

**COURSE SPECIFICATIONS  
PROGRAMME**

**ORAL & MAXILLOFACIAL  
SURGERY**

**THIRD YEAR**

## Course Specification

### Oral and maxillofacial surgery

<b>University</b>	Tripoli
<b>Faculty</b>	Dentistry

#### A- Administrative Information:

<b>Course Title</b>	Oral Surgery I
<b>Code</b>	O.M.F.S. III
<b>Department offering the course</b>	Department of Oral & Maxillofacial Surgery– Faculty of Dentistry, University of Tripoli
<b>Programme(s) on which the course is given</b>	B.D.S Program
<b>Department(s) offering the programme</b>	Faculty of Dentistry, University of Tripoli
<b>Academic level/year</b>	Third year
<b>Taught hours</b>	3hours/week (90 hours/year)

Lecture	Tutorial	Practical	Others	Total
2 hours/week		2 hours/week		3 hours/week
60 hours/year		60 hours/year		90 hours/year

#### B- Professional Information:

##### 1. Overall aims of course:

- The course provides the undergraduate students with basic information and skills necessary to perform local anaesthesia and exodontia, and deal with the expected complications during oralsurgical procedures.
- To provide the students with sufficient knowledge and intellectual skills concerning different diseases and lesions affecting the oral and para-oral structures.
- To provide students with an appropriate formation of knowledge covering oral & maxillofacial surgery emergencies and common diseases in the oral & maxillofacial region in children and adults.
- To enable students to recognize important clinical lesions and be familiar with recent methods of diagnosis and proper management.

##### 2. Intended Learning outcomes of course (ILOs)

###### a) Knowledge and understanding

*By the end of the course, students should be able to:*

- Describe the basic anatomy and physiology of oral & maxillofacial region.
- Determine the different types of local anesthetic drugs and biotransformation, excretion and systemic action.
- Discuss principles, types and techniques of local anaesthesia.
- Identify complications of local anaesthesia.
- Determine the indication and contra-indication of dental extraction (systemic and local) and pre-operative assessment before dental extraction.
- Describe different techniques for extraction of permanent teeth.

- Discuss complications of extraction of teeth.
- Determine the indications and principles of trans-alveolar extraction.
- describe aetiology and complications of impacted teeth and techniques used for their surgical removal
- Describe classification, radiographic evaluation, surgical techniques and postoperative care for impacted teeth (third molars, premolar & canines).
- Recognize techniques for pre-prosthetic surgery.
- Describe the management of patients with systemic diseases in oral surgery.
- Discuss principles and techniques for oral implantology.
- Recognize the concepts and mechanisms of infection control.

**b) Intellectual skills**

*By the end of the course, students should be able to:*

- Explain factors leading to complications in local anaesthesia.
- Determine factors leading to complications in extraction of teeth.
- Identify causes of surgical problems for patients.

**c) Professional and practical skills**

*By the end of the course, students should be able to:*

- Apply local anaesthesia in different intra oral locations.
- Manage the complications which may arise during local anaesthesia application.
- Perform basic surgical techniques.
- Undertake exodontia of teeth.
- Perform extractions for different types of teeth using the appropriate dental forceps.
- Remove roots fractured during exodontias.
- deal with roots fractured during exodontia using the appropriate surgical instruments
- Remove retained roots including the raising of a mucoperiosteal flap.
- Remove simple impacted teeth.
- Perform the necessary procedures for controlling haemorrhage during oral surgical procedures.
- Perform the necessary procedures for controlling complications of oral surgery both general (medical) and local (surgical) intra-operatively and post-operatively.
- Provide adequate instructions to the patient following surgical procedures to ensure proper healing.
- Apply basic surgical technique including the raising of a mucoperiosteal flap, bone removal and suturing.
- Assess and select patients requiring oral surgical procedures on clinical basis.
- Provide immediate (including life-saving) care for emergency cases.
- Identify, select, appropriately use and manage the needed surgical armamentarium.

**d) General and transferable skills**

*By the end of the course, students should be able to:*

- Associate in group activities to develop baseline understanding and implementation of teamwork performance strategies.
- Integrate computer search for development of self learning.

- Display ability to gather information through seminar presentations.
- Communicate effectively with patients, colleagues and staff members.
- Exhibit ethical practices during patient care.
- Manage time, set priorities and work to prescribed time limits.
- Communicate with colleagues and the public.

**e) Attitude**

*By the end of the course, students should be able to:*

- Demonstrate ethical relationship with staff.
- Deliver care to patients with professionalism, self confidence and communication.

