

Republic of Yemen
Ministry of Higher Education & Information Technology
Emirates International University



Faculty of Dentistry
Department of POP
Doctor of Dental Surgery (DDS)

Course Specification of
Orthodontics II (pre-clinical)
Course No. (-----)



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Review committee:

Head of the Department

Quality Assurance head

Dean of Faculty



I. Course Identification and General Information:					
1	Course Title:	Orthodontics II (pre-clinical)			
2	Course Code & Number:	----			
3	Credit Hours:	Credit Hours	Theory Hours		Lab. Hours
			Lecture	Exercise	
		3	2	--	2
4	Study Level/ Semester at which this Course is offered:	4 th Level / 1st Semester			
5	Pre –Requisite (if any):	Orthodontics I (pre-clinical)			
6	Co –Requisite (if any):	None			
7	Program (s) in which the Course is Offered:	Doctor of Dental Surgery (DDS)			
8	Language of Teaching the Course:	English			
9	Study System:	Semester based System			
10	Mode of Delivery:	Full Time			
11	Location of Teaching the Course:	Faculty of Dentistry			
12	Prepared by:	Dr.Ghamdan Abdullah Al-Harazi			

II. Course Description:
<p>This is an orthodontic course aims providing the students with knowledge on the diagnosis of malocclusion, prevention and treatment planning for the common cases encountered by the general practitioner. It also covers methods of space analysis and creation, orthodontic appliance classification, the biomechanical principles and extraoral anchorages. This course is accompanied with a laboratory training for wires bending, space analysis.</p>

III. Course Intended Learning Outcomes	Referenced PILOs
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(CILOs): Upon successful completion of the course, students will be able to:		Learning out of program		
A. Knowledge and Understanding:		I, A or E		
a1	Select the most appropriate appliance for a patient with malocclusion that can general practitioner perform within the governmental rules and ethics			A3
a2	Understand orthodontics movements and biomechanics			A1,A2
a3	Identify orthodontic appliances classifications according to evidence based dentistry			A1,A6
B. Intellectual Skills:				
b1	Interpret study models for space analysis and creation			B3
b2	Design and select the suitable orthodontic appliances using different materials and instruments			B3,B5
b3	Recommend the proper extraoral anchorage			B3
C. Professional and Practical Skills:				
c1	Identify patient's chief complaint, appearance and attitude, obtain and interpret medical, social and dental history, conduct clinical and radiographic examination, and distinguish between normal and pathological hard and soft tissue abnormalities of the orofacial area and create a treatment plan			C1,C2
c2	Apply infection control protocols during lab sessions			C3
D. Transferable Skills:				

d1	Use the latest technology for presenting and collecting data			D2
d2	Manage time and resources			D4

(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
a1	Select the most appropriate appliance for a patient with malocclusion that can general practitioner perform within the governmental rules and ethics	Lectures Brainstorming Discussion	Midterm Exam Final Exam Oral Exam
a2	Understand orthodontics movements and biomechanics	Lectures Brainstorming Discussion	Midterm Exam Final Exam Oral Exam
a3	Identify orthodontic appliances classifications according to evidence based dentistry	Lectures Brainstorming Discussion	Midterm Exam Final Exam Oral Exam

(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
b1	Interpret study models for space analysis and creation	Lectures Lab training	Midterm Exam Final Exam Practical Exam Oral Exam
b2	Design and select the suitable orthodontic appliances using different materials and instruments	Lectures Lab training	Midterm Exam Final Exam Practical Exam Oral Exam
b3	Recommend the proper extraoral anchorage	Lectures Lab training	Midterm Exam Final Exam Practical Exam

			Oral Exam
(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
c1	Apply infection control protocols during lab sessions	Lab training	Observation Practical Exam
c2	Perform fabrication of orthodontic appliances including wires bending, soldering and welding and acrylic base	Lab training	Observation Practical Exam
(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
d1	Use the latest technology for presenting and collecting data	<ul style="list-style-type: none"> ▪ Exercises ▪ Brainstorming ▪ Discussion 	<ul style="list-style-type: none"> ▪ Assignments ▪ Practical Exam
d2	Manage time and resources	<ul style="list-style-type: none"> ▪ Exercises ▪ Brainstorming ▪ Discussion 	<ul style="list-style-type: none"> ▪ Assignments ▪ Practical Exam

