



Oral and Maxillofacial Surgery

Institute of Dentistry, CMH Lahore Medical College

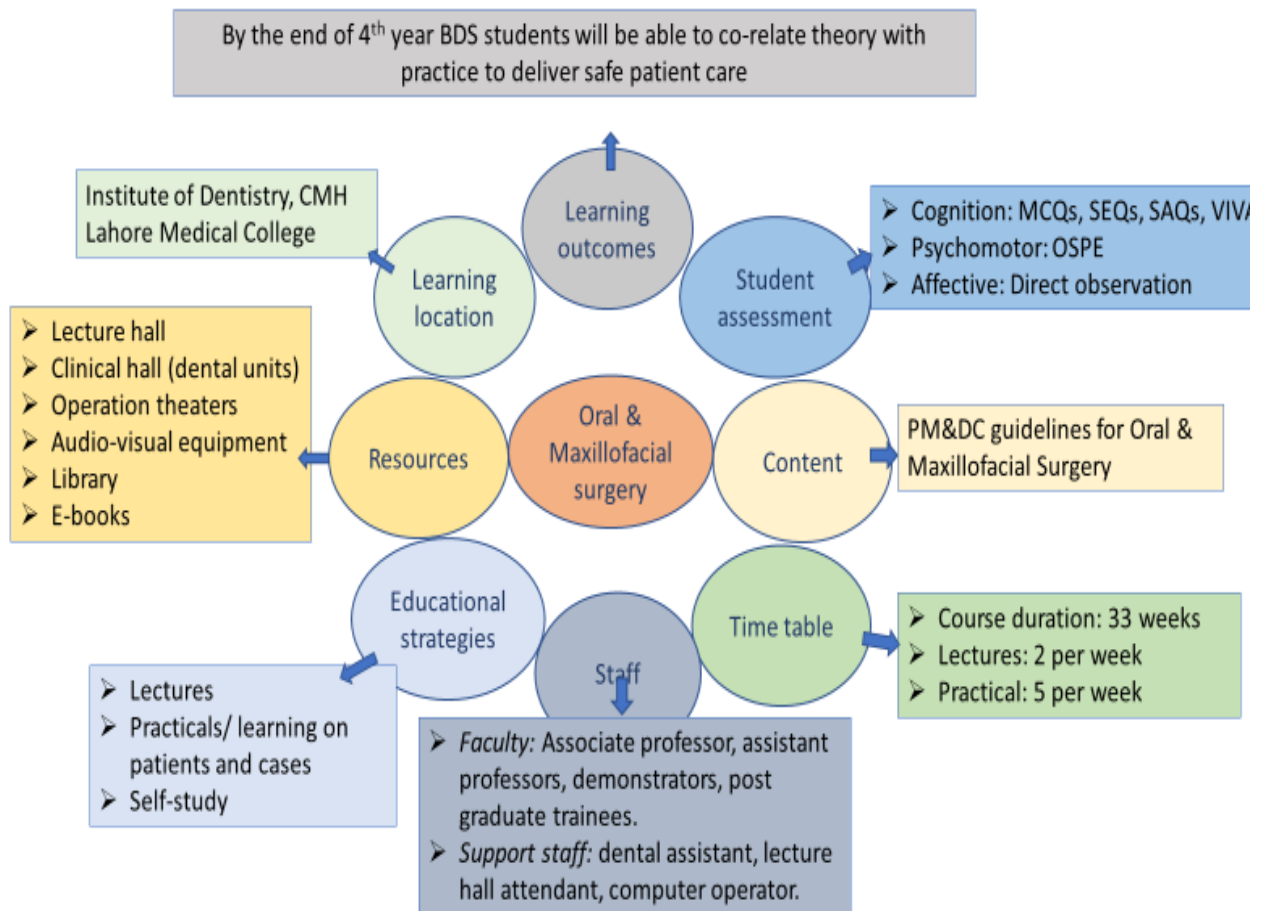
Study Guide 2022

Final Year BDS

Introduction to Oral and Maxillofacial Surgery

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.

Curricular map of Oral and Maxillofacial Surgery



Resources

- Teaching resources
- Supporting staff
- Infrastructure resources

Teaching resources:

Sr. #.	Faculty Name	Designation as per PM & DC certificate	Qualification
1	Prof. Dr. Asad Aizaz Chatha	Professor & HOD	MDS, FCPS, FFDRCSI, CMT.
2	Dr. Shoaib Younus	Associate professor	BDS, FCPS
3	Brig. Shafi Ullah Khan	Assistant Professor	BDS, FCPS
4	Lt. Col. Khalid Mahmood	Senior Registrar	BDS, FCPS
3	Dr. Hafiz M. Jawaad Manzoor	Senior Registrar	BDS, FCPS
4	Dr. Ali Shahid	Demonstrator	BDS
5	Dr. Muhammad Azhar Imran	Demonstrator	BDS
6	Dr. Samah Akhtar	Demonstrator	BDS
7	Dr. Aminah Ikram Ullah	Demonstrator	BDS

Supporting staff

Oral & Maxillofacial Surgery		
1	Waris Ali Tahir	Male Nurse
2	Mazhar Iqbal	Male Nurse
3	Syeda Samina	Staff Nurse
4	Bushra John	Staff Nurse
5	Nabila Nazeer	Staff Nurse
6	Romaira Mushtaq	Staff Nurse
7	Abid Rafique	Computer Operator
8	Ahsan Nadeem	Dental Surgery Assistant
9	Nabeela Liaqat	Dental Surgery Assistant
10	Hafiz Ali Asghar Faraz	Dental Surgery Assistant
11	Muhammad Adeel	Dental Surgery Assistant
12	Sadia Israr	Dental Surgery Assistant
13	Muhammad Nawaz	Dental Surgery Assistant
14	Tayyab Ramzan	Ward Boy
15	Usman Ali Zahid	Ward Boy
16	Muddasam Hussain	Ward Boy
17	Muhammad Zeeshan	Peon

Infrastructure resources

Sr. #.	Infrastructure Resources	Quantity
1	Operating Halls (For simple exodontia and minor oral surgery)	• 1
2	Dental Units <ul style="list-style-type: none">• OPD• exodontia• minor oral surgery	• 3 • 11 • 4
3	Dental Stools	• 20
4	Skills area	1
5	Reception	1
6	Mini Library/Resource room	1
7	Dental stores	1
8	Operation theaters	2
9	Ward	33 beds

TEACHING AND LEARNING STRATEGIES

Multiple educational methods will be used comprising of self-study, interactive lectures, group discussions, practical, and manual dexterity skill sessions.