**3. Course contents:**

No.	Lecture Title	Lecture Subtitle
1.	<b>Introduction</b>	<ul style="list-style-type: none"> <li>• Definition.</li> <li>• History.</li> <li>• Scope.</li> <li>• Aims.</li> <li>• Objectives.</li> </ul>
2.	<b>Principles of surgery</b>	
	<b>(1)Preoperative health status evaluation:</b>	<ul style="list-style-type: none"> <li>• Medical history:               <ul style="list-style-type: none"> <li>– Biographic data.</li> <li>– Chief complaint.</li> <li>– History of the chief complaint.</li> <li>– Medical history.</li> <li>– Review of systems.</li> </ul> </li> <li>• Physical examination.</li> <li>• Risk assessment.</li> <li>• Management of patients with medically compromised patient:               <ul style="list-style-type: none"> <li>– Conditions.</li> <li>– Cardiovascular problems.</li> <li>– Pulmonary problems.</li> <li>– Renal problems.</li> <li>– Hepatic disorders.</li> <li>– Endocrine disorders.</li> <li>– Hematologic problems.</li> <li>– Neurologic disorders.</li> </ul> </li> <li>• Management of pregnant and postpartum patients:               <ul style="list-style-type: none"> <li>– Pregnancy.</li> <li>– Postpartum.</li> </ul> </li> </ul>
	<b>(2)Prevention and management of medical emergencies:</b>	<ul style="list-style-type: none"> <li>• Prevention.</li> <li>• Preparation:               <ul style="list-style-type: none"> <li>– Continuing education.</li> <li>– Office staff training.</li> <li>– Access of help.</li> <li>– Emergency supplies and equipment.</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>• Medical emergencies <ul style="list-style-type: none"> <li>– Hypersensitivity reactions.</li> <li>– Chest discomfort.</li> <li>– Respiratory difficulty: <ul style="list-style-type: none"> <li>a. Asthma.</li> <li>b. Hyperventilation.</li> <li>c. Chronic obstructive pulmonary disease.</li> <li>d. Foreign body aspiration.</li> <li>e. Gastric contents aspiration.</li> </ul> </li> <li>– Altered consciousness. <ul style="list-style-type: none"> <li>a. Vasovagal syncope.</li> <li>b. Orthostatic hypotension.</li> <li>c. Seizure.</li> <li>d. Local anaesthetic toxicity.</li> <li>e. Diabetes mellitus.</li> <li>f. Thyroid dysfunction.</li> <li>g. Adrenal insufficiency.</li> <li>h. Cerebrovascular compromise.</li> </ul> </li> </ul> </li> </ul>
	<p><b>(3)Principles of surgery:</b></p>	<ul style="list-style-type: none"> <li>• Developing a surgical technique.</li> <li>• Basic necessities for surgery.</li> <li>• Aseptic technique: <ul style="list-style-type: none"> <li>– Flap.</li> <li>– Flap design: <ul style="list-style-type: none"> <li>a. Prevention of flap necrosis.</li> <li>b. Prevention of flap dehiscence.</li> <li>c. Prevention of flap tearing.</li> </ul> </li> <li>– Intra-oral: <ul style="list-style-type: none"> <li>a. Mucoperiosteal flaps.</li> <li>b. Principles.</li> <li>c. Commonly used intra-oral incisions.</li> </ul> </li> <li>– Extra oral: <ul style="list-style-type: none"> <li>a. Skin incisions.</li> <li>b. Principles.</li> <li>c. Various extra-oral incision to expose facial skeleton: <ul style="list-style-type: none"> <li>(1)Submandibular.</li> <li>(2)Pre-auricular.</li> <li>(3)Incision to expose maxilla &amp; orbit.</li> <li>(4)Bicoronal incision.</li> </ul> </li> </ul> </li> <li>– Bone removal: <ul style="list-style-type: none"> <li>a. Methods of bone removal.</li> <li>b. Use of burs.</li> <li>c. Bone cutting instruments.</li> </ul> </li> </ul> </li> <li>• Tissue handling.</li> <li>• Haemostasis.</li> <li>• Means of promoting wound haemostasis.</li> <li>• Dead space management.</li> <li>• Decontamination and debridement.</li> <li>• Suturing:</li> </ul>

