



King Saud University  
College of Dentistry  
Department of Maxillofacial Surgery & Diagnostic Sciences (MDS)  
Division of Oral & Maxillofacial Surgery

**Course File**

**Updating the course for A/Y 1427-1428 (2006-2007)**

**Course Name:** Oral & Maxillofacial Surgery.  
**Course Code:** 311 MDS.  
**Level:** 3<sup>rd</sup> Year.  
**Credit Hours:** 4 (2 Lecture + 2 Clinic)  
**Prerequisite:** 211 Local Anesthesia & Exodontia.

رقم المقرر و رمزه: 311 راس.  
اسم المقرر: جراحة الفم و الوجه و الفكين و الممارسة العامة.  
عدد الساعات 4 ساعات: ساعتان محاضرة و ساعتان عيادات.  
المتطلب السابق: التخدير الموضعي و خلع الأسنان 211.

هذا المقرر يعطى الطالب معلومات أساسية عن التعامل لخلع الأسنان. يقوم الطالب بعمل خلع الأسنان السهلة مثال الأسنان المتخلخلة أو الأسنان الأمامية. كذلك يتعلم الطالب كيف يعطى المخدر الموضعي، كما يتعلم الطالب المواد و الأدوات المستخدمة في خلع الأسنان.

**A. Course description**

An introduction to minor oral surgery, diagnosis, treatment plans for oral surgical procedures, which are essential to the general practitioner. The practical application of local anaesthesia and the performance of simple extractions. The management of severe oral infection including osteomyelitis and osteo-radionecrosis. The principles of diagnosing and treating facial trauma which includes fractures of the mandible and the middle third of the facial skeleton. The dental implications of the maxillary sinus. Surgical aids to pathology with special reference to biopsy. Introduction to tumors-benign and malignant, diagnosis and principles of management.

## **B. Course objectives**

The student should be able to:

1. Apply what he had been instructed in the previous course [211 MDS].
2. Assess the patient, draw out a treatment plan and execute it by the help of his instructor.
3. Give local anaesthesia: inferior dental block and infiltration anaesthesia.
4. Perform simple extractions.
5. Identify the forceps and elevators used in extraction, how to hold and apply them in practice.
6. Know the different types of emergency and how to manage it.
7. Assess impacted and unerupted teeth and how to treat it. How to design a muco-periosteal flap and to remove bone.
8. Understand and treat dental infections e.g. periocoronitis, periapical abscess and periodontal abscess.
9. Recognize and assess the different types of cysts. How to differentiate and the outline of treatment.
10. Know antibiotics: Types, dose, mode of action, antibiotics use in oral surgery.
11. Know haemorrhage: Types, aetiology and outline of management
12. Apply the knowledge gained in the previous courses.
13. Diagnose and treat infections in and around the oral cavity including incision and drainage of dental abscesses.
14. Diagnose and have the knowledge of how to treat facial fractures including first aid procedures.
15. Understand the conservative and surgical management of antral disease of odontogenic origin including recent and long-standing oro-antral fistulae.
16. Assist in the early diagnosis of oral malignancy by performing a biopsy from suspected oral lesions. The student should also be able to liaise with the oral pathologist to reach the correct diagnosis.

## **C. Course Outline:**

### **i. Lectures topics**

1. Emergency in oral surgery I
2. Emergency in oral surgery II
3. Dental infection I
4. Dental infection II
5. Dental infection III
6. Impacted and unerupted teeth I
7. Impacted and unerupted teeth II
8. Impacted and unerupted teeth III
9. Cysts of the jaws I
10. Cyst of the jaws II
11. Antibiotics and prescription
12. Haemorrhage in oral surgery
13. Periapical surgery
14. Maxillofacial injuries: Introduction
15. Fracture of the mandible
16. Fracture of the maxilla
17. Principles in the management of facial fractures
18. Complications in fracture management
19. Oro-facial infection I
20. Oro-facial infection II
21. Oro-facial infection III
22. Tumors of the jaws I
23. Tumors of the jaws II
24. Maxillary sinus in disease and trauma
25. Maxillary sinus in dentoalveolar surgery
26. Revision I
- 27-28. Continuous Assessment Tests

### **ii. Clinical sessions:**

This includes the management of patients: assessment of complaint, relevant medical history, relevant dental history and clinical examination to reach diagnosis. The students have to perform different techniques of local anaesthesia, do simple extractions by the use of forceps and elevators.