(i) Methods for achieving cognitive objectives

- Interactive lectures using audio visual aids on power point presentation
- Group discussions in form of large group and small group
- Hands on demonstrations
- Tutorials
- Collaborative learning
- Self-study and reading from learning resources

(ii) Methods for achieving psychomotor objectives

- Diagnosis and treatment planning
- Patient handling
- Clinical skills

(iii) Methods for achieving affective objectives

- Interaction with peers, group members, teachers, support staff etc.
- Group discussions (small and large)
- Oral presentations by students

Learning Methodologies

The following teaching / learning methods are used to promote better understanding:

- Interactive lectures
- clinic visits
- Small group discussion
- Case- based learning
- Practical
- Skills session
- E- learning
- Self- directed study

Interactive Lectures

In large group, the lecturer introduces a topic or common clinical conditions and explain the underlying phenomena through questions, pictures, videos of patient's interview, exercises, etc. students are actively involved in the learning process.

Clinical Visits:

In small groups, students observe patients with signs and symptoms in clinical settings. This helps students to relate knowledge of basic and clinical of the relevant module.

Small Group Discussion:

This format helps students to clarify concepts acquire skills or attitude. Sessions are structured with the help of specific exercise such as patient case, interview or discussion topics. Students exchange opinion and apply knowledge gained from lectures, tutorials and self-study. The facilitator role is to ask probing questions, summarize, or rephrase to help clarity concepts.

Case- based learning:

A small group discussion format where learning is focused around a series of questions based on a clinical scenario. Student's discuss and answer the questions applying relevant knowledge gained in clinical and basic health sciences during the module.

Practical:

Basic science practical related to anatomy, biochemistry, pathology, pharmacology and physiology are scheduled for student learning.

Skills session:

Skills relevant to respective module are observed and practiced.

Self-directed study:

Students assume responsibilities of their own learning through individual study, sharing and discussing with peers, seeking information from learning resource center, teachers and resource persons within and outside the college. Students can utilize the time within the collage scheduled hours of self-study.

E- Learning:

E- Learning is a strategy by which learning occurs through the utilization of electronic media, typically the internet. The basic aspect of medical professionalism and ethic will be addressed through an e-learning course.

CURRICULUM IMPLEMENTATION

Curriculum implementation refers to putting into practice the official document including course content, objectives, learning and teaching strategies. Implementation process helps the learner to achieve knowledge, skills and attitudes required of the learning tasks. Learners are a pertinent component of the implementation process. Implementation occurs when the learner achieves the intended learning experiences, knowledge, ideas, skills and attitudes which are aimed to make the learner an effective part of the society. Curriculum implementation also refers to the stage at which curriculum is put into effect. There has to be an implementing agent as well. Teacher is an important part of this process and implementation of the curriculum is the way the teacher selects and utilizes various components of the curriculum. Implementation occurs when the teacher's formulated course content, teacher's personality and teaching and learning environment interact with the learners. Therefore, curriculum implementation is how the officially planned course of study is translated and reflected by the teacher into schemes of work, lesson plans, syllabus and resources are effectively transferred to the learners. Curriculum implementation can be affected by certain factors such as teachers, learners, learning environment, resource materials and facilities, culture and ideology, instructional supervision and assessments.

Personnel involved in teaching and facilitation

Lectures delivery by:

- Prof. Dr. Asad Aizaz Chatha (Professor & HOD)
- Dr. Shoaib Younus (Associate Professor)
- Dr. Hafiz M. Jawaad Manzoor (Senior Registrar)

Registrar for clinics/practical and small group discussion sessions:

- Dr. Ali Shahid
- Dr. Muhammad Azhar Imran
- Dr. Samah Akhtar
- Dr. Aminah Ikram Ullah

Support staff:

- Nurse: 6
- Ward Boy: 3
- Dental assistant: 6
- Peon: 1

Computer Assistant: 1 as nominated by the college

Time Frame

Course duration:

- Lectures: 36 weeks
- Clinical rotations: 10 weeks per rotation

Lectures:

- Tuesday (8:00 to 8:50 am)
- Thursday (8:50 to 9:40 am)

Practical/ clinical visits:

- Monday – Thursday (10:00 to 3:00 pm)
- Friday (10:00 to 1:00 pm)

Evening rotations:

- Thursday (6:00 to 8:00 pm) during 10 weeks rotation

Self-study:

- 10 hours during the course

Table of specification for teaching, learning objectives and assessment

At the end of the year students will be able to know:

Topics and objectives	Faculty	Learning domain	Learning strategy	Assessment					
				Clinical	Viva	OSPE	NUMS MCQs	NUMS SEQs	Weightage
1. Medically compromised patients and medical emergencies in dental clinics Time allocation: Lecture: 4.5 hrs Clinical: 27 hrs						X	3	1-2	10%
Introduction to Oral and Maxillofacial Surgery	Prof. Dr. Asad Aizaz Chatha		Interactive lecture						
Pre and peri operative patient evaluation Evaluate a dental patient by: 1. Medical history 2. Physical examination		CPA	Interactive lecture/case-based learning/patient interaction						
Manage a dental patient with problems of the following systems: 1. CVS 2. Pulmonary 3. Renal 4. Hepatic 5. Hematological 6. Neurological		CPA	Interactive lecture/case-based learning/patient interaction/SGD						
Manage pregnant and postpartum dental patient		CPA	Interactive lecture/case-based learning/patient interaction/SGD						
Prevent Medical emergencies in dental patients		CPA	Interactive lecture/case-based learning/patient interaction/SGD						
Prepare oneself and surgery staff to manage the following: 1. Hypersensitivity reactions 2. Chest discomfort 3. Respiratory difficulty		C	Interactive lecture/case-based learning						