		<ul style="list-style-type: none"> <li>- Principles.</li> <li>- Resorbable sutures.</li> <li>- Nonresorbable sutures.</li> <li>- Suture sizes.</li> <li>- Suture handling.</li> <li>- Needles.</li> <li>- Basic suturing techniques.</li> <li>- Postoperative care of sutured wounds.</li> <li>• Oedema control.</li> <li>• Patient general health and nutrition.</li> </ul>
	<b>(4)Wound repair</b>	<ul style="list-style-type: none"> <li>• Wound repair. <ul style="list-style-type: none"> <li>- Aetiology of tissue damage.</li> <li>- Epithelialisation.</li> <li>- Stages of wound healing.</li> </ul> </li> <li>• Surgical significance of wound healing concepts. <ul style="list-style-type: none"> <li>- Factors that impair.</li> <li>- Healing by primary and secondary intention.</li> <li>- Healing of extraction sockets.</li> <li>- Bone healing.</li> <li>- Implant osseointegration.</li> <li>- Nerve injury and repair.</li> </ul> </li> </ul>
	<b>(5)Principles of asepsis</b>	<ul style="list-style-type: none"> <li>• Communicable pathogenic organisms. <ul style="list-style-type: none"> <li>- Bacteria. <ol style="list-style-type: none"> <li>a. Upper respiration tract flora.</li> <li>b. Maxillofacial skin flora.</li> <li>c. Non-maxillofacial flora.</li> </ol> </li> <li>- Viral organisms. <ol style="list-style-type: none"> <li>a. Hepatitis viruses.</li> <li>b. Human immunodeficiency virus.</li> </ol> </li> <li>- Mycobacterial organisms</li> </ul> </li> <li>• Aseptic technique and universal precautions. <ul style="list-style-type: none"> <li>- Terminology.</li> <li>- Concept.</li> <li>- Techniques of instrument sterilization.</li> <li>- Techniques of instrument disinfection.</li> <li>- Maintenance of sterility. <ol style="list-style-type: none"> <li>a. Disposable materials.</li> <li>b. Surgical field maintenance.</li> </ol> </li> <li>- Operatory disinfection.</li> <li>- Surgical staff preparation. <ol style="list-style-type: none"> <li>a. Antiseptics.</li> <li>b. Clean technique.</li> <li>c. Sterile technique.</li> <li>d. Postsurgical asepsis.</li> </ol> </li> <li>- Patient preparation.</li> </ul> </li> <li>• Principles of infection control and cross-infection with particular reference to HIV/AIDS and hepatitis.</li> </ul>

	<b>(6)Control of haemorrhage during surgery</b>	<ul style="list-style-type: none"> <li>• Normal haemostasis.</li> <li>• Local measures available to control bleeding.</li> <li>• Hypotensive anaesthesia etc.</li> </ul>
	<b>(7)Drainage &amp; debridement</b>	<ul style="list-style-type: none"> <li>• Purpose of drainage in surgical wounds.</li> <li>• Types of drains used.</li> <li>• Debridement. <ul style="list-style-type: none"> <li>– Purpose.</li> <li>– Soft tissue debridement.</li> <li>– Bone debridement.</li> </ul> </li> </ul>
	<b>(8)Post operative care</b>	<ul style="list-style-type: none"> <li>• Postoperative instructions.</li> <li>• Physiology of cold and heat.</li> <li>• Control of pain – analgesics.</li> <li>• Control of infection – antibiotics.</li> <li>• Control of swelling – anti-inflammatory drugs.</li> <li>• Long term post operative follow up – significance.</li> </ul>
<b>3.</b>	<b>Local anaesthesia</b>	<ul style="list-style-type: none"> <li>• Introduction.</li> <li>• History.</li> <li>• Neural pathway of facial pain</li> <li>• Neurophysiology.</li> <li>• Concept &amp; principle of L.A.</li> <li>• Classification of local anesthetic agents.</li> <li>• Ideal requirements.</li> <li>• types of local anaesthesia</li> <li>• Composition of local anesthetic agents.</li> <li>• Indications and contraindications.</li> <li>• Advantages and disadvantages.</li> <li>• Pharmacology of local anesthetics.</li> <li>• Use of vaso-constrictors in local anesthetic agent. <ul style="list-style-type: none"> <li>– Pharmacology of vaso-constrictors.</li> <li>– Advantages, contraindications.</li> <li>– Various vaso-constrictors used.</li> </ul> </li> <li>• Armamentariums. <ul style="list-style-type: none"> <li>– Additional Armamentarium. <ol style="list-style-type: none"> <li>a. Topical antiseptic.</li> <li>b. Topical anaesthetic.</li> <li>c. Applicator sticks.</li> <li>d. Cotton gauze.</li> <li>e. Haemostat.</li> </ol> </li> <li>– Preparation of Armamentarium.</li> </ul> </li> <li>• Techniques of local anaesthesia. <ul style="list-style-type: none"> <li>– Physical and physiological evaluation. <ol style="list-style-type: none"> <li>a. Medical history.</li> <li>b. Dialogue history.</li> <li>c. Physical examination.</li> <li>d. Drug-Drug interaction.</li> </ol> </li> <li>– Basic injection technique. <ol style="list-style-type: none"> <li>a. Position the patient.</li> </ol> </li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>b. Position the operator.</li> <li>c. Hand positions for injections.</li> <li>d. Aspiration.</li> <li>– Anatomical considerations.</li> <li>• Techniques of maxillary anaesthesia. <ul style="list-style-type: none"> <li>– Maxillary injection techniques. <ul style="list-style-type: none"> <li>a. Supraperiosteal (infiltration).</li> <li>b. Periodontal ligament (intraalveolar).</li> <li>c. Intraosseous injection.</li> <li>d. Intraosseous injection.</li> <li>e. Posterior superior alveolar nerve block.</li> <li>f. Middle superior alveolar nerve block.</li> <li>g. Infraorbital nerve block.</li> <li>h. Maxillary nerve block.</li> <li>i. Greater palatine nerve block.</li> <li>j. Nasopalatine nerve block.</li> </ul> </li> <li>– Teeth and buccal soft and hard tissues.</li> <li>– Palatal anaesthesia.</li> <li>– Maxillary nerve block.</li> </ul> </li> <li>• Techniques of mandibular anaesthesia. <ul style="list-style-type: none"> <li>– Inferior alveolar nerve block.</li> <li>– Buccal nerve block.</li> <li>– Mandibular nerve block.</li> <li>– Mental nerve block.</li> <li>– Incisive nerve block.</li> </ul> </li> <li>• Effects of inflammation on local anaesthesia.</li> <li>• Complication of local anaesthesia. <ul style="list-style-type: none"> <li>– Failure of local anaesthesia.</li> <li>– Local complications.</li> <li>– Systemic complications.</li> </ul> </li> </ul>
4.	<b>Exodontia</b>	<ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Definition.</li> </ul>
	<b>(1) Armamentarium for basic oral surgery</b>	<ul style="list-style-type: none"> <li>• Instruments to incise tissue.</li> <li>• Instruments for elevating mucoperiosteum.</li> <li>• Instruments for controlling haemorrhage.</li> <li>• Instruments to grasp tissue.</li> <li>• Instruments for removing bone: <ul style="list-style-type: none"> <li>– Rongeur forceps.</li> <li>– Chisel and mallet.</li> <li>– Bone file.</li> <li>– Bur and handpiece.</li> <li>– Instruments to remove soft tissue from bony defects.</li> </ul> </li> <li>• Instruments for suturing mucosa: <ul style="list-style-type: none"> <li>– Needle holder.</li> <li>– Needle.</li> <li>– Suture material.</li> <li>– Scissors.</li> </ul> </li> </ul>



