerns if known hepatitis dentist treat patients. | 04-08-22 |
| **GROUP 5** | **Conventional lectures are better means of information transfer than PBL session: a debate for or against?** | 04-08-22 |
| **GROUP 6** | **Recent advances in oral surgery**  Discuss invent of various new local anesthesia techniques use of periotomes,physics forceps for atraumatic tooth extraction. Discuss navigation surgery in OMFS. | 04-08-22 |
| **Dr. Tayyaba Rafiq** | **Local Anesthesia** | 09-08-22 |
| **Dr. Tayyaba Rafiq** | **General Anesthesia and conscious sedation** | 11-08-22 |

Certificate will be awarded to the best presenter and best group presentation

**3rd week of August is for Mid Term Assessments**

**23-08-22**: Discussion Mid Term Exam

**PRINCIPLES OF ORAL & MAXILLOFACIAL SURGERY AND EXODONTIA (3rd and 4th year)**

**Course Director: Dr. Tayyaba Rafiq**

**Recommended Textbooks:**

1. Contemporary Oral & Maxillofacial Surgery (7th Ed) James R. Hupp, Myron R. Tucker
2. Handbook of Local Anesthesia (6th Ed, 2012) Stanley F. Malamed
3. Minor oral surgery by Jaffery howe

**By the end of course the students were able to:**

1. Evaluate and prepare patients for simple and complicated tooth extractions.
2. Administer effective local anesthesia
3. Perform tooth extraction
4. Manage complications of xodontias and medical emergencies
5. Follow standard precautions for infection control during exodontias

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| **Sr. No.** | **Lecture / discussion topics** |
| 1 | Management of Medically Compromised Patients |
| 2 | Management of Medical Emergencies |
| 3 | Infection, cross infection control and sterilization |
| 4 | Armamentarium awareness for local anesthesia and extraction |
| 5 | Principles of Oral surgery (incision & flap design, suturing) |
| 6 | Local anesthesia (Contents, complications of LA, Techniques) |
| 7 | Indications and contraindications for tooth extraction |
| 8 | Canine and Third molar impaction (classification, evaluation, flap design, surgical technique) |
| 9 | Sedation & GA in dentistry |
| 10 | Intra operative & post-operative complications of Exodontia and their management |
| 11 | Post-operative care of hospitalized patients |
| 12 | Role of antibiotics in dentistry |

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| **Sr #** | **MIT** | **Total** |
|  | Departmental group discussion | 70-80 Sessions |
|  | Handson exercises | 03 |
|  | Assesments | 02 |

**SURGICAL AIDS TO DENTAL SPECIALTIES**

**Course Director: Dr. Nighat Zahid**

**Recommended Textbooks:**

Contemporary Oral & Maxillofacial Surgery (7th Ed) James R. Hupp, Myron R. Tucker

**At the end of this course, the student will be able to:**

* + - 1. To diagnose a patient and refer to concerned speciality, Prosthodontist, endodontist, orthodontist and periodontist.
      2. Devise treatment plan according to the patient’s need.

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| **DATE** | **TOPIC OF LECTURE** | **FACILITATOR** |
| 25-08-22 | Pre-prosthetic Surgery | Dr.Nighat Zahid |
| 30-09-22 | Pre- prosthetic surgery | Dr.Nighat Zahid |
| 01-09-22 | Dental Implants | Prof. Aqib Sohail |
| 06-09-22 | Dental Implants | Prof. Aqib Sohail |
| 08-09-22 | Surgical aids to endodontics | Dr. Fareed Chishti |
| 13-09-22 | Surgical aids to Orthodontics | Dr. Tayyaba Rafiq |
| 15-09-22 | **PBL session** | |
| 20-09-22 | **CLASS TEST**  **(Pre-prosthetic surgery, Dental Implants, Surgical aids to Orthodontics, Surgical aids to endodontics)** | |
| 22-09-22 | **TEST DISCUSSION** | |

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| **Sr #** | **MIT** | **Total** |
| 1 | Lectures | 07 |
| 2 | Video demonstrations | 01 |
| 3 | PBL session | 01 |
| 4 | Assessments | 01 |

**DENTOFACIAL DEFORMITIES**

**Course Director: Dr. Fareed Chishti**

**Recommended Textbooks:**

Contemporary Oral & Maxillofacial Surgery (7th Ed) James R. Hupp, Myron R. Tucker

**At the end of this course the student will be able to:**

* + - 1. Identify problem and label type of facial deformity
      2. list the principles of patient preparation for surgery
      3. Enlist the surgical procedures for correction of facial deformity
      4. Communicate with concerned specialists