4. Altered consciousness									
2.EXODONTIA INCLUDING LOCAL ANESTHESIA						X	3	1-2	10%
Time allocation: Lecture: 7 hrs Clinical: 27 hrs									
EXODONTIA	Prof. Dr. Asad Aizaz Chatha								
State the protocol to manage anxious patients before and during complicated exodontia.		C	Interactive lecture/case-based learning						
Manage patient anxiety using anxiety reduction protocol with P.O medication		CPA	Interactive lecture/case-based learning/ patient interaction/ SGD						
Enlist indications for removal of teeth		C	Interactive lecture/case-based learning						
Evaluate a patient for exodontia in the following sequence 1. Welcome and introduce 2. Elicit relevant medical and dental history 3. Set up the instrument tray 4. Perform examination 5. Order and interpret relevant investigations 6. Arrive at a diagnosis		CPA	Interactive lecture/case-based learning/ patient interaction						
Enlist indication and contra indications of removal of teeth		C	Interactive lecture/case-based learning						
Formulate and finalize a treatment plan		C	Interactive lecture/case-based learning						
Use appropriate operator and patient positions, instruments and techniques to perform an extraction i.e gingival detachment, forceps application, tooth luxation and delivery, jaw support and retraction (non-dominant hand)		CP	Interactive lecture/case-based learning/practical						
use elevators and forceps according to general and mechanical principles		CP	Interactive lecture/case-based learning/practical						
prevent and manage intra and post-operative complications of exodontia		CPA	Interactive lecture/case						

			-based learning/ patient interaction/ SGD						
take post-extraction care of the socket		CPA	Interactive lecture/case-based learning/ patient interaction/ SGD						
give post-extraction instructions to a patient.		CPA	Interactive lecture/case-based learning/ patient interaction/ SGD						
COMPLICATED EXODONTIA									
Describe the principles of flap design		C	Interactive lecture/case-based learning						
Enlist types of mucoperiosteal flaps		C	Interactive lecture/case-based learning						
Demonstrate incisions for different types of mucoperiosteal flap in the oral cavity on models	Prof. Dr. Asad Aizaz Chatha	CP	Interactive lecture/case-based learning/ practical						
Describe and apply the principles of suturing		CP	Interactive lecture/case-based learning/ practical						
Enlist indications for open extractions		C	Interactive lecture/case-based learning						
Describe the technique used for open extraction of single and multi-rooted teeth		C	Interactive lecture/case-based learning						
Describe the procedure to remove fractured root fragments/tips		C	Interactive lecture/case-based learning						

State the justification for leaving root fragments in the socket		C	Interactive lecture/case-based learning						
Plan the sequence of multiple extractions		C	Interactive lecture/case-based learning						
MANAGEMENT OF IMPACTED TEETH	Prof. Dr. Asad Aizaz Chatha								
Define an impacted tooth		C	Interactive lecture/case-based learning						
Enlist common impacted teeth and their cause of impaction		C	Interactive lecture/case-based learning						
Enlist indication and contraindications for removal of impacted teeth		C	Interactive lecture/case-based learning						
Evaluate a patient with an impacted tooth by: history, clinical and radiographic examination.		CPA	Interactive lecture/case-based learning/ patient interaction						
Classify impacted teeth & determine the level of difficulty for extraction.		C	Interactive lecture/case-based learning						
Describe the management of a patient with an impacted third molar		C	Interactive lecture/case-based learning						
list and select appropriate treatment option for a patient with an impacted canine		C	Interactive lecture/case-based learning						
describe the step-wise surgical procedure for the removal of impacted teeth.		C	Interactive lecture/case-based learning						
take consent and enlist the potential risks and complications for the removal of impacted		C	Interactive lecture/case-based learning						

identify and use instruments for minor oral surgery		C	Interactive lecture/case-based learning						
POST OPERATIVE CARE, PREVENTION AND MANAGEMENT OF COMPLICATIONS IN EXODONTIA	Prof. Dr. Asad Aizaz Chatha								
Describe the post-operative anxiety reduction measures that can be taken for an exodontia patient		C	Interactive lecture/case-based learning						
Describe the management of post-op pain and discomfort of an exodontia patient		C	Interactive lecture/case-based learning						
Manage a patient with post extraction hemorrhage		CPA	Interactive lecture/case-based learning/ patient interaction/ SGD						
Follow up on an exodontia patient		CPA	Interactive lecture/case-based learning/ patient interaction/ SGD						
Maintain appropriate patient record (will also be discussed in medicolegal considerations)		CP	Interactive lecture/case-based learning/ clinics						
Discuss the need for prevention of complications		C	Interactive lecture/case-based learning						
Manage the following complications during and after exodontia: <ul style="list-style-type: none"> • Soft tissue injuries • Root fracture/displacement • Injury to adjacent teeth • Injury to adjacent osseous structures • Oro-antral communications • Postoperative bleeding • Delayed healing and infection 		CPA	Interactive lecture/case-based learning/ patient interaction/ SGD						

<ul style="list-style-type: none"> Fracture of the mandible 									
LOCAL ANESTHESIA	Dr. Shoaib Younus								
Relate the nerve supply of the face & oral cavity with the following clinical applications: local anesthesia of cranial nerves V ₂ , V ₃		C	Interactive lecture/case-based learning						
Describe the pharmacological mechanism of action of contents of local anesthesia (LA).		C	Interactive lecture/case-based learning						
Calculate the safe dose for Lignocaine and Bupivacaine.		C	Interactive lecture/case-based learning						
Select the Armamentarium required for Local Anesthesia & Load LA Syringe Aseptically.		CP	Interactive lecture/case-based learning						
Describe the following local anesthetic injection (infiltration) techniques: <ul style="list-style-type: none"> Supra-Periosteal. Sub-Mucosal. Sub-Periosteal. Intra-Osseous 		C	Interactive lecture/case-based learning						
Describe the following LA techniques of Mandibular Anesthesia: <ul style="list-style-type: none"> Inferior Alveolar Nerve Block (IANB). Mental Nerve Block. Lingual Nerve Block. Long Buccal Nerve Block. Gow-Gates Block. Vazirani Akinosi Block 		C	Interactive lecture/case-based learning						
Describe the following LA techniques of Maxillary Anesthesia: <ul style="list-style-type: none"> Anterior superior nerve block Middle superior nerve block Posterior superior nerve block Infra-orbital nerve block Greater palatine nerve block Maxillary nerve block 		C	Interactive lecture/case-based learning						
Administer LA infiltration: IANB, lingual nerve block, long buccal nerve block, nasopalatine nerve block, greater palatine nerve block		CPA	Interactive lecture/case-based learning/						