		<ul style="list-style-type: none"> <li>• Instruments for retracting soft tissue.</li> <li>• Instruments to hold the mouth open.</li> <li>• Instruments for providing suction.</li> <li>• Instruments to transfer sterile instruments.</li> <li>• Instruments to hold towels and drapes position.</li> <li>• Instruments for irrigation.</li> <li>• Dental elevators: <ul style="list-style-type: none"> <li>– Components.</li> <li>– Types.</li> <li>– Uses.</li> <li>– Principles of uses of elevators.</li> </ul> </li> <li>• Extraction forceps: <ul style="list-style-type: none"> <li>– Components.</li> <li>– Maxillary forceps.</li> <li>– Mandibular forceps.</li> </ul> </li> <li>• Instruments tray systems.</li> </ul>
	<p><b>(2)Principles of uncomplicated(Forceps or intra-alveolar or closed) exodontia</b></p>	<ul style="list-style-type: none"> <li>• Pain and anxiety control: <ul style="list-style-type: none"> <li>– Local anaesthesia.</li> <li>– Sedation.</li> </ul> </li> <li>• Presurgical medical assessment.</li> <li>• Indications for removal of teeth.</li> <li>• Contraindications for removal of teeth.</li> <li>• Clinical evaluation of teeth for removal: <ul style="list-style-type: none"> <li>– Access to tooth.</li> <li>– Mobility of tooth.</li> <li>– Condition of the crown.</li> </ul> </li> <li>• Radiographic examination of tooth for removal: <ul style="list-style-type: none"> <li>– Relationship of associated vital structures.</li> <li>– Configuration of roots.</li> <li>– Condition of surrounding bone.</li> </ul> </li> <li>• Patient and surgeon preparation.</li> <li>• Chair position for forceps extraction.</li> <li>• Mechanical principles involved in tooth extraction.</li> <li>• Principles of forceps use.</li> <li>• Procedure for closed extraction.</li> <li>• Role of the opposite hand.</li> <li>• Role of assistant during extraction.</li> <li>• Specific techniques of removal of each tooth. <ul style="list-style-type: none"> <li>– Maxillary teeth.</li> <li>– Mandibular teeth.</li> <li>– Modifications for extraction of primary teeth.</li> </ul> </li> <li>• Postextraction care of the tooth socket.</li> </ul>
	<p><b>(3)Principles of complicated (Trans-alveolar, surgical or open) exodontia</b></p>	<ul style="list-style-type: none"> <li>• Principles of flap design, development and management. <ul style="list-style-type: none"> <li>– Design parameters for soft tissue flaps.</li> <li>– Types of mucoperiosteal flaps.</li> <li>– Technique of developing a mucoperiosteal flap.</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>– Principles of suturing.</li> <li>• Principles and techniques for surgical extraction: <ul style="list-style-type: none"> <li>– Indications for surgical extraction.</li> <li>– Principles of uses of elevators.</li> <li>– Technique for open extraction of single rooted tooth.</li> <li>– Technique for surgical removal of multirooted teeth.</li> <li>– Removal of small root fragments and root rips.</li> <li>– Policy for leaving root fragments.</li> </ul> </li> <li>• Multiple extractions.</li> </ul>
	<b>(4)Principles of management of impacted teeth</b>	<ul style="list-style-type: none"> <li>• Definition.</li> <li>• Epidemiology.</li> <li>• Aetiology.</li> <li>• Indications for removal of impacted teeth.</li> <li>• Contraindications for removal of impacted teeth.</li> <li>• Classification systems for mandibular impacted teeth: <ul style="list-style-type: none"> <li>– Angulation.</li> <li>– Relationship to anterior border of ramus.</li> <li>– Relationship to occlusal plane.</li> </ul> </li> <li>• Root morphology: <ul style="list-style-type: none"> <li>– Size of follicular sac.</li> <li>– Density of surrounding bone.</li> <li>– Contact with mandibular second molar.</li> <li>– Relationship to inferior alveolar nerve.</li> <li>– Nature of overlying tissue.</li> </ul> </li> <li>• Modification of classification systems for maxillary impacted teeth.</li> <li>• Factors that make impaction surgery less difficult.</li> <li>• Factors that make impaction surgery more difficult.</li> <li>• Diagnosis.</li> <li>• Surgical procedures: <ul style="list-style-type: none"> <li>– Impacted mandibular third molar.</li> <li>– Impacted maxillary third molar.</li> <li>– Impacted maxillary canine.</li> </ul> </li> <li>• Perioperative patient management.</li> </ul>
	<b>(5)Postoperative patient management</b>	<ul style="list-style-type: none"> <li>• Control of postoperative bleeding.</li> <li>• Ecchymosis.</li> <li>• Oedema.</li> <li>• Trismus.</li> <li>• Diet.</li> <li>• Oral hygiene.</li> <li>• Control postoperative pain and discomfort.</li> <li>• Control of infection.</li> <li>• Postoperative follow up visit.</li> </ul>
	<b>(6) Complication of exodontia and</b>	<ul style="list-style-type: none"> <li>• Prevention of complication.</li> <li>• Complication occurring during the operative</li> </ul>

