

## Faculty of Oral & Dental Medicine

### Orthodontics

#### Information :

**Course Code :** ORP 431

**Level :** Undergraduate

**Course Hours :** 2.00- Hours

**Department :** Faculty of Oral & Dental Medicine

#### Instructor Information :

Title	Name	Office hours
Professor	ESSAM MOHAMED NASSEF SELIM	4
Professor	Hala Munir Abdelmajeed El Sayed	6
Lecturer	SAMEH MOHAMED TALAAT TAHA MOHAMED	2
Lecturer	Mohamed Essam Salah Eldin Mohamed Hassan Amer	0
Assistant Lecturer	Hosam Abdullah Mohammed Zaazaa	
Assistant Lecturer	Sara Usama Saeed Imam	
Assistant Lecturer	Reem Mohamed Hazem Hassan Hassan Aly El Shazly	
Teaching Assistant	Rodayna Ahmed Mohamed Salah Eldin Elbadawy	
Teaching Assistant	Mariam Ayman Ibrahim Ahmed Tagen	
Teaching Assistant	Mohamed Mousa Mohamed Mousa Gomaa Dief	
Teaching Assistant	Abdelrahman Mostafa Mahmoud Eldesouky Elbosaily	

#### Area Of Study :

- 1)-To educate the students about the basics features of facial growth and development and to familiarize students with progressing abnormalities in dental patients .
- 2)- To familiarize the student with the knowledge of occlusion and to be able to manage the etiological factors associated with the disordered occlusion.
- 3)- To enable the students to diagnose orthodontic problems
- 4)- To understand appropriate time of intervention in potential orthodontic cases and to reach students preventive and interceptive measures in developing malocclusions and improve problem solving skills
- 5)- To enable development and application of appropriate professional attitudes and communication .

#### Description :

Introduction, growth and development of head, development of dentition and occlusion. Malocclusion definition, etiology and sequelae. Practical radiographic interpretation of lateral ceph. and malocclusion

#### Course outcomes :

##### **a. Knowledge and Understanding: :**

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| 1 - | Recognize the basis of normal human facial growth and development from birth until completion of growth |
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2 -	Describe the stages of normal development of occlusion during infancy , primary dentition , mixed dentition , and permanent dentition
3 -	Recognize the phases of eruption and their effect on development of malocclusion
4 -	Define the terminology of malposed teeth and different types of classification of malocclusion .
5 -	Identify the etiological factors of malocclusion and its impact on the developing occlusion
6 -	Describe extra oral and intraoral examination from an orthodontic perspective
7 -	Discuss the concept of extraction in orthodontics
8 -	Discuss the biological principles of tooth movement and describe the different types of tooth movement
9 -	Describe the basic biomechanical principles of orthodontics tooth movement
10 -	Recognize the behavior of orthodontics wires
11 -	Describe the needed measures for the prevention of malocclusion in the primary and mixed dentition stage
12 -	Identify the appropriate management of abnormalities affecting the occlusion in the primary and mixed dentition
13 -	Recognize the basic principles of orthodontic appliance design
14 -	Enumerate possible orthognathic surgical techniques and list the types of malocclusions that would indicate their choice for treatment
15 -	Recognize the problem of relapse and the procedures taken to maintain the position of teeth achieved by orthodontic treatment
16 -	Recognize the sequelae of untreated malocclusion and its influence on oral health
17 -	Recognize the interrelationship between orthodontics and other dental specialties
18 -	Recognize the iatrogenic effect in orthodontics
19 -	Identify the moral and ethical responsibility involved in the provision of care to individual patients and community
<b>b.Intellectual Skills: :</b>	
1 -	Recognize a developing normal occlusion and be able to distinguish abnormal deviation that necessitates treatment .
2 -	Select appropriate time of intervention in potential orthodontic cases and what these interventions are likely to be
3 -	Apply knowledge and understanding of etiology in the process of diagnosis , prevention and treatment in the mixed dentition stage
<b>c.Professional and Practical Skills: :</b>	
1 -	Record accurately patient's chief complaint
2 -	Report and document a complete focused medical and dental history for patients
3 -	Carry out extra-oral and intraoral examination of the patient including head and neck , oral hard and soft tissues
4 -	Perform and document a complete physical and mental status examination for a patient
5 -	Prescribe diagnostic aids appropriate for every individual case
6 -	Interpret acquired data in term of their diagnostic significances
7 -	Identify accurately underlying dento-skeletal abnormalities by analyzing cephalometric radiographs
8 -	Identify accurately space problems through study cast analysis
9 -	Identify problems, prioritize them and generate a treatment plan for each patient

10 -	Design and effectively utilize simple removable appliances to interfere with a developing malocclusion ( simple removable appliances )	
11 -	Design and effectively utilize appropriate space maintenance appliances tailored for individual cases	
12 -	Design and effectively utilize appliances that interfere with abnormal oral development of occlusion	habits that affect normal
13 -	Design and effectively utilize removable space regaining appliances	
14 -	Design and effectively utilize appliances to correct cross bite situations in the primary and mixed dentition	

**d.General and Transferable Skills :**

1 -	Communicate effectively with children , adolescents and their families	
2 -	Recognize when and how to refer patients for specialist advise or treatment.	
3 -	Communicate with other healthcare professionals both verbally and in globally accepted written formats	
4 -	Recognize moral and ethical responsibilities involved in the provision of care and to community	to individual patents
5 -	Recognize the value and role of lifelong learning self assessment and critical competency	thinking in maintaining

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Growth of the head	3		
Development of the head	3		
Development of normal occlusion	3		
Etiology of malocclusion	3		
Terminology of malocclusion	3		
Classification of malocclusion	3		
Diagnostic procedures in Orthodontics	3		
Biomechanical principles in Orthodontics	3		
Biomechanical principles in Orthodontics	3		
Tissue changes in orthodontics	3		
Tissue changes in orthodontics	3		
Iatrogenic effects in orthodontics	3		
Tissue changes in orthodontics	3		

**Teaching And Learning Methodologies :**

Lectures
Clinical and small group sessions
Workshops
Practical demonstrations, Practice of skills , and discussions
The lectural hall on the 3rd floor of the faculty of oral and dental medicine; Once per week from 12pm to 1pm

Small Group sessions and activities Each term, students are divided into 12 equal groups, each group being assigned to a two hour small group session once per week. Students will be divided into two groups during each session

Workshops During the course seven workshops will be given covering different topics. Workshops will include lecturing followed by hand on training. Each topic will be given six times within a one week period.

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
Final Written Examination	25.00		
Mid Term Examination	30.00		assess knowledge and understanding.
Mid Term Practical Examination	20.00		assess ability of data collection , analysis and formulation of a treatment plan
Oral Examination	10.00		assess knowledge and understanding (and assessment general and professional skills )
Practical Examination	15.00		

**Course Notes :**

- Department books : available for students to purchase from department secretary.
- Overhead projectors, slides and computer presentation used during teaching

**Recommended books :**

Contemporary Orthodontics by Profit & Ackerman