			patient interaction						
Check for effectiveness of LA		CPA	Interactive lecture/case-based learning/patient interaction						
Explain the reasons of failure of LA in a case.		C	Interactive lecture/case-based learning						
Select appropriate LA and technique		CP	Interactive lecture/case-based learning	\\					
Manage the complications and toxicity of LA		CP	Interactive lecture/case-based learning/patient interaction						
3.ORAL AND MAXILLOFACIAL TRAUMA Time allocation: Lecture: 7 hrs Clinical: 27 hrs						X	3	1-2	10%
Facial soft tissue and dentoalveolar injuries	Dr. M. Hafiz Jawaad Manzoor	C	Interactive lecture/case-based learning						
evaluate a patient with facial soft tissue injuries and dentoalveolar trauma		C	Interactive lecture/case-based learning						
state and relate etiology (name 3 causes) of maxillofacial trauma, dentoalveolar trauma, facial soft and hard tissue injuries		C	Interactive lecture/case-based learning/patient interaction						
define abrasion, contusion, laceration and diagnose these injuries by history and clinical examination		C	Interactive lecture/case-based learning						
Describe the management of facial soft tissue injuries and close the intra-oral soft tissue wound by sutures in a logical order.		C	Interactive lecture/case-based learning						

classify traumatic injuries to the teeth and supporting structures (WHO classification)		C	Interactive lecture/case-based learning						
evaluate dentoalveolar trauma by history, clinical and radiological examination		CP	Interactive lecture/case-based learning						
manage dentoalveolar injuries and keep upto date with current guidelines		C	Interactive lecture/case-based learning/ patient interaction						
MAXILLOFACIAL TRAUMA									
State etiology of maxillofacial trauma		C	Interactive lecture/case-based learning						
order and interpret relevant investigations		CPA	Interactive lecture/case-based learning/S GD						
diagnose mid and upper face fractures by eliciting signs & symptoms and ordering & interpreting relevant radiographic investigations		CPA	Interactive lecture/case-based learning/S GD						
discuss principles of management of fractures of midfacial fractures.	Prof. Dr. Asad Aizaz Chatha	C	Interactive lecture/case-based learning						
describe management of patients with multiple facial injuries		CPA	Interactive lecture/case-based learning/S GD						
discuss principles of management of fractures of zygomatic bone and arch, frontal bone and NOE complex.		C	Interactive lecture/case-based learning						
name 5 complications of mid and upper face fractures		C	Interactive lecture/case-based learning						

describe considerations in the management of pediatric and geriatric maxillo-facial trauma.		C	Interactive lecture/case-based learning						
describe principles of management of fire arm injuries involving the face		C	Interactive lecture/case-based learning/ patient interaction						
identify instruments used in management of OMF trauma		C	Interactive lecture/case-based learning/ patient interaction						
MANDIBULAR TRAUMA									
evaluate a patient with mandibular trauma and order and interpret relevant investigations		CPA	Interactive lecture/case-based learning/ patient interaction						
diagnose mandibular fractures by eliciting signs & symptoms and ordering & interpreting radiographic investigations		CP	Interactive lecture/case-based learning						
classify mandibular fractures according to the type, site and favorability to reduction	Prof. Dr. Asad Aizaz Chatha	C	Interactive lecture/case-based learning						
formulate a treatment plan for mandibular fractures in adults and children		C	Interactive lecture/case-based learning						
name 5 complications of mandibular fractures		C	Interactive lecture/case-based learning						
list steps of ATLS evaluation (primary survey) of patient with maxillofacial trauma		C	Interactive lecture/case-based learning/ patient interaction						
4.ORAL AND MAXILLOFACIAL INFECTIONS Time allocation: Lecture: 3 hrs Clinical: 27 hrs						X	3	1-2	10%

evaluate a patient with an odontogenic or maxillofacial infection and order and interpret relevant investigations	Prof. Dr. Asad Aizaz Chatha	CPA	Interactive lecture/case -based learning/ patient interaction/ SGD						
discuss factors (host, micro-organisms, anatomical) that govern the spread of odontogenic infections		C	Interactive lecture/case -based learning						
Diagnose and differentiate between edema (inoculation), cellulitis and abscess		CA	Interactive lecture/case -based learning/S GD						
Describe spread and pathophysiology of following infections in head and neck: <ul style="list-style-type: none"> • Odontogenic infection to primary and secondary facial spaces. • Cavernous sinus thrombosis/orbital cellulitis. • mediastinitis. • Ludwig’s angina. • Osteomyelitis, candidiasis, necrotizing fasciitis, actinomycosis. 		C	Interactive lecture/case -based learning						
plan management for odontogenic infections: <ul style="list-style-type: none"> • Remove the cause. • Surgically drain pus and insert drains, if indicated. • Provide supportive therapy: select appropriate antibiotic and manage airway, nutrition, hydration. 		C	Interactive lecture/case -based learning						
Refer, when indicated.		C	Interactive lecture/case						

			-based learning						
Choose and prescribe appropriate antibiotic(s) for odontogenic infections		C	Interactive lecture/case -based learning						
justify prophylaxis against infectious endocarditis and total joint replacement		C	Interactive lecture/case -based learning						
Describe anatomical Fascial spaces in head and neck(boundaries and contents) which may get involved by spread of Odontogenic infections		C	Interactive lecture/case -based learning						
5.BASIC PRINCIPLES OF SURGERY Time allocation: Lecture: 6 hrs Clinical: 26 hrs						X	2	0-1	8%
Develop a surgical diagnosis		C	Interactive lecture/case -based learning						
Describe basic necessities for surgery		C	Interactive lecture/case -based learning						
Describe and follow the aseptic surgical protocol		C	Interactive lecture/case -based learning						
Describe basic principles of incisions in oral surgery and correlate with different flaps discussed in other sections		C	Interactive lecture/case -based learning						
Draw and label the following flaps used in oral surgery: <ul style="list-style-type: none"> • 1, 2, 3 sided flaps and their variations. • sub-marginal/semilunar. • for tori removal • for impacted maxillary canines. • 1st and 2nd stage implant surgery. • for impacted wisdom teeth 	Dr. Shoaib Younus	CP	Interactive lecture/case -based learning						
Describe the principles of tissue handling in oral surgery		C	Interactive lecture/case -based learning						

Describe the means of achieving hemostasis and management of dead space	C	Interactive lecture/case-based learning							
access to facial skeleton	C	Interactive lecture/case-based learning							
define these terms related to oral surgery flaps: height, base, width (apex), length, triangular, rectangular, submarginal, semi-lunar, corners, sides.	C	Interactive lecture/case-based learning/ patient interaction							
PHYSIOLOGY OF WOUND REPAIR									
Enlist physical and chemical causes if tissue damage	C	Interactive lecture/case-based learning							
describe the physiology of wound (soft tissues & bone) repair: primary intention, secondary intention, healing of an extraction wound and osseo-integration	C	Interactive lecture/case-based learning							
describe the factors that impair wound healing	C	Interactive lecture/case-based learning							
classify nerve injuries (Seddon & Sunderland).	C	Interactive lecture/case-based learning							
Assess a patient with neural deficit	C	Interactive lecture/case-based learning							
Describe the principles of management of a nerve injury.	C	Interactive lecture/case-based learning							
ETHICS AND EVIDENCE BASED SURGERY AND MEDICOLEGAL CONSIDERATIONS									
Practice ethical based surgery and follow ethical standards in dentistry and research.	CA	Interactive lecture/case-based learning/S GD							