	<b>prevention and management</b>	<p>procedure:</p> <ul style="list-style-type: none"> <li>- Soft tissue injuries.</li> <li>- Injuries to osseous structures.</li> <li>- Oroantral communications.</li> <li>- Fractures of the mandible.</li> <li>- Complications with the tooth being extracted.</li> <li>- Injuries to adjacent structures.</li> </ul> <ul style="list-style-type: none"> <li>• Complications occurring during the postoperative period: <ul style="list-style-type: none"> <li>- Bleeding.</li> <li>- Delayed healing.</li> <li>- Infection.</li> </ul> </li> <li>• Management of complications.</li> </ul>
5.	<b>Soft tissue and dentoalveolar injuries</b>	<ul style="list-style-type: none"> <li>• Management of dentoalveolar injuries: <ul style="list-style-type: none"> <li>- History.</li> <li>- Clinical examination.</li> <li>- Radiographic examination.</li> <li>- Classification of traumatic injuries to the teeth and supporting structures: <ol style="list-style-type: none"> <li>a. Crown craze or crack.</li> <li>b. Crown fracture.</li> <li>c. Crown-root fracture.</li> <li>d. Horizontal root fracture.</li> <li>e. Sensitivity (concussion).</li> <li>f. Mobility (subluxation or looseness).</li> <li>g. Tooth displacement.</li> <li>h. Avulsion.</li> <li>i. Alveolar process fracture.</li> </ol> </li> </ul> </li> <li>• Treatment of dentoalveolar injuries.</li> <li>• Soft tissue injuries: <ul style="list-style-type: none"> <li>- Abrasion.</li> <li>- Contusion.</li> <li>- Laceration.</li> </ul> </li> <li>• Surgical management of lacerations: <ul style="list-style-type: none"> <li>- Cleansing of the wound.</li> <li>- Debridement of the wound.</li> <li>- Haemostasis in the wound.</li> <li>- Closure of the wound.</li> </ul> </li> </ul>
6.	<b>Preprosthetic surgery</b>	<ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Definition.</li> </ul>
	<b>(1)Basic Preprosthetic surgery</b>	<ul style="list-style-type: none"> <li>• Objectives of preprosthetic surgery.</li> <li>• Principles of patient evaluation and treatment: <ul style="list-style-type: none"> <li>- Planning.</li> <li>- Evaluation of supporting bony tissue.</li> <li>- Evaluation of supporting soft tissue.</li> <li>- Treatment planning.</li> </ul> </li> <li>• Recontouring of the alveolar ridges:</li> </ul>