#### **Lecture topics in details [contents]:**

- 1-2. Emergency in oral surgery: I & II
  - Introduction: relevant medical history – emergency kit, fainting [syncope, vaso-vagal shock], hypoglycaemic coma and epilepsy.

- Cardio-vascular emergencies: acute heart failure – myocardial infarction, circulatory collapse, cardiac arrest, tracheostomy, and neurotic fit.
- 3-5. Dental infections I, II & III - Minor Oral Surgery pp 232-249
- Acute and chronic alveolar abscess: definition, aetiology, pathology & bacteriology, signs and symptoms, cellulitis, radiography, management, abscess incision and drainage.
  - Acute and chronic periodontal abscess: definition, aetiology, pathology, signs and symptoms, radiograph, management including subgingival curettage and periodontal surgery.–MinorOralSurg pp372-374
  - Pericoronitis: definition, age-incidence, aetiology, clinical classification [acute, subacute and chronic pericoronitis], signs and symptoms for each category, radiography, management including history, clinical examination and treatment [general measures and local measures], others [e.g.] fluctuation, incision & drainage, pus swab and culture and sensitivity test and blood examination.
- 6-8. Impacted and unerupted teeth: I, II & III - Minor Oral Sugery pp109-143
- Definition, aetiology, local factors and general factors, indication and contra-indication for removal, pre-operative assessment of impacted lower third molar, upper canine, pre-molars and any other impacted teeth.
  - Radiographic interpretation, George Winter lines, access, position and depth, root pattern, investing bone texture, inferior dental canal relation.
  - Surgical removal [mucoperiosteal flap] by different techniques: split-bone technique, surgical burs and tooth division, delivery of tooth, wound toilet and post-surgical instructions.
- 9-10. Cyst of the jaws: I & II - Minor Oral Surgery pp 184-205
- Definition, signs and symptoms, radiographic appearance, odontogenic cysts and non-odontogenic cyst, the treatment of cysts by enucleation or marsupialization [techniques, indications and contra-indications for each].
  - Odontogenic cysts: cyst of eruption, dentigerous cyst, lateral periodontal cyst, primordial cyst, keratocyst and radicular cyst.  
non-odontogenic cyst: incisive canal cyst, globulo-maxillary cyst, median cyst and ameloblastoma
11. Antibiotics in oral surgery and prescription – Minor Oral Surgery pp 249-258

Definition, bactericidal, bacteriostatic, indications [preventive and therapeutic], general management of antibiotics, choice of AB, route of administration, dose, duration and side effects [toxicity, hypersensitivity reaction and its signs and symptoms, development of resistant strains, disturbance of bacterial flora of the gastro-intestinal tract and oral flora]. Antibiotic drugs: penicillin group, other antibiotics especially if patient is allergic to penicillin, anti-fungal antibiotics. Prescription for adults and children

12. Haemorrhage in oral surgery: [see reference textbook]
- a. Haemorrhage in the normal patient; during the operation [incision planning, haemostats to secure bleeding, pressure, haemostatic agents, hypotensive anaesthesia and vaso-constrictors] and post-operative haemorrhage [failure to control haemorrhage, factors restarting haemorrhage and infection at the wound site]. Bleeding from the socket [causes and how to treat] and haematoma formation.
  - b. Haemorrhagic disease:  
  
Defect in coagulation [haemophilia, Christmas disease, hypoprothrombinaemia] and its management, thrombocytopenia [idiopathic] and treatment, abnormalities of the capillaries: purpura, Von Willebrand's disease, hereditary haemorrhagic telangiectasia and management, acute leukemia, anticoagulant and surgery [heparin, warfarin, and dicoumarol], different tests and management.