Describe common areas of litigation in dental practice		CA	Interactive lecture/case-based learning/S GD						
Enlist steps to reduce risk of litigation		C	Interactive lecture/case-based learning						
obtain informed consent and describe its components		CA	Interactive lecture/case-based learning/S GD						
Write a referral letter to a medical/dental specialist		CA	Interactive lecture/case-based learning/S GD						
Keep up to date with local rules and regulations affecting practice		C	Interactive lecture/case-based learning						

6.CYSTS, TUMORS, PERIAPICAL, ANTRAL AND OTHER PATHOLOGICAL LESIONS						X	5	0-1	12%
Time allocation: Lecture: 10 hrs Clinical: 27 hrs									

BIOPSY	Dr. Shoaib Younus								
Record history of a patient with potentially malignant lesions in oral and maxillofacial region		C	Interactive lecture/case-based learning						
order and interpret relevant investigations		C	Interactive lecture/case-based learning						
describe the adjuncts to clinical screening of suspicious lesions, including fluorescent light and vital staining		C	Interactive lecture/case-based learning						
state the indications of biopsy and describe each type of soft and hard tissue biopsy		C	Interactive lecture/case-based learning						
identify instruments used for oral biopsy		C	Interactive lecture/case-based learning						
write a biopsy request form for histopathological examination and properly handle biopsy specimen		C	Interactive lecture/case						

			-based learning						
Describe methods of specimen orientation		C	Interactive lecture/case -based learning						
Follow up on a biopsy patient		C	Interactive lecture/case -based learning						
CYSTS IN ORAL CAVITY									
classify jaw cysts (simple classification – odontogenic and non – odontogenic)		C	Interactive lecture/case -based learning						
differentiate between radicular, dentigerous and keratocyst.		C	Interactive lecture/case -based learning						
state the indications, advantages, disadvantages and techniques for the management of jaw cysts and cyst-like lesions i.e: enucleation, marsupialization, enucleation followed by marsupialization, enucleation with curettage.	Dr. Shoaib Younus	CA	Interactive lecture/case -based learning/S GD						
ORAL AND MAXILLOFACIAL BENIGN AND MALIGNANT LESIONS									
Describe the management of jaw tumors based on the types of resection: marginal (segmental), partial, total, composite.		CA	Interactive lecture/case -based learning/S GD						
describe the management of benign soft tissue tumors	Prof. Dr. Asad Aizaz Chatha	CA	Interactive lecture/case -based learning/S GD						
describe the management of potentially malignant (pre-malignant) lesions		CA	Interactive lecture/case -based learning/S GD						
describe the management of malignant tumors of the oral cavity according to the following factors:		CA	Interactive lecture/case -based						

<ul style="list-style-type: none"> • histopathology, grade and extracapsular spread. • TNM staging. 			learning/S GD						
PERIAPICAL SURGERY	Dr. Hafiz M. Jawaad Manzoor								
evaluate a patient with a periapical pathology and order and interpret relevant investigations.		C	Interactive lecture/case -based learning						
discuss indications for surgical endodontic procedures		C	Interactive lecture/case -based learning						
list contraindications for surgical endodontics.		C	Interactive lecture/case -based learning						
select appropriate procedure, flap, technique and (root-end filling) materials for surgical endodontics		C	Interactive lecture/case -based learning						
MAXILLARY SINUS DISEASE	Dr. Shoaib Younus								
Evaluate a patient with maxillary sinus disease		C	Interactive lecture/case -based learning						
describe odontogenic and non-odontogenic infections of maxillary sinus and their differential diagnoses		C	Interactive lecture/case -based learning						
Describe treatment of sinusitis		CA	Interactive lecture/case -based learning						
classify oro-antral communication according to size and describe their management according to the time elapsed.		C	Interactive lecture/case -based learning/S GD						
enlist the common maxillary sinus tumors of odontogenic and non-odontogenic origin, and describe their management		C	Interactive lecture/case -based learning						
RECONSTRUCTION OF MAXILLOFACIAL DEFECTS									
state the general principles of OMF reconstruction		C	Interactive lecture/case -based learning						

describe the biology of bone reconstruction and define osteo-induction, osteo-conduction, osteo-promotion and osteo-genesis	Prof. Dr. Asad Aizaz Chatha	C	Interactive lecture/case-based learning						
classify bone grafts on the basis of source and vascularity (autogenous)		C	Interactive lecture/case-based learning						
enlist the goals of mandibular reconstruction: restoration of continuity, alveolar bone height, osseous bulk and function.		C	Interactive lecture/case-based learning						
describe the role of maxillofacial prosthetics in rehabilitation of OMF defects		C	Interactive lecture/case-based learning						
MANAGEMENT OF PATIENTS UNDERGOING RADIO /CHEMOTHERAPY									
state the mechanism of action of radiotherapy, regimes of radiotherapy and list its adverse oral effects.	Dr. Shoaib Younus	C	Interactive lecture/case-based learning						
describe the dental management of a patient undergoing radiotherapy to the OMF region.		CA	Interactive lecture/case-based learning/S GD						
define osteoradionecrosis. Describe its stages and management plan.		C	Interactive lecture/case-based learning						
state the dental management of a patient undergoing systemic chemotherapy.		CA	Interactive lecture/case-based learning/S GD						
define MRONJ.		C	Interactive lecture/case-based learning						
State the management of a patient at risk of MRONJ needing dental extraction.		CA	Interactive lecture/case-based learning/S GD						

7.PRE-PROSTHETICS AND IMPLANT SURGERY									
Time allocation: Lecture: 7 hrs Clinical: 26 hrs						X	2	0-1	8%