		<ul style="list-style-type: none"> <li>- Simple alveoloplasty associated with removal of multiple teeth.</li> <li>- Intra-septal alveoloplasty.</li> <li>- Maxillary tuberosity reduction.</li> <li>- Buccal exostosis and excessive undercuts.</li> <li>- Lateral palatal exostosis.</li> <li>- Mylohyoid ridge reduction.</li> <li>- Genial tubercle reduction.</li> <li>• Tori removal: <ul style="list-style-type: none"> <li>- Maxillary tori.</li> <li>- Mandibular tori.</li> </ul> </li> <li>• Soft tissue abnormalities: <ul style="list-style-type: none"> <li>- Maxillary tuberosity reduction (soft tissue).</li> <li>- Mandibular retromolar pad reduction.</li> <li>- Lateral palatal soft tissue excess.</li> <li>- Unsupported hypermobile tissue.</li> <li>- Inflammatory fibrous hyperplasia.</li> <li>- Inflammatory papillary hyperplasia of the palate.</li> <li>- Labial frenectomy.</li> <li>- Lingual frenectomy.</li> </ul> </li> <li>• Immediate dentures.</li> <li>• Overdenture surgery.</li> </ul>
	<b>(2)Advanced</b>	<ul style="list-style-type: none"> <li>• Factors affecting bone resorption.</li> <li>• Goals of advanced preprosthetic surgery.</li> <li>• Patient evaluation: <ul style="list-style-type: none"> <li>- Bone evaluation.</li> <li>- Soft tissue evaluation.</li> <li>- Treatment planning.</li> </ul> </li> <li>• Mandibular augmentation: <ul style="list-style-type: none"> <li>- Superior border augmentation.</li> <li>- Inferior border augmentation.</li> <li>- Pedicle or interpositional grafts.</li> <li>- Hydroxyapatite augmentation of the mandible.</li> <li>- Guided bone regeneration (osteopromotion).</li> </ul> </li> <li>• Maxillary augmentation: <ul style="list-style-type: none"> <li>- Onlay bone grafting.</li> <li>- Interpositional bone graft.</li> <li>- Maxillary hydroxyapatite augmentation.</li> <li>- Sinus lift.</li> <li>- Tubero-plasty.</li> </ul> </li> <li>• Soft tissue surgery for ridge extension of the mandible: <ul style="list-style-type: none"> <li>- Transpositional flap vestibuloplasty.</li> <li>- Vestibule and floor-of-mouth extension procedures.</li> </ul> </li> <li>• Soft tissue surgery for maxillary ridge extension:</li> </ul>

		<ul style="list-style-type: none"> <li>– Submucosal vestibuloplasty.</li> <li>– Maxillary vestibuloplasty with tissue grafting.</li> <li>• Correction of abnormal ridge relationships: <ul style="list-style-type: none"> <li>– Segmental alveolar surgery in the partially edentulous patient.</li> <li>– Correction of skeletal abnormalities in the totally edentulous patient.</li> </ul> </li> </ul>
7.	<b>Principles of endodontic surgery</b>	<ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Definition.</li> <li>• Drainage of an abscess.</li> <li>• Periapical surgery. <ul style="list-style-type: none"> <li>– Indications.</li> <li>– Contraindications (or cautions).</li> <li>– Surgical procedure. <ol style="list-style-type: none"> <li>a. Flap design.</li> <li>b. Anaesthesia.</li> <li>c. Incision and reflection.</li> <li>d. Periapical exposure.</li> <li>e. Curettage.</li> <li>f. Root-end resection.</li> <li>g. Root-end preparation and restoration.</li> <li>h. Radiographic verification.</li> <li>i. Flap replacement and suturing.</li> <li>j. Postoperative instructions.</li> <li>k. Suture removal and evaluation.</li> </ol> </li> </ul> </li> <li>• Corrective surgery: <ul style="list-style-type: none"> <li>– Indications: <ol style="list-style-type: none"> <li>a. Procedural errors.</li> <li>b. Resorptive perforations.</li> </ol> </li> <li>– Contraindications. <ol style="list-style-type: none"> <li>a. Anatomical considerations.</li> <li>b. Location of perforation.</li> <li>c. Accessibility.</li> </ol> </li> <li>– Considerations.</li> <li>– Surgical procedure.</li> </ul> </li> <li>• Healing.</li> <li>• Determine the aetiology of root canal treatment failure.</li> <li>• Surgical difficulties.</li> </ul>
8.	<b>Transdental Fixation</b>	<ul style="list-style-type: none"> <li>• Definition.</li> <li>• Indications.</li> <li>• Diagnosis.</li> <li>• Techniques.</li> <li>• Postoperative management</li> </ul>
9.	<b>Reimplantation of teeth</b>	<ul style="list-style-type: none"> <li>• Introduction, definition.</li> <li>• Indications.</li> <li>• Operation technique.</li> <li>• Splint, Post-operative management.</li> </ul>