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	Diagnosis and treatment plan	<ul style="list-style-type: none"> • Extraoral examination • Intraoral examination • Analysis of diagnostic records • Development of problem lists • Treatment plan <ul style="list-style-type: none"> - Goals and concepts - Treatment possibilities 	1,2,3	6	a1,b1,b2
2	Space analysis and space	<ul style="list-style-type: none"> • Methods of space analysis • Reasons of creating space • Options of creating space 	4,5	4	a1, b1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
	creation				
3	Midterm exam	• Written exam	6	2	a1,b1,b2
4	Orthodontics biomechanics	- Biochemical principles of orthodontic procedures including tissue reactions in orthodontics	7,8	4	a2
5	Extraoral anchorage/ traction	• Principles of extraoral anchorage • Types of anchorage • Indications of anchorage • Hazards of anchorages	9,10	4	b3
6	Classification of orthodontic appliance	• Mechanical - Fixed appliance ○ Components ○ Indications ○ Advantages and disadvantages ○ types ○ Myofunctional ○ Mode of action ○ Classification ○ Common myofunctional appliances ○ Advantages and limitations - Combination of both	11,12, 13	6	a3
7	Review	• Previous topics	14, 15	4	a1,a2,a3,b 1,b2,b3
8	Final Exam	MCQs	16	2	a1,a2,a3,b 1,b2,b3
Number of Weeks /and Units Per Semester			16	32	

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Week Due	Contact Hours	Learning Outcomes (CILOs)
1	- Wires bending - Buccal canine retractor - T spring	1 st -14 th	28	b2,c1,c2,d1,d2

No.	Tasks/ Experiments	Week Due	Contact Hours	Learning Outcomes (CILOs)
	- Finger spring			
2	- Model cast analysis	1 st -14 th	28	b1,c2, d1,d2
3	Practical Exam	15 th	2	b1,b2,c1,c2,d1,d2
Number of Weeks /and Units Per Semester		15	30	

V. Teaching Strategies of the Course:

- Lectures
- Discussion
- Exercises
- Brainstorming
- Lab training

VI. Assessment Methods of the Course:

- Midterm exam
- Final exam
- Practical exam
- Assignment
- Oral Exam

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	- Wires bending - Buccal canine retractor - T spring - Finger spring	1 st -14 th	15	b2,c1,c2,d1,d2
2	- Model cast analysis	1 st -14 th	5	b1,c2, d1,d2
Total			20	

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	Assignments	1 st -14 th	20	20%	b1,b2,c1,c2,d1,d2
2	Practical Exam	15 th	10	10%	b1,b2,c1,c2,d1,d2
3	Midterm Exam	7 th	20	20%	a1,b1,b2
4	Oral Exam	16 th	10	10%	a1,a2,a3,b1,b2,b3
5	Final Exam	16 th	40	40%	a1,a2,a3,b1,b2,b3
Total			100	100%	

IX. Learning Resources:

1- Required Textbook(s):

1. Proffit W., Fields H., Larson B., Sarver D., 2012: Contemporary Orthodontics, 5thed. Mosby, USA.

2- Essential References:

1. Graber L., Vanarsdall R., Vig K., Huang G., 2016: Orthodontics current principles and techniques, 6th ed. Mosby, USA.

3- Electronic Materials and Web Sites etc.:

Websites:

- 1- American association of orthodontists
www.aacd.com/central/orthodontics
- 2- www.orthfree.com
- 3- www.orthpedic.com

X. Course Policies: (Based on the Uniform Students' By law (2007))

Class Attendance:	
1	Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
Tardiness:	
2	A student will be considered late if he/she is not in class after 10 minutes of the start time of.

	class.
3	Exam Attendance/Punctuality: No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	Assignments & Projects: Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	Cheating: Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	Forgery and Impersonation: Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	Other policies: The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.