Enlist objectives of pre-prosthetic surgery.	Dr. Shoab Younus	C	Interactive lecture/case-based learning						
Identify abnormalities of soft and hard tissues which interfere with denture (partial/complete) construction and formulate a treatment plan.		C	Interactive lecture/case-based learning						
Name and describe ridge extension, augmentation and correction (osteotomies) procedures for mandible and maxilla.		C	Interactive lecture/case-based learning						
Discuss complications of pre-prosthetic surgery		C	Interactive lecture/case-based learning						
briefly describe the principles of following surgical procedures: alveloplasty- simple, intraseptal (Dean's), tuberosity reduction, exostosis and undercuts correction, tori removal, mylohyoid ridge reduction, genial tubercle reduction, retromolar pad reduction, lateral palatal soft tissue excess removal, unsupported hypermobile tissue removal, inflammatory fibrous hyperplasia removal, labial and lingual frenectomy.		C	Interactive lecture/case-based learning						
Describe protocol for immediate denture placement/ construction		C	Interactive lecture/case-based learning						
describe methods of ridge preservation.		C	Interactive lecture/case-based learning						
Describe procedure and advantages of over dentures		C	Interactive lecture/case-based learning						
IMPLANTS									
		C	Interactive lecture/case						

Define dental implant and identify its components.	Prof. Dr. Asad Aizaz Chatha		-based learning							
define osseointegration, list factors influencing osseointegration. define the following terms related to dental implants: endosseous, root-form, cover screw, healing abutment/gingival former, single/two stage, screw/cement retained, biotypes.		C	Interactive lecture/case-based learning							
describe the following considerations for implant placement: soft tissue, hard tissue and biomechanical		CA	Interactive lecture/case-based learning/S GD							
assess a patient in need of dental implant(s) by history, clinical examination, imaging.		CPA	Interactive lecture/case-based learning/patient interaction							
describe the surgical procedure for one stage, two stage and immediate dental implant placement		CA	Interactive lecture/case-based learning/S GD							
state the peri-operative management of dental implant placement		C	Interactive lecture/case-based learning							
enlist complications of implant surgery and describe their management		C	Interactive lecture/case-based learning							
describe ridge augmentation and preservation, guided bone regeneration, onlay bone grafting, sinus lift and distraction osteogenesis for dental implant placement		C	Interactive lecture/case-based learning							
name the following special maxillofacial implants: zygomatic and extra-oral		C	Interactive lecture/case-based learning							
8.PAIN/TMJ SURGERY/SALIVARY GLAND DISEASE Time allocation: Lecture: 8 hrs Clinical: 26 hrs						X	3	0-1	10%	
OROFACIAL PAIN										
describe the pathophysiology of neuropathic pain	C	Interactive lecture/case								

	Prof. Dr. Asad Aizaz Chatha		-based learning						
classify oro-facial pain according to site and etiology		C	Interactive lecture/case-based learning						
diagnose trigeminal neuralgia and describe its management options.		CA	Interactive lecture/case-based learning/S GD						
differentiate trigeminal neuralgia from pre-trigeminal neuralgia, odontalgia, post-herpetic neuralgia, neuroma, burning mouth syndrome, glossopharyngeal neuralgia and headache	CA	Interactive lecture/case-based learning/S GD							
Temporomandibular Joint TMJ	Dr. Shoaib Younus								
evaluate a patient with TMJ disorder		CPA	Interactive lecture/case-based learning/practical/patient interaction						
classify TMJ disorders as: myofascial, internal derangement (Wilke's), systemic arthritis conditions, chronic recurrent dislocation, ankylosis, neoplasia and infections		C	Interactive lecture/case-based learning						
Select management options for TMD and ankylosis (conservative and surgical)		CA	Interactive lecture/case-based learning/S GD						
SALIVARY GLAND DISEASE	Prof. Dr. Asad Aizaz Chatha								
describe pathophysiology and presentation of obstructive, retentive, infectious and neoplastic salivary gland disease		C	Interactive lecture/case-based learning						
describe various diagnostic modalities for salivary gland disorders		C	Interactive lecture/case-based learning						
describe the principles of management of the following salivary gland		CA	Interactive lecture/case						

disorders: sialolithiasis, mucocele, ranula, infections, traumatic injuries to salivary glands, pleomorphic adenoma, Warthin's tumor, mucoepidermoid carcinoma, adenoid cystic carcinoma, adenocarcinoma.			-based learning/S GD						
9.DENTOFACIAL DEFORMITY AND ORTHOGNATHIC SURGERY						X	4	0-1	12%
Time allocation: Lecture: 4 hrs Clinical: 26 hrs									
Enlist causes of dentofacial deformities	Prof. Dr. Asad Aizaz Chatha	C	Interactive lecture/case -based learning						
evaluate a patient with dentofacial deformity		C	Interactive lecture/case -based learning						
order and interpret relevant investigations		C	Interactive lecture/case -based learning						
describe the pre-surgical preparation for orthognathic surgery patient.		C	Interactive lecture/case -based learning						
describe the surgical treatment options (osteotomies) for the following: mandibular excess, mandibular deficiency, maxillary and mid-face deficiency, combination deformity, facial asymmetry.		CA	Interactive lecture/case -based learning/S GD						
describe the role and advantages of distraction osteogenesis in OMF region		C	Interactive lecture/case -based learning						
CLEFT LIP AND PALATE									
name the number of different types of rare facial clefts in addition to cleft lip and palate	Dr. Shoaib Younus	C	Interactive lecture/case -based learning						
classify cleft lip and palate for communication and record keeping.		C	Interactive lecture/case						

			-based learning								
enlist the OMF problems faced by a cleft patient		C	Interactive lecture/case -based learning								
constitute a team for the treatment of a cleft patient.		C	Interactive lecture/case -based learning								
describe the treatment of a cleft patient according to the sequence and surgical procedures.		CA	Interactive lecture/case -based learning/S GD								
10.HOPITALIZED PATIENTS AND GENERAL ANESTHESIA Time allocation: Lecture: 3.5 hrs Clinical: 26 hrs								X	2	0-1	10%
Answer a referral consultation letter		C/A	SGD								
Describe when to hospitalize a dental patient for management		C	Interactive lecture/case -based learning/S GD								
Describe day surgery/ dentistry under GA	Dr. Hafiz M. Jawaad Manzoor	C	Interactive lecture/case -based learning								
Evaluate a patient for OMF surgery under GA list pre-operative management of patient for major oral surgery: investigations and consults with reference to ASA status.		CA	Interactive lecture/case -based learning/S GD								
Describe assessment of fitness, normal, abnormal cardiac and respiratory signs, premedication, anesthetic and analgesia medication, technique of endotracheal intubation.		C	Interactive lecture/case -based learning								
Provide care for hospitalized patient		C	Interactive lecture/case -based learning								
Record operative notes		CPA	Interactive lecture/case -based								

			learning/S GD						
Write a hospital discharge		CA	Interactive lecture/case -based learning/S GD						
Enlist and describe management of post GA problems.		C	Interactive lecture/case -based learning						