		<ul style="list-style-type: none"> <li>• Complications.</li> <li>• Prognosis.</li> </ul>
<b>10.</b>	<b>Hemisection, trisection and root amputation</b>	<ul style="list-style-type: none"> <li>• Definitions.</li> <li>• Indications.</li> <li>• Contraindications.</li> <li>• Diagnosis.</li> <li>• Operative procedures and techniques.</li> </ul>
<b>11.</b>	<b>Transplantation of teeth</b>	<ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Definition.</li> <li>• Indications.</li> <li>• Diagnosis.</li> <li>• Operative procedure.</li> </ul>
<b>12.</b>	<b>Cysts of the oral cavity</b>	<ul style="list-style-type: none"> <li>• Introduction.</li> <li>• Definition.</li> <li>• Classifications of the cysts.</li> <li>• Pathogenesis.</li> <li>• Diagnosis.</li> <li>• Clinical features.</li> <li>• Investigations.</li> <li>• Radiographic examination.</li> <li>• Aspiration biopsy.</li> <li>• Biopsy.</li> <li>• Cysts of the jaws: <ul style="list-style-type: none"> <li>– Epithelial cysts of the jaws: <ul style="list-style-type: none"> <li>a. Odontogenic: <ul style="list-style-type: none"> <li>I. Developmental: <ol style="list-style-type: none"> <li>1) Primordial (kerato) cyst.</li> <li>2) Gingival cyst of infants.</li> <li>3) Gingival cyst of adults.</li> <li>4) Lateral periodontal cyst.</li> <li>5) Dentigerous cyst.</li> <li>6) Eruption cyst.</li> <li>7) Calcifying odontogenic cyst.</li> </ol> </li> <li>II. Inflammatory cysts: <ol style="list-style-type: none"> <li>1) Radicular cyst.</li> <li>2) Residual cyst.</li> <li>3) Inflammatory collateral cyst.</li> <li>4) Para-dental cyst.</li> </ol> </li> </ul> </li> <li>b. Non-odontogenic: <ul style="list-style-type: none"> <li>I. Nasopalatine duct cyst.</li> <li>II. Incisve canal cyst.</li> <li>III. Median palatine cyst.</li> <li>IV. Median alveolar.</li> <li>V. Median mandibular.</li> <li>VI. Globulomaxillary cyst.</li> <li>VII. Naso-labial (naso-alveolar) cyst.</li> </ul> </li> </ul> </li> <li>– Nonepithelial cysts of the jaws: <ul style="list-style-type: none"> <li>a. Simple bone cyst:</li> </ul> </li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>I. Traumatic cyst.</li> <li>II. Haemorrhagic cyst.</li> <li>III. Solitary cyst.</li> <li>b. Aneurismal bone cyst.</li> <li>• Cysts associated with the maxillary antrum: <ul style="list-style-type: none"> <li>– Benign mucosal cyst.</li> <li>– Surgical ciliated cyst.</li> </ul> </li> <li>• Cysts of the soft tissues of the face, neck and mouth: <ul style="list-style-type: none"> <li>– Dermoid &amp; epidermoid cyst.</li> <li>– Lympho-epithelial cyst.</li> <li>– Thyroglossal duct cyst.</li> <li>– Anterio-median lingual cyst.</li> <li>– Naso-pharyngeal cyst.</li> <li>– Cystic hygroma.</li> <li>– Cysts of the salivary gland: <ul style="list-style-type: none"> <li>a. Extravasations cyst.</li> <li>b. Retention cyst.</li> <li>c. Ranula.</li> </ul> </li> </ul> </li> <li>• Surgical management of cysts and cystlike lesions of the jaws: <ul style="list-style-type: none"> <li>– Introduction.</li> <li>– Enucleation: <ul style="list-style-type: none"> <li>a. Definition.</li> <li>b. Indications.</li> <li>c. Advantages and disadvantages.</li> <li>d. Technique.</li> </ul> </li> <li>– Marsupialisation: <ul style="list-style-type: none"> <li>a. Definition.</li> <li>b. Indications.</li> <li>c. Advantages and disadvantages.</li> <li>d. Technique.</li> </ul> </li> <li>– Marsupialisation followed by Enucleation: <ul style="list-style-type: none"> <li>a. Definition.</li> <li>b. Indications.</li> <li>c. Advantages and disadvantages.</li> <li>d. Technique.</li> </ul> </li> <li>– Enucleation with curettage: <ul style="list-style-type: none"> <li>a. Definition.</li> <li>b. Indications.</li> <li>c. Advantages and disadvantages.</li> <li>d. Technique.</li> </ul> </li> </ul> </li> </ul>
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#### 4. Clinical course for third and fourth year:

- Principles, practice of cross infection control

*Students are required to learn and perform the following:*

- Maintain an aseptic technique throughout all surgical procedures.
- Improve knowledge related to infection control & sterilization techniques.