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| **DATE** | **TOPIC OF LECTURE** | **FACILITATOR** |
| 27-09-22 | Orthognathic surgery | Prof. Aqib Sohail |
| 29-09-22 | Orthognathic surgery | Prof. Aqib Sohail |
| 04-10-22 | Cleft Lip and palate | Dr. Fareed Chishti |
| 06-10-22 | Reconstruction | Dr. Nighat Zahid |
| 11-10-22 | Reconstruction | Dr. Nighat Zahid |
| 13-10-22 | Facial esthetics | Dr. Tayyaba Rafiq |
| 18-10-22 | **CLASS TEST**  **(Orthognathic surgery, cleft lip and [palate,Reconstruction,facial esthetics)** | |
| 20-10-22 | **PBL session** | |
| 25-10-22 | **TEST DISCUSSION** | |

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| **Sr #** | **MIT** | **Total** |
| 1 | Lectures | 06 |
| 2 | PBL sessions | 01 |
| 3 | Video demonstrations | 02 |
| 4 | Assessments | 01 |

**ETHICS & FORENSICS:**

2 lectures by a guest speaker

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| **Sr #** | **Date** | **Topic** |
| 1 | 08-11-22 | Dental ethics and medicolegal considerations & consent |
| 2 | 10-11-22 | Forensic odontology Dr. Aamir Bashir |

**Revision classes will be started after completing this course for 2- 3 weeks**

**ASSESSMENT POLICY**

**ASSESMENTS**

* **Monthly assessment** (written) will be conducted (3rd week of every month) after each component of course outline.
* **Midterm** will be held after completion of 65% of course, students will be assessed by theory, TOACS and viva.
* **Send up** will be held in the month of januray,2023
  + **Theory Examination(**3 hours duration)

Short essay type (SEQ) & multiple choice questions (UHS pattern)

* + **Viva/Oral Examination**. /**OSCE**

Definitive Schedule will be announced before examination date.

* + **Clinical / Practical Examination**

Will be conducted on the same day as the viva, the pattern for the clinical exam will be the same as for the clinical test mentioned above

* **Internal Assessment**
* Will be based upon written test, OSCE (observed / unobserved), clinical tests, open book test, presentations, and hands on exercises & assignments and no of credits**.**

**POLICY FOR MISSED ASSESMENTS**

* Students have to prove valid reason for missed assessments.
* Students should inform the HOD prior to the date of scheduled examination.
* Course director has discretionary power to accept reason only if found reasonable

**ATTENDANCE POLICY**

**POLICY FOR MARKING ATTENDANCE**

* Present will be mark for those who will come sharp on time
* Arrival after 7 minutes will be considered absent
* Arrival within 7 minutes will be consider late
* 3 late arrivals will be equal to one absent

**CLINICAL DUTIES & REQUIREMENTS:**

Each student will spend a total of 18 weeks (10 weeks in final yr) in the Department of Oral & Maxillofacial Surgery during his / her 3rd and 4th year BDS

Students are required to:

1. Perform 200 Extractions/ 250 credits
2. Assist 5 minor oral surgical procedures under local anesthesia
3. Observe major surgical cases in operation room at GTTH
4. Perform exercises on:

* Suturing
* Pathological radiographic interpretation
* Oral & Maxillofacial trauma

Record of this clinical work will be maintained in the **Clinical Log Books.** This log Book will be signed by the HOD for those students who will be declared pass in **qualifying test**.

**Clinical Test**

Will be held for each student during the 5th and 10th week of clinical duty. Every clinical test will be followed by formative / feedback assessment session. Every student will perform one tooth extraction and will appear in chair side viva. Grading will be based on viva / oral examination, chair-side manners, cross infection control (aseptic technique), operator and patient positioning and clinical technique / proficiency, during:

1. History, diagnosis and treatment planning
2. Local anesthesia administration
3. Extraction, and post extraction care and instructions

Results with feedback will be posted immediately after the clinical test.

**FINAL PROFESSIONAL UNIVERSITY EXAMINATION:**

* Total 200 marks
* Internal Assessment: 20 marks
* Theory. 45 marks. 15 short essay type questions
* Multiple choice question 45 marks
* Viva / Oral Examination & Clinical / Practical Examination (90 marks)

**REFERENCE BOOKS:**

1. Peterson’s Principles of Oral and Maxillofacial Surgery (3rd Ed, 2013)

Michael Miloro, G. E. Ghali, Peter E. Larsen, Peter D. Waite

1. Maxillofacial Surgery (2nd Ed, 2007)

Peter W. Booth, Stephen A. Schendel, Jarg-Erich Hausamen

1. Operative Oral and Maxillofacial Surgery (2nd Ed, 2009)

[John Langdon](http://www.google.com.pk/search?tbo=p&tbm=bks&q=inauthor:%22John+Langdon%22), [Mohan Patel](http://www.google.com.pk/search?tbo=p&tbm=bks&q=inauthor:%22Mohan+Patel%22), [Robert Ord](http://www.google.com.pk/search?tbo=p&tbm=bks&q=inauthor:%22Robert+Ord%22), [Peter Brennan](http://www.google.com.pk/search?tbo=p&tbm=bks&q=inauthor:%22Peter+Brennan%22)

**Prof. Aqib Sohail**

Principal,HOD

OMFS,LMDC