Small Group Discussions

Topics	Facilitators	Setting
1. Medically compromised patients and medical emergencies in dental clinics	Prof. Dr. Asad Aizaz Chatha , Dr. Ali Shahid	IOD Seminar Room # 275
2. Exodontia including local anesthesia	Dr. Shoaib Younus, Dr. Azhar Imran	IOD Seminar Room # 275
3. Oral and Maxillofacial Trauma	Dr. Hafiz M. Jawaad Manzoor, Dr. Samah Akhtar	IOD Seminar Room # 275
4. Oral and Maxillofacial Infections	Prof. Dr. Asad Aizaz Chatha, Dr. Aminah Ikram Ullah	IOD Seminar Room # 275
5. Basic principles of surgery	Dr. Shoaib Younus, Dr. Ali Shahid	IOD Seminar Room # 275
6. Cysts, Tumors, Periapical, Antral and other Pathological lesions	Dr. Hafiz M. Jawaad Manzoor, Dr. Azhar Imran	IOD Seminar Room # 275
7. Pre-prosthetics and Implants surgery	Prof. Dr. Asad Aizaz Chatha, Dr. Samah Akhtar	IOD Seminar Room # 275
8. Pain, TMJ surgery/ salivary gland disease	Dr. Shoaib Younus, Dr. Aminah Ikram Ullah	IOD Seminar Room # 275
9. Dentofacial deformity and Orthognathic surgery	Dr. Hafiz M. Jawaad Manzoor, Dr. Ali Shahid	IOD Seminar Room # 275
10. Hospitalized patients and GA	Prof. Dr. Asad Aizaz Chatha, Dr. Azhar Imran	IOD Seminar Room # 275

Learning Resources

Topics	Resources
11. Medically compromised patients and medical emergencies in dental clinics	<ol style="list-style-type: none"> 1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker 2. Medical Problems in Dentistry, by Scully & Cawson 3. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/
12. Exodontia including local anesthesia	<ol style="list-style-type: none"> 1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker 2. Handbook of Local Anesthesia. 6th Edition, 2013 Stanley F. Malamed 3. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/
13. Oral and Maxillofacial Trauma	<ol style="list-style-type: none"> 1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker 2. Killeys- Midface fractures vol I; Mandible fractures vol-II 3. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/
14. Oral and Maxillofacial Infections	<ol style="list-style-type: none"> 1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker 2. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/
15. Basic principles of surgery	<ol style="list-style-type: none"> 1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker

	<p>2. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/</p>
16. Cysts, Tumors, Periapical, Antral and other Pathological lesions	<p>1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker</p> <p>2. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/</p>
17. Pre-prosthetics and Implants surgery	<p>1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker</p> <p>2. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/</p>
18. Pain, TMJ surgery/ salivary gland disease	<p>1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker</p> <p>2. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/</p>
19. Dentofacial deformity and Orthognathic surgery	<p>1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker</p> <p>2. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/</p>
20. Hospitalized patients and GA	<p>1. Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker</p> <p>2. Internet e.g. https://www.sciencedirect.com/ , https://emedicine.medscape.com/</p>

OTHER LEARNING RESOURCES

<u>Hands- on Activities / Practical</u>	Students will be involved in practical sessions and hands-on activities that link oral surgery and patient care to enhance their learning
<u>Skills Area</u>	A section of the clinical hall dedicated to teaching students basic suturing and wiring skills used in oral surgery.
<u>Videos</u>	Videos familiarize the student with the procedures and protocols to assist patients
<u>Computer Lab/CSs/DVDs/ Internet Resources:</u>	To increase the knowledge, students should utilize the available internet resources and CDs/ DVDs. This will be an additional advantage to increase learning.
<u>Self-Learning</u>	Self-Learning is scheduled to search for information to solve cases, read through different resources and discuss among the peers and with the faculty to clarify the concepts.

Summative assessment methods and policies

Internal Assessment

- a. Weightage of internal assessment shall be 10 %, each for theory and practical, in BDS Professional Examination.
- b. The Internal Assessment shall comprise of monthly test / PBL / assignments / Clinical tests / clinical vivas etc
- c. The Internal Assessment record shall be kept in the respective department of the College / Institute and after approval of Principal, a summary as per University registration number shall be furnished to the Controller of Examinations, at least two weeks before the commencement of final examination.
- d. The result of all the class tests / tools which contribute towards IA will be displayed to the students during an academic year.
- e. The same internal assessment shall be counted both for annual and supplementary examinations. The students who are relegated, however, can improve the internal assessment during subsequent year
- f. Internal assessment tools of any subject may be changed after the approval of respective FBS

Annual Examination

- g. The weightage of Annual Examination shall be 90%, each for theory and practical, in BDS.
- h. The examination comprises of a theory paper and practical/clinical examinations as per PM&DC regulations and the Table of Specifications (TOS) of the University.
- i. The gap between two consecutive theory papers shall not be more than two days.
- j. The Theory Paper shall be of 3-hours duration, held under the arrangements of the university. It shall have two parts; MCQs (30%) and SAQs/SEQs (70 %) for the year 2019. It may be changed after the approval of Academic Council.
- k. Allocated time for MCQs for 2019 shall be as under:

25 MCQs	-	30 Minutes
30 MCQs	-	40 Minutes
40 MCQs	-	50 Minutes
45 MCQs	-	60 Minutes
- l. Each MCQs shall have four distractors

Internal Examiner

He/she shall be Professor and Head of Department who has been involved in teaching of the class being examined for at least six months and has delivered 50% of the total lectures. Second preference shall be Associate/Assistant Professor who is involved in teaching of the class and posted there for one year. Third preference shall be a recognized Professor of the subject.

External Examiner

He/she shall be a Professor/Associate Professor of a recognized Medical/Dental College or at least an Assistant Professor with three years teaching experience in the relevant subject.

Conflict of Interest

No person shall serve as an examiner whose close relative (wife, husband, son, daughter, adopted son, adopted daughter, grand-son, grand-daughter, brother, sister, niece /nephew, son and daughter- in-law brother and sister- in-law, parental and maternal uncle and aunt etc) is appearing in the examination. All examiners likely to serve as an examiner shall render a certificate in compliance to this para.