13. Apicectomy and periapical curettage: - Minor Oral Surgery pp 315-327

Definition, factor governing the retention of a pulpless tooth, indications and contra-indications to surgical endodontics, pre-operative assessment, technique of apicectomy and periapical curettage, surgical flap credentials, post-operative progress and focal sepsis.

- 14-18. Maxillofacial injuries: I, II, III, IV & V [All # of the mandible]  
[All # of the middle third of facial skeleton]

- Introduction, incidence, surgical anatomy  
Fracture of the mandible: classification, clinical examination [general and local] signs and symptoms according to the sites of fracture, radiography.
- Management: first aid, soft tissue laceration, food and fluid, sedation and transportation. Definitive treatment to the different sites of the mandible fracture including, temporary immobilization, and the different methods for reduction and immobilization [dental wiring, transosseous wiring, arch bar, cap splint, gunning-type splint, extra-oral pin fixation, transfixation and bone plates]

post-operative care including immediate, intermediate and late care  
fracture of the mandible in children

- Fracture of the middle third of the facial skeleton: classification [Le Fort I, II, III], clinical signs and symptoms in the various types of fracture [dento-alveolar fractures, zygomatic complex, isolated orbital floor, fracture, nasal complex, Le Fort I, II & III].
- Management, cerebrospinal fluid and rhinorrhea, radiography post-operation care [immediate, intermediate and late post-operation care.
- Complications in fracture management [anaesthesia, scars, derangement of the occlusion, non-union, TMJ derangement, deformity of the mandible and infection], mal-union, gunshot-type fracture management.

19-21. Oro-facial infection: I, II & III [see reference textbook]

- The spread of infection factors, different facial spaces and their surgical anatomy.
- Spaces and potential spaces around the jaws: lower jaw [submental, submandibular, sublingual, buccal, submasseteric, parotid, pterygomandibular and lateral pharyngeal]
- Upper jaw [palatal, canine fossa and infratemporal] signs and symptoms in each space infection and management, peritonsillar abscess [quinsy], Ludwig's angina, surgical drainage, the use of heat in soft tissue abscess, sinus formation and cavernous sinus thrombosis

22-23. Maxillary sinus in disease, trauma and dentoalveolar surgery: I & II – Minor Oral Surgery pp 207-221

- Maxillary sinus anatomy, teeth relation, involvement during tooth extraction, oro-antral communication [O.A.F.] newly created or chronic O.A.F. and its management.
- Radiography, root or tooth in the antrum removal, the use of nasal drops and inhalations, surgical closure of O.A.F. [different techniques and their indications], fracture of the maxillary tuberosity, involvement of maxillary sinus in trauma and intra nasal antrostomy.

24-25. Tumors of the jaws: I & II – [see reference textbook]

- Benign and malignant [osteoma, osteoblastoma, central hemangioma, chondroma, chondro-sarcoma, fibro sarcoma, osteogenic sarcoma, Ewing's tumor and metastatic tumors]
- Rare bone tumors: traumatic neuroma, neurolemmoma [Schwannoma], neuro-fibroma and pigmented neuroectodermal tumor of infancy, Complications and management of tumors, Biopsy, types and indications

D. **Methodology**

Didactic + clinical

E. **Evaluation and Grades**

<b><u>Test No.</u></b>	<b><u>Type of evaluation</u></b>	<b><u>Grades</u></b>
1 <sup>st</sup> C.A.T.	Written	10 %
Mid-year	Written	20%
2 <sup>nd</sup> C.A.T.	Written	10 %
Clinical assessment	Clinical	20 %
Final examination	Written	40 %

F. **Required textbook**

1. **Oral and Maxillofacial Surgery: An Objective-Based Textbook** By Jonathan Pedlar and John W. Frame. (2001)
2. **Fractures of the Facial Skeleton** By Peter Banks and Andrew Brown. (2001)

G. **Reference textbook**

**Contemporary Oral and Maxillofacial Surgery** By Peterson, Ellis, Hupp, Tucker. 4 edition (2003)

H. Date of file approved by the Department: \_\_\_\_\_