- Principles, practice of history taking and patient examination  
*Students are required to learn and perform the following:*
  - Obtain a comprehensive history (detailed dental history & related medical history).
  - Perform an appropriate physical examination.
  - Interpret and organize for further investigation/s.
- Principles, practice of local anaesthesia & its complication  
*Students are required to learn and perform the following:*
  - Students are required to be competent at infiltration & block techniques of L.A.
- Principles, practice of dental extraction under L.A & its complication  
*Students are required to learn and perform the following:*
  - To be competent at undertaking removal of all teeth & their roots; and whenever necessary steps of trans-alveolar extraction technique skilfully.
- Medical problems affecting oral surgery  
*Students are required to learn and perform the following:*
  - Diagnosis of medical emergencies & emergency drugs used.
  - Carry out resuscitation (CPR), treat an anaphylactic reaction, upper respiratory tract obstruction, haemorrhage, inhalation or ingestion of foreign bodies & diabetic trauma.
  - Management of medically compromised patients.
- Principles, practice of minor surgical procedures under L.A  
*Students are required to learn and perform the following:*
  - To master basic principles, know their limitations, indications of patient referral for secondary care.
- Principles, practice of diagnosis & management of emergency, maxillofacial pathology & trauma (before referral for secondary care)  
*Students are required to improve their knowledge regarding the following:*
  - Management of acute infection.
  - Implants as treatment options (know when an implant is an option in replacing missing tooth).
  - Diagnosis of dento-facial anomalies treatment and orthognathic surgery.
  - Management of oral cancer.
  - Principles of assessment of maxillofacial trauma.

## **5. Teaching and learning methods:**

- Lectures.
- Clinical sessions and chair side teaching.
- Tutorials, seminars and small group discussions.
- Seminars.
- Demonstrations and group discussions.
- Case presentation.
- The student will take the advantage of all audio-visual aids available both in the library such as:
  - Clinical photographs and slides.
  - Video-cassettes, CDs, DVDs.
  - Computer assisted learning programs and internet facility.
  - Books, atlases and newsletters.



## 6. Student assessment methods:

### a) Assessment tools:

<b>First Mid-Term examination (2 hours)</b>	To assess basic knowledge, intellectual skills, general transferable skills and students' progress until the middle of the year.
<b>Final-Oral examination (45 min – 1 hour)</b>	To assess basic knowledge, intellectual skills and general transferable skills for the complete academic year (at the end of the Fourth year).
<b>Final-Clinical examination</b>	To assess professional and practical skills, intellectual skills and general transferable skills for the complete academic year (at the end of the Fourth year).
<b>Final-Written examination (3 hours)</b>	To assess basic knowledge, intellectual skills and general transferable skills for the complete academic year (at the end of the Fourth year).

### b) Assessment schedule:

<b>First Mid-Term examination</b>	In the middle of the academic year for all students.
<b>Final-Oral examination</b>	This is held at the end of the Fourth year.
<b>Final-Clinical examination</b>	This is held at the end of the Fourth year.
<b>Final-Written examination</b>	This is held at the end of the Fourth year.

### c) Weighting of assessment:

<b>First Mid-Term examination</b>	10%	20 marks
<b>Final-Oral examination</b>	At the end of the Fourth year.	
<b>Final-Clinical examination</b>	At the end of the Fourth year.	
<b>Final-Written examination</b>	At the end of the Fourth year.	

### d) The minimum passing score is 120 marks (60%)

- Passing grades are as follow:

<b>Excellent</b>	85% - 100%
<b>Very good</b>	75% - 84,99%
<b>Good</b>	65% - 74,99%
<b>Fair (pass)</b>	60% - 64,99%
<b>Weak</b>	35% - 59,99%
<b>Very weak</b>	Less than 35%

## 7. List of reference:

- **Course notes:** department book:
- **Essential books (textbooks):**
  - Contemporary Oral and Maxillofacial Surgery; Peterson I.J & EA.
  - Text book of oral and maxillofacial surgery: Srinivasan B.
  - Killey & Kays outline of oral surgery – part- 1: Seward GR & etal.
  - Handbook of medical emergencies in the dental office, Malamed SF.
- **Recommended books:**
  - Impacted teeth; Alling John F & etal.
  - Principles of oral and maxillary surgery: Vol 1, 2 & 3 Peterson LJ & etal.
  - Extraction of teeth: Howe, GL.

- Minor Oral Surgery: Howe. GL.
- Essentials of safe dentistry for the medically compromised patients; Mc Carthy FM.

• **Periodicals, web sites, etc:**

**8. Other Resources/Facilities required for teaching and learning to achieve the above ILOs (for example, Field trips):**

- Faculty lecture Halls.
- Audiovisual aid (data shows, sound systems. overhead and slide projectors).
- Sufficient numbers of dental units.
- Dental instruments and equipments.
- Dental materials.
- Computers to encourage students to master communication and information technology skills.
- Digital camera for documentation of clinical cases.
- Appropriate teaching accommodation.
- Computer/Lap top.
- Black and white board (and markers).
- Materials and study models – required by students.
- Providing lecture notes, manuals and sheets.
- Faculty library.
- Electronic library.

**9. We certify that all of the information required to deliver this course is contained in the above specification and will be implemented**

Title	Signature
<b>Head of Department</b>	
<b>Department of Study and Examination Faculty of Dentistry, University of Tripoli</b>	
<b>Dean of Faculty of Dentistry University of Tripoli</b>	