Paper Setting

- m. Each College / Institute shall forward a set of two question papers as per TOS along with the key for each subject to the Controller of Examinations, at least three months in advance of the annual examination. The question paper as a whole / a question without a comprehensive key shall not be considered towards final paper setting.
- n. The set of question papers shall be prepared by the respective Head of Department (HoD) and furnished to Controller of Examinations through Head of Institution (HoI)
- o. The Controller of Examinations shall approve the faculty for the final paper setting having fair representation of each college / institute.

Paper Assessment

- p. The Controller of Examinations shall approve the faculty for the theory paper marking, to be undertaken in the manner as deemed appropriate.
- q. The Examination Directorate shall coordinate directly with the faculty, earmarked for the paper marking
- r. A student who scores 85% and above marks in any subject shall qualify for distinction in that particular subject.
- s. A fraction in aggregate marks of a subject shall be rounded off to whole number. If it is less than 0.5 then it will be rounded off to the previous whole number while 0.5 or more will be rounded off to the next whole number.

Practical / Clinical Examinations

- t. The Controller of Examiners shall approve the faculty to serve as the internal & external examiners.
- u. The number of external and internal examiners shall be equal.
- v. One external & internal examiner each shall be marked for a group of 100 students.
- w. Candidates may be divided into groups in the clinical and practical examinations and be standardized by incorporating clinical exam
- x. Practical/clinical examination shall be held after the theory examination of the subject but in special cases, it may be held before the theory examination with the approval of the Controller of Examinations. For the purpose of practical/clinical examination, the candidates may be divided into sub groups by the examiners.

- y. The assessment of the practical / clinical examination duly signed by internal & external examiner shall be furnished to the Controller of Examinations within one week of the conclusion of examination

Pass Marks

- z. Pass marks for all subjects less Islamic / Pakistan Studies, shall be 50 % in theory and practical, separately.
- aa. Pass marks for Islamic / Pakistan Studies shall be 33 % which, however shall not be counted towards final scoring of the professional examination.
- bb. No grace marks shall be allowed to any student in any examination.

Declaration of Result.

Every effort shall be made to declare the result of each examination within one month of the last practical examination or earlier.

Promotion.

No student shall be promoted to the higher classes unless he/she passes all the subjects of the previous class

Re-Totaling.

Any student may apply to the Controller of Examinations on a prescribed form along with the specified fee.

Supplementary Examination.

The interval between a supplementary examination and the previous professional examination shall not be more than two months. There shall be no special supplementary examination.

Final Professional BDS Examination (2020)

Oral & Maxillofacial Surgery

Time Allowed	=03 hrs. (Including MCQs)	
Marks of theory paper	=90	
Internal assessment	=10	
Total marks	=100	
Pass Marks	=50	
45 x MCQs	(45 Marks)	Time = 50 min
Q. No. 1, 2, 3, 4, 5, 6, 7, 8, 9		
3 x SAQs/SEQs (Recall)	= 05 marks each	
6 x SAQs/SEQs (Application)	= 05 marks each	
Total Marks	= 45 Marks	Time = 2 hours & 10 min

Sr.No	Course Content	NUMBER OF MCQs (45) Recall (18) Application (27) (1 mark each)	NUMBER OF SAQs/SEQs (09) (05 marks each)
1.	Medically Compromised Patients & Medical Emergencies in Dental Clinics	5	1
2.	Exodontia Including Local Anesthesia	4	1
3.	Oral & Maxillofacial Trauma	4	1
4.	Oral & Maxillofacial Infections	4	1
5.	Basic Surgical Principles	3	1
6.	Cysts, Tumors, Periapical, Antral and Other Pathological Lesions	8	1
7	Pre-prosthetics and Implants Surgery	3	1
8	Pain / TMJ Surgery / Salivary Gland Diseases	5	1
9	Dentofacial Deformity and Orthognathic Surgery	6	1
10	Hospitalized patients & GA	3	
Total		45 (45)	09 (45)

Table of Specification for Annual Examinations – Practical

VIVA (60 marks)	Practical / Clinical (120 marks)				Int. Assess (20 Marks)	Total
	TOACS	History	LA & Extraction	Chair side Viva		
60	30	15	50	25	20	200

Internal assessment calculation (Theory Annual)

A	B	C	D	E	Int. Assessment Score
1 st Mid term	1 st term	2 nd Mid term	2 nd term	PreAnnual	Total Marks of internal Assessment out of 10
					$(A+B+C+D + E) \div 360 \times 10$
45 Marks	90 Marks	45 Marks	90 Marks	90Marks	10 Marks

Internal assessment calculation (practical)

Ward Test (A)	Pre-annual Practical (B)	Total Marks of internal Assessment (out of 20)
20	180	$(A+B) \div 200 \times 20$

Sample MCQ and SAQ/SEQ

A 32 year old male patient presents to the oral surgery department one week after incisional biopsy of a radiolucent lesion of his left posterior mandible. The lesion was asymptomatic, though it had caused loosening of teeth, and all posterior left molars had been extracted over the last 6 months. Radiographs showed the lesion extending mesio-distally from the 2nd premolar to the 3rd molar region, and vertically from the alveolar crest to the level of the premolar root apices. Histopathology reports the lesion to be a follicular ameloblastoma. Which of the following treatment modalities is most suitable for this case?

- A. Composite resection
- B. Enucleation and/or curettage
- C. Marginal resection
- D. Partial resection
- E. Total resection

Key : C

Sample SEQ

A 44 year old female presents to the oral surgery department complaining of a swelling below her tongue of one week duration. The swelling has slowly increased in size and is affecting tongue movement and function. On examination there is a soft dome like swelling in the left anterior floor of the mouth, 25 mm in diameter. The overlying mucosa has a bluish hue. There is no loss of sensation of the tongue, though movements are painful and restricted.

- (a) What is the differential diagnosis of this lesion?
- (b) Which of these is the most likely diagnosis, and what are the different types of this lesion, if any?
- (c) How will you treat this lesion, presuming your diagnosis is correct?

Key:

- a)
 1. Ranula
 2. Mucocele
 3. Lymphoepithelial cyst
 4. Epidermoid Cyst
 5. Salivary Gland Tumor
- b) Ranula. The two types are
 - i) Simple Ranula
 - ii) plunging Ranula
- c) Marsupialization of the ranula in which a portion of the oral mucosa of the floor of the mouth is excised along with the superior wall of the ranula. Subsequently, the lining of the floor of the ranula is then sutured to the floor of the mouth and allowed to heal by secondary intention. For persistent ranulas, excision of the sublingual gland as well the ranula can be done via intra-oral approach

Reference : Contemporary Oral & Maxillofacial Surgery. 7th Edition 2018. Peterson, Ellis, Hupp, Tucker