Faculty of Dentistry

Department of POP

Program of Doctor of Dental Surgery (DDS)

Course Plan (Syllabus) of

Orthodontics II (pre-clinical)

Course No. (-----)

I. Information about Faculty Member Responsible for the Course:							
Name of Faculty Member:	Prof. Dr. Ghamdan Al-Harazi	Office Hours					
Location & Telephone No.:	Sanaa 777422337						
E-mail:	drghamdan@yahoo.com	SAT 1	SUN	MON	TUE	WED	THU 1



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			Lecture	Exercise	
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IV. Course Intended Learning Outcomes (CILOs) :	
Upon successful completion of the Course, student will be able to:	
	A. Knowledge and Understanding:
a1	Select the most appropriate appliance for a patient with malocclusion that can general practitioner perform within the governmental rules and ethics
a2	Understand orthodontics movements and biomechanics
a3	Identify orthodontic appliances classifications according to evidence based dentistry
	B. Intellectual Skills:
b1	Interpret study models for space analysis and creation
b2	Design and select the suitable orthodontic appliances using different materials and instruments
b3	Recommend the proper extraoral anchorage
	C. Professional and Practical Skills:
c1	Identify patient's chief complaint, appearance and attitude, obtain and interpret medical, social and dental history, conduct clinical and radiographic examination, and distinguish between normal and pathological hard and soft tissue abnormalities of the orofacial area and create a treatment plan
c2	Apply infection control protocols during lab sessions
	D. Transferable Skills:
d1	Use the latest technology for presenting and collecting data
d2	Manage time and resources



V. Course Contents:

A. Theoretical Aspect:				
No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Diagnosis and treatment plan	<ul style="list-style-type: none"> • Extraoral examination • Intraoral examination • Analysis of diagnostic records • Development of problem lists • Treatment plan <ul style="list-style-type: none"> - Goals and concepts - Treatment possibilities 	1,2,3	6
2	Space analysis and space creation	<ul style="list-style-type: none"> • Methods of space analysis • Reasons of creating space • Options of creating space 	4,5	4
3	Midterm exam	<ul style="list-style-type: none"> • Written exam 	6	2
4	Orthodontics biomechanics	- Biochemical principles of orthodontic procedures including tissue reactions in orthodontics	7,8	4
5	Extraoral anchorage/traction	<ul style="list-style-type: none"> • Principles of extraoral anchorage • Types of anchorage • Indications of anchorage • Hazards of anchorages 	9,10	4
6	Classification of orthodontic appliance	<ul style="list-style-type: none"> • Mechanical <ul style="list-style-type: none"> - Fixed appliance <ul style="list-style-type: none"> ○ Components ○ Indications ○ Advantages and disadvantages ○ types ○ Myofunctional ○ Mode of action ○ Classification ○ Common myofunctional appliances ○ Advantages and limitations - Combination of both 	11,12, 13	6
7	Review	<ul style="list-style-type: none"> • Previous topics 	14, 15	4
8	Final Exam	MCQs	16	2
Number of Weeks /and Units Per Semester			16	32

B. Case Studies and Practical Aspect:			
No.	Tasks/ Experiments	Week Due	Contact Hours
1	<ul style="list-style-type: none">– Wires bending– Buccal canine retractor– T spring– Finger spring	1 st -14 th	28
2	<ul style="list-style-type: none">– Model cast analysis	1 st -14 th	28
3	Practical Exam	15 th	2
Number of Weeks /and Units Per Semester		15	30

VI. Teaching Strategies of the Course:

- Lectures
- Discussion
- Exercises
- Brainstorming
- Lab training

VII. Assessment Methods of the Course:

- Midterm exam
- Final exam
- Practical exam
- Assignment
- Oral Exam

VIII. Assignments:

No.	Assignments	Week Due	Mark
1	Wires bending Buccal canine retractor T spring Finger spring	1st -14th	15
2	Model cast analysis	1st -14th	5
Total			20

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	1 st -14 th	20	20%
2	Practical Exam	15 th	10	10%
3	Midterm Exam	7 th	20	20%
4	Oral Exam	16 th	10	10%
5	Final Exam	16 th	40	40%
Total			100	100%

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2- Essential References:

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